Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

Volume 2 - Assessment reports for each FAB

Final edition

Edition date: 06/10/2014

COPYRIGHT NOTICE AND DISCLAIMER

Table of Contents for Volume 2

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

Baltic FAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

Baltic FAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the Baltic FAB was received on 17 June 2014 in English. It was signed by the Head of Civil Aviation Division of the Lithuanian Ministry of Transport and Communications, and the Head of Air Transport Development Division of the Polish Ministry of Infrastructure and Development.

1.1.2 The NSAs responsible for drawing up the Performance Plan are the Polish and the Lithuanian Civil Aviation Authorities. However, the Baltic FAB Board is accountable for setting performance targets and approving the plan as described in the "Agreement on the establishment of the Baltic FAB between the Republic of Poland and the Republic of Lithuania".

1.1.3 It appears that the responsibility of coordinating the elaboration of the Performance Plan within the FAB, rather than being entrusted to one entity, has been delegated to be carried out alternatively by two individuals.

1.1.4 The FAB Performance Plan provides performance targets set at local level as defined in the Commission Implementing Regulation (EU) No 390/2013[1] (the performance Regulation) for the following accountable entities:

- [LT] Civil Aviation Administration as the nominated NSA;
- [LT] State Enterprise "Oro Navigacija" as the designated ANS provider;
- [LT] *Lietuvos hidrometeorologijos tarnyba* (LHMT) as the designated MET service provider;
- [PL] Civil Aviation Authority as the nominated NSA;
- [PL] Polish Air Navigation Services Agency (PANSA) as the designated ANS provider;
- [PL] Institute of Meteorology and Water Management National Research Institute (IMWM-PIB) as the designated MET service provider;
- [PL] Mazovian Airport – Warszawa Modlin sp. z o.o. as the designated terminal ANS provider.

1.1.5 The FAB Performance Plan covers the Warszawa FIR and the Vilnius FIR, as well as 18 airports amongst which only Warsaw Chopin airport stands above the 70.000 threshold. Poland did not provide any list of exempted airports. It is therefore understood that all airports in Poland where terminal air navigation services are provided by designated entities are covered by the scope of performance plan for RP2.

1.1.6 According to Article 14 of the performance Regulation[1], the PRB has assessed the submitted FAB Performance Plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

LITHUANIA

1.2.1 Figure 1 shows that GDP growth for Lithuania remained robust in 2013, and is foreseen to remain stable this year at 3.3%, which is more than twice the EU average[2].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Lithuania sourced from the Bank of Lithuania, IMF and the Ministry of Finance. The GDP figures marginally differ from those presented here.

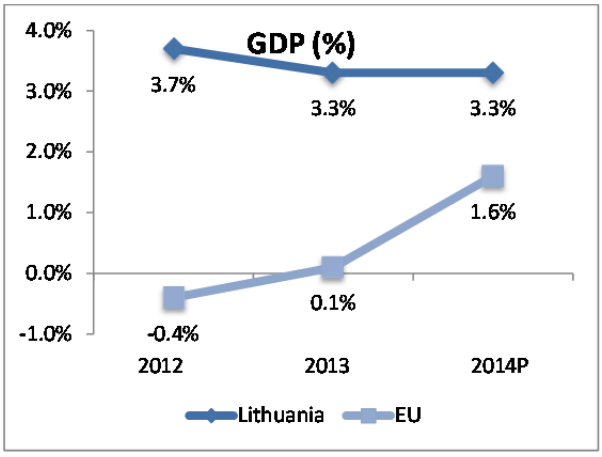


Figure 1: Gross domestic product for Lithuania, volume (percentage change on preceding year)[2]

1.2.3 As shown in Figure 2, IFR traffic in Lithuanian airspace has been in constant progression since 2009. The February 2014 STATFOR baseline scenario foresees traffic demand in Lithuania to increase by 18.8% over the 2014-2020 period. The traffic prediction made in 2009 is fairly in line with the one made this year, roughly showing less than a year shift in traffic demand.

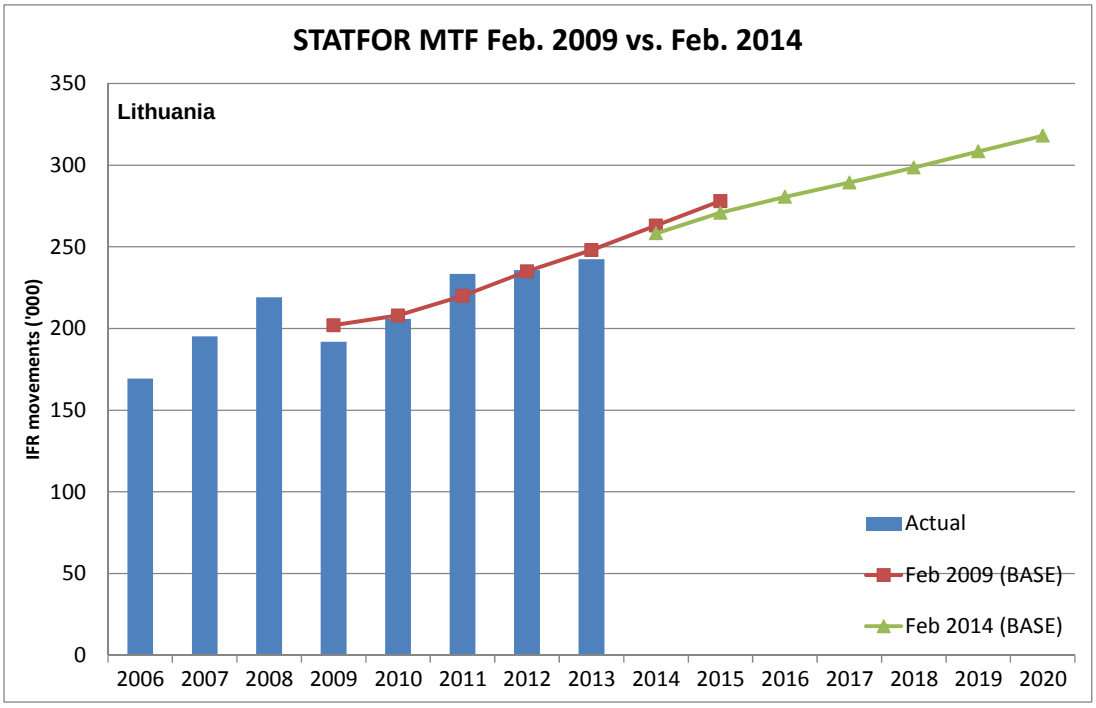


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Lithuania

1.2.4 Although the FAB Performance Plan mentions that the traffic growth was assessed based on the February 2014 STATFOR forecast, the figures presented for Lithuania do not seem to match any of the STATFOR scenarios.

POLAND

1.2.5 Although at a slower pace than in 2012, GDP growth for Poland remained positive in 2013 and is foreseen to recover and increase to 3.2% in 2014[2].

1.2.6 The FAB Performance Plan includes macro-economic data for Poland sourced from Eurostat, IMF and the Ministry of Finance. It is to be noted that the figures presented by the Ministry of Finance are less optimistic than those presented in Figure 3.

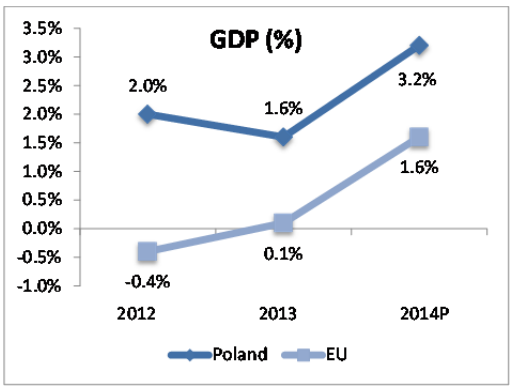


Figure 3: Gross domestic product for Poland, volume (percentage change on preceding year)[2]

1.2.7 Figure 4 shows that IFR traffic in Polish airspace constantly increased since the sharp decline of 2009. The February 2014 STATFOR baseline scenario projects that the current expected traffic for 2017 is the same as the one foreseen in 2009 for 2015, which is equivalent to a two-year shift of traffic.

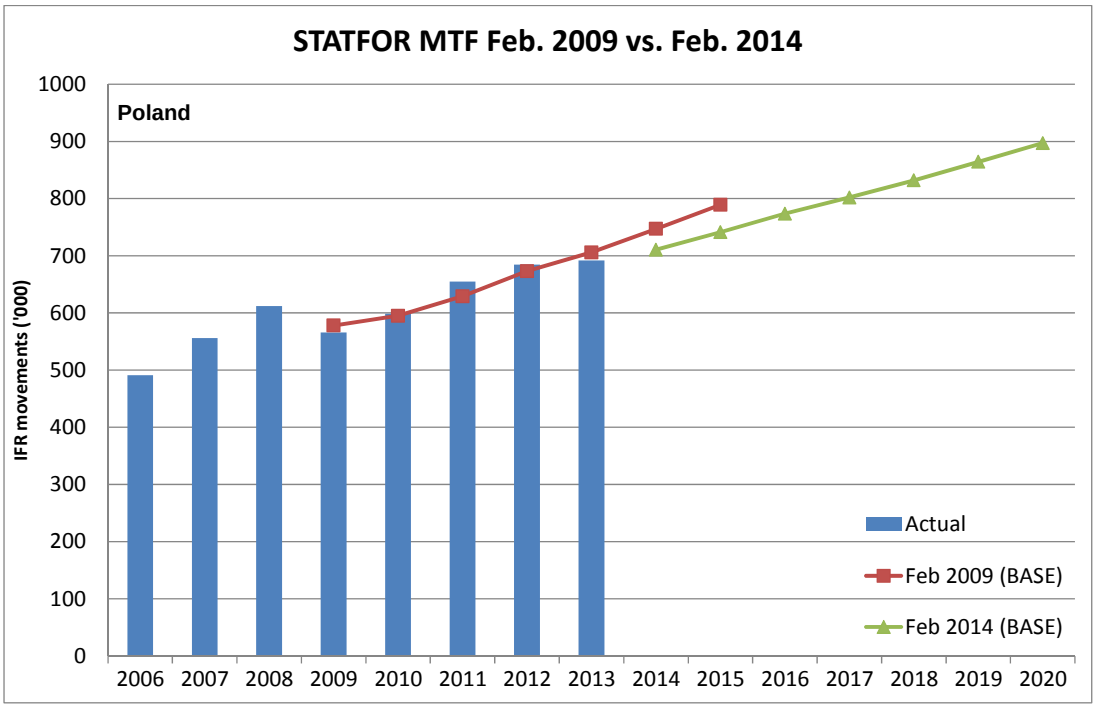


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Poland

1.2.8 Since it was used to calculate capacity profiles, Poland decided to use the February 2014 STATFOR base scenario for the elaboration of the FAB Performance Plan.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Lithuania	B
	Poland	B
	FAB minimum level	*B*
ANSP level	Lithuania for Safety Culture MO	D
	Poland for Safety Culture MO	C
	FAB minimum level	*C*
	Lithuania for all other MOs	D
	Poland for all other MOs	C
	FAB minimum level	*C*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

1.3.3 'Not available' in the table below (N/A) refers to the fact that there were no reported occurrences of that type in the Baltic FAB in 2013. Hence, the current FAB level of the RAT methodology application could not have been directly computed (i.e. indicated by '?').

RAT application current performance (2013)		Lithuania	Poland	FAB
Separation Minima Infringements (SMIs)	ATM Ground	N/A	N/A	?
	ATM Overall	N/A	N/A	?
Runway Incursions (RIs)	ATM Ground	N/A	50%	?
	ATM Overall	N/A	50%	?
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	9%	55%

Table 2: Severity classification using the RAT methodology

1.3.4 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[3].

ENVIRONMENT

1.3.5 Current performance shows some improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.09 percentage points (from 1.72% in the first half of 2013 to 1.63% in the first half of 2014).

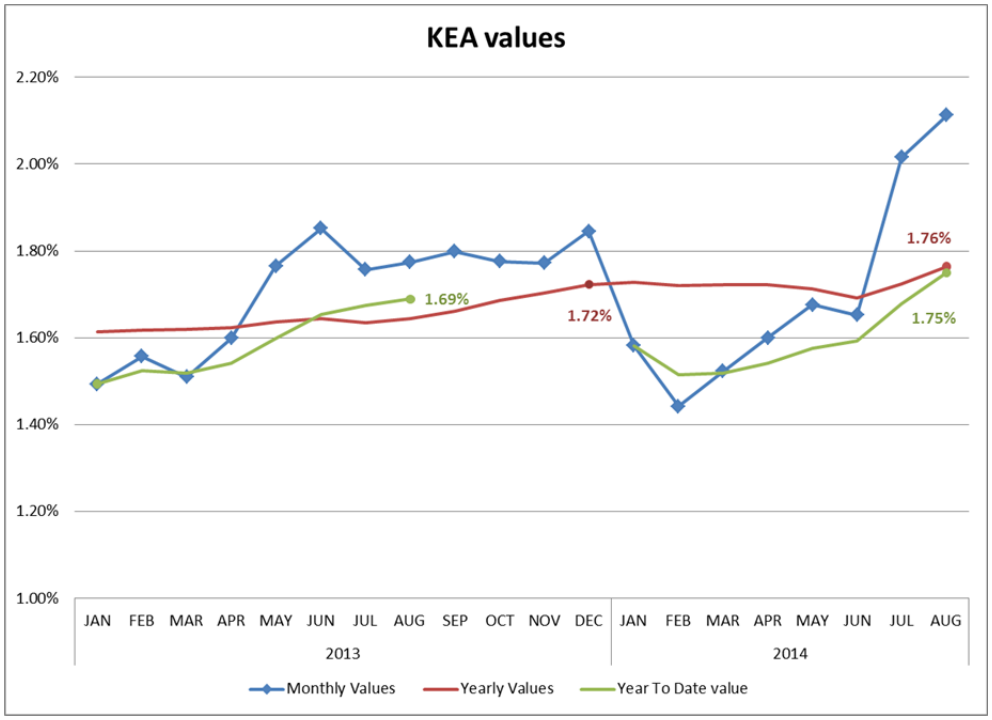


Figure 5: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.6 There is a slight decrease in performance in 2014 with respect to 2013, mainly due to the values in July and August. For the first eight months, it corresponds to a difference of 0.06 percentage points (from 1.69% in the first eight months of 2013 to 1.75% in the corresponding period of 2014).

CAPACITY

1.3.7 Lithuania has had excellent capacity performance with no delay during RP1. Poland has had significant capacity problems prior to, and during RP1, in part due to the implementation of a new ATM system (Pegasus 21) and problems with the existing flight data processing system.

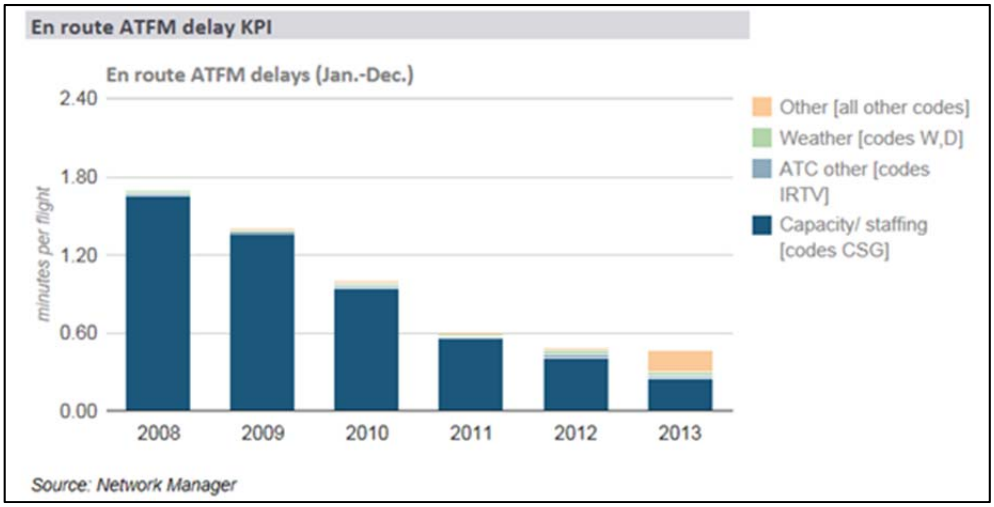


Figure 6: En-route ATFM delay

1.3.8 In terms of arrival ATFM delay, within the Baltic FAB there have been no constraints throughout RP1. Terminal and aerodrome ANS accrued a negligible share of arrival ATFM delay and contributed positively to the European average.

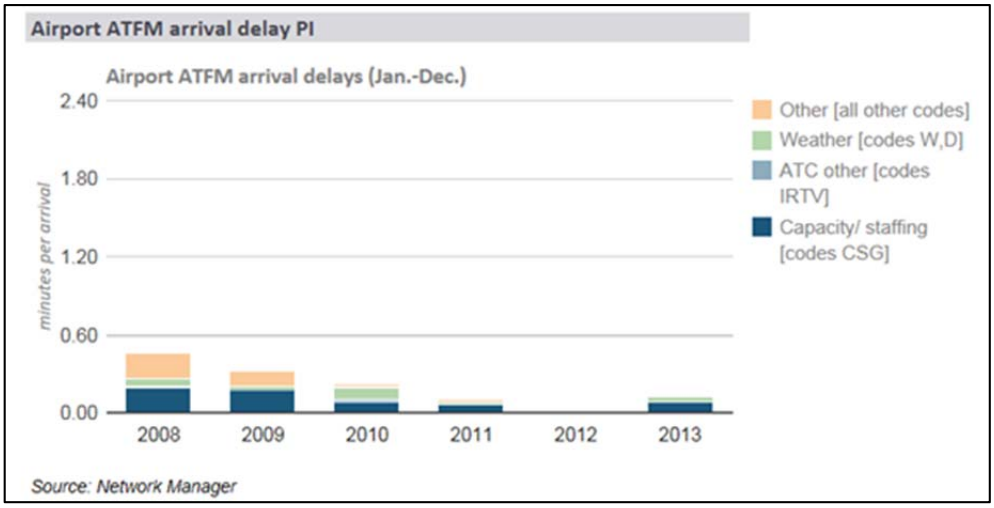


Figure 7: Arrival ATFM delay

COST EFFICIENCY

1.3.9 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the Baltic FAB to complement the missing and/or incomplete elements as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in the section “1.3 - Stakeholder consultation” of the Performance Plan. Limited relevant papers are attached to the Performance Plan as “ANNEX A. PUBLIC CONSULTATION MATERIAL”.

1.5.2 Three consultation meetings were held at FAB and national level:

- Meeting #1, 17 April 2014 Stakeholder consultation on national targets, Lithuania (meeting and written consultation).
- Meeting #2, 14 May 2014, Polish consultation on ANS costs and charges, only for airspace users representatives.
- Meeting # 3, 15 May 2014, Baltic FAB Consultation for all the international, Lithuanian and Polish stakeholders.

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Information on the outcome of the consultation has been made available to the PRB. Neither section 3.1 nor Annex A of the Performance Plan includes clear indication on the points of disagreement and their reasons.
- Poland did not provide some additional information in Annex A on the national consultation (meeting #2). It appears that only airspace users have been invited and no other categories of stakeholders (e.g. social partners), as required by Art.11, 2(b) of the performance Regulation.
- Comprehensive meeting minutes are provided for the national consultation of Lithuania (meeting #1).
- The list of invited stakeholder to meeting #2 and #3 is not attached to Annex A, whereas the lists of the actual attendees to the FAB and national meetings have been made available to the PRB.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	…	…	…	…	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	…	…	…	…	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	…	…	…	…	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The Baltic FAB EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 Poland was inspected by EASA twice in the past two years. They have adjusted their perception of safety management performance after the first visit by significantly downgrading some replies from Level 'C' to 'B' and from 'D' to 'C', hence adjusting the scores to what was observed during the audit.

2.1.3 Lithuania has not indicated any progress compared to the previous year. The answers were found to be fairly consistent and well justified. However, it is to be confirmed after the EASA's audit.

2.1.4 Other than the Safety Culture EoSM objectives, it is important to highlight that some of the Level 'B' scores can be only solved with time and State's commitment since reaching Level 'C' implies sound reforms of the regulations (e.g. empowerment to the CA/NSA) and State's involvement (e.g. information to the general public on the overall ATM safety-related performance through routine publication).

2.1.5 In addition, the information about the level of effectiveness of safety management, for each year of the reference period is missing for Polish NSA and ANSP.

2.1.6 Although only one Baltic FAB State was inspected by EASA so far, based on the current performance and information provided in the FAB Performance Plan, it seems realistic that overall the Baltic FAB will be able to meet the targets by end of 2019.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓
	RIs	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓
	ATM-S	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	…	…	*≥ 80%*	*≥ 80%*	*90%*	✓
	RIs	…	…	*≥ 80%*	*≥ 80%*	*90%*	✓
	ATM-S	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The Baltic FAB severity classification target is equal to (even higher for the RAT methodology application – ATM Overall score for SMIs and RIs), and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 Note that due to the fact there were no reported RIs in the Baltic FAB in 2013 and no reported SMIs in Lithuania, the RAT application performance from 2012 was used to assess current performance as well (2012 performance: Poland - RIs (100/100%); SMIs (87/87%) and ATM-S (71%)).

2.2.3 In addition, the information about the application of severity classification based on RAT methodology for each year of the reference period is missing (2015 and 2016 forecast is missing) as per Annex II, 3.1 of the performance Regulation[1].

2.2.4 The Baltic FAB should consider that the RAT methodology application values for 2015 and 2016, for ATM-S, should be the same for ATM Ground and ATM Overall.

2.2.5 In consideration of §2.2.2 it is suggested that attention be paid to understanding the reasons why no occurrences were reported. Nevertheless, based on the current and past (2012) performance information and that provided in the FAB Performance Plan, the PRB believes that it is possible for the Baltic FAB to meet the forecasted

targets.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The Baltic FAB indicates in its Performance Plan that a common FAB approach in certain areas for Just Culture improvements **has not been established,** although actions are foreseen to improve Just Culture at the individual State level.

2.3.3 The PRB notes that the Baltic FAB Safety Committee supports the organisation of common activities in the field of Just Culture, however, detailed information explaining the basis of the elements in place that promote the application of Just Culture at FAB level is not provided.

2.3.4 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for the level of presence or absence of just culture **has not been set**.

2.4 Key points

2.4.1 The PRB is confident the Baltic FAB will be able to meet Union-wide EoSM and RAT application targets.

2.4.2 The PRB recommends that safety targets are added, for the EoSM and the RAT application KPIs, for each year of the reference period.

2.4.3 The local/FAB targets for the level of presence or absence of just culture has not been set. However, intention to develop plan and actions in 2014 exists.

2.4.4 In addition, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	1.50%	1.47%	1.44%	1.40%	1.36%
FAB Target	*1.50%*	*1.47%*	*1.44%*	*1.40%*	*1.36%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The Baltic FAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 ORO Navigacija and PANSA have been given non-financial incentives (as per Article 12.4 of the performance Regulation[1]) to reinforce their commitment towards the FAB adopted targets.

3.4 Key points

3.4.1 The Baltic FAB has adopted annual targets which are consistent with the reference values and non-financial incentives to reinforce the commitment towards the adopted targets.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.21	0.21	0.21	0.22	0.22
FAB Target	*0.21*	*0.21*	*0.21*	*0.22*	*0.22*
Consistency check	✓	✓	✓	✓	✓

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The Baltic FAB capacity targets are **consistent** with the respective FAB reference values.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.2 The Baltic FAB has adopted a capacity target that, although consistent with the Union-wide target, will not provide a performance surplus that can be used by other FABs.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.3 The latest ANSP capacity plans (from the NOP 2014-2019, June edition) indicate that the Baltic FAB capacity performance will not meet the required level of performance in 2015, and should be revised accordingly.

Year	2015	2016	2017	2018	2019
Annual reference value	0.21	0.21	0.21	0.22	0.22
Delay forecast full year	0.26	0.20	0.18	0.14	0.10

Table 7: Extract from Network Operations Plan 2014-2019

4.1.4 Back in 2011, the Polish ANSP promised to deliver capacity for approximately 180 aircraft by 2015. Failure to implement existing plans has resulted in the Polish ANSP only intending to meet this capacity figure by the end of RP2 (2019), a 4 year postponement.

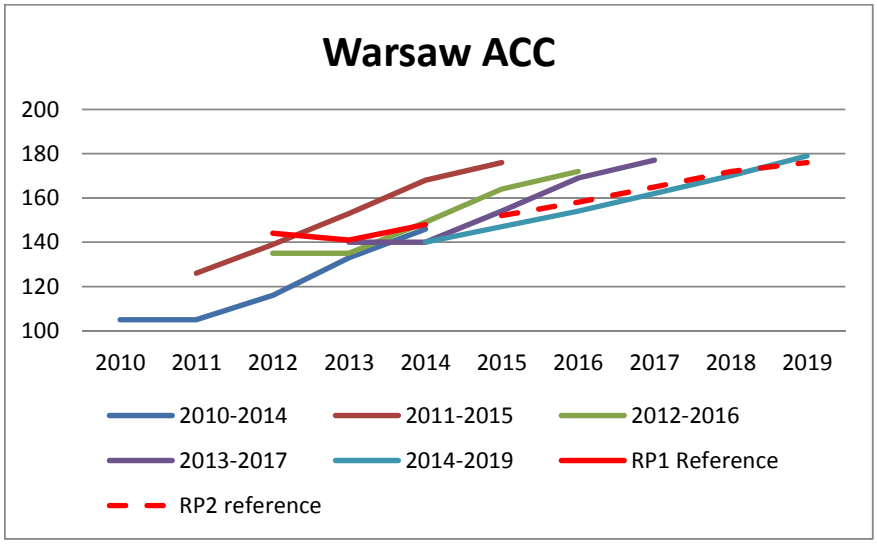


Figure 8: Development of capacity plans for Warsaw ACC

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.5 The FAB Performance Plan contains details of how the FUA legislation would be applied to provide additional capacity for general air traffic.

4.1.6 In Poland, the use of an airspace management tool will make it possible to assess the impact of airspace management decisions, although the priorities or criteria for making such decisions were not detailed.

4.1.7 In Lithuania, there is sufficient airspace capacity already available to meet the needs of both civil and military airspace users by applying existing rules and procedures that have been agreed between the Ministry of Transport and the Ministry of Defence.

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.8 When the individual ANSP contributions, as stipulated by the FAB authorities, is analysed using the baseline STATFOR 7 year traffic forecast, the resulting delay performance is expected to be between 0.23 and 0.25 minutes per flight for each year of RP2, which is greater than the FAB target . The FAB Performance Plan refers to the use of RP1 reference values to calculate the expected contribution, instead of using the values applicable for RP2: the Baltic FAB reference value for RP1 was 0.24, for RP2 it is between 0.21 and 0.22 (a reduction of approx. 10-12%).

Year		2015	2016	2017	2018	2019
FAB reference value		0.21	0.21	0.21	0.22	0.22
ANSP contribution	Oro Navigacija	0.01	0.02	0.03	0.04	0.05
	PANSA	0.26	0.26	0.26	0.26	0.26
Aggregated ANSP contribution		**0.23**	**0.24**	**0.24**	**0.24**	**0.25**

Table 8: Individual ANSP contributions to the FAB reference value

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.9 Lithuania has had excellent capacity performance, with no delay, during RP1. Poland has had significant capacity problems in RP1 in part due to the implementation of a new ATM system (Pegasus 21) and problems with the existing flight data processing system.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Lithuania	*0*	*0*	*0*	*0*	*0*
Poland	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*

Table 9: National target on average arrival ATFM delays [minutes per arrival]; n/a: Poland did not set a quantitative target

4.2.1 The scope of the Baltic FAB Performance Plan comprises the terminal air navigation services at 4 airports in Lithuania and 14 airports in Poland.

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay of zero second for Lithuania. Although no quantitative breakdown per airport is provided, it can be inferred that the breakdown per airport is also of zero second. For Poland, no quantitative target is set and the local breakdown is provided as a qualitative statement.

4.2.3 In both cases, no further description or explanation of the target and of the contribution to performance improvement are provided.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.4 For Lithuania, the national target on arrival ATFM delay is consistent with the observed historical performance and suggests no capacity constraints for arriving air traffic.

4.2.5 For Poland, the historical observed performance in terms of arrival ATFM delay is not fully considered. For the other airports, the observed historical performance suggests no capacity constraints for arriving air traffic.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.6 The anticipated growth in air traffic for Lithuania is not reflected in the discussion of the national target and may pose a risk to the chosen target of 0 min/IFR arrival.

4.2.7 Warsaw did record a marginal level of arrival ATFM delay in the past. The qualitative statement suggests that performance initiatives are underway to reduce a potential terminal or airport capacity-related impact. However, no reasoning is provided in the plan.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.8 The historical performance for Lithuania and Poland in terms of arrival ATFM delay shows no prevailing airport capacity constraints at the time being. In that respect the performance is in line with other non-congested airports.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.9 The Baltic FAB Performance Plan provides no specific information on planned initiatives.

Primary check:

- *Other justifications provided*

4.2.10 The Baltic FAB Performance Plan provides no further relevant justification for ATFM delay attributable to terminal or aerodrome ANS.

4.3 Additional indicators

EN-ROUTE

4.3.1 The Baltic FAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The Baltic FAB Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 10 lists the Incentives for the en-route included in the Performance Plan, which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance
Lithuania	No	No (more penalties than bonuses)	Yes	Yes	Yes
Poland	No	No (more bonuses than penalties)	No (Information is unclear)	Yes	Yes

Table 10: Incentives on en-route Capacity

4.4.2 The PRB has the following observations on the en-route capacity incentive schemes presented in the FAB Performance Plan:

- FAB performance is not a condition of the incentive scheme.
- The incentive schemes are not symmetrical in defining bonuses and penalties.
- The incentive scheme for Poland has the possibility of receiving bonuses at a faster rate than penalties, for the same differential in performance.
- The incentive scheme for Lithuania has the possibility for more penalties than bonuses, although the likelihood of producing such performance also has to be considered.
- The incentive scheme for Poland refers to an adopted target value, without defining if this is the FAB target value or a separate national target value.
  - (i) If the target value is the FAB target, the information on bonus/penalty is not consistent with the definition of the dead-band;
  - (ii) If the target value refers to a national target (0.26), this target is inconsistent with the FAB target values of 0.21 or 0.22 minutes per flight.

AIRPORT

4.4.3 The Baltic FAB Performance Plan presents no capacity incentive scheme for the national targets on arrival ATFM delay for Lithuania and Poland.

4.5 Key points

EN-ROUTE

4.5.1 The Baltic FAB capacity targets are consistent with the respective FAB reference values.

4.5.2 The contribution of the individual FAB ANSPs, as expected by the FAB authorities, is not consistent with the required FAB capacity performance.

4.5.3 The existing ANSP capacity plans for 2015 are inconsistent with the FAB target for that year.

4.5.4 The proposed en-route capacity incentive scheme is not fully consistent with Article 12 of the performance Regulation 390/2013.

AIRPORT

4.5.5 Within the Baltic FAB, the national target on arrival ATFM delay has been established for Lithuania. No quantitative target has been established for Poland. In

particular, the qualitative statement concerning “no risk” of arrival ATFM delay at Warsaw is not in line with the historical performance observed and requires further justification on the anticipated benefits from planned performance initiatives.

4.5.6 The PRB concludes that both, Lithuania and Poland, have not established incentive schemes for the respective local (i.e. national) target on arrival ATFM delay.

5 COST-EFFICIENCY

5.1 Lithuania: Setting the scene for RP2 cost-efficiency target assessment

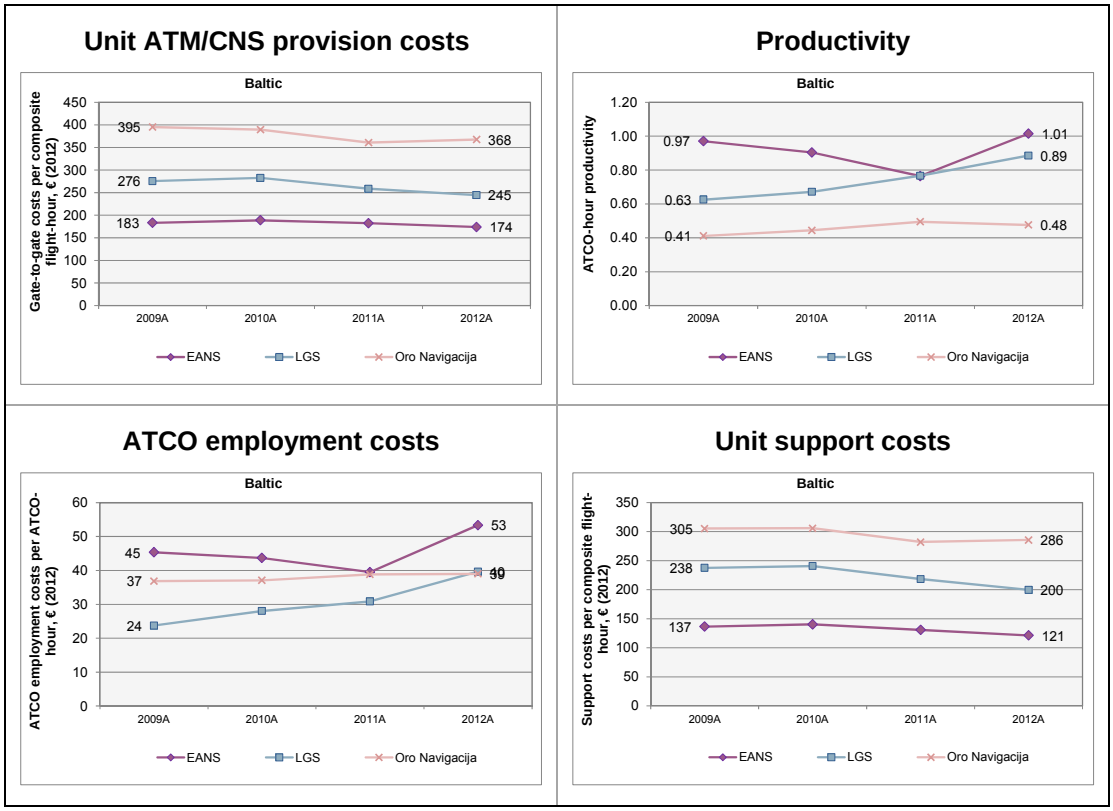
5.1.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on Oro Navigacija, the main ATSP in Lithuania, which represented 0.3% of the European system ATM/CNS provision costs in 2012.

5.1.2 In the ACE Benchmarking reports, ATSPs are considered in a context of a group including other ATSPs (comparators) operating in relatively similar economic and operational characteristics. Oro Navigacija is part of the Baltic ATSPs comparator group, also including EANS (Estonia) and LGS (Latvia).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- Oro Navigacija's productivity (0.48) is -49.9% lower than the comparator group average (0.95);
- Employment costs per ATCO-hour (39 €$_{2012}$) are -16.2% lower than the comparator group average (47 €$_{2012}$); and,
- Support costs per composite flight-hour (286 €$_{2012}$) are +77.9% higher than the comparator group average (161 €$_{2012}$).

5.1.4 As a result, Oro Navigacija's unit ATM/CNS provision costs (368 €$_{2012}$) were +75.7% higher than the comparator group average in 2012 (209 €$_{2012}$).



5.1.5 The PRB 2013 monitoring analysis indicates that Oro Navigacija actual en-route costs for 2013 were +0.9% higher than planned (+0.2 M€$_{2009}$). On the other hand, traffic was also higher than planned (+0.4%) causing a gain in respect of traffic risk sharing of +0.1 M€$_{2009}$. Taking into account the amount of costs exempt from the cost sharing in addition to traffic and cost risk sharing, Oro Navigacija generated a

net loss of -0.1 M€$_{2009}$ in 2013 on the en-route activity.

5.1.6 When estimating Oro Navigacija economic surplus, it is also important to account for the profit embedded in the cost of capital through the return on equity (+0.8 M€$_{2009}$). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 0.7 M€$_{2009}$, which implies an ex-post rate of return on equity of +2.6% (compared to the +3.0% planned in the NPP). This adds to the gains generated by Oro Navigacija in 2012 (+1.3 M€$_{2009}$ or +7.2% of en-route revenues, implying an ex-post rate of return on equity of +4.4% in 2012).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	18,313	18,452
Actual costs for the ATSP	17,795	18,622
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	518	-169
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**518**	**-169**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-0.52%	0.41%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-92**	**75**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	426	-95

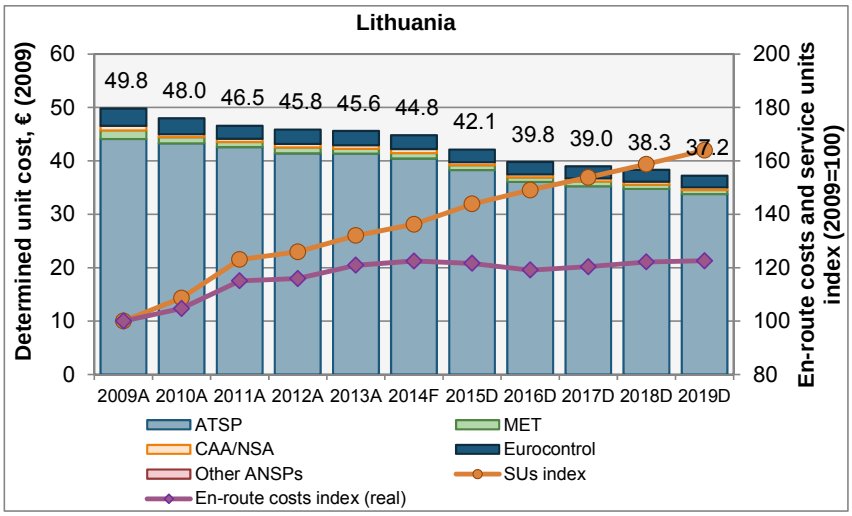
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	886	780
Overall estimated surplus (+/-) for the en-route activity	1,311	686
Revenue/costs for the en-route activity	18,221	18,527
Estimated surplus (+/-) in percent of en-route revenue/costs	**7.2%**	**3.7%**
Estimated ex-post RoE pre-taxe rate (in %)	**4.4%**	**2.6%**

Table 11: ATSP estimated surplus 2012 & 2013

5.2 Lithuania: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	44.07	43.26	42.58	41.42	41.33	40.45	38.29	36.05	35.25	34.72	33.76	-2.9%	-3.6%
MET	EUR (2009)	1.65	1.17	0.95	1.10	0.93	1.00	0.87	0.86	0.88	0.84	0.78	-2.5%	-4.9%
CAA/NSA	EUR (2009)	0.83	0.57	0.57	0.66	0.64	0.75	0.59	0.57	0.56	0.53	0.51	-1.5%	-7.4%
Eurocontrol	EUR (2009)	3.24	2.98	2.44	2.67	2.68	2.56	2.35	2.32	2.26	2.22	2.17	-1.4%	-3.3%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**49.79**	**47.97**	**46.55**	**45.84**	**45.59**	**44.77**	**42.10**	**39.79**	**38.96**	**38.31**	**37.22**	**-2.8%**	**-3.6%**

Figure 9: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	LTL m (nom)	58.6	62.1	71.1	73.9	78.0	79.7	80.5	80.6	83.5	86.6	88.9
Inflation rate	annual % change		1.2%	4.1%	3.2%	1.2%	0.9%	1.7%	2.2%	2.5%	2.2%	2.2%
Inflation index	2009=100	100.0	101.2	105.3	108.7	110.0	111.1	112.9	115.4	118.4	121.0	123.7
Determined costs	LTL m (2009)	58.6	61.4	67.4	68.0	70.9	71.8	71.3	69.8	70.6	71.6	71.9
Service units	'000s	341	371	420	430	451	465	491	509	525	542	560
Determined unit cost	LTL (2009)	171.80	165.53	160.62	158.19	157.33	154.50	145.26	137.30	134.43	132.19	128.44
Exchange rate	LTL:EUR	3.45										
Determined unit cost	EUR (2009)	49.79	47.97	46.55	45.84	45.59	44.77	42.10	39.79	38.96	38.31	37.22

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	LTL m (nom)	4.3%	2.8%	2.2%	2.5%
Inflation	CAGR %	2.2%	2.0%	2.2%	2.3%
Determined costs	LTL m (2009)	2.1%	0.8%	0.0%	0.2%
Service units	'000s	5.1%	3.7%	3.8%	3.3%
Determined unit cost	LTL (2009)	-2.9%	-2.8%	-3.6%	-3.0%
Exchange rate					
Determined unit cost	EUR (2009)	-2.9%	-2.8%	-3.6%	-3.0%

Table 12: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

En-route TSU and cost forecasts provided in the RP2 Performance Plan for the year 2014 have been slightly adjusted compared to RP1 Performance Plan:

- Total en-route costs (in nominal terms) for 2014 are expected to be +0.7% higher than the RP1 Determined Costs (DCs); and
- TSUs for 2014 are expected to be -0.5% lower than in the RP1 Performance Plan, reflecting STATFOR May 2014 base case forecast.

Because of these updates, the latest forecast for the 2014 unit cost (in $€_{2009}$) is +1.2% higher than the unit cost published in RP1 Performance Plan.

Key points for Lithuania en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

The forecast en-route TSUs for RP2 are in line with the STATFOR May 2014 base case scenario for 2014 and 2015. Forecast TSUs for 2016-2019 are calculated in line with the STATFOR February 2014 base trend.

The traffic forecast adopted by Lithuania for the year 2014 (STATFOR May 2014 base case scenario) implies a +3.2% increase in TSUs compared to 2013. This trend is significantly lower than the evolution observed to date (+7.4% for the period January to August 2014). The Lithuanian CAA notes that events in Ukraine in the middle part of 2014 have influenced traffic significantly.

2. Economic assumptions:	**Passed, with reservations**

Inflation forecasts are in line with IMF for the years 2018-2019, but for the years 2015-2017, Lithuania uses inflation rates comprised between IMF forecasts and the Lithuanian Ministry of Finance forecasts. By 2019, the impact on the inflation index remains, however, quite small (0.6 index point difference).

3. En-route DUC trend:	**Passed**

Lithuania forecasts a -3.6% annual en-route DUC decrease over the 2014-2019 period, which is better than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). The planned decrease of the DUC results from the combination of stable DCs in real terms with a forecast increase in traffic of +3.8% per year. However, the PRB notes that the 2014 starting point is +1.2% higher than the unit cost published in RP1 Performance Plan because of the upward revision of costs and downward revision of traffic (see above). This affect the 2014-19 trend.

On the other hand, the PRB also considers that when assessed between 2011 and 2019, the DUC is planned to fall by -2.8% p.a., which is also better than the expected decrease at Union-wide level (-1.7% p.a.).

At ATSP level, the decrease in the en-route DUC planned over 2014-2019 (-3.6% p.a.) is due to the fact that DCs are planned to remain relatively stable (+0.1% p.a.) while TSUs are forecast to increase by +3.8% p.a. The changes in en-route DCs between 2014 and 2019 result from the combination of opposite trends: staff costs are planned to rise by +0.8% p.a.

in real terms (+0.5 M€$_{2009}$ over RP2); other operating costs are planned to fall by -0.6% p.a. in real terms (-0.1 M€$_{2009}$ over RP2); depreciation costs are planned to fall by -2.0% p.a. in real terms (-0.2 M€$_{2009}$ over RP2); and the cost of capital is planned to remain almost stable in real terms over RP2.	
4. En-route DUC level:	**Not passed with reservations**
Lithuania's en-route DUC in 2019 is planned to amount to €37.22, which is +59.1% higher than the average of the comparator group (€23.40). Nevertheless, the gap is planned to gradually decrease over RP2 (from +78.6% in 2014 to +59.1% in 2019), and Lithuania's en-route DUC in 2019 is planned to be -27.4% lower than the Union-wide aggregated DUC (51.26 €$_{2009}$).	
5. En-route cost of capital:	**Passed**
The WACC rate used to calculate the cost of capital of Oro Navigacija (3.0%) is lower than the lower bound of the range of values calculated with the methodology laid down in Annex C guidance. The monetary value of the RoE for Oro Navigacija ranges between 0.6 M€$_{2009}$ and 0.7 M€$_{2009}$ in each year of RP2, lower than the maximum traffic risk exposure which will be borne by the ATSP over RP2 (some 0.8 M€$_{2009}$ per year). The PRB notes that despite the substantial decrease planned between 2011 and 2019 (from 79 €$_{2009}$ to 40 €$_{2009}$), the average asset base per SU for Oro Navigacija remains significantly higher than its comparators (averaging 17.2 €$_{2009}$ over RP2).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The Performance Plan comprises information about the underlying pension costs assumptions (annual amounts and % contribution rate of the different entities to the "Pay-as-you-go" pension scheme). However, some "controllable" elements are missing from the PAYG scheme information, such as the number of employees and the forecast salary base on which the pension contribution is calculated. No information is provided on the interest rates on loans. The reporting entities have currently no loans and do not foresee to contract any loans during RP2. The Performance Plan mentions that Oro Navigacija applied IAS since 2007 and does not mention any adjustments beyond IAS.	
7. Costs exempt from risk sharing:	**Passed**
Lithuania has reported costs exempt from risk sharing in 2012 and 2013, relating to the EUROCONTROL contribution. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2.	

Overall consistency assessment of Lithuania en-route cost-efficiency KPIs

Taking into account these key points, in particular points 3 and 5, the Baltic FAB Performance Plan, and in particular Lithuania's en-route cost-efficiency target, is assessed as being consistent with and making an adequate contribution to the Union-wide cost-efficiency target over RP2.

However, the PRB advises the Commission to issue a Recommendation to the Baltic FAB to adopt a revised Performance Plan, and specifically for Lithuania to:

a) Reconsider the assumptions used for the traffic forecast, taking into account that the STATFOR February 2014 base case scenario is closer to actual developments observed between January and June 2014 than the May 2014 forecast; and

b) Provide further information on the PAYG pension scheme, such as the number of employees and the forecast salary base on which the pension contribution is calculated (based on key point 6).

5.3 Lithuania: Overview of terminal charging zone assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this terminal KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Lithuania", comprising 4 airports (Vilnius, Kaunas, Palanga and Siauliai). These airports represent 100% of TNSUs in Lithuania.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing does not apply in this TCZ.

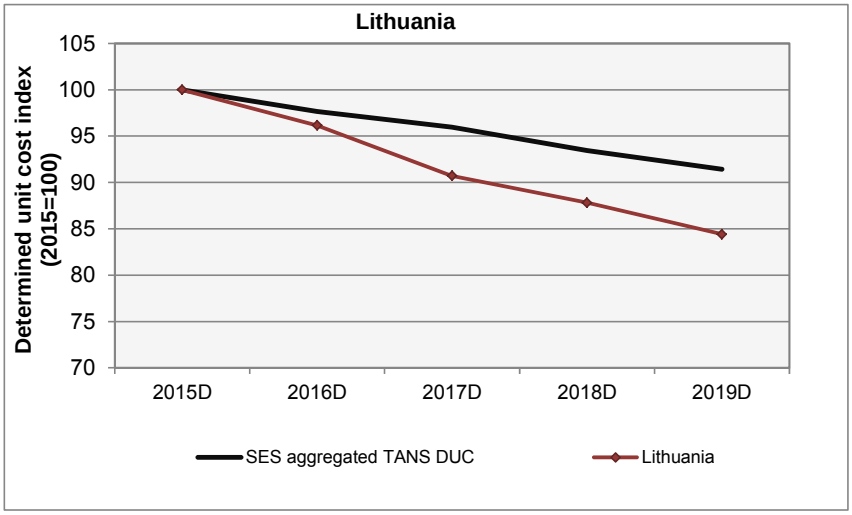


Figure 10: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Total Determined costs	LTL m (nom)	17.5	17.7	17.8	18.4	18.7	1.7%
Inflation rate *	annual % change	1.7%	2.2%	2.5%	2.2%	2.2%	2.3%
Inflation index *	2009=100	112.9	115.4	118.4	121.0	123.7	
Total Determined costs	LTL m (2009)	15.5	15.4	15.0	15.2	15.2	-0.6%
Total Terminal SUs	'000s	23.9	24.6	25.5	26.6	27.6	3.7%
DUC	LTL (2009)	650.35	625.36	589.95	571.16	548.97	-4.1%
Exchange rate	LTL:EUR (2009)	3.45					
DUC	EUR (2009)	188.47	181.23	170.97	165.52	159.09	-4.1%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 13: Terminal DUC breakdown

Key points for the Lithuania terminal charging zones

1. Traffic forecast assumptions:	Not passed

The TNSU forecasts for the Lithuania TCZ are slightly lower than STATFOR low case forecasts published in February 2014, for every year of RP2, although it is stated in the Performance Plan that STATFOR low case scenario is used.

2. Economic assumptions:	**Passed, with reservations**
Over the 2015-2019 period a consistent inflation rate has been used in the Performance Plan for the en-route charging zone and the TCZ. See en-route assessment for more details.	
3. Terminal ANS DUC trend:	**Passed, with reservations**
Over the 2015-2019 period, the profile of terminal ANS DUC (-4.1% p.a.) is better than that of the SES aggregated DUC (-2.2% p.a.). The planned decrease of the DUC results from the combination of a -0.6% p.a. decrease in DCs with a forecast increase in traffic of +3.7% per year. Lithuania's terminal DCs are planned to decrease by -0.6% p.a. between 2015 and 2019, which is better than the average % increase of Lithuania's en-route ANS DCs over the same period (+0.2% p.a.). However, the PRB notes that the level of terminal DCs planned for Lithuania in 2015 (4.5 M€$_{2009}$) is +11.9% higher than the most recent actual data available, in 2013.	
4. Terminal cost of capital:	**Passed**
Lithuania's TCZ is not subject to traffic risk sharing. The return on equity used to calculate the cost of capital of the ATSP for the TCZ is the same as for the en-route charging zone (3.0%). The same WACC (3.0%) is also used to calculate the en-route and the terminal ANS cost of capital, although terminal ANS is arguably less risky since the traffic risk sharing does not apply in the TCZ. However, as noted in the en-route assessment, this WACC is lower than the lower bound of the range of values calculated with the methodology laid down in Annex C guidance.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Lithuania terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 3 and 4, the Baltic FAB Performance Plan and in particular the Lithuania terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

However, the PRB advises the Commission to recommend the Baltic FAB to revise its Performance Plan, and specifically for Lithuania:

a) **In light of the key point 1, revise its terminal traffic forecast assumption as to achieve consistency with the information provided in the Performance Plan and match with the information published by STATFOR.**

5.4 Poland: Setting the scene for RP2 cost-efficiency target assessment

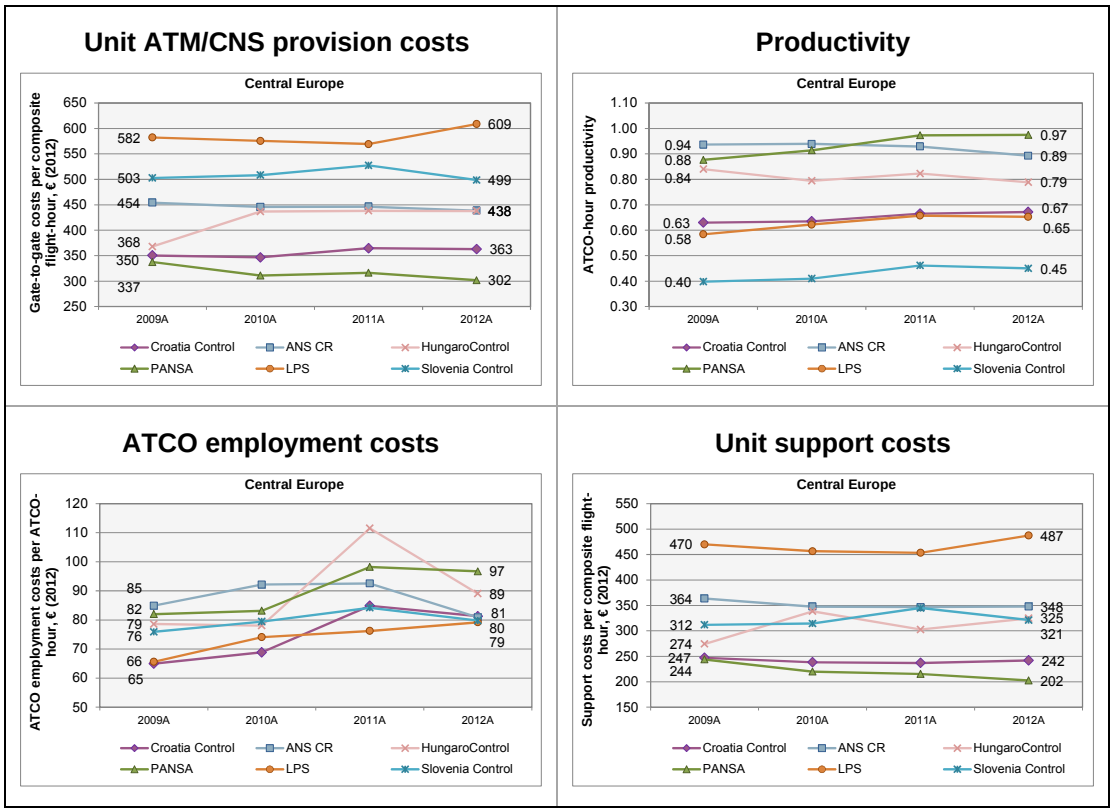
5.4.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on PANSA, the main ATSP in the Poland, which represented 2.0% of the European system ATM/CNS provision costs in 2012.

5.4.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. PANSA is part of the Central Europe ANSPs comparator group, which includes Croatia Control (Croatia), ANS CR (Czech Republic), HungaroControl (Hungary), LPS (Slovakia) and Slovenia Control (Slovenia).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- PANSA's productivity (0.97) is +41.0% higher than the comparator group average (0.69);
- Employment costs per ATCO-hour (97 €$_{2012}$) are +17.9% higher than the comparator group average (82 €$_{2012}$); and
- Support costs per composite flight-hour (202 €$_{2012}$) are -41.2% lower than the comparator group average (345 €$_{2012}$).

5.4.4 As a result, PANSA's unit ATM/CNS provision costs (302 €$_{2012}$) were -35.7% lower than the comparator group average in 2012 (469 €$_{2012}$).



5.4.5 The PRB 2013 monitoring analysis indicates that PANSA's actual en-route costs for 2013 were lower than planned (-15.4 M€$_{2009}$). This more than compensates for the impact of the lower than planned traffic (-0.9%) on PANSA's revenues. Taking into account the amount of costs exempt from the cost sharing applied (none in 2012 & 2013) and the traffic risk sharing arrangements, PANSA generated a net gain of

+14.2 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating PANSA's economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (+4.1 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for en-route activity in 2013 amounts to +18.3 M€$_{2009}$, which implies an ex-post rate of return on equity of 15.2% (compared to 4.1% as initially planned in the NPP). This adds to the gains generated by PANSA in 2012 (+11.7 M€$_{2009}$ or 10.0% of en-route revenues leading to an ex-post rate of return on equity of 10.6%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	118,356	121,986
Actual costs for the ATSP	109,167	106,604
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	9,189	15,382
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**9,189**	**15,382**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-1.14%	-0.93%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-1,338**	**-1,144**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	7,851	14,239

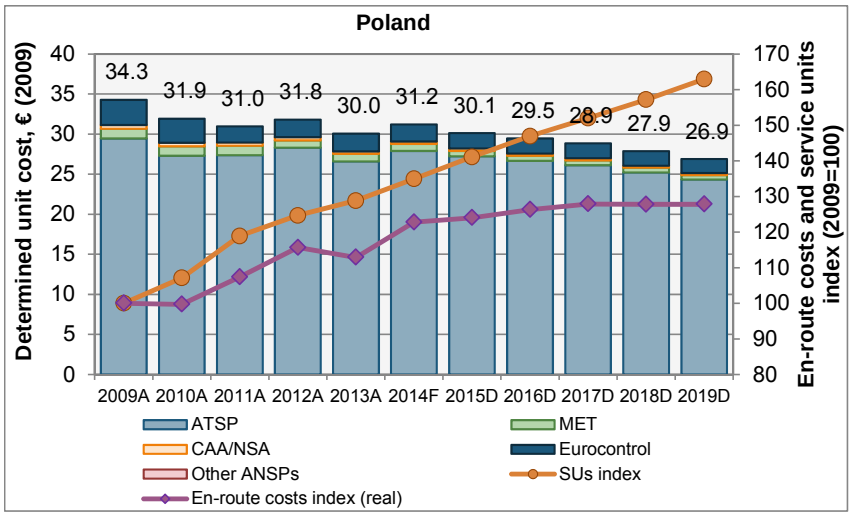
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	3,850	4,085
Overall estimated surplus (+/-) for the en-route activity	11,702	18,324
Revenue/costs for the en-route activity	117,018	120,842
Estimated surplus (+/-) in percent of en-route revenue/costs	**10.0%**	**15.2%**
Estimated ex-post RoE pre-taxe rate (in %)	**10.6%**	**15.7%**

Table 14: ANSP estimated surplus 2012 & 2013

5.5 Poland: Overview of en-route charging zone assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	29.47	27.29	27.36	28.32	26.60	27.89	27.24	26.65	26.13	25.22	24.32	-1.5%	-2.7%
MET	EUR (2009)	1.19	1.19	1.18	0.92	0.92	0.90	0.66	0.63	0.61	0.59	0.57	-8.7%	-8.8%
CAA/NSA	EUR (2009)	0.48	0.44	0.41	0.38	0.33	0.30	0.30	0.28	0.27	0.25	0.24	-6.2%	-4.2%
Eurocontrol	EUR (2009)	3.14	2.99	2.02	2.20	2.19	2.10	1.93	1.89	1.85	1.80	1.75	-1.8%	-3.6%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**34.28**	**31.90**	**30.97**	**31.80**	**30.05**	**31.19**	**30.14**	**29.46**	**28.85**	**27.87**	**26.89**	**-1.8%**	**-2.9%**

Figure 11: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	PLN m (nom)	458.4	469.3	525.3	586.5	577.3	636.8	658.6	687.4	713.6	730.7	749.1
Inflation rate	annual % change		2.7%	3.9%	3.7%	0.8%	1.5%	2.4%	2.5%	2.5%	2.5%	2.5%
Inflation index	2009=100	100.0	102.7	106.7	110.7	111.5	113.2	115.9	118.7	121.7	124.8	127.9
Determined costs	PLN m (2009)	458.4	457.0	492.3	530.0	517.5	562.7	568.5	578.8	586.3	585.7	585.8
Service units	'000s	3,092	3,313	3,676	3,854	3,984	4,173	4,363	4,544	4,699	4,861	5,039
Determined unit cost	PLN (2009)	148.23	137.95	133.90	137.51	129.91	134.86	130.30	127.39	124.76	120.49	116.26
Exchange rate	PLN:EUR	4.32										
Determined unit cost	EUR (2009)	34.28	31.90	30.97	31.80	30.05	31.19	30.14	29.46	28.85	27.87	26.89

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	PLN m (nom)	5.0%	4.5%	3.3%	3.3%
Inflation	CAGR %	2.5%	2.3%	2.5%	2.5%
Determined costs	PLN m (2009)	2.5%	2.2%	0.8%	0.8%
Service units	'000s	5.0%	4.0%	3.8%	3.7%
Determined unit cost	PLN (2009)	-2.4%	-1.8%	-2.9%	-2.8%
Exchange rate					
Determined unit cost	EUR (2009)	-2.4%	-1.8%	-2.9%	-2.8%

Table 15: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The determined costs (DCs) and planned TSU for the year 2014 in the RP2 Performance Plan have been updated in the light of the latest traffic and cost level context.

The updated TSU forecast for 2014 is 4,173 ('000), or +0.3% higher than planned in the NPP. The updated costs forecast is 638.0 MPLN (including VFR), -3.4% lower than planned.

The PRB notes that the updated costs for 2014 are 130.1 M€$_{2009}$, or +8.7% higher than actual 2013 costs (119.7 M€$_{2009}$). The updated TSU forecast for 2014 is +4.7% higher than 2013 actuals (and optimistic given actual traffic in January – June 2014 is -0.9% lower than the same period in 2013).

For the purposes of en-route DUC trend assessments, attention will therefore be given to the 2014-2019 (RP2) and 2011-2019 (RP1+RP2) periods.

Key points for Poland en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

Forecast total en-route TSUs per en-route charging zone is equivalent to the STATFOR February 2014 base case forecast for RP2.

The choice of base case forecast appears optimistic given the updated forecast for 2014 (+4.7% on 2013) is not in line with the actual traffic seen over the first eight months of 2014, which is -0.3% lower than the same period (January – August) in 2013.

2. Economic assumptions:	**Passed**

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

3. En-route DUC trend:	**Not passed**

Annual average % changes in DUC for Poland is -2.9% for the period 2014-2019, which is slightly worse than the Union-wide target (-3.3% p.a.). Over the period 2011-2019, the DUC decrease is -1.8%, marginally better than the Union-wide target (-1.7% p.a.).

As far as the DCs is concerned, increases are forecast over all periods analysed. Annual average percentage changes in DCs for Poland for the period 2014-2019 (+0.8%) are significantly worse than the DCs profile underpinning the en-route Union-wide DUC target (-2.1%). The same applies for the period 2011-2019 (+2.2%) where Poland's forecasts are significantly worse than the DCs trend underpinning the Union-wide target (-0.8%).

These increases are due to increases in other operating costs, depreciation, and significant increases in the cost of capital, which forecasts an increase from 1.5 M€2009 in 2014 to 6.2 M€2009 in 2019, an increase of over threefold. The Polish CAA states in the Performance Plan that the 2014 level of the cost of capital for PANSA was lowered in order to ensure consistency of the Poland DUR with the Union-wide cost-efficiency target in that year, and the PRB notes that the value in 2014 is the lowest over the whole period.

The PRB notes that updated costs and traffic data for 2014 are provided in the RP2 Performance Plan, however these are significantly higher than 2013 actuals. The updated

2014 value for TSUs is +4.7% higher than 2013 actual, and the updated 2014 value for en-route costs is +8.7% higher than the 2013 actual. No explanation for this increase is provided in the Performance Plan. As a result, unit costs in 2014 are expected to be +3.8% higher than those in 2013, and the DUC does not reach a level lower than the 2013 actual DUC until 2016. The PRB notes that the cost-efficiency performance improvements observed in 2012 and 2013 do not seem to be reflected in the updated forecast for 2014 or the first years of RP2.

4. En-route DUC level:	**Passed**

Poland's en-route charging zone DUC level in 2019 is planned to amount to 26.89 €$_{2009}$, which is significantly (-36.6%) lower than the average of the comparator group en-route charging zones (42.42 €$_{2009}$). The PRB also notes that by 2019, Poland en-route DUC level is amongst the lowest in the SES States (-47.5% lower than the Union-wide average).

Poland's peer group average DUC trend for 2009-2019 is -1.6% p.a., which is worse than the planned DUC trend for Poland over the same period (-2.4% p.a.).

5. En-route cost of capital:	**Passed**

The Weighted Average Cost of Capital (WACC) rate used to calculate the cost of capital for PANSA (ranging from 6.0% in 2015 down to 3.8% in 2018 and 2019) is lower than the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

The PRB notes that PANSA does not plan to use debt financing throughout RP2.

The monetary value of the RoE for PANSA decreases from approximately 8 M€$_{2009}$ each year from 2015-2017 to closer to 6 M€$_{2009}$ in 2018 and 2019, higher than the maximum traffic risk exposure which will be borne by PANSA over RP2 (approximately 5 M€$_{2009}$ in each year of RP2).

In 2015, PANSA's en-route asset base per service unit (33 €$_{2009}$) is lower than the comparator group average of ATSPs (47 €$_{2009}$). Some small variations are expected over RP2, however in 2019 it is expected to be at the same level as 2015 (32 €$_{2009}$ per SU), -4.0% lower than the group average (34 €$_{2009}$).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**

The Performance Plan comprises information about the underlying pension costs assumptions, in line with the requirements of the FAB Performance Plan template. The Performance Plan comprises information about the underlying pension costs assumptions for the PAYG scheme for the TCZ.

No loans are expected in RP2.

7. Costs exempt from risk sharing:	**Passed**

Information is provided in the Performance Plan on the level and composition of costs exempt from risk sharing for RP1. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2 that is in line with the FAB Performance Plan template.

Overall consistency assessment of Poland en-route cost-efficiency KPIs

Taking into account these key points, in particular 1, 2, 4, and 5, the FAB Performance Plan, and in particular Poland's en-route cost-efficiency target, is assessed as being consistent with and making an adequate contribution to the Union-wide cost-efficiency target over RP2.

However, the PRB advises the Commission to issue a Recommendation to the Baltic FAB to adopt a revised Performance Plan and, in particular for Poland to review its en-route cost-efficiency target, including, to:

a) revise the DCs level downwards in the early years of RP2 to reflect the surplus seen in the en-route activity in 2012 and 2013 (particularly where depreciation costs are concerned) (based on key point 3).

5.6 Poland: Overview of terminal charging zones assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Poland", comprising 14 airports: Bydgoszcz/Szweredowo, Gdansk/Lech Walesa, Krakow /Balice, Katowice/Pyrzowice, Lublin, Lodz/Lublinek, Warszawa/Modlin, Poznan/Lawica, Radom-Sadków, Rzeszow/Jasionka, Szczecin/Goleniow, Wroclaw/Strachowice, Zielona Gora/Babimost, and Warsaw Chopin. This is one more airport than the 13 included in RP1, as Radom is now included, which is expected to become operational in 2014.

In the Performance Plan, Poland proposes to establish two TCZs in Poland from 2017 onwards, the first one comprising Warsaw Chopin airport, the second comprising all other airports (13). This is in response to airspace users' remarks expressed during the consultation process and after analysis of various scenarios of TCZs for RP2.

Due to this change in TCZ scope between 2014 and 2015, only the 2015-2019 period will be analysed for Poland's TCZ.

The Poland TCZ is exempt from traffic risk sharing.

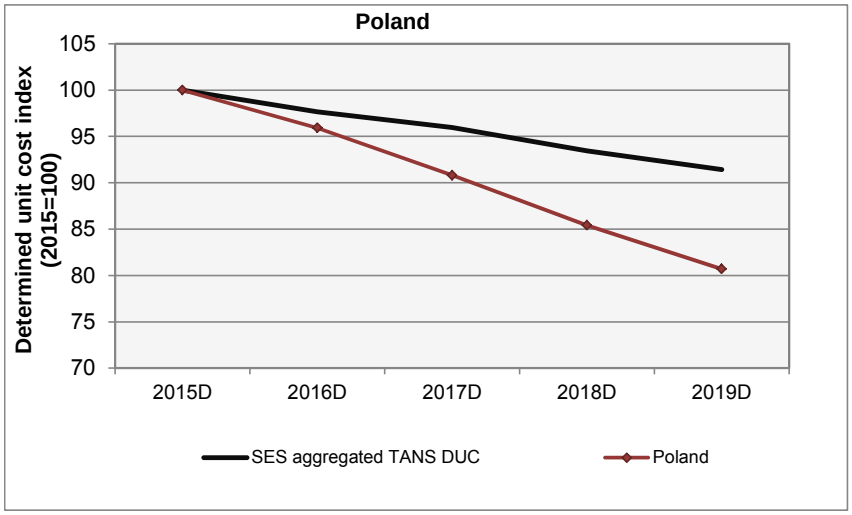


Figure 12: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	PLN m (nom)	130.3	136.0	141.1	144.5	148.3	3.3%
Inflation rate *	annual % change	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%
Inflation index *	2009=100	115.9	118.7	121.7	124.8	127.9	
Determined costs	PLN m (2009)	112.5	114.6	115.9	115.8	115.9	0.8%
Terminal SUs	'000s	159.8	169.7	181.3	192.7	204.1	6.3%
Determined unit cost	PLN (2009)	703.82	675.09	639.18	601.14	568.04	-5.2%
Exchange rate	PLN:EUR (2009)	4.32					
Determined unit cost	EUR (2009)	162.78	156.13	147.83	139.03	131.38	-5.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 16: Terminal DUC breakdown

Key points for the Poland's terminal charging zone	
1. Traffic forecast assumptions:	**Passed**
Forecast total Terminal Navigation Service Units (TNSUs) for the Poland TCZ are equivalent to (within 0.1% of) the STATFOR base case forecast published in February 2014 for RP2.	
2. Economic assumptions:	**Passed**
Over RP2 a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route charging zone and the TCZ.	
3. Terminal ANS DUC trend:	**Passed**
Over the 2015-2019 period, the profile of Poland's terminal ANS DUC (-5.2% p.a.) is significantly better than that of the SES aggregated DUC (-2.2% p.a.).	
4. Terminal cost of capital:	**Passed**
Poland does not apply the traffic risk sharing mechanism in its TCZ. The WACC % for Poland's TCZ is the same as the en-route in 2015 and 2016, however it is between -0.5 and -0.2 percentage points lower than the en-route WACC over the period 2017-2019.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed, with reservations**
The Performance Plan comprises information about the underlying pension costs assumptions for the PAYG scheme for the TCZ. The PRB understands that loans are planned for Warsaw/Modlin airport (MPL WM), but Poland notes in the Performance Plan that MPL WM DCs have such marginal value in the overall cost base that it "*seems not necessary to provide detailed comments (on interest rates on loans)*". However changes to the interest rates on loans are considered by Poland as a cost exempt from risk sharing (see next section) therefore this information for MPL WM should be provided to enable full scrutiny of the application if a claim is made in RP2.	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2 that is in line with the FAB Performance Plan template.	

Overall consistency assessment of Poland terminal ANS cost-efficiency KPIs

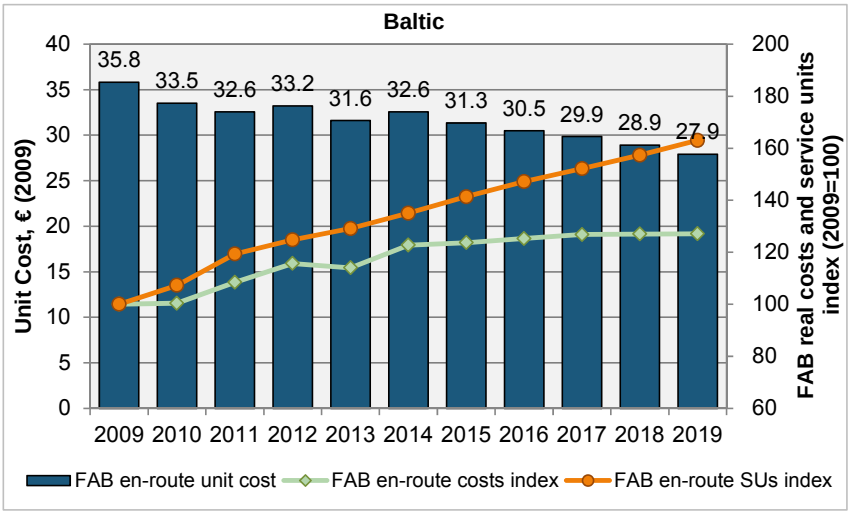
Taking into account these key points, in particular 1, 2, 3, and 4, the Baltic FAB Performance Plan, and in particular the Poland terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to recommend to the Baltic FAB to adopt a revised Performance Plan, and specifically for Poland to:

a) Provide information on interest rates on loans for MPL WM to enable full scrutiny of the application if a claim for costs exempt from risk sharing is made in RP2 (see point 5 above) (based on key point 5).

5.7 Baltic FAB: Aggregated en-route trend at FAB level

Overview



Key figures: Baltic		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	123.0	123.5	133.4	142.3	140.2	151.0	152.1	154.1	156.0	156.2	156.3
FAB en-route service units	'000s	3,434	3,684	4,096	4,284	4,434	4,637	4,854	5,053	5,224	5,403	5,599
FAB en-route unit cost	EUR (2009)	35.82	33.52	32.57	33.21	31.63	32.55	31.34	30.50	29.87	28.91	27.92

Key figures: Baltic CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	2.4%	2.0%	0.7%	0.7%
FAB en-route service units	'000s	5.0%	4.0%	3.8%	3.6%
FAB en-route unit cost	EUR (2009)	-2.5%	-1.9%	-3.0%	-2.9%

Figure 13: FAB en-route unit cost trend overview

Key points for the Baltic FAB

Note: the following comments on the aggregated FAB en-route cost trend should not be interpreted as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level, and for RP2 there are no FABs with a common charging zone and a single unit rate.

Poland en-route DCs represent 87% of the total en-route costs for the Baltic FAB over RP2. The trend of the en-route unit costs aggregated at FAB level is therefore significantly impacted by Poland's contribution.

In 2013, the FAB en-route costs (140.2 M€$_{2009}$) represent 2.3% of the total SES en-route costs. By 2019, these are planned (156.3 M€$_{2009}$) to be 2.5%.

The en-route unit cost trend for the Baltic FAB over RP2 (-3.0% p.a. between 2014 and 2019) is slightly worse than the Union-wide cost-efficiency target trend (-3.3%).

However, when computed over RP1 and RP2 combined (i.e. 2011-2019), the en-route unit cost trend for the Baltic FAB (-1.9% p.a.) is slightly better than the Union-wide target (-1.7% p.a.).

In addition, the PRB notes that by 2019 the Baltic FAB unit cost (27.92 €$_{2009}$) is -45.5% lower than the Union-wide aggregated DUC 51.26 €$_{2009}$).

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

LITHUANIA

6.1.1 The planned main investments of Oro Navigacija are compatible and coherent with the SESAR deployment requirements. Links to the ATM Master Plan are provided through a detailed description in the investment plan in Annex D of the FAB Performance Plan.

POLAND

6.1.2 The planned main investments of PANSA are compatible and coherent with the SESAR deployment requirements. Links to the ATM Master Plan are provided. However, the names as well as the descriptions of the main investments are too generic. The table in Annex D of the ANSP's investment plan contains exact the same information as in the main part of the document, only the format of the table differs.

6.2 FAB and/or Regional dimension

6.2.1 Both ANSPs have detailed projects showing foresight of the PCP IR as they are linked to the appropriate ESSIP Objectives which constitute the prerequisites for the ATM Functionalities of the PCP. There is however no investment related to the PCP functionalities themselves.

6.2.2 The main investments of Lithuania and Poland are part of a Baltic FAB Implementation Programme. However, the synergies achieved at FAB level or other MS cannot be assessed as appropriate information was not available at the time.

6.2.3 Lithuania, operates the Thales EUROCAT system but is not a Member of COOPANS ("COOPeration between Air Navigation Services providers") on its side, Poland uses an iTEC (INDRA) system

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 At FAB level, the planned investment average for RP2 is foreseen to be 113% higher than the average for the previous five years (planned annual average: 31.9 M€$_{2009}$ per year in RP2 vs. 13.8 M€$_{2009}$ updated annual average for 2010-14).

6.3.2 The percentage of main investments[4] against total investment in RP2 is expected to be significantly higher than in RP1 (93% in RP2 vs 89% updated planning for RP1). This can be interpreted as a positive evolution, focus being put on key investments likely to deliver better added value.

Baltic FAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	33.8	26.3	41.3	41.6	16.5	159.4	31.9

Table 17: RP2 Baltic FAB CAPEX

Baltic FAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg.2010-14
TOTAL Planned	29	37	34	39	34	172.7	34.5
Total Updated Planned	22	16	14	6	10	69.0	13.8
U-P (M€2009, real terms)	-6.6	-21.2	-19.4	-32.8	-23.7	-103.7	-20.7
U/P (%)	-22.7%	-57.5%	-57.5%	-83.7%	-69.7%	-610.5%	-60.0%

Table 18: 2010-14 Baltic FAB CAPEX

6.3.3 However this FAB level assessment does not reflect different situations at National level, as described below:

LITHUANIA ANSP

6.3.4 Lithuania's ANSP investments are planned to be on average 52% higher in RP2 than for the period 2010-14 (i.e. $4.2_{M€2009}$, RP2 yearly average vs. $2.8_{M€2009}$, updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	**Planned**	4.6	8.4	6.4	0.4	1.4	21.1	4.2
MAIN	**Planned**	4.1	8.2	5.9	0.1	1.1	19.3	3.9
MAIN versus TOTAL		87.9%	98.3%	92.4%	15.5%	80.3%	91.7%	91.7%

Table 19: RP2 Lithuania ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	3.8	4.9	2.5	1.2	1.5	13.9	2.8
	Updated Plan	5.0	2.6	3.5	0.7	2.0	13.9	2.8
	U-P (M€2009, real terms)	1.2	-2.2	1.0	-0.5	0.5	0.0	0.0
	U/P (%)	31.2%	-45.6%	38.2%	-38.2%	32.3%	-0.1%	3.6%
MAIN	Planned	3.5	4.7	2.5	1.2	1.5	13.4	2.7
	Updated Plan	3.1	2.6	3.5	0.6	1.9	11.6	2.3
	U-P (M€2009, real terms)	-0.4	-2.1	1.0	-0.6	0.4	-1.8	-0.4
	U/P (%)	-11.8%	-45.4%	38.2%	-49.4%	23.8%	-13.5%	-8.9%
MAIN versus TOTAL (Planned)		92.0%	96.6%	100.0%	100.0%	100.0%	96.6%	97.7%
MAIN versus TOTAL (Update)		61.8%	97.0%	100.0%	81.9%	93.6%	83.7%	86.9%

Table 20: 2010-14 Lithuania ANSP CAPEX (Actual vs. Planned)

6.3.5 Very few main investment projects planned for RP2 are in continuation of the ones in RP1, i.e. "Installation of new ATC system in new ACC" (5.8 M€$_{2009}$ planned for RP2) and "Modernisation of A-SMGCS in Vilnius" (1M€$_{2009}$ planned for RP2). For the first one, it is stated that the need for this project "*will be investigated further*"[5]. For the second one, it is noted that 2.7 M€$_{2009}$ was already spent in RP1 (as planned) and an additional 3.6 M€$_{2009}$ is foreseen for RP2. The rest of the projects have no link to the list of RP1 projects. It is also noticeable that for two years, 2018 and 2019, "main" CAPEX is minimal (0.1 M€$_{2009}$ and 1.1 M€$_{2009}$[9]) whilst a peak is foreseen for 2016 (8.2 M€$_{2009}$).

6.3.6 The most important main project refers to "ACC and administration building" planned for 9.8M€$_{2009}$ in RP2 (50% from total main CAPEX), it is a new project confirmed in the ANSP business plan. This project is described as beneficial to all four KPAs (safety, capacity, environment and cost-efficiency) and is planned to be commissioned in 2017.

6.3.7 It is noted that none of the projects is described as joint investment but several of them are part of "Baltic FAB Implementation Program" (i.e. "Installation of new ATC system, voice communication and AFTN/AMHS system in new ACC", "DME implementation in Vilnius"). In this respect, Lithuania has stated that *"Major investment projects (disclosed in FABPP) will be implemented via Public Procurement Procedures, and, if possible, FAB approach will be applied"*[6]

6.3.8 Most of the projects planned for RP2 are foreseen to be commissioned in 2017 except for the "installation of new ATC equipment in Kaunas Aerodrome CC" which is expected to be commissioned in 2020. This is not reflected into depreciation which is planned to be negative over RP2 (-1.8%). It is assumed that this is due to a lower asset base (see ANSP comment below).

6.3.9 On the other hand it is observed that depreciation for 2010-14 is foreseen to decrease in total over the period by 0.3% (as result of -2.1% for the en-route activity and +18.7% for the terminal activity). Lithuania has stated that "*depreciation are influenced by the upgrade of the main ATM system Eurocat […] It gave the increase in 2012-2013 and lower costs in 2014."*[7]

6.3.10 Cost of capital has significantly increased over the period 2010-13 for the terminal activity (+67%) and has decreased for the en-route (-11%) as "*Some investments related with terminal services were finalized (2011-2012) what gave bigger proportion of costs of capital to the terminal services instead of en-route."*[7]

POLAND ANSP

6.3.11 Poland's ANSP investments are planned to be on average 151% higher in RP2 than for the period 2010-14 (i.e. 27.7M$_{€2009}$, RP2 yearly average vs. 11M$_{€2009}$, updated average over the past five years). It was explained that *"PANSA adopted the assumption that 85% of planned CAPEX will be realized in the whole RP2 taking into account i.e. historic data. It has to be underlined that PANSA aims to increase the capability of planned and executed investments and to this end introduced internal changes (including personal, organizational and procedural) that should allow to increase the % of investment realization in the RP2 as compared to the RP1 and before. […] Investments are spread over five-year periods in order to reach the strategic milestones including assumed performance measures and to maintain the unchanged high level of safety."*[8]

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	29.2	17.9	34.9	41.2	15.1	138.3	27.7
MAIN	Planned	27.6	16.0	33.0	39.4	14.1	130.1	26.0
MAIN versus TOTAL		94.7%	89.2%	94.6%	95.5%	93.4%	94.1%	94.1%

Table 21: RP2 Poland ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	25.1	31.9	31.3	38.0	32.5	158.8	31.8
	Updated Plan	17.3	13.0	10.9	5.6	8.3	55.1	11.0
	U-P	-7.8	-18.9	-20.4	-32.4	-24.2	-103.7	-20.7
	U/P (%)	-31.0%	-59.4%	-65.1%	-85.2%	-74.5%	-65.3%	-63.0%
MAIN	Planned	14.0	18.4	18.8	30.4	14.8	96.4	19.3
	Updated Plan	12.8	10.0	10.9	5.6	8.3	47.7	9.5
	U-P	-1.1	-8.4	-7.9	-24.8	-6.5	-48.7	-9.7
	U/P (%)	-8.2%	-45.5%	-42.0%	-81.5%	-43.8%	-50.5%	-44.2%
MAIN versus TOTAL (Planned)		55.7%	57.7%	60.1%	80.1%	45.4%	60.7%	59.8%
MAIN versus TOTAL (Update Plan)		74.1%	77.4%	100.0%	100.0%	100.0%	86.5%	90.3%

Table 22: 2010-14 Poland ANSP CAPEX (Actual vs. Planned)

6.3.12 Most of the projects planned for RP2 are in continuation to the ones in RP1. "Integrated ACC in Warsaw (ATM Contingency Centre)", PANSA's main project is assumed to be linked to the "ATC training and contingency infrastructure" from RP1; planned for €7.2 M€$_{2009}$ for the previous five years and is foreseen for €41.7 M€$_{2009}$ in RP2. After assessing 2013 actual CAPEX and 2014 planning update, only €3.5 M€$_{2009}$ (less than 50%) are foreseen to be spent in RP1 for this project. Therefore the planned amount for RP2 seems to be a catch-up from the previous period.

6.3.13 Other important project (i.e. Remote Towers), a catch-up from RP1, is expected to amount €23.8M€$_{2009}$ in RP2 in addition to €16M€$_{2009}$ planned for 2010-14. However, only €8.4M€$_{2009}$ is foreseen to be spent in RP1 for this project.

6.3.14 None of the main projects is foreseen as a joint project or expected to bring synergies at FAB level or with other Member States.

6.3.15 Most of the planned projects is foreseen to be commissioned during RP2 and this is generating an increase in assets and in depreciation by 5.3% (+7% for the en-route activity and +12.4% for the terminal activity).

6.3.16 Though several projects were postponed during the period 2010-14, it is noted that an increase in depreciation is expected for this timeframe by +5.7%. However, PANSA has stated that *"the new investment cycle cumulating with the commissioning of a new ATM system will lead to higher depreciation costs, with the annual depreciation costs systematically higher that in preceding years. Moreover, rebuilding of the ATM system will require the purchasing, upgrading or replacing of many devices. The assumption adopted to calculate depreciation that 85% of planned CAPEX will be realized was not adopted in the RP1 and applies only to*

determined costs for the RP2."

6.3.17 Operating costs will also be affected by the planned investments. Therefore "*It is assumed that after the implementation of new technical solutions such as: VCS, multilateration, GNSS, relative infrastructure maintenance costs should fall by several percent. However, implementation processes can temporarily increase operating costs. Similar effect should have parallel process of CNS/ATM infrastructure rationalization supported by extended cooperation with neighbouring ANSPs."*[9]

6.4 Total investments vs Total ANS costs

LITHUANIA

6.4.1 Over RP2, total CAPEX is foreseen to represent on average 16.8% of gate-to-gate costs with a peak in 2016 (reaching 33.5%).This is due to the important amounts planned for "ACC and administration building" (4.8M€$_{2009}$) and "Installation of new ATC system in "new" ACC" (2.0M€$_{2009}$). CAPEX is expected to decrease in RP2 (-26.3%) whilst gate-to-gate ANS costs are expected to slightly rise (+0.4%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	18.3%	33.5%	25.4%	1.4%	5.3%	16.8%

Table 23: % RP2 Lithuania ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.2 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be similar to the planned value (13%) as a result of a "CAPEX effect"[10] of +3.6% and "Costs effect"[11] of +1%.

POLAND

6.4.3 Over RP2, total CAPEX is foreseen to represent on average 17% of gate-to-gate costs with a peak in 2018 (25.1%) due to important amounts planned for "Integrated ACC in Warsaw (ATM Contingency Centre)" (see comment in item 6.3.13). CAPEX is expected to decrease in RP2 (-15.2%) whilst gate-to-gate ANS costs are expected to slightly rise (+0.8%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	18.3%	11.0%	21.3%	25.1%	9.2%	17.0%

Table 24: % RP2 Poland ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 9.9 % (vs. 33% planned) as a result of a "CAPEX effect" of -72% and "Costs effect" of -11%.

6.5 Ancillary assessments

6.5.1 In accordance with the Performance Regulation, additional reporting requirements were included in the RP2 Performance Plans by the States/ANSPs. This information ensures the transparency of the investment policy at ANSP level, details the impact on expected benefits per KPA and also on the synergies achieved at FAB level.

6.5.2 The information provided by the Baltic FAB is detailed in the table below.

Ancillary assessments	Lithuania ANSP (Oro Navigacija)	Poland ANSP (PANSA)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Very few main investment projects planned for RP2 are continuing from the ones in RP1 (i.e. Installation of new ATC system in new ACC and DME implementation in Vilnius). The rest of the projects have no link to the list of RP1 projects.	"Integrated ACC in Warsaw (ATM Contingency Centre)", PANSA's main project and other main projects are linked to RP1 list of projects (i.e. Remote Towers, Ground stations, DVOR/DME etc.).
Overview, impact and date of expected benefits per KPA	Most of the projects will impact and be beneficial as of the beginning 2017. Only the installation of new ATM System equipment in Kaunas ACC will be commissioned beyond RP2 (i.e. in 2020). Most of main projects (i.e. Modernisation of A-SMGCS in Vilnius, DME implementation in Vilnius etc.) are expected to benefitting all the 4 KPAs (safety, environment, capacity and cost-efficiency).	The most important main project "Integrated ACC in Warsaw (ATM Contingency Centre)" is expected to have a phased commissioning in 2016-19 and is expected to bring benefits to safety and capacity KPAs. Other several projects expected benefits will start in 2015 and are foreseen for all 4 KPAs (i.e. DVOR/DME, ground stations, A-SMGCS etc.).
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	No information on the decision making process or on the existence of a CBA for any of the main projects. See the outcome of the consultation process at FAB level on investments below in 6.5.3. Additional questions from the consultation at national level (e.g. CPDLC cost and benefit)	"Investment plan elaboration procedure" is mentioned as decision-making process for several main projects. No details for some projects. No information on the existence of a CBA. See the outcome of the consultation process at FAB level on investments below in 6.5.3.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	ANNEX D – ANSP Investment Plan made available and coherent with the information provided in the Performance Plan.	No Annex D available.

Table 25: Ancillary assessments for the Baltic FAB

6.5.3 Further to the consultation meeting at FAB level with IATA and AEA, the following conclusions related to investments were drawn:

- Overall the link between planned costs for investments compared to related capacity growth is not clear;
- Further transparency is required for the investments in order to understand the relation and necessity of the investments planned;
- No Business case with CBA and NPV was provided, so "*the airspace user community cannot support these investments*";
- The total amount of investments planned for RP2 seems not to be "feasible" based on the experience made in RP1. "*Only 50% of all investments in RP1 were realised, and already in the first year of RP2 the planned investments are*

higher than the total amount for RP1. […] We therefore urge PANSA to re-consider their investment plans and allocate the appropriate time for implementation."

- "*We are concerned by the investments paid by the users in RP1 through depreciation and cost of capital according to the Performance Plan, which have not been realised and are now included again in RP2. This issues needs to be considered carefully and the costs excluded from the plan*."
- The lack of PCP elements in the CAPEX plan is not supported*;*
- The asset life for many projects is "*unacceptably*" short for radars (10 years), VOR/DME, ILS/DME, VHF communication equipment and Towers (5 years).[12]

6.6 PCP Prerequisites view

PCP	ESSIP	Lithuania	Poland
AF1	ATC15		
	ATC07.1		
	NAV03		
AF2	AOP05	2015	2015
	AOP04.1		2015
	AOP04.2		2016
AF3	AOM19	2015	2015
	AOM21	2017	2017
	ATC12	2016	2015
AF4	FCM04		2015
	FCM05	2016	2016
AF5	COM09		
AF6	ITY-AGDL	2015	2015

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 26: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: the planned investment average for RP2 is foreseen to be 113% higher than the average for the previous five years.

6.7.2 **FAB / Regional approach**: None of the main projects for RP2 is foreseen as a joint project or expected to bring synergies at FAB level or with other Member States.

6.7.3 **Consultation:** From the consultation with stakeholders: the total amount of investments planned for RP2 seems not to be "*feasible*" based on the experience from RP1 (see details above in 6.5.3).

6.7.4 **Link with Master Plan:** In general, the main investments are compatible and coherent with the SESAR deployment requirements. The investments of the Baltic FAB Member States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit,

on the need for, and added value of, such investment at ANSP level.

6.7.5 Furthermore, for both States there are gaps between the information provided with regard to the RP1 and RP2 investments. Information is missing or incorrect in order to assess the main investments of Lithuania and Poland concerning the Baltic FAB Implementation Programme. It is impossible to assess to what extent the underspent amounts in RP1 are postponed to RP2 years. This could possibly generate double charging of the same investment to airspace users. In the case of Poland, the name and description of the investments are too generic.

6.7.6 None of the States have updated the field "Common Project" with the correct reference to the relevant ATM functionalities in spite of the fact that they have detailed projects showing foresight of the PCP prerequisites. The ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk.

LITHUANIA

6.7.7 Lithuania's ANSP investments are planned to be on average 52% higher in RP2 than for the period 2010-14.

6.7.8 The major investment planned for RP2 refers to the "ACC and administration building" (50% from total main CAPEX), a new project confirmed in ANSP business plan. Very few main investment projects planned for RP2 are in continuation to the ones from RP1.

6.7.9 Though several main projects are planned to be commissioned in RP2, the depreciation is planned to be negative over the reference period in continuation of the trend for 2010-14.

6.7.10 Over RP2, the ratio of CAPEX into gate-to-gate costs is foreseen to be on average 16.8%. CAPEX is expected to decrease in RP2 whilst gate-to-gate ANS costs are expected to slightly rise.

POLAND

6.7.11 Poland's ANSP investments are planned to be on average 151% higher in RP2 than for the period 2010-14.

6.7.12 Most of the projects for RP2 are continuing and assumed to be a catch-up from RP1. See 6.3.12 and 6.3.13 and stakeholders comments in this regard in 6.5.3.

6.7.13 Most of the projects are planned to be commissioned during RP2 and this is generating an increase in assets and in depreciation. Though several projects were postponed during the period 2010-14, it is noted that an increase in depreciation is expected for this timeframe.

6.7.14 Over RP2, the ratio of CAPEX into of gate-to-gate costs is foreseen to be on average 17%.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Performance Plan clearly describes which entities are responsible for the monitoring and reporting in “Section 7 - Implementation of the performance plan”.

7.1.1 No clear description could be found on how the situation would be addressed, in practical terms, if targets were not met during the reference period.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 The FAB plan contained details of how the FUA legislation would be applied to provide additional capacity for general air traffic.

8.1.2 In Poland, the use of an airspace management tool will make it possible to assess the impact of airspace management decisions, although the priorities or criteria for making such decisions were not detailed.

8.1.3 In Lithuania, there is sufficient airspace capacity already available to meet the needs of both civil and military airspace users by applying existing rules and procedures that have been agreed between the Ministry of Transport and the Ministry of Defence.

8.2 Additional indicators

8.2.1 No additional civil military indicators were described in the FAB Performance Plan.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the Baltic FAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the Baltic FAB Performance Plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 Poland has not established the local target for the arrival ATFM delay in accordance with the requirements of the performance Regulation.

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the Baltic FAB in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The Baltic FAB should set targets for the arrival ATFM delay for Poland. In particular, it should provide quantitative values for the national target and its breakdown per airport. Justification on the balance of historical performance at Warsaw and the potential reduction of impacts from planned performance initiatives should also be included.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The Baltic FAB should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, in particular:

- Poland should provide the list of invited stakeholders to the consultation meeting #2. It would appear that only airspace users were invited; and no other stakeholders (e.g. social partners) contrary to the provisions of Art. 11.2(b) of the performance Regulation.
- The Baltic FAB is invited to provide the list of invited stakeholders to meetings #3.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.3.2 The Baltic FAB should provide the targets for the effectiveness of safety management both at State and ANSP level for Poland for each year of the Reference Period.

9.3.3 The Baltic FAB should add targets for the RAT methodology application for each year of the reference period.

9.3.4 The Baltic FAB should revise the RAT methodology application target for ATM-S (for 2015 and 2016) to ensure the values for ATM Ground and ATM Overall scores are identical.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.5 The Baltic FAB should ensure that the individual ANSP contributions for en-route capacity are revised so that, when aggregated, they are consistent with the required level of performance, as determined by the Baltic FAB reference values from the Network Operations Plan (2014-2018/2019).

9.3.6 The Baltic FAB should revise its proposed en-route capacity incentive scheme in accordance with Article 12 of the performance Regulation, and Article 15 of the charging Regulation. In particular the following items should be addressed:

- the proposed schemes do not consider the FAB performance;
- the incentive schemes are not symmetrical in defining bonuses and penalties, with the Polish ANSP receiving bonuses at a faster rate than penalties, for the same differential in performance;
- the ‘adopted target value’ for the Polish ANSP is not clearly defined in the performance plan. If the value refers to the FAB target then it is not consistent with the defined dead-band; if it refers to a national target, then it is inconsistent with the FAB target values.

9.3.7 The Baltic FAB should mandate its ANSPs to revise their en-route capacity plans for 2015 in line with the required level of service, as described in FAB reference value (for 2015) contained within the Network Operations Plan (2014-2018/2019).

9.3.8 The Baltic FAB Performance Plan should present capacity incentive schemes for the national targets on arrival ATFM delay for both Lithuania and Poland.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.9 Lithuania should:

- provide further information on the PAYG pension scheme, such as the number of employees and the forecast salary base on which the pension contribution is calculated.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.4.1 The Baltic FAB has provided details of the measures put in place to monitor and report on the implementation of the Performance Plans. It should however include a description of how the situation would be addressed if targets are not reached during the reference period.

9.4.2 Although the FAB Performance Plan mentions that the traffic growth was assessed based on the February 2014 STATFOR forecast, Baltic FAB should clarify why the figures presented for Lithuania do not match any of the STATFOR scenarios.

OBSERVATIONS FOR THE SAFETY KPA

9.4.3 The Baltic FAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.4.4 Lithuania should:

- revise its terminal traffic forecast assumption so as to achieve consistency with the information provided in the Performance Plan and match with the information published by STATFOR in February 2014.

9.4.5 Poland should:

- revise the en-route DCs level downwards in the early years of RP2 to reflect the surplus identified in the en-route activity in 2012 and 2013;
- provide information on interest rates on loans for MPL WM to enable full scrutiny of the application if a claim for costs exempt from risk sharing is made in RP2.

9.4.6 Lithuania and Poland should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information on how this is ensured.

OBSERVATIONS FOR THE INVESTMENTS

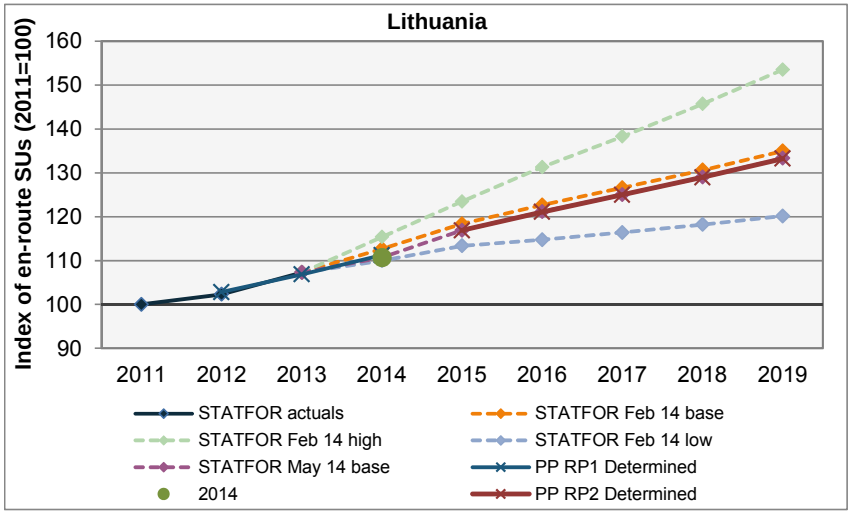
9.4.7 Lithuania and Poland should describe and/or justify the cost, nature and contribution of the CAPEX investments in a more detailed, less generic way, allowing proper understanding of the importance and need for such investments.

9.4.8 Lithuania and Poland should update the field “Common Project” with the proper reference to the proper PCP ATM functionalities.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Lithuania: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		432	449	467							
Actuals, 2014, PP RP2 Determined	420	430	451	465	**491**	**509**	**525**	**542**	**560**	**3.7%**	**3.3%**
STATFOR Feb 14 base				**473**	**497**	**515**	**532**	**549**	**567**	**3.8%**	**3.3%**
STATFOR Feb 14 high				485	518	552	581	612	645	5.5%	5.6%
STATFOR Feb 14 low				462	476	482	489	496	504	2.3%	1.5%
STATFOR May 14 base				465	491	509	525	542	560	3.7%	3.3%
PP RP2 vs STATFOR Feb 14 base (%)					-1.2%	-1.3%	-1.3%	-1.3%	-1.3%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 14: En-route TSU forecasts

Comments:

The forecast en-route TSUs for RP2 are in line with the STATFOR May 2014 base case scenario for 2014 and 2015. Forecast TSUs for 2016-2019 are calculated in line with the STATFOR February 2014 base trend.

The traffic forecast adopted by Lithuania for the year 2014 (STATFOR May 2014 base case scenario) implies a +3.2% increase in TSUs compared to 2013. This trend is significantly lower than the evolution observed to date (+7.4% for the period January to August 2014). The Lithuanian CAA notes that events in Ukraine in the middle part of 2014 have influenced traffic significantly.

If RP2 outturn en-route traffic were to be in line with the STATFOR February 2014 base case scenario, then the net gains in revenues to be retained by the State/ATSP according to the traffic risk sharing would amount to 1.2 M€$_{2009}$ over RP2.

Based on this analysis, the Lithuania en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Lithuania		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.2%	1.2%	0.9%	1.7%	2.2%	2.5%	2.2%	2.2%
Eurostat/IMF avg	annual % change		1.2%	1.0%	1.8%	2.0%	2.2%	2.2%	2.2%
Difference	p.p. difference		0.0%	0.0%	-0.1%	0.3%	0.4%	0.0%	0.0%
PP RP2	2009=100	108.7	110.0	111.1	112.9	115.4	118.4	121.0	123.7
Eurostat/IMF avg	2009=100	108.7	110.0	111.1	113.0	115.3	117.8	120.4	123.1
Difference	index difference	0.0	0.0	0.0	-0.1	0.2	0.6	0.6	0.6

Figure 15: Economic assumptions

Comments:

Inflation forecasts are not equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2. They are in line with IMF for the years 2018-2019, but for the years 2015-2017, Lithuania uses inflation rates comprised between IMF forecast and the Lithuanian Ministry of Finance forecasts. By 2019, the impact on the inflation index remains, however, quite small (0.6 index point difference).

For the years 2015-2019, a consistent rate of inflation has been used for all charging zones, en-route and terminal.

Based on this analysis, Lithuania en-route charging zone is assessed as passing this check with reservations.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	LTL m (nom)	58.6	62.1	71.1	73.9	78.0	79.7	80.5	80.6	83.5	86.6	88.9
Inflation rate	annual % change		1.2%	4.1%	3.2%	1.2%	0.9%	1.7%	2.2%	2.5%	2.2%	2.2%
Inflation index	2009=100	100.0	101.2	105.3	108.7	110.0	111.1	112.9	115.4	118.4	121.0	123.7
Determined costs	LTL m (2009)	58.6	61.4	67.4	68.0	70.9	71.8	71.3	69.8	70.6	71.6	71.9
Service units	'000s	341	371	420	430	451	465	491	509	525	542	560
Determined unit cost	LTL (2009)	171.80	165.53	160.62	158.19	157.33	154.50	145.26	137.30	134.43	132.19	128.44
Exchange rate	LTL:EUR	3.45										
Determined unit cost	EUR (2009)	49.79	47.97	46.55	45.84	45.59	44.77	42.10	39.79	38.96	38.31	37.22

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	LTL m (nom)	4.3%	2.8%	2.2%	2.5%
Inflation	CAGR %	2.2%	2.0%	2.2%	2.3%
Determined costs	LTL m (2009)	2.1%	0.8%	0.0%	0.2%
Service units	'000s	5.1%	3.7%	3.8%	3.3%
Determined unit cost	LTL (2009)	-2.9%	-2.8%	-3.6%	-3.0%
Exchange rate					
Determined unit cost	EUR (2009)	-2.9%	-2.8%	-3.6%	-3.0%

Table 27: Determined unit cost trend

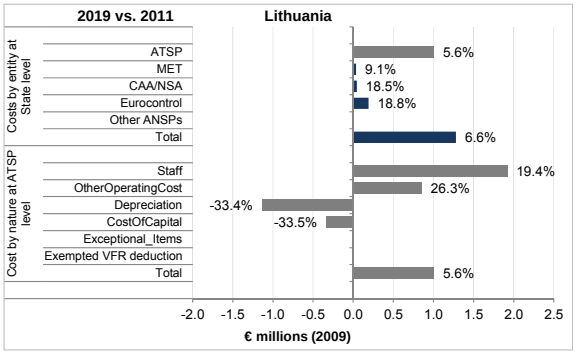


Figure 16: Planned cost category changes over RP1 and RP2

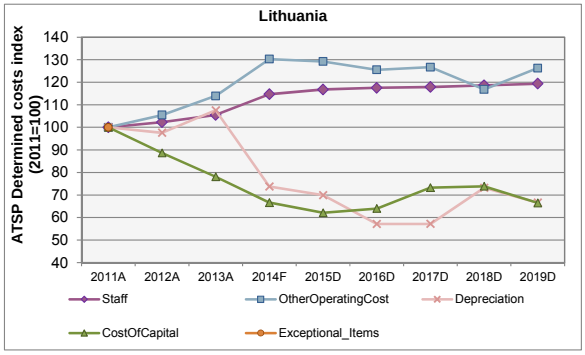


Figure 17: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Lithuania forecasts a -3.6% annual en-route DUC decrease over the 2014-2019 period, which is better than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). However, the PRB notes that the 2014 starting point is +1.2% higher than the unit cost published in RP1 Performance Plan because of the upward revision of costs and downward revision of traffic. This affects the 2014-2019 trend.

On the other hand, when assessed between 2011 and 2019, the DUC is planned to fall by -2.8% p.a., which is also better than the expected decrease at Union-wide level (-1.7% p.a.).

Considering the trends in DCs, the PRB notes that DCs are planned to remain stable in real terms between 2014-2019, and to increase by +0.8% p.a. between 2011-2019. These trends are worse than the DCs trends underpinning the Union-wide DUC targets for both periods (-2.1% over 2014-2019 and -0.8% over 2011-2019).

All accountable entities plan for decreases in DUC over RP2. The largest decreases are planned for the NSA (-4.9% p.a.) and the MET provider (-7.4% p.a.) as a result of planned decreases in DCs and increases in traffic.

At ATSP level, the decrease in the en-route DUC planned over 2014-2019 (-3.6% p.a.) is due to the fact that DCs are planned to remain relatively stable (+0.1% p.a.) while TSUs are forecast to increase by +3.8% p.a. The changes in en-route DCs between 2014 and 2019 result from the combination of opposite trends:

- Staff costs are planned to rise by +0.8% p.a. in real terms (+0.5 M€$_{2009}$ over RP2);
- Other operating costs are planned to fall by -0.6% p.a. in real terms (-0.1 M€$_{2009}$ over RP2);
- Depreciation costs are planned to fall by -2.0% p.a. in real terms (-0.2 M€$_{2009}$ over RP2); and
- The cost of capital is planned to remain almost stable in real terms over RP2.

For RP2, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within Oro Navigacija or in collaboration with other ATSPs.

The PRB notes that airspace users support Lithuania's contribution to the Union-wide targets for RP2.

The PRB 2013 monitoring analysis indicates that Oro Navigacija actual en-route costs for 2013 were +0.9% higher than planned (+0.2 M€$_{2009}$). On the other hand, traffic was also higher than planned (+0.4%) causing a gain in respect of traffic risk sharing of +0.1 M€$_{2009}$.

Taking into account the amount of costs exempt from the cost sharing in addition to traffic and cost risk sharing, Oro Navigacija generated a net loss of -0.1 M€$_{2009}$ in 2013 on the en-route activity.

When estimating Oro Navigacija economic surplus, it is also important to account for the profit embedded in the cost of capital through the return on equity (+0.8 M€$_{2009}$). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +0.7 M€$_{2009}$, which implies an ex-post rate of return on equity of +2.6% (compared to the +3.0% planned in the NPP). This adds to the gains generated by Oro Navigacija in 2012 (+1.3 M€$_{2009}$ or +7.2% of en-route revenues, implying an ex-post rate of return on equity of +4.4% in 2012).

Based on this analysis, Lithuania en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost level

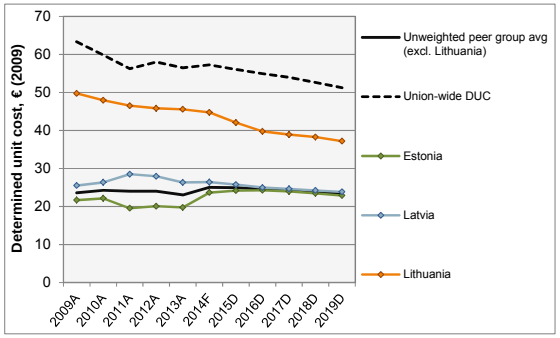


Figure 18: Determined unit cost level

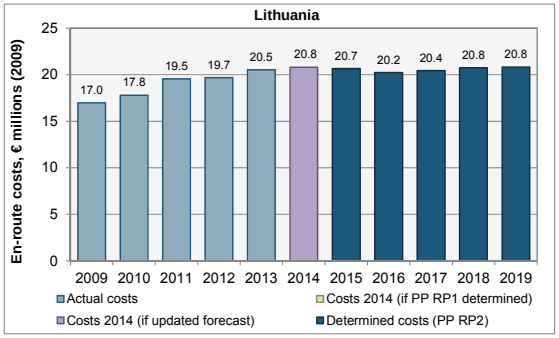


Figure 19: Determined costs 2009-2019

Comments:

Lithuania's en-route DUC in 2019 is planned to amount to 37.22 €$_{2009}$, which is +59.1% higher than the average of the comparator group (23.40 €$_{2009}$). Nevertheless, the gap is planned to gradually decrease over RP2 (from +78.6% in 2014 to +59.1% in 2019), and Lithuania's en-route DUC in 2019 is planned to be -27.4% lower than the Union-wide aggregated DUC (51.26 €$_{2009}$).

The planned reduction in Lithuania's DUC over the 2011-2019 period (-2.7% p.a.) is better than the comparator group average (-0.3% p.a.). Similarly, when examining the 2014-2019 period, Lithuania's DUC is expected to decrease by -3.6% p.a., which is better than the comparator group average (-1.4% p.a.).

Based on this analysis, Lithuania en-route charging zone is assessed as not passing this check, however the PRB notes that the gap with comparators is planned to decrease and that the level of Lithuania's DUC in 2019 is planned to be -27.4% lower than the Union-wide aggregated DUC.

Cost of Capital

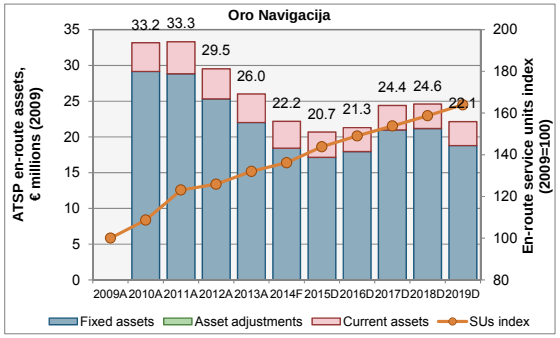


Figure 20: Breakdown of ATSP en-route asset base (2009-2019)

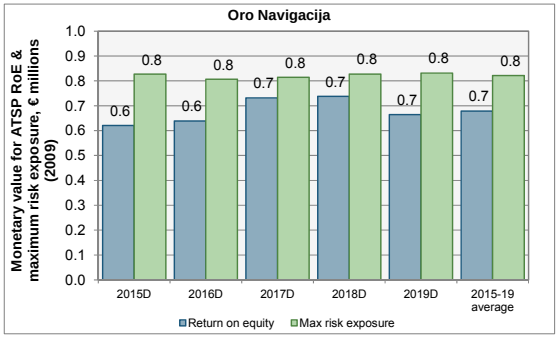


Figure 21: ATSP RoE vs maximum traffic risk exposure

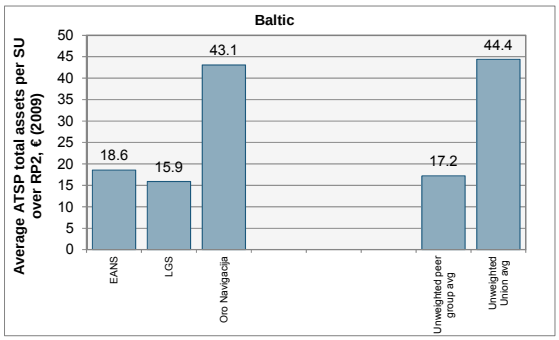


Figure 22: Average en-route asset base per SU over RP2

Comments:

The WACC rate used to calculate the cost of capital of Oro Navigacija (3.0%) is lower than the lower bound of the range of values calculated with the methodology laid down in Annex C guidance.

The pre-tax rate of return on equity (RoE) that will be used by Oro Navigacija over RP2 amounts to 3.0% per year. Taking into account Oro Navigacija capital structure and the amount of total assets used to calculate the cost of capital allows the monetary value of the RoE to be calculated, which ranges between 0.6 M€$_{2009}$ and 0.7 M€$_{2009}$ in each year of RP2. This is lower than the maximum traffic risk exposure which will be borne by Oro Navigacija over RP2 (some 0.8 M€$_{2009}$ per year). Over RP2, the PRB calculates that the monetary value of the aggregate RoE is -17.3% lower than the maximum traffic risk exposure for Oro Navigacija.

The PRB notes that despite the substantial decrease planned between 2011 and 2019 (from 79 €$_{2009}$ to 40 €$_{2009}$), the average asset base per SU for Oro Navigacija remains significantly higher than its comparators (averaging 17.2 €$_{2009}$ over RP2).

Based on this analysis, Lithuania en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan comprises information about the underlying pension costs assumptions (annual amounts and % contribution rate of the different entities to the "Pay-as-you-go" pension scheme. However, some "controllable" elements are missing from the PAYG scheme information, such as the number of employees and the forecast salary base on which the pension contribution is calculated. No information is provided on the interest rates on loans since the reporting entities have no current loans and do not foresee to contract any loans during RP2. The Performance Plan mentions that Oro Navigacija applied IAS since 2007 and does not mention any adjustments beyond IAS. **Based on this analysis, Lithuania's en-route charging zone is assessed as passing this check.** **The PRB notes that further information on the PAYG pension scheme should be provided, such as the number of employees and the forecast salary base on which the pension contribution is calculated.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Lithuania has reported costs exempt from risk sharing in 2012 and 2013, relating to the EUROCONTROL contribution. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. **Based on this analysis, Lithuania's en-route charging zone is assessed as passing this check.**

Lithuania: Assessment of terminal charging zone

Overview of terminal charging zone in Lithuania:

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Lithuania", comprising 4 airports (Vilnius, Kaunas, Palanga and Siauliai). These airports represent 100% of TNSUs in Lithuania.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing does not apply in this TCZ.

Traffic forecast assumptions

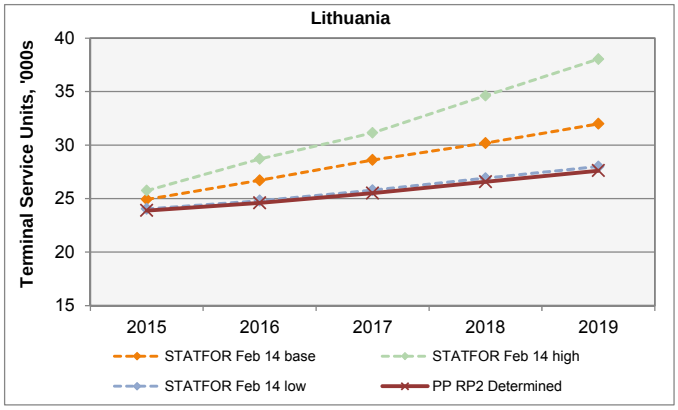


Figure 23: TNSU forecast 2015-2019

The TNSU forecasts for the Lithuania TCZ are slightly lower than STATFOR low case forecasts published in February 2014, for every year between 2015 and 2019, although it is stated in the Performance Plan that STATFOR low case scenario is used.

Lithuanian forecasts correspond to a +3.7% p.a. increase between 2015 and 2019. By comparison, the low case scenario of STATFOR is +3.9% p.a. (and the base case is +6.4% p.a.).

The Performance Plan explains that, based on local knowledge of economic conditions and considering operational capabilities of air carriers, the STATFOR base case forecast would be too optimistic.

Based on this analysis, Lithuania TNC is assessed as not passing this check.

Economic assumptions

Over the 2015-2019 period, a consistent inflation rate has been used in the Performance Plan for the en-route charging zone and the TCZ. See en-route assessment for more details.

Based on this analysis, Lithuania en-route charging zone is assessed as passing this check, with reservations.

Terminal ANS Determined Unit Cost (DUC) trend

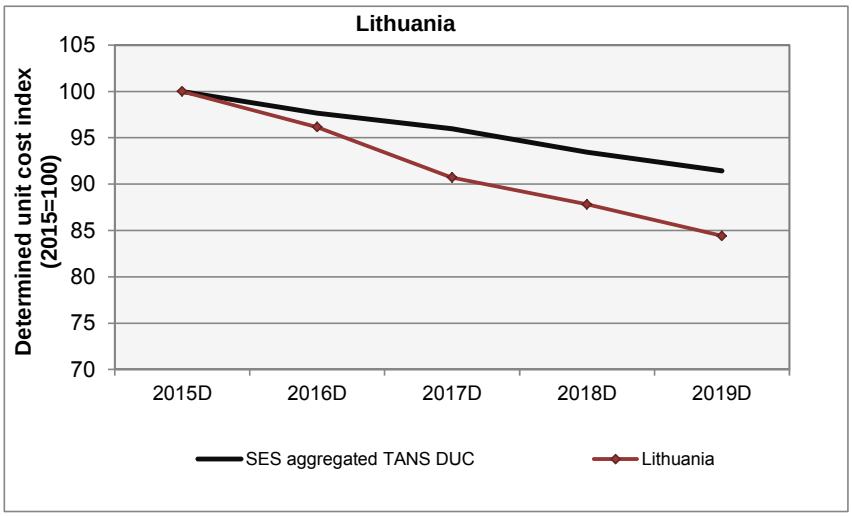


Figure 24: Terminal DUC index, 2015-2019

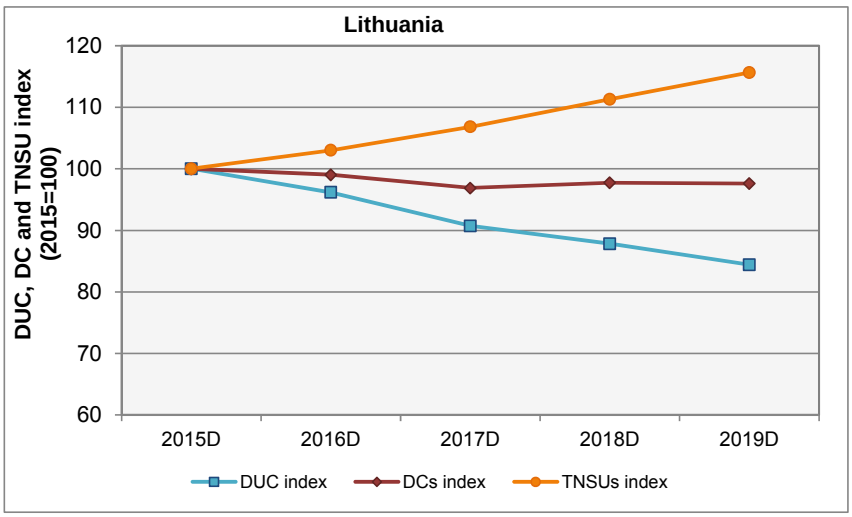


Figure 25: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Lithuania		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	LTL m (nom)	17.5	17.7	17.8	18.4	18.7	1.7%
Inflation rate	annual % change	1.7%	2.2%	2.5%	2.2%	2.2%	2.3%
Inflation index	2009=100	112.9	115.4	118.4	121.0	123.7	
Determined costs	LTL m (2009)	15.5	15.4	15.0	15.2	15.2	-0.6%
Terminal service units	'000s	24	25	25	27	28	3.7%
Determined unit cost	LTL (2009)	650.35	625.36	589.95	571.16	548.97	-4.1%
Exchange rate	LTL:EUR (2009)	3.45					
Determined unit cost	EUR (2009)	188.47	181.23	170.97	165.52	159.09	-4.1%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 28: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC (-4.1% p.a.) is better than that of the SES aggregated DUC (-2.2% p.a.). In 2019, the Lithuania terminal ANS DUC (159.09 €$_{2009}$) is approximately equivalent to the SES aggregated terminal ANS DUC (159.92 €$_{2009}$).

Lithuania's terminal DCs are planned to decrease by -0.6% p.a. between 2015 and 2019, which is better than the average % increase of Lithuania's en-route ANS DCs over the same period (+0.2% p.a.). However, the PRB notes that the level of terminal DCs planned for Lithuania in 2015 (4.5 M€$_{2009}$) is +11.9% higher than the most recent actual data available, in 2013.

Based on this analysis, Lithuania TCZ is assessed as passing this check, with reservations on the increased DCs forecast for 2015 as compared to the most recent actuals available (2013).

Cost of Capital

Lithuania's TCZ is not subject to traffic risk sharing. The return on equity used to calculate the cost of capital of the ATSP for the TCZ is the same as for the en-route charging zone (3.0%).

The same WACC (3.0%) is also used to calculate the en-route and the terminal ANS cost of capital, although terminal ANS is arguably less risky since the traffic risk sharing does not apply in the TCZ. However, as noted in the en-route assessment, this WACC is lower than the lower bound of the range of values calculated with the methodology laid down in Annex C guidance.

Based on this analysis, Lithuania TCZ is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Lithuania's TCZ is assessed as passing this check.

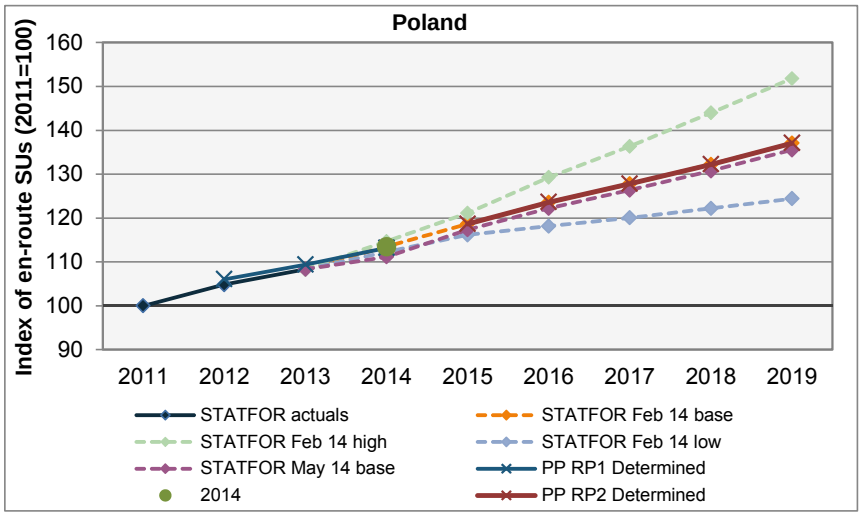
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Lithuania's TCZ is assessed as passing this check.

Poland: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		3,899	4,021	4,161							
Actuals, 2014, PP RP2 Determined	3,676	3,854	3,984	4,173	**4,363**	**4,544**	**4,699**	**4,861**	**5,039**	**4.0%**	**3.7%**
STATFOR Feb 14 base				**4,173**	**4,363**	**4,544**	**4,699**	**4,861**	**5,039**	**4.0%**	**3.7%**
STATFOR Feb 14 high				4,216	4,454	4,753	5,013	5,293	5,581	5.4%	5.8%
STATFOR Feb 14 low				4,128	4,271	4,344	4,414	4,493	4,575	2.8%	1.7%
STATFOR May 14 base				4,087	4,314	4,493	4,646	4,807	4,983	3.9%	3.7%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	0.0%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 26: En-route TSU forecasts

Comments:

Forecast total en-route TSUs per en-route charging zone is equivalent to the STATFOR February 2014 base forecast for RP2.

The updated traffic forecast for 2014 is +4.7% higher than 2013 actuals. Actual traffic in 2014 to date (January – August) is -0.3% lower than the same period in 2013.

Based on this analysis, the Poland en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Poland		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.7%	0.8%	1.5%	2.4%	2.5%	2.5%	2.5%	2.5%
Eurostat/IMF avg	annual % change		0.8%	1.5%	2.4%	2.5%	2.5%	2.5%	2.5%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	110.7	111.5	113.2	115.9	118.7	121.7	124.8	127.9
Eurostat/IMF avg	2009=100	110.7	111.5	113.2	115.9	118.7	121.7	124.8	127.9
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 27: Economic assumptions

Comments:

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

Based on this analysis, the Poland en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	PLN m (nom)	458.4	469.3	525.3	586.5	577.3	636.8	658.6	687.4	713.6	730.7	749.1
Inflation rate	annual % change		2.7%	3.9%	3.7%	0.8%	1.5%	2.4%	2.5%	2.5%	2.5%	2.5%
Inflation index	2009=100	100.0	102.7	106.7	110.7	111.5	113.2	115.9	118.7	121.7	124.8	127.9
Determined costs	PLN m (2009)	458.4	457.0	492.3	530.0	517.5	562.7	568.5	578.8	586.3	585.7	585.8
Service units	'000s	3,092	3,313	3,676	3,854	3,984	4,173	4,363	4,544	4,699	4,861	5,039
Determined unit cost	PLN (2009)	148.23	137.95	133.90	137.51	129.91	134.86	130.30	127.39	124.76	120.49	116.26
Exchange rate	PLN:EUR	4.32										
Determined unit cost	EUR (2009)	34.28	31.90	30.97	31.80	30.05	31.19	30.14	29.46	28.85	27.87	26.89

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	PLN m (nom)	5.0%	4.5%	3.3%	3.3%
Inflation	CAGR %	2.5%	2.3%	2.5%	2.5%
Determined costs	PLN m (2009)	2.5%	2.2%	0.8%	0.8%
Service units	'000s	5.0%	4.0%	3.8%	3.7%
Determined unit cost	PLN (2009)	-2.4%	-1.8%	-2.9%	-2.8%
Exchange rate					
Determined unit cost	EUR (2009)	-2.4%	-1.8%	-2.9%	-2.8%

Table 29: Determined unit cost trend

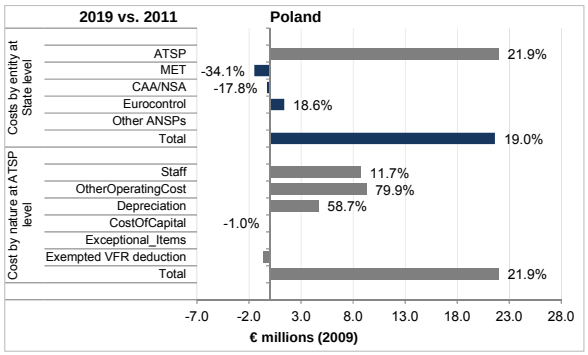


Figure 28: Planned cost category changes over RP1 and RP2

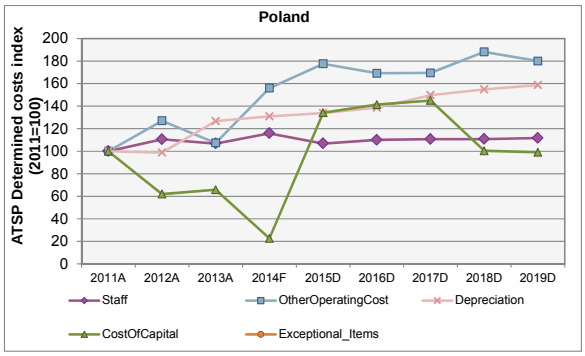


Figure 29: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Annual average % changes in DUC for Poland is -2.9% for the period 2014-2019, which is slightly worse than the Union-wide target (-3.3% p.a.). Over the period 2011-2019, annual average % changes in DUC is -1.8%, marginally better than the Union-wide target (-1.7% p.a.). Poland's annual average % changes in the DUC over the period 2009-2019 is -2.4%, marginally worse than the Union-wide target (-2.5% p.a.).

The PRB notes that Poland have provided a traffic forecast that is in line with the STATFOR February 2014 base case.

As far as the DCs are concerned, increases are forecast over all periods analysed. Annual average percentage changes in DCs for Poland for the period 2014-2019 (+0.8%) are significantly worse than the DCs trend underpinning the Union-wide target (-2.1%) and noted as being of concern to airspace users. The same applies for the period 2011-2019 (+2.2%) and 2009-2019 (+2.5%) where Poland's forecasts are significantly worse than the DCs trend underpinning the Union-wide targets (-0.8% and -1.1% respectively).

The PRB notes that updated costs and traffic data for 2014 are provided in the RP2 Performance Plan. The updated 2014 value for TSUs is +4.7% higher than 2013 actual, and the updated 2014 value for en-route costs is +8.7% higher than the 2013 actual. No explanation for this increase is provided in the Performance Plan. As a result, unit costs in 2014 are expected to be +3.8% higher than those in 2013, and the DUC does not reach a level lower than the 2013 actual DUC until 2016.

In addition, the PRB notes that the estimated economic surplus for PANSA for the en-route activity in 2013 amounts to +18.3 M€$_{2009}$, which implies an ex-post RoE of 15.2% (compared to 4.1% as initially planned in the NPP). This adds to the gains generated by PANSA in 2012 (+11.7 M€$_{2009}$ or 10.0% of en-route revenues leading to an ex-post RoE of 10.6%). The cost-efficiency performance improvements observed in 2012 and 2013 do not seem to be reflected in 2014 and the first years of RP2.

Looking at the contribution of each accountable entity over the 2011-2019 period, the PRB notes that:

- Overall, Poland en-route DCs over the period increase +21.6 M€$_{2009}$, or +19.0%;
- The increase is primarily due to the ATSP (PANSA), where DCs are planned to increase significantly by +21.9% (+2.5% p.a.). This is primarily driven by a +9.8% increase in 2014, when costs increase from 106.0 M$_{€2009}$ to 116.4 M$_{€2009}$ in the context of a forecast traffic increase of +4.7%. No justification for this increase is

provided in the Performance Plan. *Post-assessment update:* The Polish CAA notes that the increase in PANSA costs over RP2 as compared to RP1 is partly the result of costs related to MET services which will have to be purchased by PANSA following a public tender as a consequence of the limited designation of the MET SP. MET SP (IMWM) costs over RP2 are correspondingly not comparable with costs in RP1 as the scope of designation, and as a consequence the scope of activity covered by the MET SP reporting table, is limited as compared to RP1.

- the CAA/NSA (-2.4% p.a.) and MET (-5.1% p.a.) plan reductions in DCs over the 2011-2019 period.
- EUROCONTROL costs are planned to increase (+2.2% p.a.). The increase in EUROCONTROL costs (+1.4 M€$_{2009}$) is mainly driven by the one-off reduction “"IFRS Budgeting" accounted for in 2011 (-1.0 M€2009 for Poland.) Without this one-off reduction, EUROCONTROL costs for Poland would show an increase of +0.5% p.a. over the period 2011-2019.

As can be seen in Figure 29, there are significant variations in individual cost by nature over the 2014-2019 period:

- The only category to see a reduction over the period is staff costs (-0.8% p.a.) (after an increase of +8.3% in 2014). The Performance Plan states that this is due to productivity improvements.
- Other operating costs are planned to increase (+1.6% p.a., due to modernisation of ATM/CNS and other technical infrastructure and increased demand for spare parts linked to aging infrastructure), as are depreciation costs (+3.9% p.a., due to an increase in fixed assets as a result of planned investments). Airspace users are concerned that that some delayed investments were now included in the figures for RP2 and in section [9] of the FAB assessment report the PRB recommends that Poland “*should clarify whether and how they have incorporated non-realised RP1 investments into RP2, and demonstrate that there will not be double charging of the same investment to airspace users*”. (depreciation costs in 2012 were -28.3% lower than planned and in 2013 they were -22.5% lower than planned).
- The most significant increase over the period is seen in the cost of capital which is forecast to increase from 1.5 M€$_{2009}$ in 2014 to 6.2 M€$_{2009}$ in 2019, an increase of over threefold. The Polish CAA states in the Performance Plan that the 2014 level of the cost of capital for PANSA was lowered in order to ensure consistency of the Poland DUR with the Union-wide cost-efficiency target in that year, and the PRB notes that the value in 2014 is the lowest over the whole period. Further analysis on the proposed cost of capital for RP2 can be found in the cost of capital section below.

For RP2 there are no indications in the FAB Performance Plan that significant structural of organisational changes are planned in the delivery of services within PANSA or amongst other ATSPs.

Based on this analysis, Poland’s en-route charging zone is assessed as <u>not passing</u> this check.

En-route Determined Unit Cost level

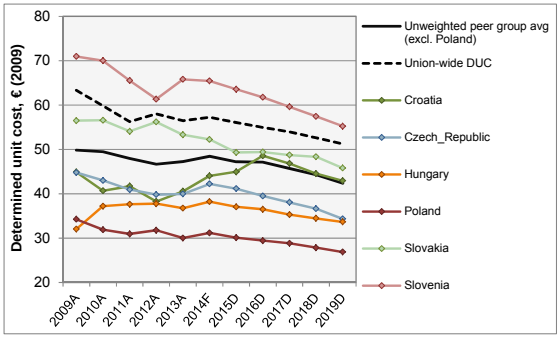


Figure 30: Determined unit cost level

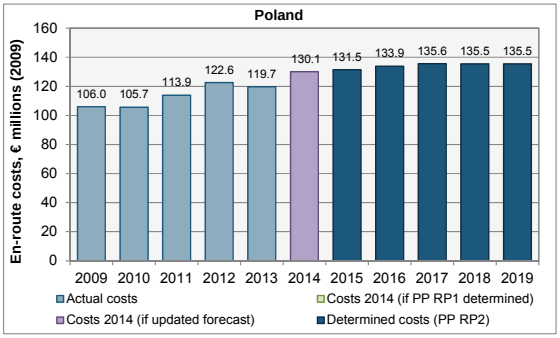


Figure 31: Determined costs 2009-2019

Comments:

Poland's en-route charging zone DUC level in 2019 is planned to amount to 26.89 €$_{2009}$, which is significantly (-36.6%) lower than the average of the comparator group en-route charging zones (42.42 €$_{2009}$). The PRB also notes that by 2019, Poland en-route DUC level is amongst the lowest in the SES States (-47.5% lower than the Union-wide average).

The PRB also notes that Poland's peer group average DUC trend for 2009-2019 is -1.6% p.a., which is worse than the planned DUC trend for Poland over the same period (-2.4% p.a.).

Over RP2, Poland's proportion of gate-to-gate cost allocated to en-route is 83.5%, lower than the peer group average (approximately 89%) over RP2. However this minor variation does not impact the level of the en-route DUCs in 2019 relative to the comparator group States. Following the inclusion of Radom Airport in the TCZ for RP2 (Radom is expected to become operational in 2014), the proportion of gate-to-gate cost allocated to en-route has decreased from approximately 85% in RP1.

Based on this analysis, Poland's en-route charging zone is assessed as passing this check.

Cost of Capital

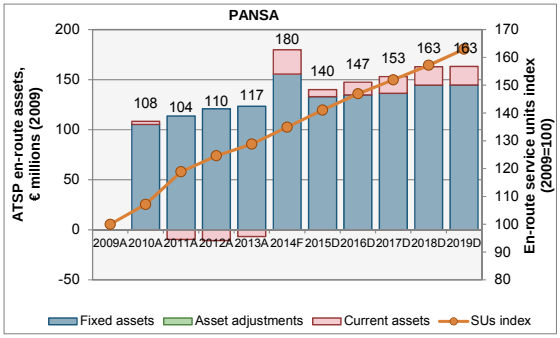


Figure 32: Breakdown of ATSP en-route asset base (2009-2019)

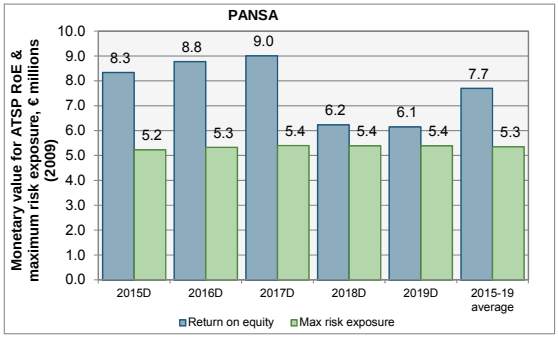


Figure 33: ATSP RoE vs maximum traffic risk exposure

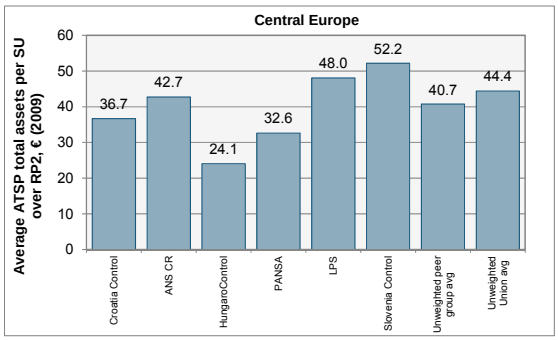


Figure 34: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate used to calculate the cost of capital for PANSA (ranging from 6.0% in 2015 down to 3.8% in 2018 and 2019) is lower than the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

The PRB notes that PANSA does not plan to use debt financing throughout RP2 so the WACC rate is the same as the pre-tax return on equity (RoE) that is set for PANSA over RP2. It is also noted in the FAB Performance Plan that the WACC planned for 2017-2019 has been reduced "*to ensure consistency of the Polish DUC with the EU-wide cost-efficiency target for RP2, similarly as it was done for 2014*". The variations in the cost of capital over the period 2011-2019 can be seen in Figure 29.

The monetary value of the RoE for PANSA is calculated by taking the relevant components of PANSA's capital structure and the total assets used to determine the cost of capital into account. For PANSA this decreases from approximately 8 M€$_{2009}$ each year from 2015-2017 to closer to 6 M€$_{2009}$ in 2018 and 2019, higher than the maximum traffic risk exposure which will be borne by PANSA over RP2 (approximately 5 M€$_{2009}$ in each year of RP2).

In 2015, PANSA's en-route asset base per service unit (33 €$_{2009}$) is lower than the comparator group average of ATSPs (47 €$_{2009}$). Some small variations are expected over RP2, however in 2019 it is expected to be at the same level as 2015 (32 €$_{2009}$ per SU), -4.0% lower than the group average (34 €$_{2009}$).

The WACC used to calculate the cost of capital for the METSP, IMWM, is lower than the

WACC used for the ATSP, PANSA, in all years apart from 2018 and 2019, where the IMWM WACC is 4.0%, marginally higher than the PANSA WACC at 3.8%.

The share of fixed/current assets in the asset base used to calculate the en-route cost of capital for PANSA reduces from 95% in 2015 to 89% in 2017-2019. This is approximately -7 percentage points lower than PANSA's comparators and -1 percentage point lower than the Union-wide average in 2019. The PRB also notes the significant (+54.1%) increase in the size of the asset base in 2014, which is driven by increases in both fixed and current asset categories. The driver of this increase is unclear and the PRB notes that it coincides with a particularly low WACC (1.19%), which Poland notes has been set to ensure consistency with the Union-wide cost-efficiency target in RP1. *Post assessment update*: the Polish CAA stated that the asset base size was not updated from the 2014 determined value as provided in the RP1 Performance Plan. It is expected that the actual 2014 asset base will be lower.

Based on this analysis, Poland's en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan contains information about the underlying pension costs assumptions for the PAYG scheme and the defined contributions scheme. Information on interest rates on loans is not required as Poland does not expect to have any loans in RP2.

PANSA's accounting is fully in line with International Accounting Standards and additional information is providing for the METSP (IMWM) and the CAA (with the Polish CAA noting that there are no changes to arrangements from RP1).

Based on this analysis, Poland's en-route charging zone is assessed as passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Poland has reported costs exempt from cost sharing in 2012 and 2013 (relating to EUROCONTROL costs). These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions. As the only costs exempt from cost sharing in RP1 related to the EUROCONTROL contribution, so the Polish CAA notes in the Performance Plan that no changes in assumptions are required for RP2 in this regard. For RP2, Poland has considered the following factors as costs exempt from risk sharing: • A possible increase or decrease in the level of pension contribution required by the State (currently 9.76%). This impact is quantified for PANSA (for an assumed increase of +1 percentage point) and the Performance Plan notes that pension changes would not affect CAA costs, as per requirements for budgetary units, CAA costs allocated to en-route DCs are fixed ("*the total budget is a constant maximum that once established cannot change*"). • Unforeseen changes in property tax (i.e. changes to national taxation law). The impact of an increase of +1 percentage point in property tax on PANSA costs is illustrated. • EUROCONTROL costs. **Based on this analysis, Poland's en-route charging zone is assessed as passing this check.**

Poland: Assessment of terminal charging zone

Overview of terminal charging zone in Poland:

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Poland", comprising 14 airports: Bydgoszcz/Szweredowo, Gdansk/Lech Walesa, Krakow /Balice, Katowice/Pyrzowice, Lublin, Lodz/Lublinek, Warszawa/Modlin, Poznan/Lawica, Radom-Sadków, Rzeszow/Jasionka, Szczecin/Goleniow, Wroclaw/Strachowice, Zielona Gora/ Babimost, and Warsaw Chopin. This is one more airport than the 13 included in RP1, as Radom is now included, which is expected to become operational in 2014. Due to this change in TCZ scope between 2014 and 2015, only the 2015-2019 period will be analysed for Poland's TCZ.

In the Performance Plan, Poland proposes to establish two TCZs in Poland from 2017 onwards, the first one comprising Warsaw Chopin airport, the second comprising all other airports (13). This is in response to airspace users' remarks expressed during the consultation process and after analysis of various scenarios of TCZs for RP2.

The Poland TCZ is exempt from traffic risk sharing.

Traffic forecast assumptions

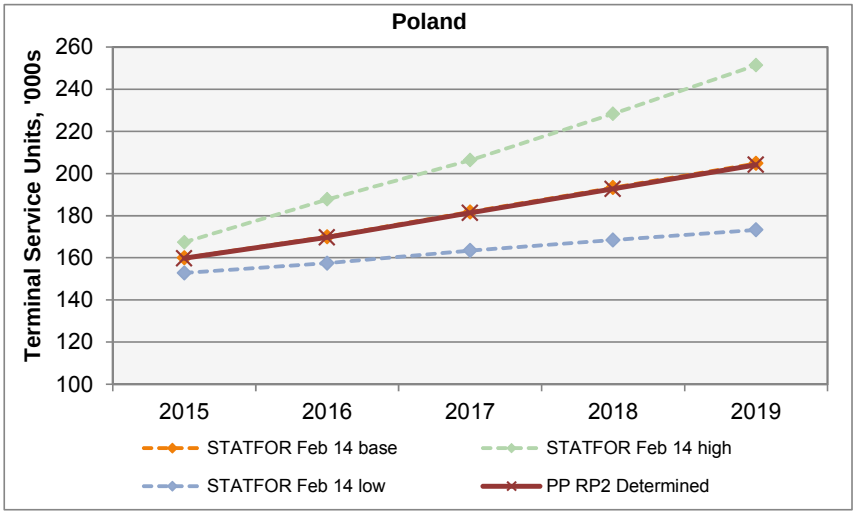


Figure 35: TNSU forecast 2015-2019

Forecast total Terminal Navigation Service Units (TNSUs) for the Poland terminal charging zone (TCZ) are equivalent to (within 0.1% of) the STATFOR base case forecast published in February 2014 for RP2.

Based on this analysis, Poland's terminal charging zone is assessed as passing this check.

Economic assumptions

Over RP2 a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route charging zone and the TCZ.

Based on this analysis, Poland's terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

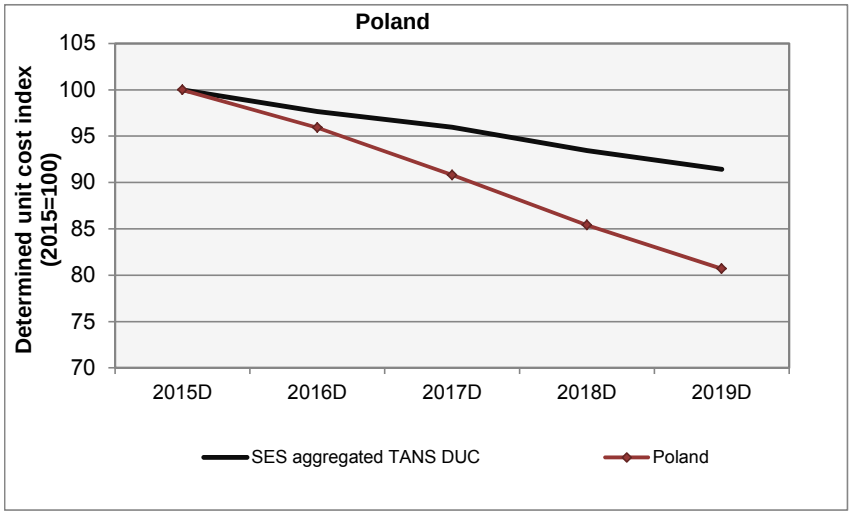


Figure 36: Terminal DUC index, 2015-2019

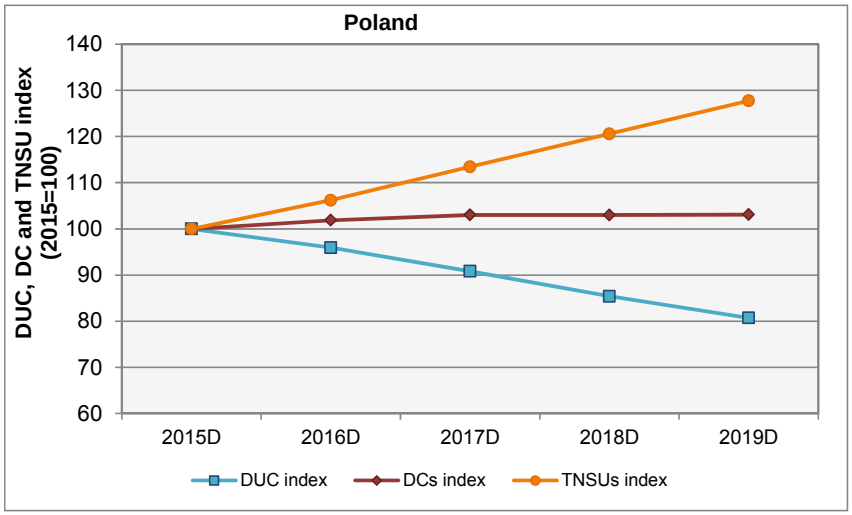


Figure 37: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Poland		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	PLN m (nom)	130.3	136.0	141.1	144.5	148.3	3.3%
Inflation rate	annual % change	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%
Inflation index	2009=100	115.9	118.7	121.7	124.8	127.9	
Determined costs	PLN m (2009)	112.5	114.6	115.9	115.8	115.9	0.8%
Terminal service units	'000s	160	170	181	193	204	6.3%
Determined unit cost	PLN (2009)	703.82	675.09	639.18	601.14	568.04	-5.2%
Exchange rate	PLN:EUR (2009)	4.32					
Determined unit cost	EUR (2009)	162.78	156.13	147.83	139.03	131.38	-5.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 30: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of Poland's terminal ANS DUC (-5.2% p.a.) is significantly better than that of the SES aggregated DUC (-2.2% p.a.).

Poland's TCZ DCs are planned to increase by +0.8% p.a. over the period 2015-2019. This is exactly in line with the planned en-route DCs trend. The annual average change in Poland's gate-to-gate ANS DCs over the period 2015-2019 is +0.8%, which is significantly worse than the en-route DCs profile (-2.3% p.a.) underpinning the Union-wide en-route DUC targets.

Based on this analysis, Poland's TCZ is assessed as passing this check.

Cost of Capital

Poland does not apply the traffic risk sharing mechanism in its TCZ.

The WACC % for Poland's TCZ is the same as the en-route in 2015 and 2016, however it is between -0.5 and -0.2 percentage points lower than the en-route WACC over the period 2017-2019.

Based on this analysis, the Poland TCZ is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The Performance Plan comprises information about the underlying pension costs assumptions for the PAYG scheme for the TCZ.

Information on interest rates on loans is not provided as PANSA plans a gearing ratio of 0% in RP2. The PRB understands that other loans are planned for Warsaw/Modlin airport (MPL WM), but Poland notes in the Performance Plan that MPL WM DCs have such marginal value in the overall cost base that it "*seems not necessary to provide detailed comments (on interest rates on loans)*". However, changes to the interest rates on loans are considered by Poland as a cost exempt from risk sharing (see next section) therefore this information for MPL WM should be provided to enable full scrutiny of the application if a claim is made in RP2.

Based on this analysis, the Poland TCZ is assessed as <u>not</u> passing, with reservations, for this check.

Description, level, composition and justification of costs exempt from risk sharing

For RP2, Poland has considered the following factors as costs exempt from risk sharing:

- A possible increase or decrease in the level of pension contribution required by the State (currently 9.76%). This impact is quantified for PANSA terminal costs in conjunction with the impact of changes in national taxation law (see point below). The Performance Plan notes that pension changes would not affect CAA costs.
- Significant changes in interest rates on loans. The Performance Plan states that this would not affect PANSA costs (as PANSA has assumed a gearing ratio of 0% over RP2), however there would be an effect on Warsaw/Modlin airport costs. This is quantified, however no supporting information on the assumptions underlying the interest rates for loans is provided.
- Unforeseen changes in property tax (i.e. changes to national taxation law). The impact of an increase of +1.0 percentage point in property tax on PANSA TANS costs is illustrated.

Based on this analysis, the Poland TCZ is assessed as passing this check.

References

[1] Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Source: European Economic Forecast (Spring 2014).

[3] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[4] "Main" relates to the categories of investments described in Annex II Point 2.1 and Annex IV Point 1(e) of the performance Regulation

[5] RP2 Performance Plan (CAPEX)

[6] En-route charging reporting (June 2014) – Additional information – 4 (Additional justifications for the RP2 Performance Plan) – Item 1.3. (description of cost-efficiency improvements planned in RP2), page 11/17

[7] En-route charging reporting (June 2014)– Additional information – 1- RP1 Monitoring, page 6/17

[8] En-route charging reporting (June 2014) – Additional information – 4 (Additional justifications for the RP2 Performance Plan) – Item 1.3. (description of cost-efficiency improvements planned in RP2), page22/30

[9] En-route charging reporting (June 2014) – Additional information – 4 (Additional justifications for the RP2 Performance Plan) – Item 1.3. (description of cost-efficiency improvements planned in RP2), page 21/30

[10] "CAPEX Effect"= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[11] "Costs Effect"= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

[12] Annex A to the Performance Plan for RP2 – FAB Consultation (page 7)

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

Blue Med FAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

Blue Med FAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The initial Performance Plan for the Blue Med FAB was received unsigned on 1st July 2014 in English. A corrigendum was later provided on 28 July. It also contained three cover letters from Cyprus, Italy and Malta adopting both the initial FAB Performance Plan and the corrigendum. The cover letter from Greece was received on 30 July. The said letters were signed by:

- the acting Director of the Department of Civil Aviation of the Ministry of Communications and Works of Cyprus;
- the Governor of the Civil Aviation Authority of the Ministry of Infrastructure, Transport and Networks of Greece;
- the Deputy Director General of Italian Civil Aviation Authority;
- the Director General for Civil Aviation of the Transport Authority of Malta.

1.1.2 The NSAs responsible for drawing up the Performance Plan are

- the National Supervisory Authority for Air Navigation Services of the Republic of Cyprus;
- the Hellenic Air Navigation National Supervisory Authority;
- the Ente Nazional Per L'Aviation Civile (ENAC) of Italy; and
- the Civil Aviation Directorate of Malta.

1.1.3 The NSA responsible for the coordination within the FAB is the Ente Nazional Per L'Aviation Civile (ENAC) of Italy.

1.1.4 The FAB Performance Plan provides performance targets set at local level as defined in the performance Regulation[1] for the following accountable entities:

- [CY] Ministry of Communications and Works;
- [CY] Department of Civil Aviation of the Ministry of Communications and Works, as the nominated NSA;
- [CY] Department of Civil Aviation of the Ministry of Communications and Works (DCAC Cyprus) as a certified Air Navigation Service Provider for ATS, CNS and AIS;
- [CY] Meteorological Department of the Ministry of Agriculture and Natural Resources, as a certified MET service provider;
- [GR] Hellenic Civil Aviation Authority (HCAA), as the designated ANSP;
- [GR] Hellenic Air Navigation National Supervisory Authority (HANSA), as the nominated NSA;
- [GR] National Meteorological Service, Regional Met Centre MAKEDONIA, and the Regional Met Centre ATA, which are subordinated to the Ministry of Defence, as the designated MET service provider;
- [IT] ENAV, as the designated ANS and MET service provider;
- [IT] ITAF, the Italian Air Force, as an ANS provider;
- [IT] ENAC, as the nominated NSA, which includes EUROCONTROL costs;

- [MT] Malta Air Traffic Services (MATS) as the designated ANS provider; and
- [MT] Civil Aviation Directorate of Transport as the nominated NSA.

1.1.5 The FAB Performance Plan covers the following Flight Information and Upper Information Regions: Nicosia FIR/UIR, Athinai FIR, Hellas UIR, Milan FIR/UIR, Brindisi FIR/UIR, Rome FIR/UIR, Malta FIR/UIR.

1.1.6 As far as terminal services are concerned, it covers two airports in Cyprus, one in Greece, five in Italy and one in Malta, for a total of 9 airports. The list of airports exempted from the performance and charging Regulations is incomplete as only Italy provided information.

1.1.7 According to Article 14 of the performance scheme Regulation[1], the PRB has assessed this plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

CYPRUS

1.2.1 After a negative GDP of −2.4% in 2012, the recession intensified in 2013 and the GDP growth further dropped to −5.4 %. As shown in Figure 1 the recession is foreseen to continue in 2014 but the decline is expected to ease[2].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Cyprus but only inflation figures were sourced. GDP figures were not sourced and present a decline of −6% and −4.7% for 2013 and 2014 respectively.

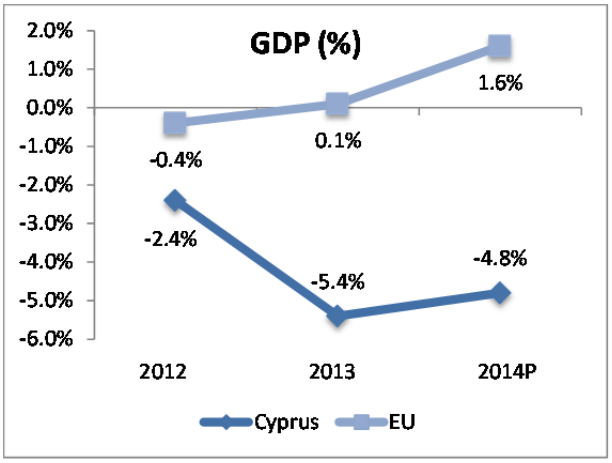


Figure 1: Gross domestic product for Cyprus, volume (percentage change on preceding year)[2]

1.2.3 Figure 2 shows that IFR traffic in Cypriot airspace slightly increased in 2013 after a two-year consecutive drop. The February 2014 STATFOR baseline scenario expects the 2009 forecast for 2015 to be reached in 2019, thus representing a four-year shift in traffic demand.

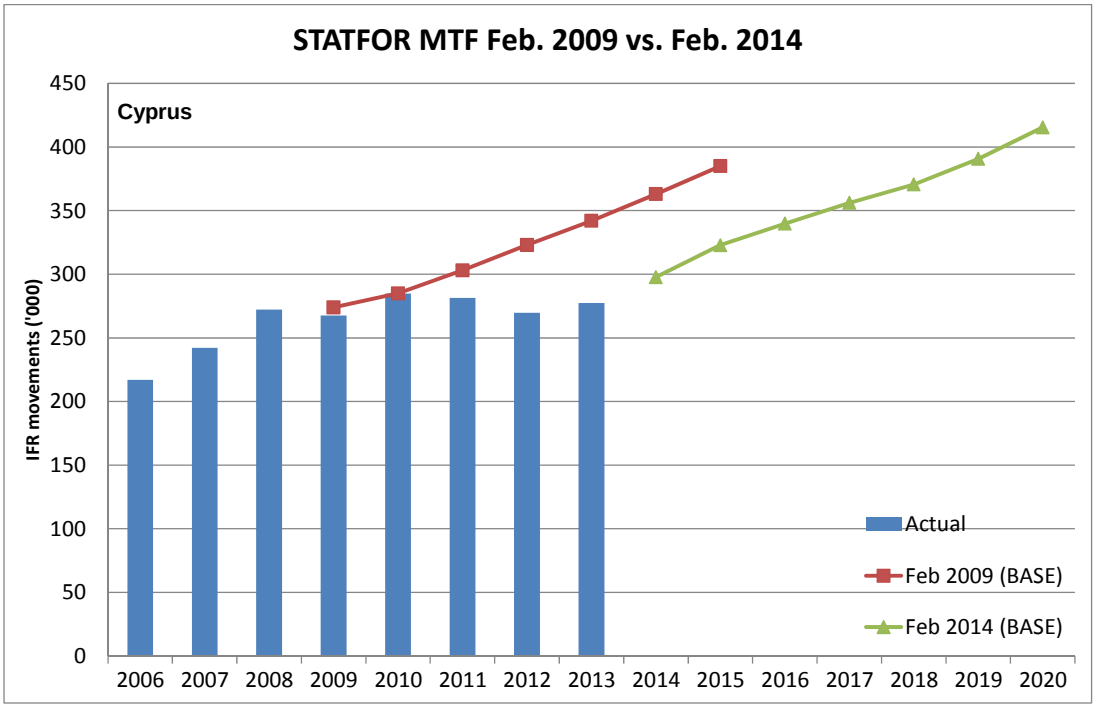


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Cyprus

1.2.4 There is no explicit mention in the FAB Performance Plan regarding the traffic forecast used by Cyprus.

GREECE

1.2.5 Figure 4 shows that, for 2013, the recession weakened in 2013 as the GDP fell by −3.9%, compared to −7.0% in 2012. Greece's economy is expected to return to growth in 2014[2].

1.2.6 The FAB Performance Plan contains macroeconomic data and forecasts for Greece sourced from the IMF. GDP figures for 2014 are consistent with those presented in Figure 3.

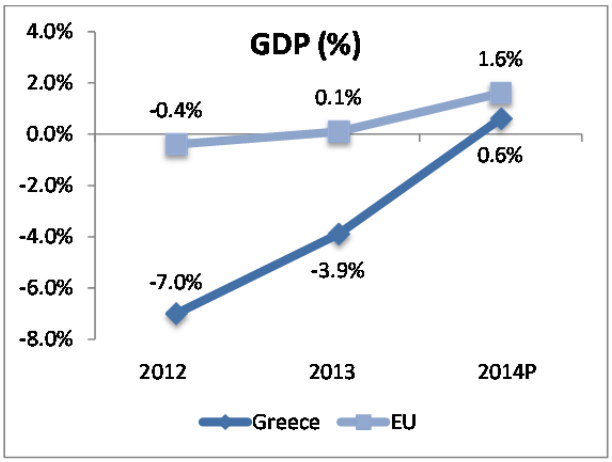


Figure 3: Gross domestic product for Greece, volume (percentage change on preceding year)[2]

1.2.7 Figure 4 shows that IFR traffic in Greece's airspace declined slightly for the second year in a row to 2007 levels. The February 2014 STATFOR baseline scenario expects the 2009 forecast for 2014 to be now reached in 2020, which means a six-year shift in traffic demand.

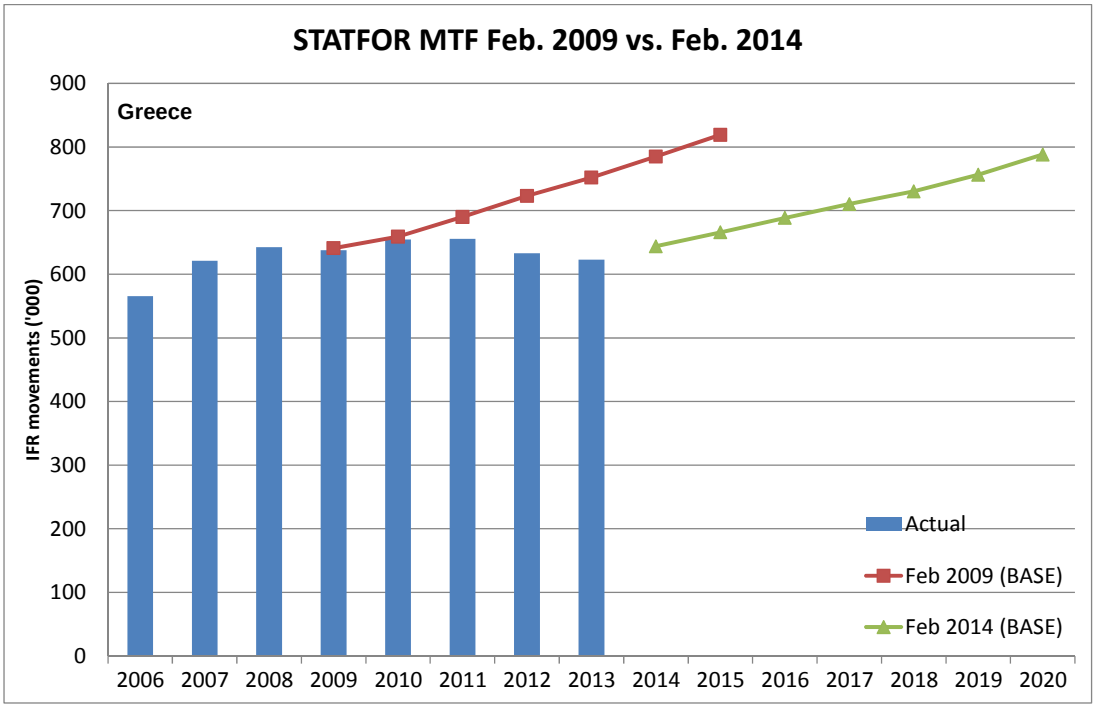


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Greece

1.2.8 There is no explicit mention in the FAB Performance Plan regarding the traffic forecast used by Greece.

ITALY

1.2.9 Figure 5 reveals that a slow economic recovery is to be expected in 2014, after two years of recession[2].

1.2.10 The FAB Performance Plan contains macroeconomic data and forecasts for Italy sourced from the OECD. Although no GDP figures were presented, the analysis is consistent with the trend depicted in Figure 5.

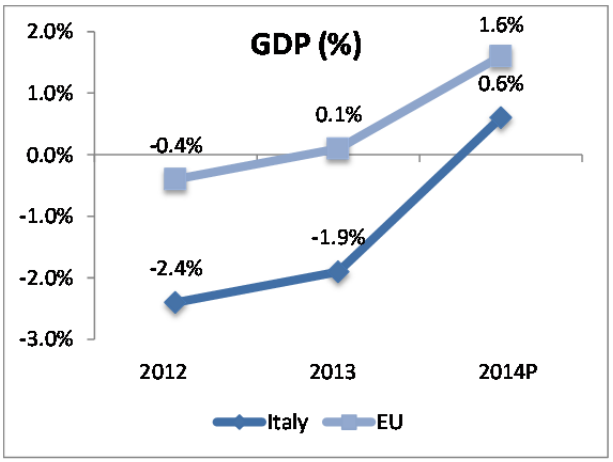


Figure 5: Gross domestic product for Italy, volume (percentage change on preceding year)[2]

1.2.11 Figure 6 shows that IFR traffic in Italian airspace also declined for the second year in a row, and is now roughly at 2006 levels. The February 2014 STATFOR baseline scenario foresees IFR traffic to resume with 2007 levels by 2017 and does not expect the 2009 forecast for 2014 to be attained before 2020, which represents a six-year shift in traffic demand.

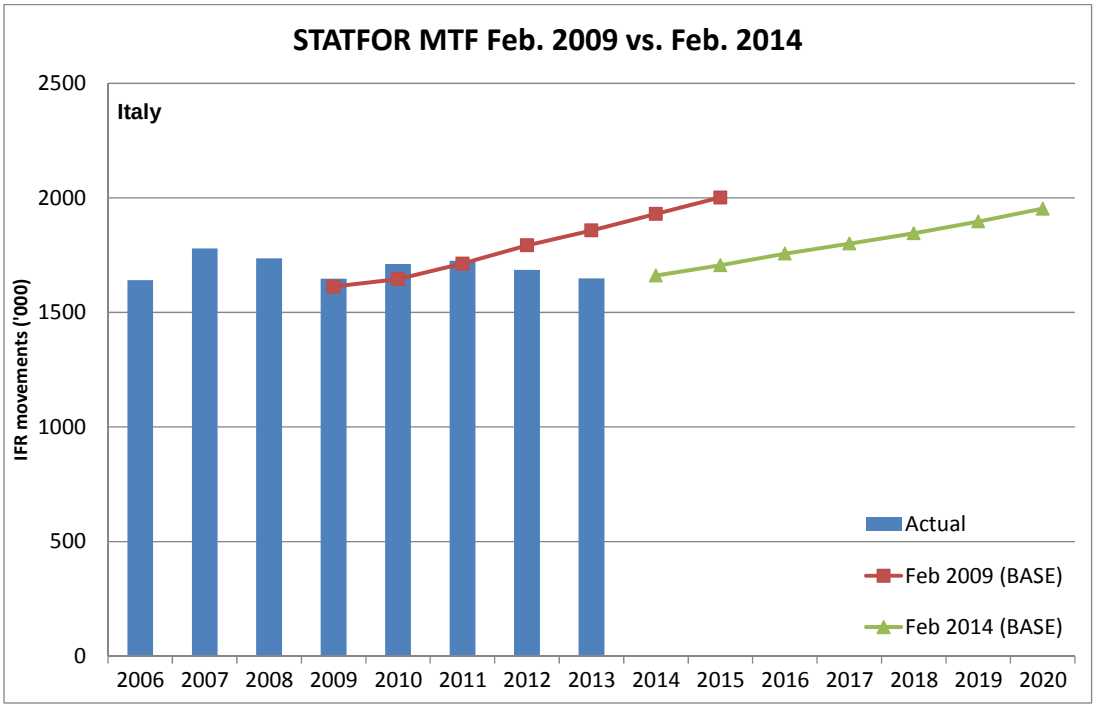


Figure 6: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Italy

1.2.12 Following encouraging signs of traffic recovery, Italy decided to use the February 2014 STATFOR high scenario when drawing up the FAB Performance Plan.

MALTA

1.2.13 After a sharp GDP growth in 2013 of 2.4%, Malta's growth outlook is expected to remain stable and robust[2].

1.2.14 In view of the information provided, it is considered that the FAB Performance Plan does not contain sufficient macroeconomic data and forecasts for Malta. Information about traffic forecast is also missing.

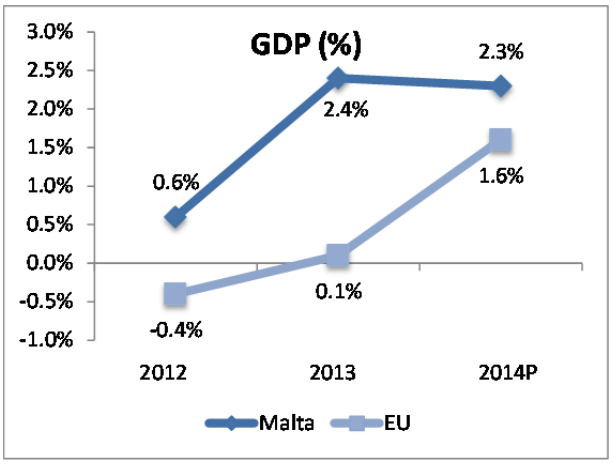


Figure 7: Gross domestic product for Malta, volume (percentage change on preceding year)[2]

1.2.15 Figure 8 shows that IFR traffic in Maltese airspace, after a dip in 2011, resumed with the 2009 forecast the next year and even exceeded it in 2013. The February 2014 STATFOR baseline scenario is even more optimistic as it foresees the 2009 forecast for 2015 to be already exceeded this year.

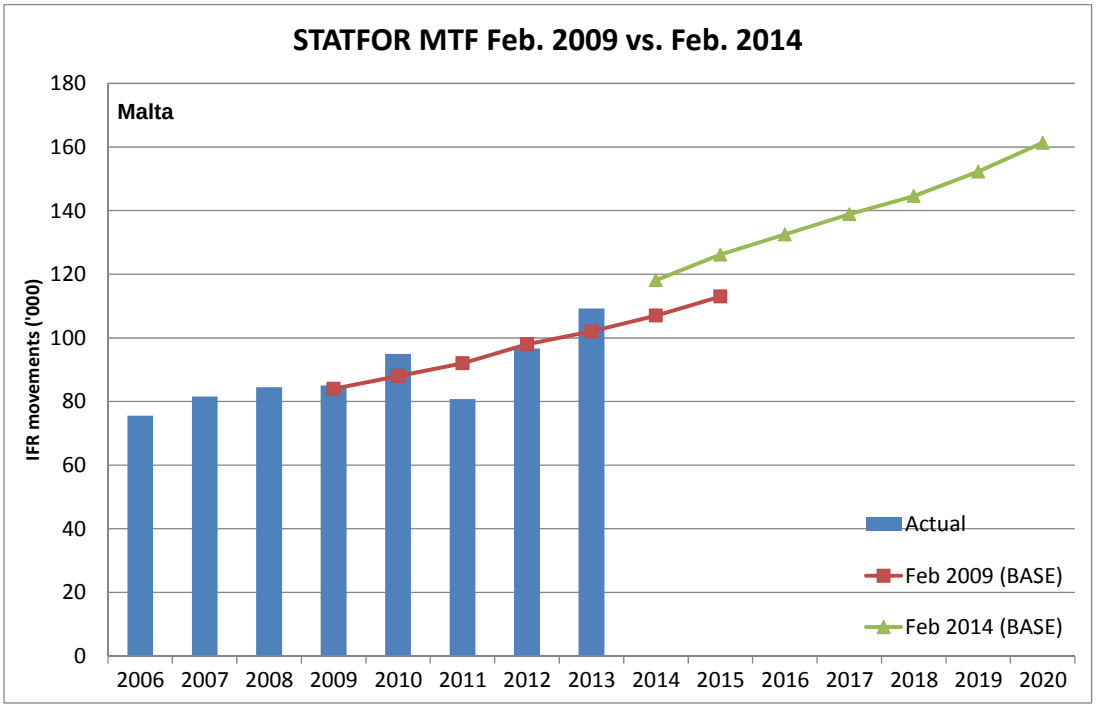


Figure 8: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Malta

1.2.16 There is no explicit mention in the FAB Performance Plan regarding the traffic forecast used by Malta.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Cyprus	B
	Greece	B
	Italy	B
	Malta	A
	FAB minimum level	*A*
ANSP level	Cyprus for Safety Culture MO	C
	Greece for Safety Culture MO	C
	Italy for Safety Culture MO	C
	Malta for Safety Culture MO	D
	FAB minimum level	*C*

	Cyprus for all other MOs	B
	Greece for all other MOs	B
	Italy for all other MOs	C
	Malta for all other MOs	C
	FAB minimum level	*B*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

RAT application current performance (2013)		CY	GR	IT	MT	FAB
Separation Minima Infringements (SMIs)	ATM Ground	71%	100%	100%	100%	93%
	ATM Overall	14%	100%	39%	100%	63%
Runway Incursions (RIs)	ATM Ground	100%	100%	73%	83%	89%
	ATM Overall	0%	100%	19%	83%	50.5%
ATM Specific Occurrences (ATM-S)	ATM Overall	0%	100%	69%	22%	48%

Table 2: Severity classification using the RAT methodology

1.3.3 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[3].

ENVIRONMENT

1.3.4 Current performance shows a marked improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.32 percentage points (from 3.16% in the first half of 2013 to 2.84% in the first half of 2014).

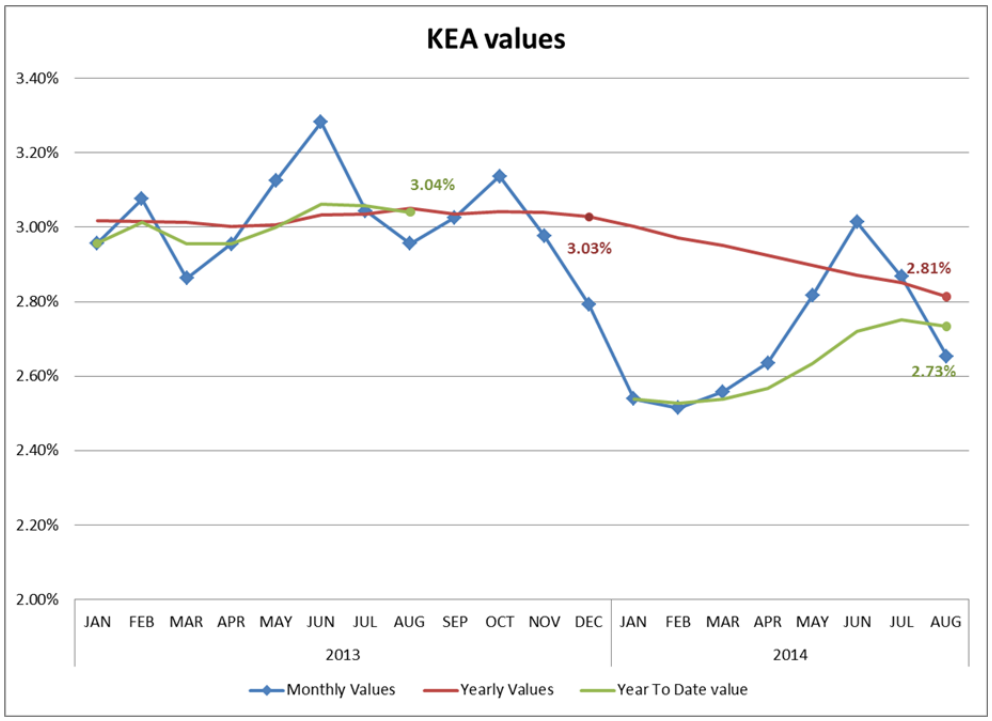


Figure 9: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.5 Current performance shows a marked improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of 0.31 percentage points (from 3.04% in the eight months of 2013 to 2.73% in corresponding period of 2014).

CAPACITY

1.3.6 The Blue Med FAB en-route capacity performance during RP1 was consistent with the Union-wide target for 2012 with 0.28 minutes per flight compared with a reference value of 0.34 minutes per flight. In 2013 the actual performance was 0.31 minutes per flight, slightly higher than the associated reference value of 0.28 minutes.

1.3.7 At national level, Italy, Malta and Greece provided positive contributions to the Union-wide capacity performance in both 2012 and 2013. With delays of 1.59 and 2.16 minutes per flight for 2012 and 2013, Cyprus did not provide sufficient capacity to be consistent with the Union-wide targets of 0.7 and 0.6 minutes per flight respectively.

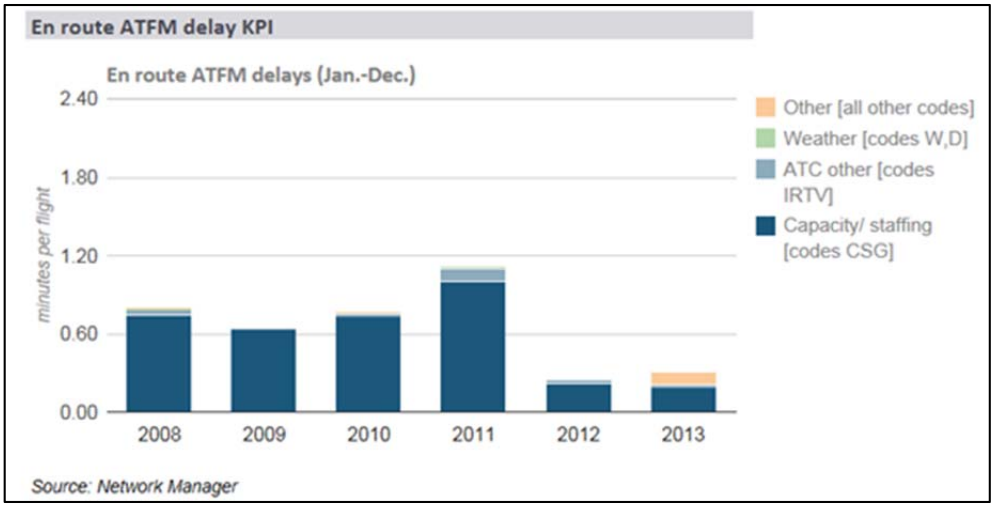


Figure 10: En-route ATFM delay

1.3.8 The performance in terms of arrival ATFM delay for the Blue Med FAB shows a steady improvement over the recent years and ranges below the European average. The share of capacity-related causes has reduced significantly.

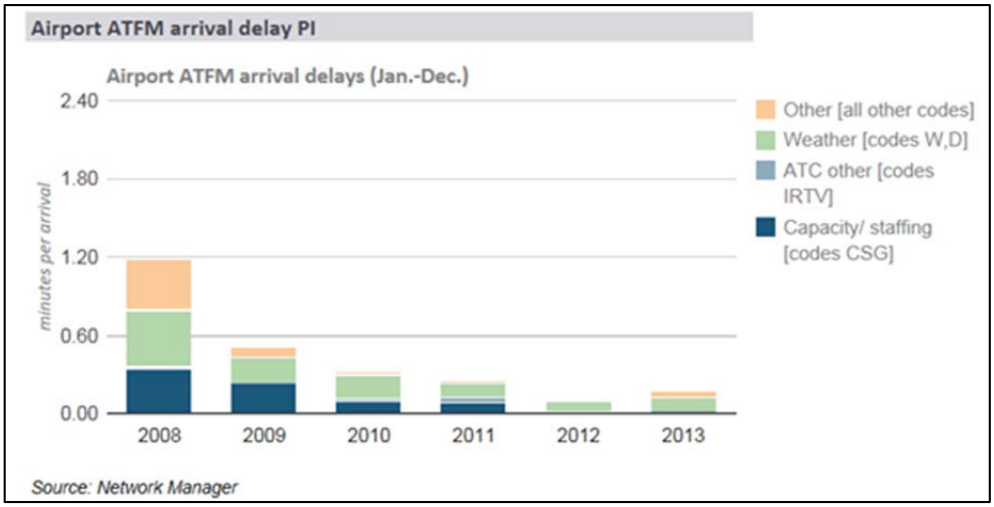


Figure 11: Airport ATFM arrival delay

COST EFFICIENCY

1.3.9 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the Blue Med FAB to complement the missing and/or incomplete elements as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in the section "1.3 - Stakeholder consultation" of the Performance Plan. The relevant papers are attached to the Performance Plan as "ANNEX A. PUBLIC CONSULTATION MATERIAL".

1.5.2 Seven consultation meetings were held at FAB and national level:

- Meeting #1, 11 June 2014: FAB RP2 Stakeholder Consultation.
- Meeting #2, 21 May 2014: bilateral Italy - IATA on Cost Efficiency.
- Meeting # 3, 04 June 2014: bilateral Greece - IATA on Cost Efficiency.
- Meeting #4, 30 May 2014: bilateral Cyprus - IATA on Cost Efficiency.
- Meeting #5, 13 June 2014: Cyprus with stakeholders on terminal charges.
- Meeting #6, 16 June 2014, Cyprus with ATC staff representatives.
- Meeting #7, 23 June 2014 Consultation meeting with Trade Unions organised by Malta Air Traffic Services Limited.

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Information on the outcome of the FAB consultation (including points of disagreement and reasons) has been made available to the PRB;
- No detailed information on the national consultations have been provided;
- The list of invited stakeholder is not attached to Annex A, only the list of actual attendees to the FAB level meeting has been made available to the PRB;
- There is no evidence that materials for the meeting were provided well in advance.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*B*	*B*	*B*	*C*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*B*	*B*	*B*	*C*	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*B*	*B*	*B*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The Blue Med EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 The current EoSM performance on the State level of one out of four FAB States (Malta) is at the minimum Level 'A' (not only related to existence and implementation of Safety Culture, but due to missing some core element of efficient Safety Oversight system).

2.1.3 Based on EASA verification results of the current performance it seems that the Blue Med FAB Member States (two out of the four FAB States have been visited by EASA hence their EoSM scores have been reviewed via 'thorough verification' methodology), in general, have overrated their EoSM performance.

2.1.4 Some of the States self-scored 'Safety Culture' aspects as Level 'C' (implementation and measuring); however, the replies did not correspond to what safety culture means. Therefore, these scores cannot be taken as reliable.

2.1.5 Therefore, although the PRB and EASA are confident that the Level 'C' target will be reached by 2019, the PRB recommends that the Blue Med FAB takes all concerns, related to the lack of or efficiency of some of the core element of efficient Safety Oversight system, seriously as only States which have mature safety oversight systems will be able to realise the benefits associated with safety management principles, and achieve further improvements in safety performance overall.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*80%*	*80%*	*80%*	*87.5%*	*100%*	✓
	RIs	*80%*	*80%*	*80%*	*87.5%*	*100%*	✓
	ATM-S	*72.5%*	*75%*	*80%*	*87.5%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*50%*	*65%*	*80%*	*88.75%*	*95%*	✓
	RIs	*50%*	*65%*	*80%*	*88.75%*	*95%*	✓
	ATM-S	*50%*	*65%*	*80%*	*88.75%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The Blue Med FAB severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 However, the Blue Med FAB has reported different figures for the RAT methodology application for ATM-S for ATM Ground and ATM Overall. This should not be the case as these values should be the same (i.e. the ANSP target established for 'ATM Ground' severity should be identical to the NSAs/States target established for 'ATM Overall' severity). Therefore, the PRB expresses concern as it appears some Blue Med States may not be aware how classification of ATM-S occurrences should be performed. Furthermore, the PRB recommends that the Blue Med FAB clarifies this information.

2.2.3 Based on the current performance in 2012 and 2013 (no additional information regarding possible actions is available in the FAB Performance Plan) the PRB is concerned how the Blue Med FAB will improve the application of the RAT methodology given the current levels of performance and meet targets set for ATM Overall. Therefore, the PRB will be closely monitoring the introduction of the RAT methodology at State level (especially for ATM-S).

2.2.4 While the PRB believes that it may be possible for the Blue Med FAB to achieve the

forecasted targets, it is suggested that improvements and progress in this area should be closely monitored.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The Blue Med FAB indicates in its Performance Plan that a common FAB approach in certain areas for Just Culture improvements **has been established**. Both the Blue Med NSAs and ANSPs indicate that a safety policy clearly indicating their commitment to Just Culture principles has been adopted.

2.3.3 However, apart from the statement that the Blue Med FAB Member States and their ANSPs are working together to enhance cooperation in order to ensure that a Just Culture environment is maintained, there is no additional information provided that further explains this action plan. As a result, it is not clear what has been achieved with regards to Just Culture so far and what is planned for the future at the FAB level.

2.3.4 In addition, the BLUE MED Performance Plan mentions that measurable Just Culture targets have been set and will be monitored at FAB Governing Body level and FAB ANSP Committee level. The Performance Plan also mentions that the optimisation of Just Culture at both State and ANSP level will be based on the annual monitoring of the Just Culture measurement. However, it is not clear to the PRB how this target will be effective since there is no scoring with regards to Just Culture in the annual monitoring exercise.

2.3.5 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has not been set** and that information explaining the elements in place to promote the application of Just Culture is not provided.

2.4 Key points

2.4.1 The PRB is confident that the Blue Med FAB will be able to meet Union-wide EoSM and the RAT application targets.

2.4.2 The PRB recommends that the Blue Med FAB States who have not yet effectively implemented the eight critical elements of a safety oversight system to resolve these deficiencies as soon as possible in order to develop a sound foundation for their State Safety Programmes (SSPs).

2.4.3 The Blue Med FAB has reported different targets for the RAT methodology application for ATM-S for ATM Ground and ATM Overall (while it should not be the case). The PRB recommends that this information is clarified.

2.4.4 In addition, the PRB suggests that improvements and progress in ATM Overall

severity assessment should be closely monitored in the Blue Med FAB.

2.4.5 The local/FAB target for the level of presence or absence of just culture is only formally set. However, there are no details about common FAB approach in areas of Just Culture.

2.4.6 In addition, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	2.78%	2.70%	2.62%	2.54%	2.45%
FAB Target	*2.78%*	*2.70%*	*2.62%*	*2.54%*	*2.45%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The Blue Med FAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 The Blue Med FAB has adopted four additional indicators, but without the associated targets.

3.3 Incentives

3.3.1 No incentives have been adopted in the environment KPA.

3.4 Key points

3.4.1 The Blue Med FAB has adopted annual targets which are consistent with the reference values.

3.4.2 The Blue Med FAB should provide the targets for the four additional indicators adopted.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.17	0.18	0.18	0.18	0.18
FAB Target	*0.35*	*0.36*	*0.37*	*0.37*	*0.38*
Consistency check	✘	✘	✘	✘	✘
Shortfall	**0.18**	**0.18**	**0.19**	**0.19**	**0.20**

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The Blue Med FAB en-route capacity targets are **not consistent** with the respective FAB reference values, for each year of RP2. The anticipated additional cost to airspace users is approx. €192 million over RP2.

Cyprus during RP1	2012	2013	2014
Reference Value	0.93	0.59	0.30
National Target	1.9	1.7	1
Actual Performance	1.59	2.16	

Table 7: National targets versus actual performance in RP1 for Cyprus

Greece during RP1	2012	2013	2014
Reference Value	0.37	0.32	0.26
National Target	1.1	1.0	0.95
Actual Performance	0.15	0.06	

Table 8: National targets versus actual performance in RP1 for Greece

4.1.2 The national capacity targets for both Cyprus and Greece were set at very different levels from the effort required to be consistent with the Union-wide capacity target of 0.5 minutes per flight in 2014.

4.1.3 In the case of Cyprus, it is possible that since the actual performance in 2012 surpassed the national target, the ANSP decided to postpone the implementation of critical capacity enhancements. This resulted in an increased capacity deficit in 2013, which highlights the importance of insisting that ANSPs implement capacity in advance of traffic levels.

4.1.4 In the case of Greece, it is difficult to understand the justification for such conservative national capacity targets, in light of the excellent capacity performance in 2012 and 2013, which provided a positive contribution to the achievement of the Union-wide capacity targets.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.5 The Blue Med FAB has adopted capacity targets that are not consistent with the Union-wide capacity targets for the years 2015-2018 in RP2.

4.1.6 No other FAB has adopted capacity targets that would make up for such a shortfall in capacity.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

Year	2015	2016	2017	2018	2019
Annual reference value	0.17	0.18	0.18	0.18	0.18
Delay forecast full year	0.55	0.53	0.65	0.64	0.85

Table 9: Extract from Network Operations Plan 2014-2019

4.1.7 The latest Blue Med FAB ANSP capacity plans (from the NOP 2014-2019, June 2014)) indicate that a capacity deficit is expected for each year of RP2. Analysis of the individual capacity plans for the various ANSPs reveals that:

- DCAC (Cyprus): The capacity gap is expected to increase in Nicosia ACC over the second reference period. The chart below shows how Nicosia ACC is expected to have less capacity in 2019 than it already provided in 2012. It also shows how the capacity plans have continuously been downgraded and postponed.

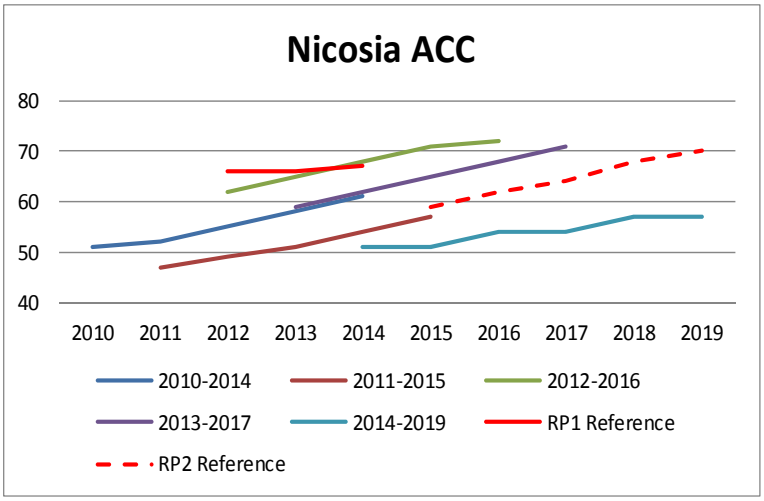
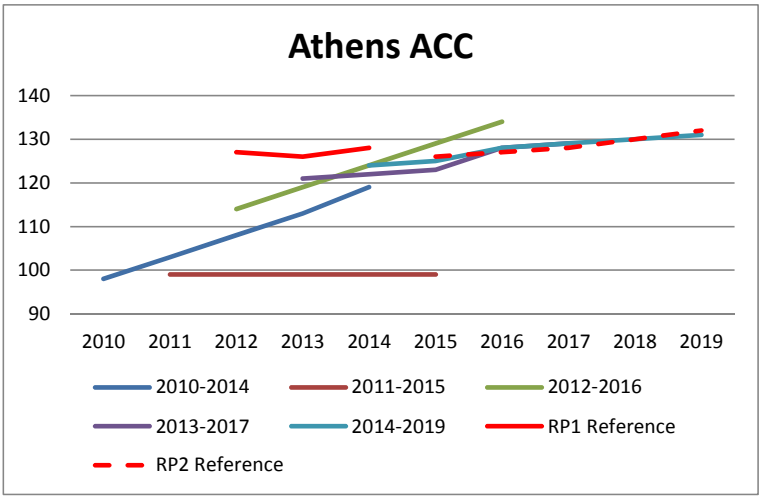


Table 10: Development of capacity plans for Nicosia ACC

- ENAV (Italy): The existing capacity plans for Italy are consistent with the expected performance to meet the Union-wide targets during RP2.
- HANSP (Greece): The ANSP in Greece has made continued efforts to increase

capacity in both ACCs. Further capacity improvements are planned which are expected to meet the required capacity performance in Athens ACC, although a small capacity deficit is expected in Makedonia ACC from 2017 onwards.



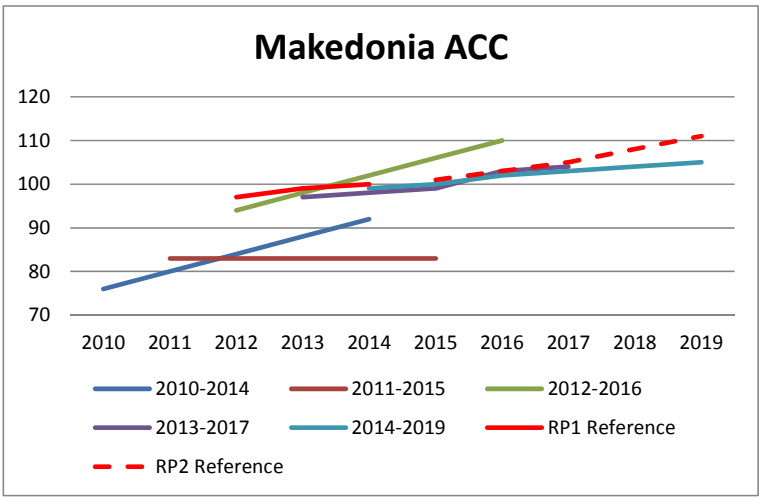


Table 11: Development of capacity plans for Athens and Makedonia ACCs

- MATS (Malta): The existing capacity plans for Malta are considered sufficient to handle the expected traffic with no delay during RP2.

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.8 When aggregated, using the STATFOR 7 year baseline forecast (February 2014), the contributions of the respective ANSPs foretell a significant capacity deficit for each year of RP2.

Year		2015	2016	2017	2018	2019
FAB reference value		0.17	0.18	0.18	0.18	0.18
ANSP contribution	DCAC Cyprus	1.50	1.50	1.50	1.50	1.50
	HCAA	0.70	1.40	1.00	0.60	0.50
	ENAV	0.09	0.10	0.11	0.11	0.11
	MATS	0.01	0.02	0.02	0.02	0.02
Aggregated ANSP contribution		**0.48**	**0.69**	**0.59**	**0.48**	**0.45**

Table 12: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.9 No information was provided on how the FUA legislation would be applied to provide additional capacity for general air traffic.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.10 Greece has provided a positive contribution to the Union-wide capacity targets for both 2012 and 2013, with an actual delay of 0.15 and 0.06 minutes per flight respectively. It by far exceeded the national capacity targets of 1.1 and 1.0 minutes per flight for the same years.

4.1.11 Malta and Italy have provided excellent capacity performance during RP1 with zero delay.

4.1.12 Cyprus has provided a level of capacity that has been inconsistent with the effort required to meet the Union-wide targets for 2012 and 2013. There have been high levels of delay in Nicosia ACC of 1.59 and 2.16 minutes per flight for each year, the highest level of delay throughout the Network.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Cyprus	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Greece	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Italy	*0.9*	*0.9*	*0.9*	*0.9*	*0.9*
Malta	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*

Table 13: National target on average arrival ATFM delays [minutes per arrival]
n/a – no national target established

4.2.1 The scope of the Blue Med FAB Performance Plan comprises the terminal air navigation services at two airports in Cyprus (i.e. LCLK, LCPH), one airport in Greece (i.e. LGAV), five airports in Italy (i.e. LIMC, LIME, LIML, LIPZ, LIRF), and one airport in Malta (i.e. LMML).

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The Blue Med FAB Performance Plan sets a national target on arrival ATFM delay for Italy and Malta. No national target is quantified for Cyprus and Greece. Each Member State provides a breakdown per airport for each of the years of the reference period.

4.2.3 In all cases, no particular description and explanation of the target, and the contribution to improvement of performance is provided. Italy and Malta establish a constant target across the reference period which frames the projected growth of air traffic.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.4 For Cyprus, the historical performance observed at LCLK is broadly in line with the proposed local monitoring value. With a fairly stable number of yearly IFR arrivals, LCPH shows a significant increase of the average arrival ATFM delay throughout the last two years. The proposed local breakdown of 0.1 minute per arrival presents an optimistic lower bound of the performance observed throughout 2009-2011. The plan lacks of evidence how the anticipated contribution of LCPH of 0.1 minute per arrival shall be attainable. The declared goal is a “zero delay” for arriving aircraft.

4.2.5 For Greece, the local value for monitoring arrival ATFM delay is set at 0.1 minute per arrival. The performance observed at LGAV shows a considerable level of average arrival ATFM delay for 2009-2011, while in 2012 and 2013 the delay was negligible and correlates with the observed decrease of air traffic at LGAV. A declared goal for LGAV is a “negligible average delay per arriving flight”, however, the plan provides no explanation how this level of performance can be achieved.

4.2.6 For Italy, the national target is conservative ranging well above (~2/3 minute per arrival) the average arrival ATFM delay performance observed in Italy. This padding behaviour is observable at all airports and accumulates to the spread observed on the national level.

4.2.7 During the past five years, Malta (i.e. LMML) shows a shallow but steady increase in yearly air traffic while not accruing arrival ATFM delay. The established national target is in line with the historical performance and allows for operational variability.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.8 All Blue Med FAB Member States provide a breakdown of the local contributions per airport across RP2, however, with varying level of consistency:

- the national target for Malta reflects the contribution of the only airport subject to RP2, and is thus consistent; whereas
- Cyprus and Greece fail to establish a national target.
- for Italy, the plan provides no reasoning for the contribution of each airport to the

national target or motivates the spread observed in comparison to the historical performance achieved in the last 5 years.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.9 Traffic across the Blue Med FAB airports is subject to seasonal variability and as such arrival constraints due to airport capacity need also to be balanced with the seasonal effects and the level of congestion at the airport.

4.2.10 Within its class, Malta consistently shows the behaviour of a non-congested airport that is able to absorb peak arrival phases without having an impact on the European network.

4.2.11 In the case of Cyprus, the significant increase in arrival ATFM delay throughout the last two years was mentioned above. Considering the level of traffic at LCPH major local capacity constraints are prevailing. Despite traffic levels < 50.000 movements per year, LCLK ranges above the European average in terms of arrival ATFM delay reported throughout RP1.

4.2.12 Within the group of European airports with a number of yearly IFR movements ranging between 300-400.000 movements, Rome Fiumicino (LIRF) shows a low level of arrival ATFM delay with a high share of reported weather-related causes. The other Italian airports range below the European average and the share of accrued arrival ATFM delay is in line with airports with a similar traffic volume and seasonal peak traffic.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.13 The plan does not list or discuss anticipated benefits from planned initiatives and how these activities may positively impact the performance.

Primary check:

- *Other justifications provided*

4.2.14 The Blue Med FAB Performance Plan provides no further justification concerning ATFM delay attributable to terminal or aerodrome ANS.

4.3 Additional indicators

EN-ROUTE

4.3.1 The Blue Med FAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The Blue Med FAB Performance Plan presents no additional indicators for airport capacity for Cyprus, Greece, and Malta.

4.3.3 Italy establishes an additional indicator (i.e. percentage of ATM delay over all ATFM delay reasons, excluding exceptional events, attributed to all IFR arrivals). The

associated national target is set at 0.045 minutes per arrival and broken down to all airports subject to RP2. The additional indicator can be mapped to CRSTMP causes and is in line with the exemption clauses for the incentive scheme on capacity-related targets. Conceptually, the national target on percentage of ATM delay supports the national target on arrival ATFM delay – all causes - as specified in Section 3.1.(c).(ii) of the Blue Med FAB Performance Plan.

4.4 Incentives

EN-ROUTE

4.4.1 Table 14 lists the Incentives for the en-route included in the Performance Plan which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance
ENAV (Italy)	No	Yes	Yes	Yes	No
DCAC (Cyprus)	No	No	No	No	No

Table 14: Incentives on en-route Capacity

4.4.2 There are no incentive schemes for en-route capacity for either Malta or Greece.

4.4.3 Neither of the incentive schemes listed use FAB performance as a criterion.

4.4.4 When the incentive scheme for Cyprus is compared with Article 12 of the performance Regulation and Article 15 of the charging Regulation:

- It is neither proportional nor effective;
- It is not transparent;
- No information was provided so the regulatory framework is unknown;
- The capacity targets are not defined. If they relate to the ANSP contribution of 1.5 minutes per flight, they do not foster a high level of performance.

4.4.5 When the incentive scheme for Italy is compared with Article 12 of the performance Regulation and Article 15 of the charging Regulation:

- Although the bonus/penalty is symmetrical around a target value, the fixing of the bonus/penalty at €770 000 per 0.01 minutes of flight appears inconsistent with the limit of 1% of ANS revenue.
- It is transparent;
- The regulatory framework is known;
- There is no evidence to show how the specified annual target values will ensure the FAB target for en-route capacity will be met

AIRPORT

4.4.6 The Blue Med FAB Performance Plan presents no incentive schemes for the national targets on arrival ATFM delay.

4.4.7 In the case of Italy, a reference is provided that the establishment of an incentive scheme for terminal ANS may be reviewed throughout RP2.

4.5 Key points

EN-ROUTE

4.5.1 The Blue Med targets for en-route capacity are inconsistent with the respective FAB reference values for each year of RP2.

4.5.2 The Blue Med ANSP en-route capacity plans are inconsistent with the FAB reference values.

4.5.3 The individual ANSP contributions are inconsistent with the expected level of capacity performance.

4.5.4 The capacity incentive schemes for the Blue Med FAB are not consistent with the requirements of the performance Regulation and/or of the charging Regulation.

AIRPORT

4.5.5 The plan sets national targets on arrival ATFM delay for Italy and Malta. No quantitative national target is established for Cyprus and Greece.

4.5.6 The national target for Malta is realistic and consistent with the observed historical performance. The Italian target is conservative (about 2/3 minute per arrival above historical average with substantial paddings for each airport) without providing further explanation or description of anticipated capacity constraints that may suggest the established target. The local monitoring values for Cyprus and Greece are in line with the declared policy of aiming for negligible shares of arrival ATFM delay. The resulting values of 0.1 minute per arrival pose a challenging lower bound for the airports in Cyprus and Greece.

4.5.7 No evidence is provided concerning the justification or anticipated benefits from planned activities that may positively influence the level of performance.

4.5.8 Italy established an additional indicator that is in support of the national target on arrival ATFM delay and targets a subset of the possible delay causes (i.e. ATM delay causes).

4.5.9 The Blue Med FAB Member States have not established an incentive scheme for the national targets on arrival ATFM delay.

5 COST-EFFICIENCY

5.1 Cyprus: Setting the scene for the RP2 cost-efficiency assessment

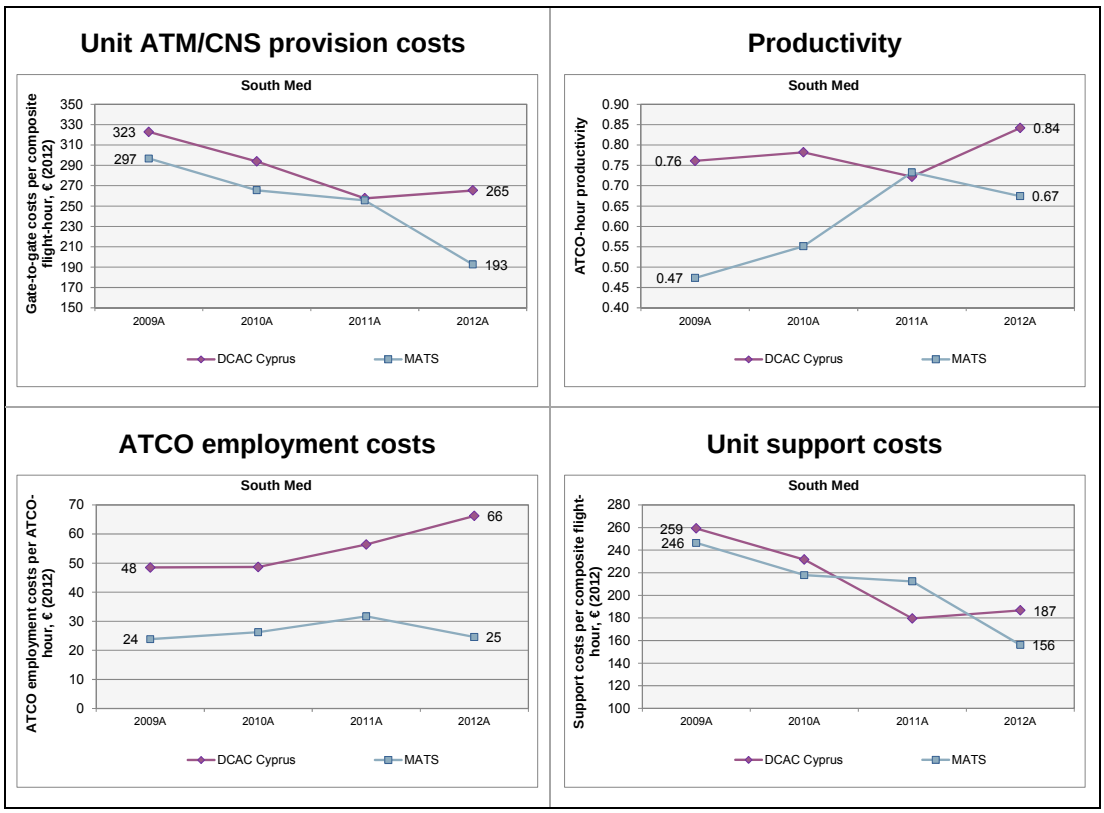
5.1.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate to gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of DCAC Cyprus, the main ATSP in Cyprus, which represents around 38 M€$_{2012}$ in 2012 (or some 0.5% of the SES overall gate-to-gate ATM/CNS costs).

5.1.2 In the context of the ACE benchmarking analysis, an ATSP's performance is often compared to other European ATSPs operating in a similar economic and operational environment (so called "comparators or peer group"). DCAC Cyprus is part of the "South Med" comparator group, also including MATS (Malta).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- DCAC Cyprus' productivity (0.84) is +24.8% higher than MATS (Malta) (0.67);
- Employment costs per ATCO-hour (66 €$_{2012}$) are +1.7 times higher than MATS (Malta) (25 €$_{2012}$); and,
- Support costs per composite flight-hour (187 €$_{2012}$) are 19.6% higher than MATS (Malta) (156 €$_{2012}$).

5.1.4 As a result, DCAC Cyprus' unit ATM/CNS provision costs (265 €$_{2012}$) were +37.8% higher than MATS (Malta) in 2012 (193 €$_{2012}$).



5.1.5 The PRB 2013 monitoring analysis indicates that DCAC Cyprus actual en-route costs for 2013 were lower than planned (-1.2 M€$_{2009}$). The impact of the higher traffic than planned (+0.5%) on DCAC Cyprus revenues added to this gain. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, DCAC Cyprus generated a net gain of 1.3 M€$_{2009}$ in

2013 on the en-route activity. However, when estimating DCAC Cyprus economic surplus, it is important to account for the profit embedded in the cost of capital (some 2.0 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 3.3 M€$_{2009}$, which implies an ex-post rate of return on equity of 10.0% (compared to 6.1% as initially planned in the NPP). This adds to the gains generated by DCAC Cyprus in 2012 (+3.0 M€$_{2009}$ or 9.5% of en-route revenues leading to an ex-post rate of return on equity of 8.7%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	31,097	30,779
Actual costs for the ATSP	30,358	29,881
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	739	898
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	213	259
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**952**	**1,157**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-0.13%	0.50%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-41**	**157**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	911	1,314

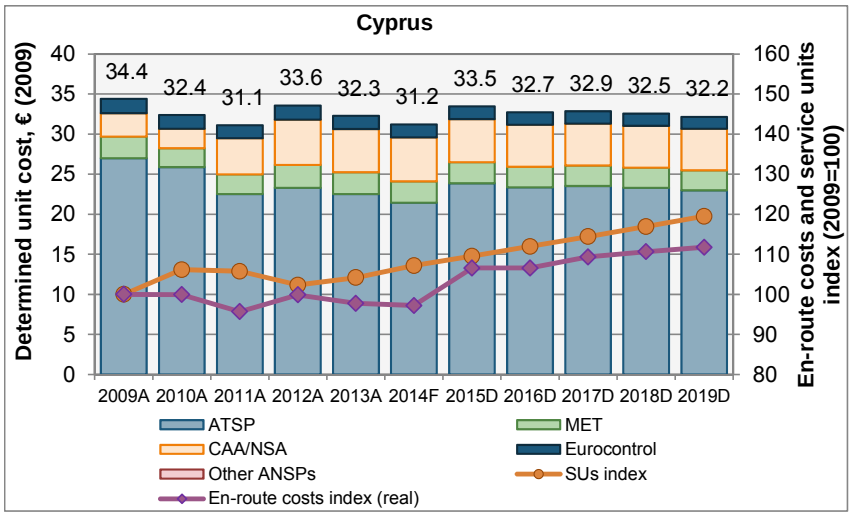
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	2,056	2,035
Overall estimated surplus (+/-) for the en-route activity	2,967	3,349
Revenue/costs for the en-route activity	31,269	31,194
Estimated surplus (+/-) in percent of en-route revenue/costs	**9.5%**	**10.7%**
Estimated ex-post RoE pre-taxe rate (in %)	**8.7%**	**10.0%**

Table 15: DCAC CYPRUS estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.2 Cyprus: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	26.98	25.89	22.51	23.29	22.52	21.43	23.86	23.35	23.54	23.29	23.00	0.3%	1.4%
MET	EUR (2009)	2.71	2.37	2.48	2.88	2.71	2.67	2.64	2.57	2.55	2.53	2.50	0.1%	-1.3%
CAA/NSA	EUR (2009)	2.94	2.40	4.50	5.65	5.41	5.49	5.38	5.26	5.24	5.22	5.18	1.8%	-1.1%
Eurocontrol	EUR (2009)	1.77	1.72	1.63	1.75	1.63	1.61	1.59	1.56	1.54	1.51	1.48	-1.2%	-1.6%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**34.39**	**32.38**	**31.12**	**33.57**	**32.27**	**31.20**	**33.46**	**32.74**	**32.86**	**32.54**	**32.16**	**0.4%**	**0.6%**

Figure 12: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	43.8	44.9	44.5	47.8	47.0	47.3	52.7	53.6	55.9	57.6	59.4
Inflation rate	annual % change		2.5%	3.5%	3.1%	0.4%	1.2%	1.6%	1.7%	1.7%	1.8%	2.0%
Inflation index	2009=100	100.0	102.5	106.1	109.4	109.8	111.1	112.9	114.8	116.8	118.9	121.3
Determined costs	EUR m (2009)	43.8	43.8	41.9	43.7	42.8	42.6	46.7	46.7	47.9	48.5	49.0
Service units	'000s	1,273	1,352	1,347	1,303	1,327	1,365	1,395	1,426	1,457	1,489	1,522
Determined unit cost	EUR (2009)	34.39	32.38	31.12	33.57	32.27	31.20	33.46	32.74	32.86	32.54	32.16
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	34.39	32.38	31.12	33.57	32.27	31.20	33.46	32.74	32.86	32.54	32.16

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	3.1%	3.7%	4.6%	3.0%
Inflation	CAGR %	1.9%	1.7%	1.8%	1.8%
Determined costs	EUR m (2009)	1.1%	2.0%	2.8%	1.2%
Service units	'000s	1.8%	1.5%	2.2%	2.2%
Determined unit cost	EUR (2009)	-0.7%	0.4%	0.6%	-1.0%
Exchange rate					
Determined unit cost	EUR (2009)	-0.7%	0.4%	0.6%	-1.0%

Table 16: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	YES

The determined costs (DCs) and planned TSU for the year 2014 have been updated in the light of the latest traffic and costs level context. The updated TSU forecast for 2014 is +1.9% higher than planned in the RP1 NPP whereas Cyprus records +4.5% actual TSU growth (situation after 8 months) or +3.5% vs the TSU planned for 2014 in the RP1 NPP. The updated costs forecast is 47.3 M€, -6.8% lower than planned. As a result the starting point for RP2 is in line with the latest actuals.

According to the Performance Plan and Reporting Tables, plans are currently underway in Cyprus to corporatize the ATSP, DCAC Cyprus (it is currently a government department with a cash budget). It is noted in the Performance Plan that this will likely alter the RP2 forecasts for the assumed ATSP entity, and that there will be additional restructuring costs relating to this.

The PRB also notes that Cyprus has initiated a restructuring process for the Civil Aviation Authority to ensure the new ANSP will be "*effectively overseen by an adequately resourced NSA*".

Key points for Cyprus en-route charging zone	
1. Traffic forecast assumptions:	**Not passed**

Forecast total en-route TSUs for the Cyprus en-route charging zone are lower than the STATFOR February 2014 low case forecasts. The updated 2014 TSU forecast is + 4.5% higher than the 2013 actual, and + 3.5% higher than the determined value in the RP1 Performance Plan. The PRB notes that this increase is lower than the latest actuals for 2014 to date (January – June 2014), which show traffic is +3.7% higher than the equivalent period in 2013 and +2.7% higher than the RP1 determined value. The justification reported in the Performance Plan by Cyprus is that it has not used the STATFOR forecasts as "*significant deviations between forecast and actual figures have been observed in the last few years*" and that "*STATFOR's forecasts are too optimistic*".

Over RP2 Cyprus forecast traffic increases of +2.2% p.a., lower than the +4.0% forecast in the STATFOR February 2014 low case. As a result, forecast traffic in the Performance Plan for 2019 is -9.5% lower than the STATFOR February 2014 low case.

2. Economic assumptions:	**Not passed**

The inflation value provided for 2013 is equivalent to EUROSTAT HICP. Inflation forecasts for 2014, 2015 and 2019 are not equivalent to the IMF average inflation rate forecast published in April 2014 (2016-2018 are equivalent).

The inflation forecast provided in the Performance Plan for 2014 (1.2%) is higher than the IMF forecast (0.4%). The IMF forecast is also lower in 2015 and 2019. The resulting index (2009=100) in in 2019 using the Performance Plan is 121.3, 1.3 points higher than the Eurostat/IMF forecast index of 120.0. No rationale was provided in the Performance Plan to support the inflation forecasts provided.

3. En-route DUC trend:	**Not passed**

Annual average % changes in DUCs are worse than the Union-wide targets for all periods analysed. Over the period 2014-2019 Cyprus plans an increase in the DUC of +0.6% compared to the target reduction of -3.3% p.a. Planned changes over 2011-2019 (+0.4%) are also worse than the Union-wide target (-1.7% p.a.). These increases are driven by a combination of low levels of forecast traffic growth, as well as increases to the DCs.

Annual average percentage changes in DCs are worse than the changes underpinning the Union-wide DUC targets for all periods analysed:

- 2014-2019: Cyprus plans DCs increases of +2.8% p.a. compared to the DCs profile underpinning the Union-wide target of -2.1%; and
- 2011-2019: Cyprus plans +2.0% p.a. compared to -0.8%.

The primary driver of DCs increases is in other operating costs (in part driven by increases in VAT, which have been claimed as costs exempt in 2012 and 2013) and also cost of capital, which increases significantly over the period (+2.0 M€$_{2009}$ or +5.9% p.a.). The bulk of this increase occurs in 2015 where the cost of capital increases by +138% on the 2014 value. The Performance Plan states that this is due to "*the economic recession of the State*". The PRB notes however that the yields of government bonds with maturities of close to ten years was +6.3% on average over the period 2011-2014 (European Central Bank). Rates have decreased from an average high of +7.0% in 2012 to +6.0% in 2014.

The PRB notes that with the significant DCs increase seen in 2015 in the ATSP entity, in particular the 138% increase in the cost of capital, the surplus generated in 2012 and 2013 does not appear to be accounted for in RP2.

4. En-route DUC level:	**Not passed, with reservations**

Cyprus' en-route charging zone DUC level in 2019 is planned to amount to 32.16 €$_{2009}$, which is +14.4% higher than Malta (the other ATSP in its comparator group, 28.12 €$_{2009}$). The PRB also notes that it is -37.2% lower than the Union-wide average for that year (51.26 €$_{2009}$).

5. En-route cost of capital:	**Not passed**

The Weighted Average Cost of Capital (WACC) rate used to calculate the cost of capital for DCAC Cyprus (13.5% - 12.5% over RP2) is significantly higher than the upper bound of the range of values calculated with the methodology laid down in Annex C guidance. The majority of the assumptions used for the different components of the WACC calculation are outside the range of recommended values. A high WACC should not be justified by "*the economic recession of the State"*; in addition the PRB notes the yields of long term (10 year) government bonds in Cyprus averaged +6.3% over the period 2011-2014 (European Central Bank).

The PRB notes that as a government department, the ATSP, METSP and NSA in Cyprus do not plan any gearing in their capital structures for RP2, although this may change for DCAC Cyprus if it is corporatized as planned.

The pre-tax rate of return on equity (RoE) that is set for DCAC Cyprus over RP2 ranges from 13.5% to 12.5% p.a. for each year of RP2. The monetary value of the RoE for DCAC Cyprus is approximately 4.3 M€$_{2009}$ in each year of RP2, significantly higher than the maximum

traffic risk exposure which will be borne by DCAC Cyprus over RP2 (approximately 1.5 M€$_{2009}$ in each year of RP2, using a forecast that is lower than the STATFOR low case).

In 2015, Cyprus' en-route asset base per SU (23 €$_{2009}$) is slightly higher than the comparator group average of ATSPs excluding Cyprus (19 €$_{2009}$). This is expected to reduce over RP2 to 22 €$_{2009}$ per SU in 2019 which is +10.6% higher than the group average (20 €$_{2009}$), but -44.5% lower than the unweighted Union-wide average (40 €$_{2009}$).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not Passed**

The Performance Plan comprises some information about the underlying pension costs assumptions for the defined benefits (DB) scheme for each entity. However if it is really a DB scheme managed at State Level, some information such as the contribution rate and the salary base on which it is applied are missing, as well as information about the discount rate used.

No information on interest rates on loans is provided as there is currently no gearing in the ATSP (or indeed any other entity) capital structure planned for RP2.

7. Costs exempt from risk sharing:	**Passed**

Cyprus Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 6. above). The elements have been described qualitatively only, limited quantitative parameters have been provided and the State has not noted the authority responsible for the decision whether they are valid.

Overall consistency assessment of Cyprus en-route cost-efficiency KPI

Taking into account these key points, in particular 1 to 5, Cyprus' en-route cost-efficiency target is assessed as <u>not</u> being consistent with, and <u>not</u> making an adequate contribution to, the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the Blue Med FAB to adopt a revised Performance Plan, and specifically for Cyprus to revise its en-route cost-efficiency target, including, to:

a) Revise its RP2 TSU forecasts in the light of the evolution of traffic in 2014;

b) Revise its inflation forecasts for 2014 and RP2 to be in line with IMF; and

c) Revise its DCs downward over RP2, in particular in respect of the cost of capital (to ensure that it better reflects the revenue risk actually faced by Cyprus); and,

d) Complete information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance.

The PRB also advises the Commission to issue a request to the Blue Med FAB to provide regular updates to the Commission and the PRB on the corporatisation process for Cyprus' en-route ATSP and the restructuring process of the Civil Aviation Authority.

5.3 Cyprus: Overview of terminal charging zone assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this terminal KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the Performance Plan there is one terminal charging zone (TCZ) in Cyprus for RP2. This TCZ comprises two airports: Larnaka Intl (LCLK) and Pafos Intl (LCPH). Neither of these airports has over 70,000 IFR movements per annum.

Traffic risk sharing does not apply in this TCZ. There has been no change in the number of airports included in TCZ between 2014 and 2015.

The Cyprus TCZ covers 92.5% of terminal navigation SU (TNSU) traffic in Cyprus.

In the Performance Plan, Cyprus points out that no separate TNC are currently established.

Note: There is a potential compliance issue with the charging Regulation for the Cyprus TCZ as no separate TCZ with a specific terminal unit rate are yet established. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance", which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements).The outcome of this process will have an impact on whether the plan is accepted by the European Commission.

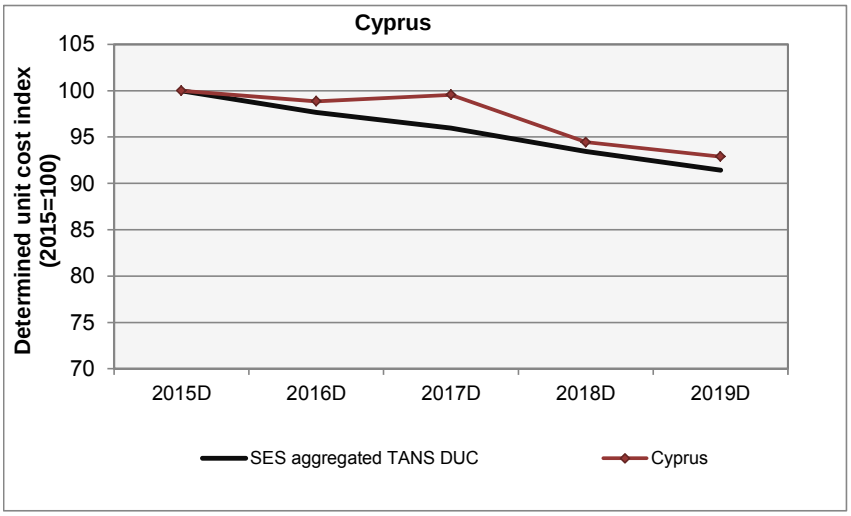


Figure 13: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	8.1	8.2	8.4	8.7	9.0	2.5%
Inflation rate *	annual % change	1.6%	1.7%	1.7%	1.8%	2.0%	1.8%
Inflation index *	2009=100	112.9	114.8	116.8	118.9	121.3	
Determined costs	EUR m (2009)	7.2	7.1	7.2	7.3	7.4	0.7%
Terminal SUs	'000s	38.9	39.2	39.4	42.0	43.1	2.6%
Determined unit cost	EUR (2009)	184.44	182.35	183.63	174.20	171.34	-1.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	184.44	182.35	183.63	174.20	171.34	-1.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 17: Terminal DUC breakdown

Key points for the Cyprus terminal charging zone	
1. Traffic forecast assumptions:	**Not passed**
Forecast total Terminal Navigation Service Units (TNSUs) for the Cyprus TCZ are slightly lower (-0.2% in each year) than the STATFOR February 2014 low case forecast in each year of RP2. Average annual growth over RP2 for the two forecasts is equivalent. There is virtually zero growth planned in terms of TNSUs between 2015 and 2017. The PRB notes that significant decline in terminal traffic has been seen in recent years, with traffic decreasing -9.6% between 2012 and 2014.	
2. Economic assumptions:	**Not passed**
The inflation data provided for the Cyprus TCZ is in line with the en-route assumptions however these are not equivalent to the IMF forecasts for RP2.	
3. Terminal ANS DUC trend:	**Not passed**
The Terminal ANS DUC trend over 2015-2019 (-1.8%) is worse than SES aggregated Terminal ANS DUC taken from RP2 Performance Plans (-2.2%) for the 2015-2019 period.	
4. Terminal cost of capital:	**Not passed**
The traffic risk sharing mechanism is not applied in the Cyprus TCZ. The Return on Equity (RoE) used to calculate the cost of capital for the TCZ is approximately 8.7% in each year of RP2, which is lower than that used to calculate the RoE for en-route ANS. The PRB notes however that the RoE used to calculate the WACC for the Cyprus TCZ is higher than the "efficient" values calculated with the methodology laid down in Annex C guidance.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The information provided in the Performance Plan for the description economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Cyprus terminal ANS cost-efficiency KPI
Taking into account the above key points, in particular 1, 2, 3 and 4, the Blue Med FAB Performance Plan and in particular the Cyprus terminal ANS cost-efficiency target is assessed as <u>not</u> being consistent with the criteria laid down in Annex IV of the performance Regulation. **Therefore the PRB advises the Commission to issue a Recommendation to the Blue Med FAB to adopt a revised Performance Plan, and specifically for Cyprus to revise its terminal ANS cost-efficiency target, including to:** **a) Revise its RP2 TNSU forecasts in the light of the evolution of traffic in 2014;** **b) Revise its inflation forecasts for 2014 and RP2 to be in line with IMF; and,** **c) Revise downward its DUC and DCs, in particular its RoE/WACC in the light of the risk actually faced by the ATSP in Cyprus.**

5.4 Greece: Setting the scene for the RP2 cost-efficiency assessment

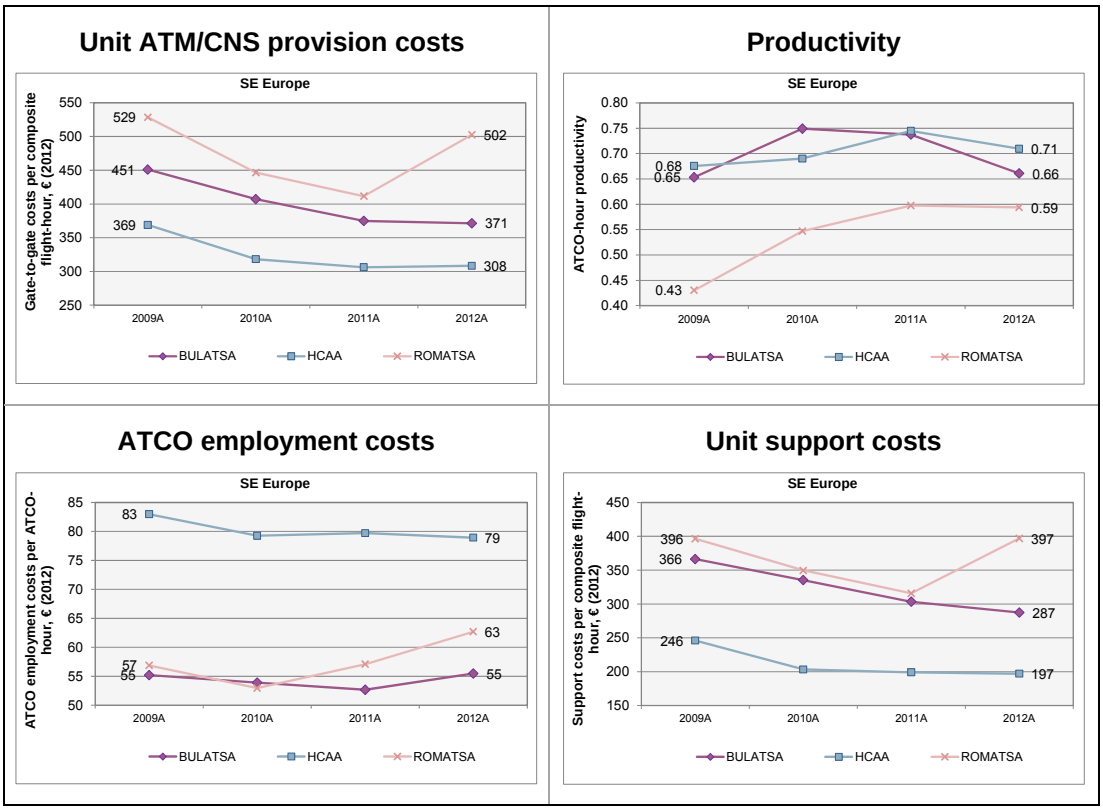
5.4.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate to gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of the main ATSP HCAA (Greece), which represented 154 M€$_{2012}$ of ATM/CNS costs in 2012 (about 2.1% of the SES gate-to-gate ATM/CNS costs in 2012).

5.4.2 In the context of the ACE benchmarking analysis, an ATSP's performance is often compared to other European ATSPs operating in a similar economic and operational environment (so called "comparators or peer group"). HCAA (Greece) is part of the South East Europe ATSPs comparator group, also including BULATSA (Bulgaria) and ROMATSA (Romania).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- HCAA productivity (0.71) is +13.1% higher than the comparator group average (0.63);
- Employment costs per ATCO-hour (79 €$_{2012}$) are +33.6% higher than the comparator group average (59 €$_{2012}$); and,
- Support costs per composite flight-hour (€197) are -42.4% lower than the comparator group average (342 €$_{2012}$).

5.4.4 As a result, HCAA unit ATM/CNS provision costs (308 €$_{2012}$) were -29.5% lower than the comparator group average in 2012 (437 €$_{2012}$).



5.4.5 The PRB 2013 monitoring analysis indicates that HCAA actual en-route costs for 2013 were -7.5% lower than planned (-9.9 M€$_{2009}$). On the other hand, traffic was also lower than planned (-13.3%) causing a loss in respect of traffic risk sharing of -5.8 M€$_{2009}$. Overall, HCAA generated a net gain of +4.1 M€$_{2009}$ in 2013 on the en-route activity.

5.4.6 However, when estimating HCAA economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 3.1 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 7.3 M€$_{2009}$, which implies an ex-post rate of return on equity of 7.5% (compared to 3.3% as initially planned in the NPP). This adds to the gains generated by HCAA in 2012 (+6.9 M€$_{2009}$ or 5.4% of en-route revenues leading to an ex-post rate of return on equity of 8.9% in 2012).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	132,330	131,902
Actual costs for the ATSP	123,929	121,972
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	8,401	9,931
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**8,401**	**9,931**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-7.25%	-13.26%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-4,663**	**-5,813**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	3,738	**4,118**

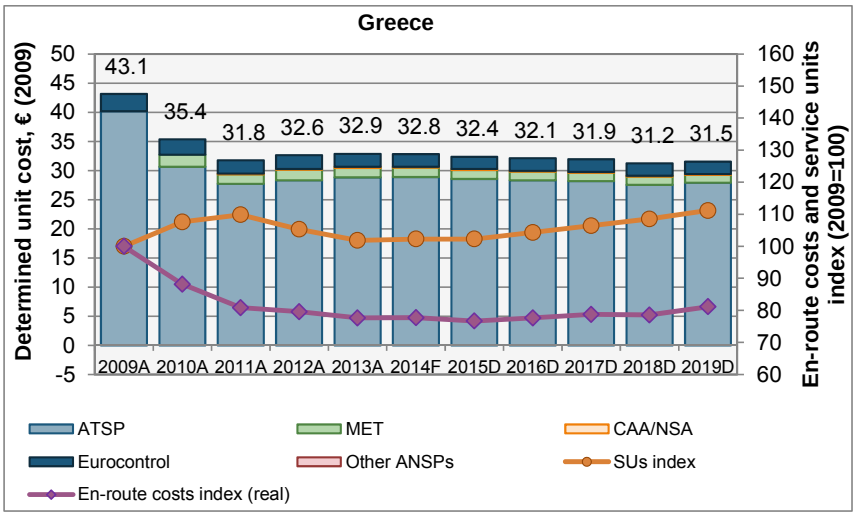
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	3,127	3,145
Overall estimated surplus (+/-) for the en-route activity	6,865	7,263
Revenue/costs for the en-route activity	127,667	126,090
Estimated surplus (+/-) in percent of en-route revenue/costs	**5.4%**	**5.8%**
Estimated ex-post RoE pre-taxe rate (in %)	**8.9%**	**7.5%**

Table 18: HCAA (Greece) estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.5 Greece: Overview of en-route charging zone assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	40.19	30.62	27.73	28.33	28.82	28.89	28.55	28.31	28.18	27.54	27.89	0.1%	-0.7%
MET	EUR (2009)	-	2.08	1.61	1.81	1.66	1.61	1.55	1.50	1.45	1.41	1.35	-2.2%	-3.3%
CAA/NSA	EUR (2009)	0.00	0.00	0.16	0.15	0.16	0.16	0.16	0.15	0.15	0.14	0.14	-1.9%	-2.7%
Eurocontrol	EUR (2009)	2.96	2.65	2.25	2.33	2.25	2.15	2.11	2.14	2.14	2.14	2.13	-0.7%	-0.2%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**43.15**	**35.35**	**31.75**	**32.62**	**32.89**	**32.80**	**32.36**	**32.10**	**31.93**	**31.24**	**31.51**	**-0.1%**	**-0.8%**

Figure 14: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	178.6	164.9	155.8	155.0	149.8	149.3	147.8	151.2	155.3	156.9	164.6
Inflation rate	annual % change		4.7%	3.1%	1.0%	-0.9%	-0.4%	0.3%	1.1%	1.2%	1.3%	1.6%
Inflation index	2009=100	100.0	104.7	107.9	109.0	108.0	107.6	107.9	109.1	110.4	111.8	113.6
Determined costs	EUR m (2009)	178.6	157.5	144.4	142.1	138.6	138.8	137.0	138.6	140.6	140.4	144.9
Service units	'000s	4 139	4 454	4 546	4 358	4 216	4 232	4 232	4 318	4 405	4 493	4 600
Determined unit cost	EUR (2009)	43.15	35.35	31.75	32.62	32.89	32.80	32.36	32.10	31.93	31.24	31.51
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	43.15	35.35	31.75	32.62	32.89	32.80	32.36	32.10	31.93	31.24	31.51

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	-0.8%	0.7%	2.0%	2.7%
Inflation	CAGR %	1.3%	0.6%	1.1%	1.3%
Determined costs	EUR m (2009)	-2.1%	0.1%	0.9%	1.4%
Service units	'000s	1.1%	0.1%	1.7%	2.1%
Determined unit cost	EUR (2009)	-3.1%	-0.1%	-0.8%	-0.7%
Exchange rate					
Determined unit cost	EUR (2009)	-3.1%	-0.1%	-0.8%	-0.7%

Table 19: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	YES

En-route TSU and costs forecasts provided in the RP2 Performance Plan for the year 2014 have been adjusted compared to RP1 Performance Plan:

- Total en-route costs (in nominal terms) for 2014 are expected to be -9.7% lower than the RP1 Determined Costs (DCs); and
- TSUs for 2014 are expected to be -16.0% lower than in the RP1 Performance Plan, reflecting STATFOR May 2014 base case forecast, however Greece records an actual TSU growth to date of +3.7% (situation after 8 months in 2014), which is -13.3% below the determined TSU in RP1 NPP.

Because of these updates, the latest forecast for the 2014 unit cost (in €$_{2009}$) is +9.6% higher than the unit cost published in RP1 Performance Plan.

Key points for Greece en-route charging zone	
1. Traffic forecast assumptions:	**Not passed**

The forecast en-route TSUs are in line with STATFOR low case forecasts published in February 2014 for every year of RP2.

However, the traffic forecast used by Greece also implies no growth between 2014 and 2015 while STATFOR low case shows a growth ranging between +1.4% (February forecast) and +2.2% (May forecast). Therefore, when considering the % increase between 2014 and 2019, Greece traffic forecast (+1.7% p.a.) is lower than the STATFOR low case forecast published in February 2014 (+2.0% p.a.). In addition, Greece records +3.7%M actual TSU growth to date (situation after 8 months).

2. Economic assumptions:	**Passed**

Inflation forecasts are equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2, and a consistent rate of inflation has been used for all charging zones, en-route and terminal.

3. En-route DUC trend:	**Not passed**

Greece forecasts a -0.8% annual en-route DUC decrease over the 2014-2019 period, which is much worse than the Union-wide cost-efficiency target (i.e. -3.3% p.a.) due to a planned increase in DCs of +0.9% p.a. combined with a low TSU forecast of +1.7% p.a. on average.

At ATSP level, the main drivers for the planned increase in DCs are depreciation costs and cost of capital, reflecting a large capex programme to be commissioned during RP2.

4. En-route DUC level:	**Passed**

Greece's en-route DUC in 2019 is planned to amount to 31.51 €$_{2009}$, which is +9.5% higher than the average of the comparator group (28.79 €$_{2009}$) but -27.4% lower than the Union-wide aggregated DUC. When differences in the cost of living are taken into account (adjusting DUCs by the Purchasing Power Parities - PPPs), Greece en-route DUC is -43.1% lower than the comparator group average.

5. En-route cost of capital:	**Passed**

The WACC rate used to calculate the cost of capital of HCAA (8.9%) is higher than the upper bound of the range of values calculated with the methodology laid down in Annex C guidance, mainly because the gearing assumption reflects 100% equity financing.

However, the return on equity (RoE) used by HCAA (8.9%) is consistent with the range of recommended values. Taking into account HCAA capital structure and the amount of total assets used to calculate the cost of capital allows to compute the monetary value of the RoE which ranges between 1.4 M€$_{2009}$ and 3.9 M€$_{2009}$ over RP2. This is lower than the maximum traffic risk exposure which will be borne by HCAA over RP2 (5.3 - 5.6 M€$_{2009}$). Over RP2, the PRB calculates that the monetary value of the aggregate return on equity is -34.5% lower than the maximum traffic risk exposure for HCAA. On the other hand, using STATFOR low case forecast reduces the likelihood of experiencing this scenario.

The PRB also notes that the average asset base per SU for HCAA (9.0 M€$_{2009}$) is significantly lower than that of its comparators (41.5 M€$_{2009}$).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

The information provided on pension costs assumptions and justifications, as well as on interest on loans is not consistent with the FAB Performance Plan template and guidance as it is incomplete.

The Performance Plan mentions IAS are not currently applied in the public sector in Greece.

7. Costs exempt from risk sharing:	**Passed**

The RP2 FAB Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions and loans – see pt. 6). Greece did not highlight any specific items for costs exempt from risk sharing for RP2, although it highlighted the unexpected change in Eurocontrol costs that took place in RP1.

Greece has reported costs exempt from risk sharing in 2012 and 2013, relating to the EUROCONTROL costs. These are subject to a separate assessment by the Commission.

Overall consistency assessment of Greece en-route cost-efficiency KPI

Taking into account these key points, in particular 1 and 3, Greece's en-route cost-efficiency target is assessed as not being consistent with, and not making an adequate contribution to, the en-route Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the Blue Med FAB to adopt a revised Performance Plan and, in particular for Greece to revise its en-route cost-efficiency target and, including to:

a) Revise its TSU forecasts in the light of latest information available;

b) Revise downward its en-route DUC over RP2, in the light of revised TSU forecasts and also depreciation costs to ensure that airspace users are not charged twice for cancelled or delayed investments in RP1;

c) Provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance.

5.6 Greece: Overview of terminal charging zone assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this terminal KPI assessment. The full assessment details are provided in annex 1.

Overview

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Greece", comprising 1 airport (Athens).

Athens airport covers some 34% of TNSUs in Greece.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing does not apply in this TCZ.

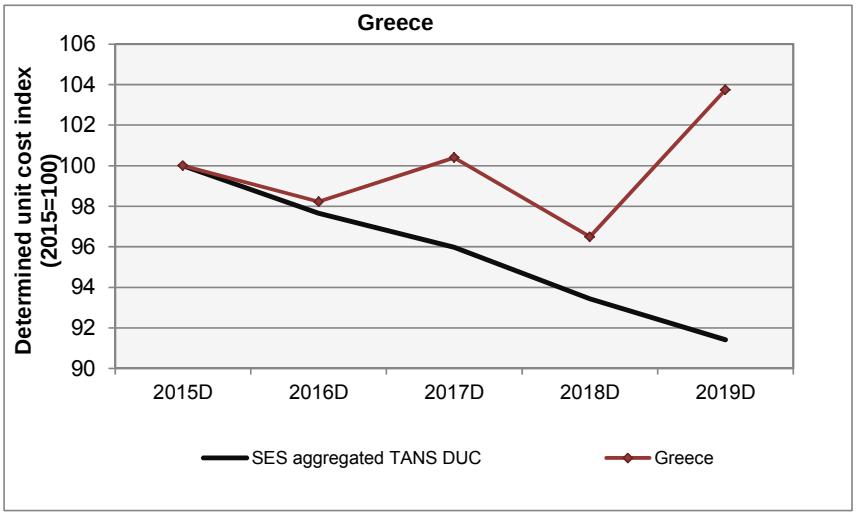


Figure 15: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	17.2	17.4	18.4	18.2	20.3	4.3%
Inflation rate *	annual % change	0.3%	1.1%	1.2%	1.3%	1.6%	1.3%
Inflation index *	2009=100	107.9	109.1	110.4	111.8	113.6	
Determined costs	EUR m (2009)	15.9	15.9	16.6	16.2	17.9	3.0%
Terminal SUs	'000s	75.6	77.2	78.8	80.0	82.1	2.1%
Determined unit cost	EUR (2009)	210.40	206.66	211.23	203.02	218.27	0.9%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	210.40	206.66	211.23	203.02	218.27	0.9%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 20: Terminal DUC breakdown

Key points for Greece terminal charging zone

1. Traffic forecast assumptions:	Passed

The TNSU forecasts for the Greece TCZ are slightly lower than STATFOR base case forecasts published in February 2014, for every year between 2015 and 2019. Greece forecasts correspond to a +2.1% p.a. increase between 2015 and 2019 while the base case scenario of STATFOR is +2.2% per year.

2. Economic assumptions:	**Passed**
Inflation forecasts are equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2, and a consistent rate of inflation has been used for all charging zones, en-route and terminal.	
3. Terminal ANS DUC trend:	**Not passed**
Over the 2015-2019 period, the profile of terminal ANS DUC (+0.9% p.a.) is worse than the SES aggregated DUC trend (-2.2% p.a.). Greece's TCZ DCs are planned to increase by +3.0% p.a. between 2015 and 2019, which is worse than the average % increase of Greece's en-route ANS DCs over the same period (+1.4% p.a.). However, if considering the 2014-2019 period, the terminal ANS DCs trend (-0.9% p.a.) is better than that of en-route ANS DCs (+0.9%). The trend in terminal ANS DCs is highly influenced by a large increase in capital-related costs in 2019. The rationale for the planned increases in capital-related costs deserves clarification. Finally, it is noteworthy that the level of 2015 DCs is lower than 2012 and 2013 actuals (-17.4% and -5.9%, respectively).	
4. Terminal cost of capital:	**Not passed**
Greece's TCZ is not subject to traffic risk sharing. However, the return on equity and the WACC used to calculate the cost of capital of HCAA for the TCZ are the same as for the en-route charging zone (8.9%). The WACC used for the TCZ should reflect this lower risk exposure.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Greece terminal ANS cost-efficiency KPI

Taking into account these key points, in particular 3 and 4, Greece's terminal ANS cost-efficiency target is assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to issue a Recommendation to the Blue Med FAB to adopt a revised Performance Plan, and specifically for Greece to revise its terminal ANS cost-efficiency target, including to:

a) Revise downward its terminal ANS DUC and DCs, and in particular its RoE/WACC (given that Greece is not subject to traffic risk sharing for terminal/TNSU and in the light of risk actually faced by HCAA Greece;

b) Provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance.

5.7 Italy: Setting the scene for the RP2 cost-efficiency assessment

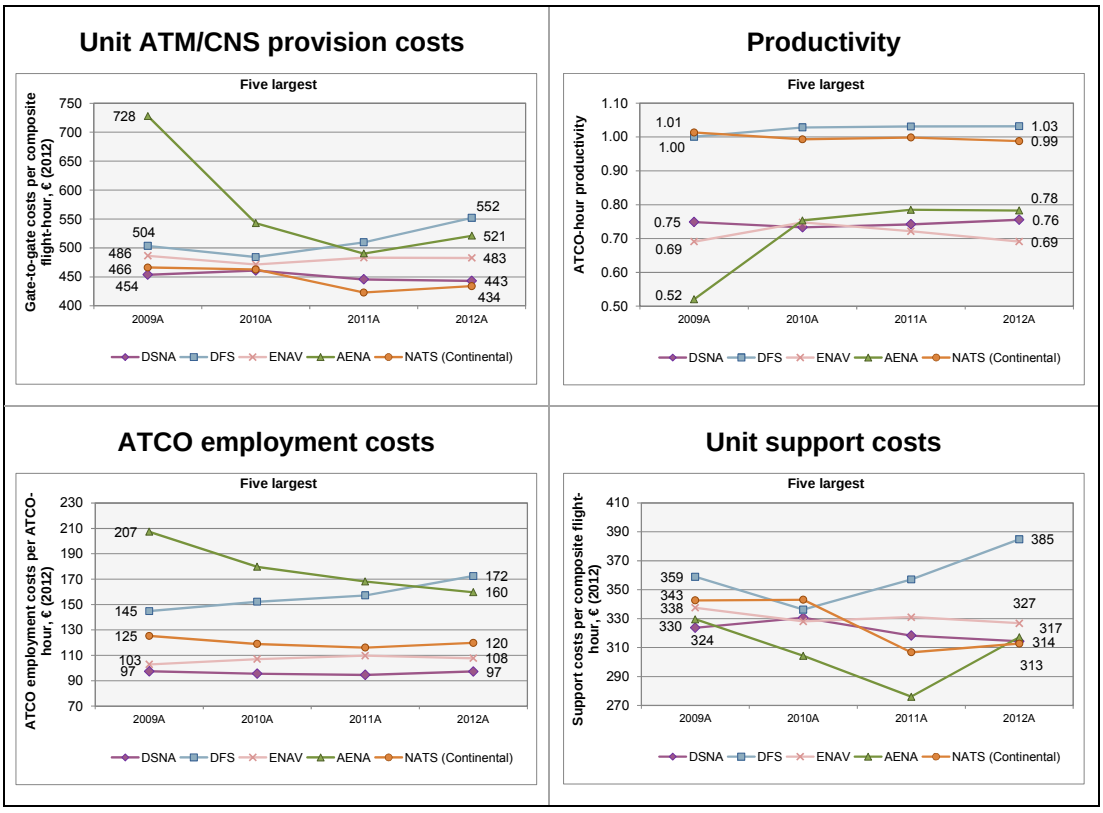
5.7.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate-to-gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of Italy's main ATSP, ENAV, which represented some 638 M€$_{2012}$ of ATM/CNS costs in 2012 (some 8.7% of the overall SES ATM/CNS costs).

5.7.2 In the ACE Benchmarking reports, ANSPs are considered in the context of a group including other ANSPs ("peer group or comparators") operating in a relatively similar economic and operational environment. ENAV (Italy) is part of the five largest ANSPs comparator group, also including AENA (Spain), DFS (Germany), DSNA (France), and NATS (UK).

5.7.3 The ACE 2012 benchmarking analysis shows that:

- ENAV's productivity (0.69) is much lower (-22.3%) than the average of its comparators (0.89);
- ATCO employment costs (108 €$_{2012}$) are much lower (-21.6%) than the average of the comparators (137 €$_{2012}$); and,
- Unit support costs (327 €$_{2012}$) are slightly lower (-1.6%) than the average of the comparators (332 €$_{2012}$).

5.7.4 Overall, ENAV's unit ATM/CNS provision costs (483 €$_{2012}$) were slightly lower (-1.0%) to that of the average of the comparators in 2012 (488€$_{2012}$).



5.7.5 The PRB 2013 monitoring analysis indicates that ENAV's actual en-route costs for 2013 were substantially lower than planned (-38.9 M€$_{2009}$). This was more than enough to compensate for the impact of the lower traffic than planned (-7.6%) on ENAV revenues. Indeed, taking into account the amount of costs exempt from the cost sharing (none in 2013), the traffic risk sharing arrangements as well as a bonus for achieving the capacity target, ENAV generated a net gain of 28.1 M€$_{2009}$ in 2013

on the en-route activity which is higher than the gain on the en-route activity achieved in 2012 (21.0 M€$_{2009}$). However, when estimating ENAV economic surplus, it is important to also account for the profit embedded in the cost of capital through the return on equity (some 27.5 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounted to 55.6 M€$_{2009}$, which implied an ex-post rate of return on equity of 5.8% or an equivalent of 11.3% of en-route revenues.

5.7.6 In 2012, the estimated economic surplus generated by ENAV for the en-route activity amounted to 47.0 M€$_{2009}$, which implied an ex-post rate of return on equity of 4.9% or an equivalent of 9.5% of its en-route revenues.

5.7.7 Therefore during the first two years of RP1, ENAV managed to generate an aggregated estimated economic surplus of some 103 M€$_{2009}$, even growing over time in a context of decreasing traffic/TSU.

Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	502 623	501 796
Actual costs for the ATSP	475 470	462 895
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	27 153	38 901
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**27 153**	**38 901**

Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-4.53%	-7.56%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-13 581**	**-18 149**

Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	7 405	7 310
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**7 405**	**7 310**

Net ATSP gain(+)/loss(-) on en-route activity	**20 977**	**28 063**

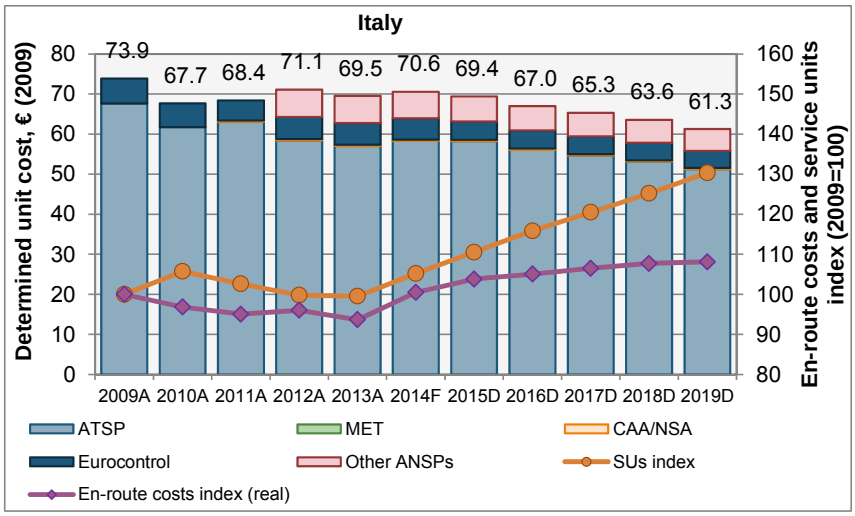
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	26 000	27 494
Overall estimated surplus (+/-) for the en-route activity	46 977	55 557
Revenue/costs for the en-route activity	496 447	490 957
Estimated surplus (+/-) in percent of en-route revenue/costs	**9.5%**	**11.3%**
Estimated ex-post RoE pre-taxe rate (in %)	**4.9%**	**5.8%**

Table 21: ENAV (Italy) estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.8 Italy: Overview of en-route cost-efficiency KPI assessment

5.8.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview of the en-route cost-efficiency target



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	67.70	61.77	63.07	58.42	57.03	58.29	58.23	56.11	54.68	53.18	51.26	-2.6%	-2.5%
MET	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
CAA/NSA	EUR (2009)	0.00	-	0.36	0.33	0.36	0.34	0.33	0.32	0.33	0.30	0.28	-3.0%	-4.2%
Eurocontrol	EUR (2009)	6.20	5.92	5.01	5.53	5.38	5.34	4.58	4.51	4.42	4.35	4.25	-2.1%	-4.5%
Other ANSPs	EUR (2009)	-	-	-	6.84	6.78	6.61	6.25	6.06	5.90	5.75	5.51	-	-3.6%
Total	**EUR (2009)**	**73.89**	**67.69**	**68.44**	**71.11**	**69.55**	**70.58**	**69.39**	**67.00**	**65.32**	**63.58**	**61.30**	**-1.4%**	**-2.8%**

Figure 16: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	602.6	593.1	599.1	625.3	617.9	667.0	696.2	712.2	731.5	750.9	765.9
Inflation rate	annual % change		1.6%	2.9%	3.3%	1.3%	0.7%	1.0%	1.1%	1.3%	1.5%	1.6%
Inflation index	2009=100	100.0	101.6	104.6	108.0	109.4	110.2	111.3	112.5	114.0	115.7	117.5
Determined costs	EUR m (2009)	602.6	583.6	572.8	578.8	564.6	605.5	625.5	633.0	641.7	649.0	651.6
Service units	'000s	8 155	8 621	8 370	8 139	8 117	8 579	9 014	9 447	9 824	10 209	10 630
Determined unit cost	EUR (2009)	73.89	67.69	68.44	71.11	69.55	70.58	69.39	67.00	65.32	63.58	61.30
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	73.89	67.69	68.44	71.11	69.55	70.58	69.39	67.00	65.32	63.58	61.30

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.4%	3.1%	2.8%	2.4%
Inflation	CAGR %	1.6%	1.5%	1.3%	1.4%
Determined costs	EUR m (2009)	0.8%	1.6%	1.5%	1.0%
Service units	'000s	2.7%	3.0%	4.4%	4.2%
Determined unit cost	EUR (2009)	-1.9%	-1.4%	-2.8%	-3.1%
Exchange rate					
Determined unit cost	EUR (2009)	-1.9%	-1.4%	-2.8%	-3.1%

Table 22: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	NO

Partial update of 2014 forecasts data:

- Italy provided an updated 2014 TSU estimate (-5.4% vs. 2014 forecast in RP1 Performance Plan) but did not update its total 2014 cost forecast (vs. RP1 NPP), although the cost breakdown presented is different (the cost of capital presented increasing by 60% while other cost items compensating for that increase of 18 M€ in nominal terms). This issue affects the Determined Unit Costs (DUC) and DC trends when computed over the 2014-2019 period. Therefore for the purposes of en-route DUC trend assessments, more attention will be given to the 2011-2019 (and also 2009-2019 and 2015-2019 periods where appropriate).
- The upward revision of the 2014 TSU forecast does not tally with the latest actual traffic data for the first 8 months of 2014. The PRB notes that Italy records some +3.6% actual en-route TSU growth vs. 2013, but this is -7.3% below the determined TSU for 2014 in the RP1 Performance Plan.
- Against this backdrop, the PRB also notes that over 2012-2013 and 2014 to date the number of en-route TSU recorded was systematically much lower than planned, in part because the planning assumptions for RP1 were impacted by the events in North Africa/Libya.
- The RP2 Performance Plan states that *"(…) the Italian Government has recently launched the part privatisation process of ENAV that will be defined in detail in terms of timing and modality in the coming months."* The PRB understands that the State will remain the main shareholder (51%) and that it has not yet been decided how and when the remaining stake would be sold. As the decision on the modality of the sell has not yet been taken at the moment of assessing Italy's Performance Plan, it is likely that the implementation of the part privatisation will not take place before 2015. These institutional changes and uncertainties are significantly affecting the planning for RP2.

Key points for Italy en-route charging zone:	
1. Traffic forecast assumptions:	**Not passed**

Italy has selected the STATFOR February 2014 high growth scenario for all years 2014-2019, although the latest actual TSU recorded and the latest STATFOR May 2014 would indicate rather less traffic than foreseen in February 2014. Italy would expect a bounce back effect from the drop in traffic recorded in 2010/2011 following the unrest in the North African region.

Although Italy claims they take the "traffic risk", they actually share the risk with airspace users beyond the dead band and should Italy keep this TSU forecast scenario over RP2 and should the STATFOR February 2014 base case scenario materialise, then the net loss in revenues to be borne would be some (-97 M€$_{2009}$) for ENAV and some (-101 M€$_{2009}$) for airspace users. This situation would worsen should the latest STATFOR May 2014 forecast materialise.

2. Economic assumptions:	**Passed**
The inflation forecast used by Italy is in line with the IMF April 2014 forecast for RP2. Actual inflation for 2012-2013 is in line with Eurostat.	
3. En-route DUC trend:	**Not passed**
Over RP1 and RP2 (2011-2019) period, Italy plans a worse en-route DUC trend (- 1.4% p.a.) than the Union-wide target trend (-1.7% p.a.). Likewise, over 2011-2019 the increasing DCs trend for Italy (+1.6% p.a.) is much worse than the Union-wide DCs trend (-0.8% p.a.). It is also noted that over the 10-years cycle 2009-2019, Italy shows a worse en-route DUC trend (-1.9% p.a.) than the Union-wide DUC trend (-2.5% p.a.), with costs planned to increase by +0.8% p.a. in a context of an average TSU increase of +2.7% p.a. Costs increases are mainly driven by increasing staff costs and other operating costs as well as a significant increase in cost of capital from 2014 onwards. ENAV managed to generate an aggregated estimated economic surplus of some 103 M€$_{2009}$ over 2012-2013, mainly through reduced staff costs and depreciation costs. However, genuine performance improvements in 2013 do not seem to be taken into account in the early years of RP2. Similarly, the planned institutional changes with the part privatisation of ENAV do not seem to be expected to generate cost-efficiency improvements in RP2.	
4. En-route DUC level:	**Not passed**
In 2019, Italy's en-route DUC (61.30 €$_{2009}$) is planned to be -1.3% lower than the peer group average (62.08 €$_{2009}$), but significantly higher than the Union-wide aggregated DUC level (51.26 €$_{2009}$). However if adjusted by using the baseline STATFOR forecast and IMF inflation for all States, Italy's en-route DUC level would be higher than its peer group average for all years 2015-2019 (+16.6% in 2019).	
5. En-route cost of capital:	**Not passed**
The Weighted Average Cost of Capital (WACC) rate (+6.1% to +6.4% over RP2) is within the range of values calculated with the methodology laid down in Annex C guidance. However, over the whole of RP2 the PRB calculates that the monetary value of the RoE (241 M€$_{2009}$) is some +104% higher than the total en-route revenue risk exposure (some 118 M€$_{2009}$). Furthermore, Italy's average en-route asset base per service unit over RP2 (99 €$_{2009}$) is more than the double than its peer group average (42 €$_{2009}$ without Germany as such data are missing at the time of writing the analysis) or the Union-wide average (44 €$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
Relevant information on e.g. pension costs and loans is not available – it is reported to be under discussion until end 2014/beginning 2015 due to the part privatisation process.	

7. Costs exempt from risk sharing:	Not passed
Information is not available – it is reported to be under discussion until end 2014/beginning 2015 due to the part privatisation process.	

Overall consistency assessment of Italy en-route cost-efficiency KPI

Taking into account these key points, in particular 1, 3, 4 and 5, the Italy en-route cost-efficiency target is assessed as not being consistent with, and not making an adequate contribution to, the en-route Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the Blue Med FAB to adopt a revised Performance Plan and, in particular for Italy to revise its cost-efficiency target and, including to:

a) Revise its RP2 TSU forecasts in the light of the evolution of traffic in 2014;

b) Revise its DCs downward over RP2, in particular in respect of the cost of capital (to ensure that it better reflects the revenue risk actually faced by its ATSP) and to account for the cost-efficiency improvements and economic surplus generated during RP1;

c) Provide information on the underlying pension costs assumptions and interest rates on loans, in line with the requirements of the FAB Performance Plan template; and,

d) Provide further details on costs items potentially eligible as costs exempt from risk sharing for RP2.

5.9 Italy: Overview of terminal ANS cost-efficiency KPI assessment

5.9.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview of Terminal ANS charging zones (Italy-TCZ 1 and Italy-TCZ 2):

There are two TCZs reported in the RP2 Performance Plan for Italy:

- TCZ 1 (1 airport: Fiumicino, with more than 225 000 IFR movements): where traffic risk sharing applies;
- TCZ 2 (4 airports: Malpensa, Linate, Venezia Tessera and Bergamo Orio al Serio, all with more than 70 000 IFR movements): which Italy decided to exempt from traffic risk sharing;
- There were no change of scope of airports between 2014 and 2015, since Italy decide to split its airports into three TCZ from 2014 onwards. Before 2014, Italy was reporting terminal ANS cost-efficiency data for 47 airports in one single TCZ.
- Taken together these two TCZ (5 airports) cover some 70% of Italy total TNSU.
- The harmonized Terminal Navigation Service Units (TNSU) formula (MTO/50)^0.7 was already used before RP2.

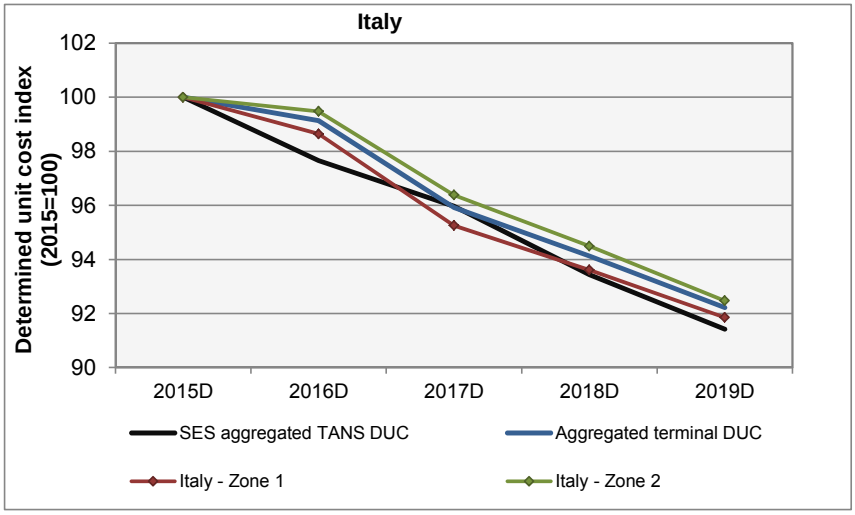


Figure 17: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Total Determined costs	EUR m (nom)	104.2	107.2	107.8	109.8	111.5	1.7%
Inflation rate *	annual % change		1.1%	1.3%	1.5%	1.6%	1.4%
Inflation index *	2009=100	111.3	112.5	114.0	115.7	117.5	
Total Determined costs	EUR m (2009)	93.6	95.3	94.6	94.9	94.9	0.3%
Total Terminal SUs	'000s	505.4	518.8	532.2	544.5	555.4	2.4%
DUC (aggregated)	EUR (2009)	185.22	183.62	177.66	174.35	170.80	-2.0%
Exchange rate	EUR:EUR (2009)	1.00					
DUC (aggregated)	EUR (2009)	185.22	183.62	177.66	174.35	170.80	-2.0%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 23: Terminal DUC breakdown

Key points for Italy TCZs	
1. Traffic forecast assumptions:	**TCZ 1: Passed** **TCZ 2: Passed**
TCZ 1: for Roma Fiumicino, the forecast TNSU is between the base case and the high growth STATFOR forecast scenario without any justifications for any specific situation. TCZ 2: for the second TCZ (4 airports) the selected TNSU forecast is very close to the baseline STATFOR forecast scenario (slightly above in 2015 and then below in later years 2018-2019).	
2. Economic assumptions:	**TCZ 1: passed** **TCZ 2: passed**
The inflation forecasts used by Italy are in line with the IMF April 2014 forecast for RP2. Actual inflation for 2012-2013 is aligned with Eurostat.	
3. Terminal ANS DUC trend:	**TCZ 1: passed with reservations** **TCZ 2: passed with reservations**
Over 2015-2019, Italy's Terminal ANS DUC trend for TCZ 1 (-1.9% p.a.) and TCZ 2 (-2.1% p.a.) are broadly in line with the SES aggregated Terminal ANS DUC trend (-2.2% p.a.). Over 2015-2015, the PRB notes that: • TCZ 1 terminal ANS DCs are planned to increase by +0.2% p.a.; and, • TCZ 2 terminal ANS DCs are planned to increase by +0.4% p.a., which in both cases is slightly better than Italy's en-route DCs trend (+1.0% p.a.) over 2015-2019 but worse than the Union-wide DCs trend underpinning the Union-wide DUC target. However, the aggregated level of DCs in 2015 is much higher (+10.8%) than the 2013 actual level (for TCZ 1: +7.0% to reach 38.4 M€$_{2009}$ and for TCZ 2: +12.4% at 55.2 M€$_{2009}$).	
4. Terminal cost of capital:	**TCZ 1: passed with reservations** **TCZ 2: passed with reservations**
• For TCZ 1: the Return on Equity (RoE) rate (on average 7.9% over RP2) used to calculate the WACCI for TCZ 1 is higher (+0.8 p.p.) than the one used to calculate the WACC for en-route ANS. • TCZ 2: Italy decided not to apply traffic risk sharing incentives to its TCZ 2. The RoE rate (on average 5.4% over RP2) is 2.5 p.p. lower than the RoE used for the TCZ 1 and also lower than the en-route RoE used to calculate the WACC for en-route ANS. The PRB also notes that over RP2 the terminal asset base per service units is much higher than any comparators or indeed the Union-wide average (343 €$_{2009}$ over RP2 vs. 70 €$_{2009}$ for	

the peer group average [Germany still missing] and 163 €$_{2009}$ for the Union-wide average).	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**TCZ 1: not passed** **TCZ 2: not passed**
Information is not available – it is reported to be under discussion until end 2014/beginning 2015 due to the part privatisation process.	
6. Costs exempt from risk sharing:	**TCZ 1: not passed** **TCZ 2: not passed**
Information is not available – it is reported to be under discussion until end 2014/beginning 2015 due to the part privatisation process.	

Overall consistency assessment of Italy terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1, 2, 3 and 4, Italy's terminal ANS cost-efficiency target is assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

However, the PRB advises the Commission to issue a Recommendation to the Blue Med FAB to adopt a revised Performance Plan, and specifically for Italy to:

a) Provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and Guidance; and,

b) Provide further details on the costs items potentially eligible as costs exempt from risk sharing for RP2.

5.10 Malta: Setting the scene for the RP2 cost-efficiency assessment

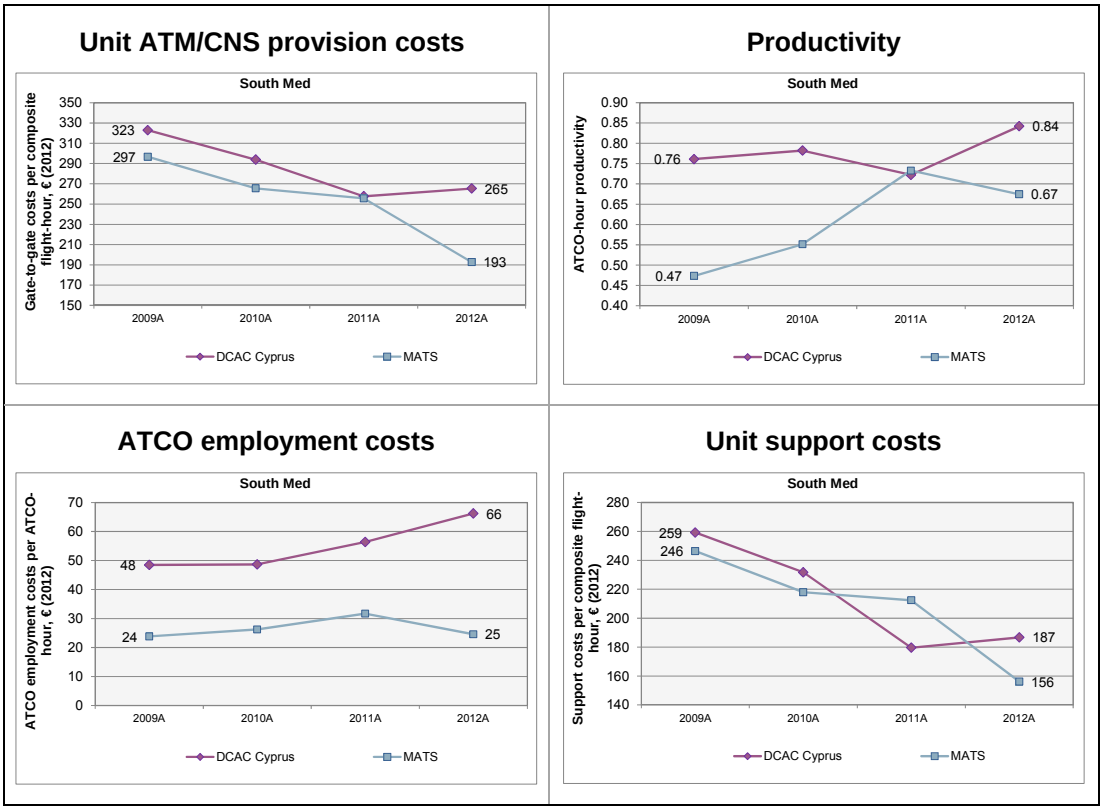
5.10.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate to gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of Malta's main ATSP, Malta Air Traffic Services Ltd (MATS), which represented some 13.5 M€$_{2012}$ of ATM/CNS costs in 2012 (0.2% of the overall SES ATM/CNS costs).

5.10.2 In the context of the ACE benchmarking analysis, an ANSP's performance is often compared to other European ANSPs operating in a similar economic and operational environment (so called "comparators or peer group"). MATS (Malta) is part of the "South Med" ATSPs comparator group, also including DCAC Cyprus.

5.10.3 The ACE 2012 benchmarking analysis shows that:

- MATS productivity (0.67) is significantly lower (-25%) than DCAC Cyprus (0.84);
- ATCO employment costs (25 €$_{2012}$) are much lower (-62%) than DCAC Cyprus (66 €$_{2012}$); and,
- Unit support costs (156 €$_{2012}$) are lower (-16.5%) than DCAC Cyprus (187 €$_{2012}$).

5.10.4 Overall, MATS unit ATM/CNS costs (193 €$_{2012}$) were significantly lower (-27%) than DCAC Cyprus (265 €$_{2012}$).



5.10.5 The PRB 2013 monitoring analysis indicates that MATS actual 2013 traffic measured in Total en-route Service Units (TSU) was significantly higher (+25%) than it was planned. This was not sufficient to compensate for the impact of the higher actual en-route costs than planned (+0.6 M€$_{2009}$) on MATS revenues. Indeed, taking into account the amount of costs exempt from the cost sharing (none in 2013) and the traffic risk sharing arrangements, MATS generated a net loss of -0.04 M€$_{2009}$ in 2013 on the en-route activity (whereas in 2012, MATS managed to reduce its costs despite a high level of traffic and generated a net gain of 1.4 M€$_{2009}$).

However, when estimating MATS economic surplus, it is important to also account for the profit embedded in the cost of capital through the return on equity (some 0.2 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounted to 0.1 M€$_{2009}$, which implied an ex-post rate of return on equity of +5.9% or an equivalent of +1.2% of en-route revenues.

5.10.6 In 2012, the estimated economic surplus generated by MATS for the en-route activity amounted to +2.0 M€$_{2009}$, which implied an ex-post rate of return on equity of +17.4% or an equivalent of 15% of its en-route revenues.

5.10.7 Therefore during the first two years of RP1, MATS managed to generate an aggregated estimated economic surplus of some 2.1 M€$_{2009}$.

Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	12 429	12 403
Actual costs for the ATSP	11 559	12 993
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	870	-591
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**870**	**-591**

Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	17.72%	24.98%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**543**	**550**

Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	**1 414**	**-41**

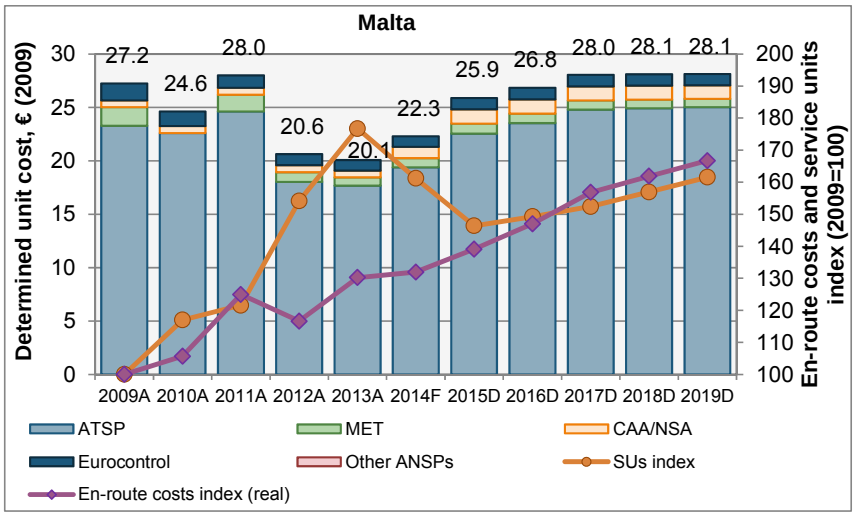
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	539	192
Overall estimated surplus (+/-) for the en-route activity	1 952	150
Revenue/costs for the en-route activity	12 972	12 952
Estimated surplus (+/-) in percent of en-route revenue/costs	**15.0%**	**1.2%**
Estimated ex-post RoE pre-taxe rate (in %)	**17.4%**	**5.9%**

Table 24: MATS estimated economic surplus 2012 & 2013 (PRB Monitoring Reports)

5.11 Malta: Overview of en-route KPI assessment

5.11.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	23.27	22.59	24.63	18.02	17.67	19.40	22.55	23.54	24.78	24.92	25.01	0.2%	5.2%
MET	EUR (2009)	1.74	-	1.55	0.91	0.79	0.85	0.92	0.89	0.86	0.82	0.78	-8.2%	-1.7%
CAA/NSA	EUR (2009)	0.64	0.67	0.67	0.66	0.63	1.04	1.34	1.33	1.32	1.30	1.28	8.5%	4.2%
Eurocontrol	EUR (2009)	1.60	1.35	1.16	1.02	0.99	1.00	1.07	1.08	1.08	1.06	1.05	-1.2%	0.8%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**27.25**	**24.61**	**28.00**	**20.62**	**20.07**	**22.30**	**25.89**	**26.84**	**28.04**	**28.10**	**28.12**	**0.1%**	**4.7%**

Figure 18: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	11.3	12.2	14.8	14.3	16.1	16.5	17.7	19.0	20.6	21.6	22.7
Inflation rate	annual % change		2.0%	2.5%	3.2%	1.0%	1.0%	1.7%	1.8%	1.7%	1.7%	1.7%
Inflation index	2009=100	100.0	102.0	104.6	107.9	109.0	110.1	111.9	114.0	115.9	117.9	119.9
Determined costs	EUR m (2009)	11.3	12.0	14.2	13.2	14.8	15.0	15.8	16.7	17.8	18.3	18.9
Service units	'000s	416	487	506	641	735	671	609	621	634	653	672
Determined unit cost	EUR (2009)	27.25	24.61	28.00	20.62	20.07	22.30	25.89	26.84	28.04	28.10	28.12
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	27.25	24.61	28.00	20.62	20.07	22.30	25.89	26.84	28.04	28.10	28.12

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	7.2%	5.5%	6.6%	6.4%
Inflation	CAGR %	1.8%	1.7%	1.7%	1.7%
Determined costs	EUR m (2009)	5.2%	3.7%	4.8%	4.6%
Service units	'000s	4.9%	3.6%	0.0%	2.5%
Determined unit cost	EUR (2009)	0.3%	0.1%	4.7%	2.1%
Exchange rate					
Determined unit cost	EUR (2009)	0.3%	0.1%	4.7%	2.1%

Table 25: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	YES

Update of 2014 costs and 2014 TSU data:

- Malta provided updated 2014 TSUs estimate (+10.5% vs. 2014 forecast in RP1 Performance Plan) and updated costs estimate for 2014 (+5.3% vs. 2014 forecast in the RP1 Performance Plan).
- The upward revision of the 2014 TSU forecast does not tally with the latest actual traffic data for Malta en-route TSU after 8 months in 2014. The PRB notes that the latest TSU forecast data show that Malta is likely to record some +24.4% more TSUs than the 2014 RP1 Performance Plan forecasts. The PRB also notes that actual 2014 traffic after the first 8 months of 2014 is +2.4% above 2013 actual TSU for the same period and the TSU growth is decelerating due to negative growth in July (-12%) and August (-14%)
- This issue affects the Determined Unit Costs (DUC) and DC trends when computed over the 2014-2019 period. Therefore for the purposes of en-route DUC trend assessments, more attention will be given to the 2011-2019 period (and also 2009-2019 and 2015-2019 periods, where appropriate).

Key points for Malta en-route charging zone	
1. Traffic forecast assumptions:	**Not passed**
Malta has selected a TSU forecast below the Low TSU growth scenario of STATFOR February 2014 forecasts for all years 2014-2019 (even by an average -30% per year).	
2. Economic assumptions:	**Not passed**
The inflation forecasts are always lower than IMF average inflation rate forecast published in April 2014 for every year of RP2 (with a larger difference for 2015 of -0.9 p.p.). The actual inflation reported for 2013 is equivalent to EUROSTAT HICP.	
3. En-route DUC trend:	**Not passed**
As indicated above, the fact that 2014 TSU forecast strongly diverges from the latest actual data significantly affects the analysis of the en-route DUC trends. At face value all the different periods under consideration show flat or increasing en-route DUC targets which are significantly worse than the Union-wide trends. For example, over RP2 (2014-2019) Malta plans a much worse and increasing en-route DUC trend (+4.7% p.a.) than the Union-wide target trend (-3.3% p.a.). Over RP1 and RP2 (2011-2019) Malta plans a flat DUC trend (+0.1%). However, if the data is adjusted by the IMF inflation forecast (see key point 2 above) and the STATFOR base case forecast 2014-2019 (see key point 1 above), then the DUC trends significantly improve. Over 2011-2019 the DUC trend would decrease by -5.6% p.a. which is better than the Union-wide target trend. The drivers for the costs increase are mainly higher staff costs (+27% in 2015 vs. 2014 and +10% p.a. over RP2 and depreciation costs (+6.6% p.a. over RP2).	

4. En-route DUC level:	**Passed**
In 2019, Malta's en-route DUC (28.12 €$_{2009}$) is planned to be -12.6% lower than its comparator Cyprus (32.16 €$_{2009}$), and actually remain lower than Cyprus over the 10-year period 2009 to 2019. In addition, its en-route DUC is much lower than the Union-wide aggregated DUC level (51.26 €$_{2009}$).	
5. En-route cost of capital:	**Passed**
The Weighted Average Cost of Capital (WACC) rate (+4.5% to 5% over RP2) is below the range of values calculated with the methodology laid down in Annex C guidance, although some assumptions used for the different components of the calculation are outside the range of recommended values. The PRB computes that over the whole of RP2, the monetary value of the Return on Equity (RoE) (2.5 M€$_{2009}$) is some -20% lower than the total en-route revenue risk exposure (some 3.4 M€$_{2009}$), i.e.; the ATSP covers less than its revenue risk due to traffic. However, this risk is unlikely to materialise given the current traffic forecast considered in the RP2 Performance Plan for Malta (see key point 1 above). Malta's average en-route asset base per service unit over RP2 (21 €$_{2009}$) is slightly lower than its comparator Cyprus (23€$_{2009}$), and lower than the Union-wide average (44 €$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided on pension costs assumptions and justifications, as well as on interest on loans is not fully consistent with the FAB Performance Plan template and guidance as it is incomplete.	
7. Costs exempt from risk sharing:	**Passed**
Malta did not report costs exempt for 2012 and 2013. The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions, loans – see 6. above)	

Overall consistency assessment of Malta en-route cost-efficiency KPI

Taking into account these key points, in particular 1, 2 and 3 the Blue Med FAB Performance plan, and in particular Malta's en-route cost-efficiency target, is assessed as not being consistent with, and not making an adequate contribution to, the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to Blue Med FAB to adopt a revised Performance Plan and, in particular for Malta to revise its en-route cost-efficiency target, including, to:

a) Revise its 2014-2019 TSU forecasts in the light of the evolution of traffic to date;
b) Revise its DCs in a relation with the planned traffic for RP2, in particular in respect of staff costs, other operating costs and depreciation costs;
c) Provide full details on the underlying pension costs assumptions and interest rates on loans in line with the FAB Performance Plan template and guidance.

5.12 Malta: Overview of the terminal charging zone assessment

5.12.1 The summary results of each of the checks are provided below, along with the key points for Malta's Terminal charging zone (TCZ). The full assessment details are provided in Annex 1.

Overview of Malta TCZ:

- The Malta TCZ comprises one airport (Luqa airport (LMML) – no change between 2014 and 2015.
- Malta did not charge a separate TNC prior to 2015 and the SES regulations (with respect of terminal ANS) requirements did not apply to Malta prior to 2015.
- Traffic risk sharing applies in Malta's TCZ.
- The Malta TCZ covers 100% of TNSU traffic in Malta.

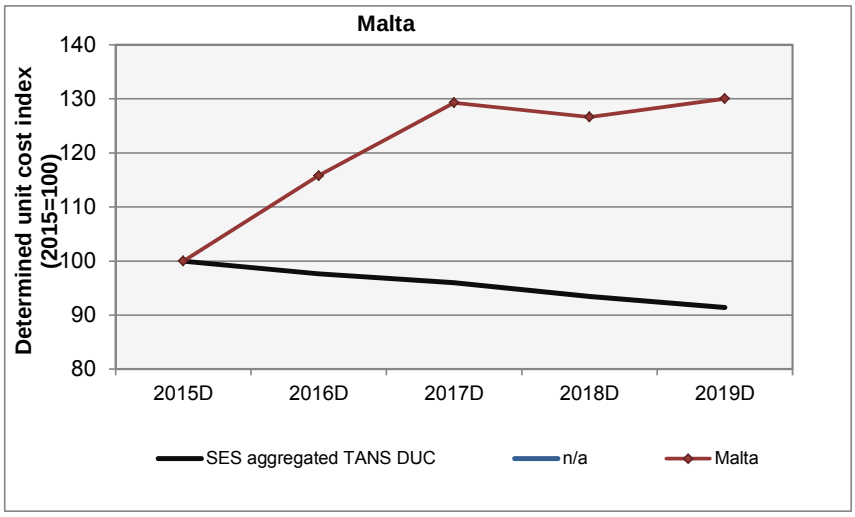


Figure 19: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	3.8	4.5	5.2	5.2	5.4	9.4%
Inflation rate	annual % change	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%
Inflation index	2009=100	111.9	114.0	115.9	117.9	119.9	
Determined costs	EUR m (2009)	3.4	4.0	4.5	4.4	4.5	7.5%
Terminal SUs	'000s	21.7	21.9	22.1	22.1	22.3	0.7%
Determined unit cost	EUR (2009)	156.48	181.16	202.27	198.14	203.47	6.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	156.48	181.16	202.27	198.14	203.47	6.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 26: Terminal DUC breakdown

Key points for Malta TCZ

1. Traffic forecast assumptions:	**Not passed**
The forecast total Terminal Navigation Service Units (TNSUs) are well below the STATFOR low forecast scenario published in February 2014, for every year 2015-2019.	

2. Economic assumptions:	**Not passed**
The inflation forecasts are identical to en-route assumptions, and therefore always lower than IMF average inflation rate forecast published in April 2014 for every year of RP2 (with a larger difference in 2015 – by -0.9 pp) although equivalent to EUROSTAT HICP for 2013 actual inflation. No justification was found for such difference.	
3. Terminal ANS DUC trend:	**Not passed**
Over 2015-2019, Malta's Terminal ANS DUC trend (+6.8% p.a.) is much worse than the SES aggregated Terminal ANS DUC trend (-2.2% p.a.). In addition, Malta's DCs are increasing by an average of (+7.5% p.a.) over 2015-2019 which is 2.9 pp above an already increasing en-route DC trend (+4.6% p.a.). The aggregated level of DC in 2015 (3.4 M€$_{2009}$) is much higher (+18.4%) than the 2013 actual level of costs (2.9 M€$_{2009}$) and +37.5% above the 2012 actual level of costs, although there was no declared TCZ in RP1 and therefore the costs considered for the reporting of 2012 are not necessarily directly comparable.	
4. Terminal cost of capital:	**Passed**
The RoE and the WACC rates are identical to those reported for en-route (between 4.7% and 5.1% over RP2) – which is below the recommended values in the Annex C Guidance.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
No information is provided on pension costs assumptions and justifications, and limited information on loans: this is therefore not consistent with the FAB Performance Plan template and guidance. It is noted that there is less information than in en-route (some information on "Pay-as-you-go" is reported).	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan includes the exact same information as reported for en-route (including EUROCONTROL costs considered as cost exempt from cost-sharing for Terminal which is taken as a typo).	

Overall consistency assessment of Malta terminal ANS cost-efficiency KPI

Taking into account these key points, in particular 1, 2, 3, and 5 the Malta terminal ANS cost-efficiency target is assessed as not being consistent with the criteria laid down in Annex IV of the charging Regulation over RP2.

The PRB therefore advises the Commission to issue a recommendation to the Blue Med FAB to adopt a revised Performance Plan and, in particular for Malta to revise its terminal ANS cost-efficiency target, including to:

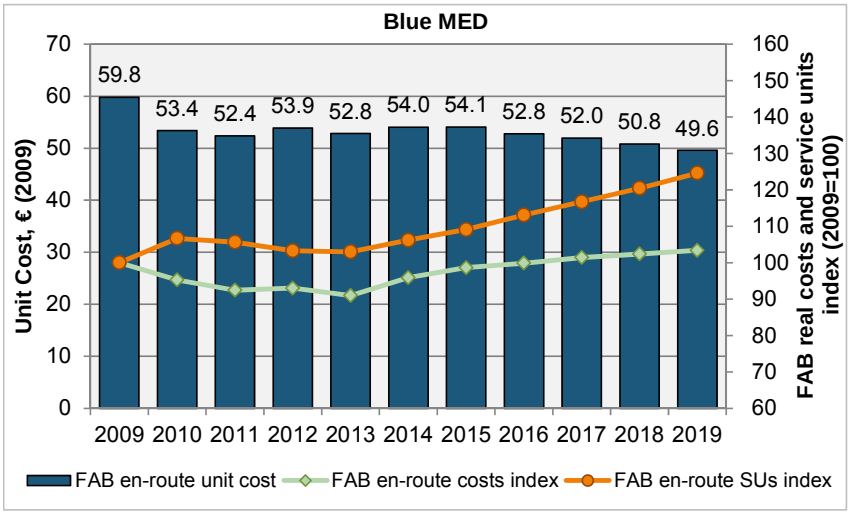
a) Revise its 2014-2019 TSU forecasts in the light of the evolution of traffic to date and the latest available information;

b) Revise its DCs, in particular in respect of staff costs, other operating costs and depreciation costs and in relation to the expected traffic growth for RP2;

c) Provide full details on the underlying pension costs assumptions and interest rates on loans in line with the FAB Performance Plan template and guidance.

5.13 Blue Med: Overview of FAB en-route trend

Overview of the aggregated en-route Blue Med FAB unit cost trend



Key figures: Blue MED		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	836.3	796.8	773.2	777.9	760.8	801.9	824.9	834.9	848.0	856.2	864.4
FAB en-route service units	'000s	13,983	14,914	14,769	14,441	14,395	14,847	15,250	15,812	16,320	16,844	17,424
FAB en-route unit cost	EUR (2009)	59.81	53.43	52.35	53.86	52.85	54.01	54.09	52.80	51.96	50.83	49.61

Key figures: Blue MED CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	0.3%	1.4%	1.5%	1.2%
FAB en-route service units	'000s	2.2%	2.1%	3.3%	3.4%
FAB en-route unit cost	EUR (2009)	-1.9%	-0.7%	-1.7%	-2.1%

Figure 20: FAB en-route unit cost trend overview

Key points for the aggregated en-route Blue Med FAB unit cost trend

Note: the following comments on the aggregated FAB en-route trend should not be seen as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level (en-route and terminal) and for RP2 there are no FAB with a common charging zone and a single unit rate.

Within the Blue Med FAB, the relative share of each State in the total Blue Med FAB en-route costs over RP2 is the following: Italy (75%), Greece (17%); Cyprus (6%) and Malta (2%). The trend of the en-route unit costs aggregated at FAB level is therefore significantly impacted by Italy's contribution.

In 2013, the FAB en-route costs (760.8 M€$_{2009}$) represented 13% of the total SES en-route costs. By 2019, these are planned to be more than 14% (864.4 M€$_{2009}$).

The aggregated en-route unit cost trend for the Blue Med FAB over 2011-2019 is (-0.7% p.a.); which is significantly worse than the Union-wide cost-efficiency target trend (-1.7% p.a.). The PRB notes that the aggregated DCs at FAB level are planned to increase (+2.1% p.a.), whilst a decrease (-0.8% p.a.) is planned for the DCs trend underpinning the Union-wide target over the same period.

The PRB notes that by 2019 the aggregated FAB unit cost (49.61 €$_{2009}$) is slightly lower (-3.2%) than the Union-wide aggregated DUC (51.26 €$_{2009}$).

6 INVESTMENTS

6.1.1 The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.2 Compatibility and coherence of planned investments

CYPRUS

6.2.1 There are 5 planned projects reported in the Performance Plan. No references to Master Plan, PCP ATM functionality or IOP IRs are provided. Some ESSIP references were ad-hoc mentioned in the description text. Relevant fields for the references in the Performance Plan template were not used.

GREECE

6.2.2 There are 24 planned projects reported in the Performance Plan. Links or references are provided to the Master Plan Level 3 for 20 projects. No reference is included for the PCP or IOP IRs. Beside references to ESSIP, no other references were included.

ITALY

6.2.3 There are 29 planned projects reported in the Performance Plan. Links or references are provided to the Master Plan Level 3 for 26 projects, the NSP for 18 projects, the PCP for 19 projects and the IOP IRs for 1 project (ADQ). Links or references are provided to all PCP ATM Functionalities (for 19 projects), except for AF4. For 2 projects, links exist only to PCP ATM functionality (mainly related to AF2). There is only one project (implementation of AIDA tool) without any links created to ATM Master Plan, PCP or IOP IRs.

MALTA

6.2.4 There are 42 planned projects reported in the Performance Plan. References to Master Plan elements, NSP, PCP and IOP IRs are missing for all the projects.

6.3 FAB and/or Regional dimension

FAB LEVEL

6.3.1 There is no coherence among the Blue Med FAB States in reporting projects at FAB level. To illustrate this situation, ENAV reports 11 projects as part of the dedicated coordination framework to investigate possible convergence among FAB States whilst HCAA Greece does not report any project as coordinated at FAB level. The exact reporting is as follows:

- DCAC Cyprus: Reported Data-Link and IP Network as projects identified in joint Blue Med FAB implementation programme
- ENAV Italy: Reported 11 projects with potential FAB dimension and coordination together with FAB partners (4Flight, A-CDM, ADQ implementation, ADS-B implementation, Co-Flight, Data-Link, De-conflicting tools implementation, ENET,

Mode S Radar Plan, OLDI Migration and PENS)

- HCAA Greece: No projects with potential FAB dimension reported
- MATS Malta: Reported 7 projects with synergies at FAB level (AMHS implementation, FMTP implementation, Data-Link, Flight Plan 2012, ADS-B implementation, Radar Performance Tools Implementation and OLDI Migration).

6.3.2 Only Data-Link implementation and OLDI migration are projects reported by 3 Blue Med FAB States as with FAB dimension (except Greece). Coherence in name, number, and description of FAB coordinated projects is not achieved.

6.3.3 The investment plans of the ANSPs appear to have been developed in isolation, without FAB coordination.

REGIONAL PROJECTS

6.3.4 The only regional project has been reported by Italy, with DSNA (4Flight, Co-Flight and De-conflicting tools) and with Skyguide (Co-flight). These projects are reported as a common investment. No other regional projects with entities outside FAB were reported.

6.4 Total CAPEX for RP2

FAB LEVEL

6.4.1 As shown in the table below the planned investment average per year for RP2 is foreseen to be 24% higher than the average for the previous five years (updated for 2010-14[4]) (i.e. 157.6M€2009 RP2 planned annual average vs.126.6M€2009 updated annual average for 2010-14).

Blue Med FAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	163	178	166	155	126	787.8	157.6

Table 27: RP2 Blue Med FAB CAPEX

Blue Med FAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	190	151	147	131	106	725.1	145.0
Total Updated Planned	186	117	78	145	107	633.1	126.6
U-P (M€2009, real terms)	-3.7	-33.5	-69.5	13.5	1.1	-92.0	-18.4
U/P (%)	-1.9%	-22.2%	-47.2%	10.3%	1.0%	109.5%	-12.7%

Table 28: 2010-14 Blue Med FAB CAPEX

6.4.2 However this FAB level assessment does not reflect different situations at National level, as described below:

CYPRUS ANSP

6.4.3 Cyprus's ANSP investments are planned to be on average 10.5% lower in RP2 than for the period 2010-14 (i.e. 2.7M€2009, RP2 yearly average vs. 3.0M€2009, updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	7.0	3.9	2.4	0.0	0.0	13.3	2.7
MAIN	Planned	7.0	3.9	2.4	0.0	0.0	13.3	2.7
MAIN versus TOTAL		100.0%	100.0%	100.0%			100.0%	100.0%

Table 29: RP2 Cyprus ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	2.5	7.5	5.3	5.4	0.0	20.7	4.1
	Updated Plan	5.3	2.4	3.4	3.7	0.0	14.9	3.0
	U-P (M€2009, real terms)	2.8	-5.1	-1.9	-1.7	0.0	-5.8	-1.2
	U/P (%)	113.9%	-67.8%	-36.2%	-31.1%		-28.2%	-5.3%
MAIN	Planned	2.2	7.5	5.2	5.4	0.0	20.3	4.1
	Updated Plan	4.9	2.1	3.4	3.7	0.0	14.1	2.8
	U-P (M€2009, real terms)	2.7	-5.4	-1.8	-1.7	0.0	-6.2	-1.2
	U/P (%)	122.4%	-71.6%	-35.1%	-31.1%		-30.5%	-3.9%
MAIN versus TOTAL (Planned)		88.0%	100.0%	98.3%	100.0%		98.1%	96.6%
MAIN versus TOTAL (Updated Plan)		91.5%	88.3%	100.0%	100.0%		95.0%	94.9%

Table 30: 2010-14 Cyprus ANSP CAPEX (Actual vs. Planned)

6.4.4 Three main investment projects planned for RP2 are in continuation to the ones from RP1. For "AMHS" and "VCSS Acropolis upgrade" no amounts were spent in RP1 (vs. 2M€$_{2009}$ planned) and the entry into operation was postponed for later years (Source: 2013 Monitoring Report). No further details were provided in the Performance Plan. The third and most important main project for RP2 refers to the "Replacement of Lara SSR and installation of SSR at LCPH" planned for 3.1M€$_{2009}$ in RP2 (27% from total main CAPEX). For this latter project Cyprus had already planned 2.8M€$_{2009}$ for RP1 but nothing was spent nor foreseen according to the Monitoring Report.

6.4.5 During the consultation meeting at FAB level Cyprus confirmed that "*investments planned for RP1 and not implemented, are not transferred to RP2.*"[5] However this statement is in contradiction to the one in the Performance Plan mentioning that: *"Some investments that were planned for RP1, but have not been accomplished, have been rescheduled within RP2. The project for the corporatization of the Cyprus Air Navigation Services is not expected to alter these plans."*[6]

6.4.6 It is noted that none of the projects is described as joint investment.

6.4.7 Most of the projects planned for RP2 are foreseen to be commissioned in 2016 and 2017. This is not reflected into depreciation costs which are foreseen to slightly decrease (-0.4%).

6.4.8 On the other hand it is observed that depreciation for 2010-14 is foreseen to decrease in total over the period by 2.2% (as result of -3.3% for the en-route activity). The explanation provided for this decrease is that two of the projects were "*accomplished with less expenditure than budgeted*" (i.e. "Ground to Air Tx/Rx" and "ATC Simulator").[7]

GREECE ANSP

6.4.9 Greece's ANSP investments are planned to be on average 444% higher in RP2 than for the period 2010-14 (i.e. 23M€$_{2009}$, RP2 yearly average vs. 4.2M€$_{2009}$, updated average over the past five years).

6.4.10 HCAA has explained that "*Because of the postponement of the Investment Plan implementation in RP1, depreciation costs show an annual increasing trend, since new projects are expected to be put in operation towards the end of RP2. The depreciation costs reflect the revised Investment Plan, in accordance with the ESSIP objectives and the strategic business plan of HANSP.*"[8]

6.4.11 Total CAPEX for 2010-14 had a very fluctuant evolution, and the economic situation in Greece led to rescheduling of several investments (Upgrade of Pallas system, Athinai/Makedonia ACC main VCS/RCS, Five airport VCS/RCSs) and postponement of the entry into operation.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	16.0	26.5	24.8	25.8	22.0	115.2	23.0
MAIN	Planned	16.0	26.5	24.8	25.8	22.0	115.2	23.0
MAIN versus TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 31: RP2 Greece ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	0.0	10.7	8.2	0.0	0.0	18.9	3.8
	Updated Plan	17.1	1.3	1.0	1.8	0.0	21.2	4.2
	U-P (M€2009, real terms)	17.1	-9.4	-7.2	1.8	0.0	2.3	0.5
	U/P (%)		-87.7%	-88.3%			12.3%	-88.0%
MAIN	Planned	0.0	10.7	8.2	0.0	0.0	18.9	3.8
	Updated Plan	17.1	1.3	1.0	1.8	0.0	21.2	4.2
	U-P (M€2009, real terms)	17.1	-9.4	-7.2	1.8	0.0	2.3	0.5
	U/P (%)		-87.7%	-88.3%			12.3%	-88.0%
MAIN versus TOTAL (Planned)			100.0%	100.0%			100.0%	100.0%
MAIN versus TOTAL (Actual)		100.0%	100.0%	100.0%	100.0%		100.0%	100.0%

Table 32: 2010-14 Greece ANSP CAPEX (Actual vs. Planned)

6.4.12 The Upgrade of Pallas system is HCAA's main RP2 project, planned for 23M€$_{2009}$ (20% from the total planned CAPEX for RP2), and foreseen to entry into operation after RP2. No additional details are provided.

6.4.13 None of the main projects is foreseen as a joint project or expected to bring synergies at FAB level or with other Member States.

6.4.14 Most of the projects planned for RP2 are planned to be commissioned during the reference period and this is generating an increase in assets and in depreciation by 28.3% (+24% for the en-route activity and +126% for the terminal activity).

6.4.15 Due to several postponements over 2010-14 depreciation is expected to decline by 12.5% over 2010-14 (for the en-route activity).

ITALY ANSP

6.4.16 Italy's ANSP investments are planned to be on average 9% higher in RP2 than for the period 2010-14 (i.e. 126.9M€2009 RP2 yearly average vs. 116.5M€2009 updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	136.9	140.8	132.8	123.1	100.8	634.4	126.9
MAIN	Planned	37.2	67.0	66.4	52.0	34.3	256.9	51.4
MAIN versus TOTAL		47.6%	27.2%	47.6%	50.0%	42.2%	34.1%	40.5%

Table 33: RP2 Italy ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	186.7	127.8	129.5	123.6	105.4	673.0	134.6
	Updated Plan	162.9	110.9	71.8	131.4	105.4	582.4	116.5
	U-P (M€2009, real terms)	-23.8	-16.9	-57.6	7.8	0.0	-90.6	-18.1
	U/P (%)	-12.8%	-13.2%	-44.5%	6.3%	0.0%	-13.5%	-12.8%
MAIN	Planned	114.0	88.1	86.7	82.2	66.6	437.5	87.5
	Updated Plan	112.2	64.5	71.8	92.7	66.6	407.8	81.6
	U-P (M€2009, real terms)	-1.8	-23.6	-14.8	10.5	0.0	-29.7	-5.9
	U/P (%)	-1.5%	-26.8%	-17.1%	12.8%	0.0%	-6.8%	-6.5%
MAIN versus TOTAL (Planned)		61.1%	68.9%	66.9%	66.5%	63.2%	65.0%	65.3%
MAIN versus TOTAL (Actual)		68.9%	58.1%	100.0%	70.6%	63.2%	70.0%	72.2%

Table 34: 2010-14 Italy ANSP CAPEX (Actual vs. Planned)

6.4.17 Most of the projects planned for RP2 are new, except for the "4 Flight", "ADS-B" and "Datalink", which started in RP1. The most important main project refers to "4Flight" planned for 107.1M€2009 in RP2 (32% from total main CAPEX). For this project 68.8M€2009 was spent in 2012 and 2013 (vs. 41.7M€2009 planned). The date of entry into operation is not provided so the impact into depreciation costs cannot be assessed. No additional details were provided for this project

6.4.18 We also note that nine projects included in the addendum to the RP1 Performance Plan (signed 27/01/2012) have not been realised in RP1 and are being now included in the plan to RP2: ADXM data exchange, Multilateration systems to support A-SMGCS at several airports, PENS implementation, OLDI Migration, implementation of self-briefing tool, eTOD, Mode S Radar Plan, A-CDM, and ENET implementation.

6.4.19 None of the main projects is foreseen as a joint project or expected to bring synergies at FAB level or with other Member States.

6.4.20 It is noted that ENAV has foreseen 532.8M€2009 for "other" CAPEX in total, i.e. 61% from total planned CAPEX in RP2. No details are available for the break-down of this amount.

6.4.21 No information on the commissioning dates for the projects planned for RP2. It is noted that depreciation is foreseen to decrease by 1.3% on average over RP2.

6.4.22 Though total CAPEX is foreseen to decrease over 2010-14 (see table above) depreciation is expected to slightly increase by 0.8%. No information has been provided through the charges reporting scheme with regard to investments or the impact on depreciation.

MALTA ANSP

6.4.23 Malta's ANSP investments are planned to be on average 70% higher in RP2 than for the period 2010-14 (i.e. 5M€2009, RP2 yearly average vs. 2.9M€2009, updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	3.0	7.0	6.1	5.7	3.0	24.8	5.0
MAIN	Planned	3.0	7.0	6.1	5.7	3.0	24.8	5.0
MAIN versus TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 35: RP2 Malta ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	0.8	4.7	4.4	2.4	0.3	12.5	2.5
	Updated Plan	1.0	2.6	1.7	8.0	1.4	14.7	2.9
	U-P (M€2009, real terms)	0.2	-2.1	-2.7	5.6	1.1	2.1	0.4
	U/P (%)	29.3%	-44.9%	-62.1%	237.2%	410.6%	16.8%	114.0%
MAIN	Planned	0.6	4.3	4.4	2.4	0.3	11.9	2.4
	Updated Plan	0.7	2.4	1.7	8.0	1.4	14.1	2.8
	U-P (M€2009, real terms)	0.1	-1.9	-2.7	5.6	1.1	2.1	0.4
	U/P (%)	12.7%	-44.5%	-62.1%	236.0%	408.5%	17.9%	110.1%
MAIN versus TOTAL (Planned)		75.0%	91.5%	100.0%	100.4%	100.4%	95.3%	93.5%
MAIN versus TOTAL (Updated Plan)		65.4%	92.1%	100.0%	100.0%	100.0%	96.2%	91.5%

Table 36: 2010-14 Malta ANSP CAPEX (Actual vs. Planned)

6.4.24 The continuity of investment planning and coherence with RP1 cannot be assessed as this information was missing for the planning of RP1 and also for the monitoring of 2012 and 2013.

6.4.25 The most important main project refers to "New Control Tower / ACC" planned for 18M€2009 in RP2 (63% from total main CAPEX). The date of entry into operation is not provided so the impact into depreciation costs cannot be assessed. No details were provided for this project for the planned amount for RP2.

6.4.26 None of the main projects are foreseen as a joint project or expected to bring synergies at FAB level or with other Member States.

6.4.27 The commissioning dates are not provided for any of the planned main projects. However, it is noted that depreciation will increase over RP2 (+2.4% on average).

6.4.28 The increase in total CAPEX foreseen for 2010-14 generates a rise in depreciation by 28.3% in average over the period (of which +22% for the en-route activity).

6.5 Total investments vs Total ANS costs

CYPRUS

6.5.1 Over RP2, total CAPEX is foreseen to represent on average 6.2% of gate-to-gate costs with a peak in 2015 (reaching 16.4%) (see details in 6.4.4). CAPEX are expected to decrease in RP2 (i.e. -61.5%) whilst gate-to-gate ANS costs are expected to slightly rise (i.e. +1.2%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	16.4%	9.1%	5.3%	0.0%	0.0%	6.2%

Table 37: % RP2 Cyprus ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.2 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 6.9% (vs.9.7% planned) as a result of a "CAPEX effect"[9] of -28.2% and "Costs effect"[10] of -5.4%.

GREECE

6.5.3 Over RP2, total CAPEX is foreseen to represent on average 16.4% of gate-to-gate costs with a peak in 2016 (i.e. 19%). However, both CAPEX and gate-to-gate ANS costs are expected to increase over RP2 (i.e. +12.1% for CAPEX and +1.7% for costs).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	11.7%	19.2%	17.6%	18.4%	15.1%	16.4%

Table 38: % RP2 Greece ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.4 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 2.7% (vs.2.4% planned) as a result of a "CAPEX effect" of -58.7% and "Costs effect" of -7.6%.

ITALY

6.5.5 Over RP2, total CAPEX is foreseen to represent on average 20.2% of gate-to-gate costs with a peak in 2015 and 2016 (i.e. 22%) (see details in 6.4.17). However, CAPEX is planned to decrease (-7.1%) and gate-to-gate ANS costs are expected to slightly increase over RP2 (+0.9%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	22.2%	22.5%	21.0%	19.3%	15.8%	20.2%

Table 39: % RP2 Italy ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.6 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 15.9% (vs.18% planned) as a result of a "CAPEX effect" of -13% and "Costs effect" of -2%.

MALTA

6.5.7 Over RP2, total CAPEX is foreseen to represent on average 25.8% of gate-to-gate costs with a peak in 2016 and 2017 (see table below) due to important amounts planned for the "New Control Tower / ACC". However, CAPEX is planned to increase by 16.4% in average over the period and gate-to-gate ANS costs are expected to rise by 5.8%.

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	17.9%	38.1%	30.7%	28.1%	14.3%	25.8%

Table 40: % RP2 Malta ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.8 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 19.9% (vs.22.6% planned) as a result of a "CAPEX effect" of +31.9% and "Costs effect" of +14.6%.

6.6 Ancillary assessments

6.6.1 In accordance with the performance scheme Regulation, additional reporting requirements were included in the RP2 Performance Plans by the States/ANSPs. This information ensure the transparency of the investment policy at ANSP level, details the impact of expected benefits per KPA and also the synergies achieved at FAB level.

6.6.2 The information provided by the Blue Med FAB is detailed in the tables below.

Ancillary assessments	Cyprus ANSP (DCAC)	Greece ANSP (HCAA)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Most main investment projects planned for RP2 are new. 3 projects are continuing from the planning of RP1, to RP2 (see item 6.4.4).	Several projects (Upgrade of Pallas system, Athinai/Makedonia ACC main VCS/RCS, Five airport VCS/RCSs) were planned for RP1 but, due to the difficult situation in Greece, no amounts were spent for any of the RP1 years.
Overview, impact and date of expected benefits per KPA	No information provided.	No information provided.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	The Blue Med FAB Performance Plan includes notes from a Stakeholder consultation event at FAB level that took place on 11 June 2014 in Rome. All KPIs have been discussed by representatives of all FAB States and Airspace Users delegates. But There is no CBA evidence provided for planned investments. At the consultation meeting, Cyprus was required to confirm that none on the postponed investments from RP1 are transferred to RP2).	The Blue Med FAB Performance Plan includes notes from a Stakeholder consultation event at FAB level that took place on 11 June 2014 in Rome. All KPIs have been discussed by representatives of all FAB States and Airspace Users delegates. But There is no CBA evidence provided for planned investments. At the consultation meeting, the issue of paying twice for the same investments was raised. Greece has stated that they are "*trying to ensure alignment of planning and actual investments*."
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	No Annex D available.	No Annex D available.

Table 41: Ancillary assessments for the Blue Med FAB – Cyprus and Greece

Ancillary assessments	Italy ANSP (ENAV)	Malta ANSP (MATS)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Most of the projects planned for RP2 are new, except for "4 Flight", "ADS-B" and "Datalink" which started in RP1. No details were provided for any of the projects planned for RP2, therefore the coherence of the planning cannot be assessed. In addition, 9 projects contained in the addendum to the RP1 Performance Plan have not been realised in RP1 and are being carried over to RP2.	The detailed list of main projects planned for RP2 cannot be compared to RP1 investments as this information was missing for the planning of RP1 and also in the monitoring for 2012 and 2013.
Overview, impact and date of expected benefits per KPA	No information provided.	No information provided.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	The Blue Med FAB Performance Plan includes notes from a Stakeholder consultation event at FAB level that took place on 11 June 2014 in Rome. All KPIs have been discussed by representatives of all FAB States and Airspace Users delegates. But There is no CBA evidence provided for planned investments. Italy's investments were not commented at the consultation meeting.	The Blue Med FAB Performance Plan includes notes from a Stakeholder consultation event at FAB level that took place on 11 June 2014 in Rome. All KPIs have been discussed by representatives of all FAB States and Airspace Users delegates. But There is no CBA evidence provided for planned investments.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	No Annex D available.	No Annex D available.

Table 42: Ancillary assessments for the Blue Med FAB – Italy and Malta

6.7 PCP prerequisites View

PCP	ESSIP	Cyprus	Greece	Italy	Malta
AF1	ATC15			Dec-17	
	ATC07.1			-	
	NAV03	Dec-14	-	Dec-14	Dec-14
AF2	AOP05		12/2014[11]	10/2015[12]	
	AOP04.1		12/2014[13]	12/2015[14]	
	AOP04.2		12/2015[15]	12/2017[16]	
AF3	AOM19	Dec-15	Dec-15	Dec-15	
	AOM21	Sep-15	Dec-17	Dec-17	Mar-15
	ATC12	Jun-14	Dec-16	Dec-15	Mar-15
AF4	FCM04			Dec-15	
	FCM05	Dec-16	-	Dec-16	Dec-16
AF5	COM09	Dec-14	Dec-14	Dec-14	Dec-14
AF6	ITY-AGDL	Feb-15	-	Oct-16	Mar-15

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 43: PCP Prerequisites view

6.8 Key Points

FAB LEVEL

6.8.1 **Volume of investment**: The planned investment average per year for RP2 is foreseen to be 24% higher than the average for the previous five years (updated for 2010-14).

6.8.2 Some RP1 projects which planned not to be finalised by the end of RP1 shall be carried over to RP2.

6.8.3 **FAB / Regional approach:** There is no FAB approach to investment. A significant number of projects are reported as achieving synergy at FAB/Regional level, but there is no coherence in names, dates, descriptions and expected benefits from these projects.

6.8.4 None of the main projects planned is foreseen to be a joint project or expected to bring synergies at FAB level.

6.8.5 The investment plans of ANSPs seem to have been developed in isolation and responding mostly to their individual needs.

6.8.6 Italy reported some regional projects with DSNA and Skyguide.

6.8.7 **Consultation:** There was a joint consultation process at FAB level. Decision-making references were provided for most of the projects, but most of these decisions seem to be driven by local reasons and ANSP business plans. There is no CBA evidence provided for the planned investments

6.8.8 **Link with Master Plan:** The main investments of Greece and Italy are compatible and coherent with the ATM Master Plan requirements. They are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

6.8.9 On the other hand the main investments of Cyprus and Malta are not linked to any ATM Master Plan requirement. It is therefore impossible to assess their eligibility for recovery through ANS charges in application of Article 6(4) of the charging Regulation.

6.8.10 Furthermore, Cyprus, Greece and Malta have not earmarked any investment with reference to the ATM functionalities of the PCP. Their ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk.

CYPRUS

6.8.11 Investments are planned to be on average 10.5% lower in RP2 than for the period 2010-14.

6.8.12 Most main investment projects planned for RP2 are new, but there is no clarity for those RP1 investments continuing in RP2, with a possible catch-up effect and possibly generating double charging of airspace users.

6.8.13 Most of the projects planned for RP2 are foreseen to be commissioned in 2016 and 2017. This is not reflected into depreciation costs which are foreseen to slightly decrease (-0.8%) in continuation of the previous five years trend (-2.2%).

6.8.14 Over RP2, total CAPEX is foreseen to represent on average 6.2% of gate-to-gate

costs (vs. 8.6%, updated average for the past five years) (see details in 6.5.1 and 6.5.2).

GREECE

6.8.15 Greece's ANSP investments are planned to be on average 444% higher in RP2 than for the period 2010-14.

6.8.16 The economic situation in Greece led to rescheduling of several investments planned for RP1 (i.e. Upgrade of Pallas system, Athinai/Makedonia ACC main VCS/RCS, Five airport VCS/RCSs) and postponement of the entry into operation. There are also several new projects planned for RP2 (see section 6.4.12).

6.8.17 Most of the projects planned for RP2 are planned to be commissioned during the reference period and this is generating an increase in assets and in depreciation by 28.3%, whilst over 2010-14 depreciation is expected to decline by 12.5%.

6.8.18 Over RP2, total CAPEX is foreseen to represent on average 16% of gate-to-gate costs (see details in 6.5.3 and 6.5.4).

ITALY

6.8.19 Investments are planned to be on average 9% higher in RP2 than for the period 2010-14.

6.8.20 Most of the projects planned for RP2 are new. It is foreseen that "other" CAPEX to account for 61% from total planned for RP2. For those RP1 investments continuing in RP2, there is no clarity about a possible catch-up effect possibly generating double charging of airspace users.

6.8.21 No information is provided on the commissioning dates for the projects planned for RP2. It is noted that depreciation is foreseen to decrease by 1.3% in average over RP2, whilst for the previous five years the decrease in CAPEX is generating a decline in depreciation of 2.1%.

6.8.22 Over RP2, total CAPEX is foreseen to represent on average 20% of gate-to-gate costs (vs. 15.9%, updated average for the past five years) (see details in 6.5.5 and 6.5.6).

MALTA

6.8.23 Investments are planned to be on average 70% higher in RP2 than for the period 2010-14.

6.8.24 The continuity of investment planning and coherence with RP1 cannot be assessed.

6.8.25 The increase in total CAPEX generates a rise in depreciation over RP2 (+2.4%), in continuation of the previous five years trend (+28.3%).

6.8.26 Over RP2, total CAPEX is foreseen to represent on average 25.8% of gate-to-gate costs (vs. 19.9%, updated average for the past five years) (see details in 6.5.7 and 6.5.8).

7 MONITORING PERFORMANCE PLANS

7.1.1 The relevant section in the FAB Performance Plan is virtually empty, with no valuable information.

7.1.2 The PRB therefore recommends information to be provided in accordance with the requirements of the performance Regulations.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 No information was provided on how the FUA legislation would be applied to provide additional capacity for general air traffic.

8.2 Additional indicators

8.2.1 No additional civil military indicators were described in the FAB Performance Plan.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the Blue Med FAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the Blue Med FAB Performance Plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 The Blue Med FAB targets for en-route capacity are not consistent with the respective FAB reference values for each year in RP2.

9.1.4 The Blue Med FAB has not set targets for the arrival ATFM delay for Cyprus and Greece. In particular, it has not provided quantitative values for the national target and its breakdown per airport.

9.1.5 The national target set by Italy for the arrival ATFM delay is inconsistent with the requirements of the performance Regulation, in particular with the observed historical performance achieved in the last five years. Moreover, Italy did not provide a reasoning justifying the anticipated lower performance or prevailing capacity constraints at Italian airports.

COST-EFFICIENCY

9.1.6 The cost-efficiency targets for the en-route charging zones of Cyprus, Greece, Italy and Malta are not consistent with and do not adequately contribute to the achievement of the en-route Union-wide target.

9.1.7 The cost-efficiency targets for the terminal charging zones are of Cyprus, Greece and Malta not consistent with the criteria laid down in Annex IV of the performance Regulation.

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the Blue Med FAB in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The Blue Med FAB should revise the en-route capacity FAB targets to be consistent with the FAB reference values from the Network Operations Plan of the Network Manager (2014-2018/2019).

9.2.2 The Blue Med FAB should review and revise the inconsistent national targets for arrival ATFM delay. Moreover, for Cyprus and Greece it should establish a quantitative national target supported by the provided breakdown. For Italy, it should review the padding of the national target and balance it with anticipated performance benefits or substantiate impacts negatively influencing national performance in arrival ATFM delay.

RECOMMENDATIONS FOR THE COST-EFFICIENCY KPA

9.2.3 Cyprus should:

- revise downwards the en-route determined costs planned over RP2, in the light of the level of determined costs observed in 2013;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise downwards the terminal ANS determined costs planned for RP2;
- revise the TNSU forecast in the light of the latest available information;
- revise downwards the terminal Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise its inflation forecasts for 2014 and RP2 to be in line with IMF.

9.2.4 Greece should:

- revise downwards the en-route determined costs planned over RP2, in the light of the level of determined costs observed in 2013;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the terminal ANS determined costs planned for RP2;
- revise downwards the terminal Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred.

9.2.5 Italy should:

- revise downwards the en-route determined costs planned over RP2, in the light of the level of determined costs observed in 2013;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect

the lower financial risk actually incurred.

9.2.6 Malta should:

- revise downwards the en-route determined costs planned over RP2, in the light of the level of determined costs observed in 2013;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the terminal ANS determined costs planned for RP2;
- revise the TNSU forecast in the light of the latest available information.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The Blue Med FAB should provide the list of airports in Cyprus, Greece and Malta that are exempted from the provisions of the performance and charging Regulations.

9.3.2 The Blue Med FAB should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, in particular:

- The Blue Med FAB should provide detailed information on the national consultations held;
- The Blue Med FAB should provide the list of invited stakeholders and the list of actual participants to all its consultation meetings;
- The Blue Med FAB should provide the dates on which the material for each of the consultation meetings were sent to stakeholders.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.3.3 The Blue Med should revise the RAT methodology application target for ATM-S, as the values for ATM Ground and ATM Overall scores should be the same.

COMPLIANCE ISSUES FOR THE ENVIRONMENT KPA

9.3.4 The Blue Med FAB should provide the targets for the four additional indicators adopted.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.5 The Blue Med FAB should ensure that the individual ANSP contributions for en-route capacity are revised so that, when aggregated, they are consistent with the required level of performance, as determined by the Blue Med FAB reference values from the Network Operations Plan (2014-2018/2019) and to enable effective monitoring of performance.

9.3.6 The Blue Med FAB should mandate its ANSPs to revise existing capacity plans to meet the required performance during RP2.

9.3.7 The Blue Med FAB should review and provide details of how improved civil military coordination and cooperation could provide additional capacity for general air traffic.

9.3.8 The Blue Med FAB should review the en-route capacity incentive schemes in accordance with Article 12 of the performance Regulation, and Article 15 of the charging Regulation. In particular, the following items should be addressed:

- There are no en-route capacity schemes described for either Malta or Greece;
- The incentives schemes provided do not consider FAB performance as a criterion;
- The incentive scheme for Cyprus is not transparent; it is not proportional or effective; it does not foster a high level of capacity performance at either FAB or national level;
- The incentive scheme for Italy uses capacity targets but does not provide evidence to show that they are consistent with the required FAB performance, therefore there is no evidence that this can be considered as fostering a high level of FAB performance.

9.3.9 The Blue Med FAB Performance Plan should present incentive schemes for the national targets on arrival ATFM delay.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.10 Greece and Italy should:

- provide, for both en-route and terminal, information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance;
- provide, for both en-route and terminal, further details on costs items potentially eligible as costs exempt from risk sharing for RP2.

9.3.11 Malta and Cyprus (except on loans for the latter, since they have no loans) should:

- provide, for both en-route and terminal, full details on the underlying pension costs assumptions and interest rates on loans in line with the FAB Performance Plan template and guidance.

9.3.12 The Blue Med FAB should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

COMPLIANCE ISSUES FOR THE INVESTMENTS

9.3.13 Cyprus and Malta should provide appropriate links between their main investments and the ATM Master Plan requirements, so as to allow assessing their eligibility for recovery through ANS charges in application of Article 6(4) of the charging Regulation.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.4.1 The Blue Med FAB should provide detailed information regarding the measures put in place to monitor and report on the implementation of the Performance Plan.

9.4.2 The Blue Med FAB should specify which traffic assumptions were used by Cyprus, Greece and Malta in the FAB Performance Plan, and establish a clear distinction between traffic and Service Unit forecasts.

OBSERVATIONS FOR THE SAFETY KPA

9.4.3 The Blue Med FAB should monitor the introduction and progress of the RAT methodology application (especially at State level).

9.4.4 The Blue Med FAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE CAPACITY KPA

9.4.5 The Blue Med FAB should provide supporting information and justification for anticipated benefits from planned activities that may positively influence the level of performance, in terms of arrival ATFM delay.

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.4.6 The Blue Med FAB should provide regular updates to the Commission and the PRB on the corporatisation process for Cyprus' en-route ATSP and the restructuring process of the Civil Aviation Authority, idem for Malta and for the part privatisation process of Italy main ATSP (ENAV).

OBSERVATIONS FOR THE INVESTMENTS

9.4.7 Cyprus, Greece and Malta should update the field "Common Project" with adequate reference to the proper PCP ATM functionalities.

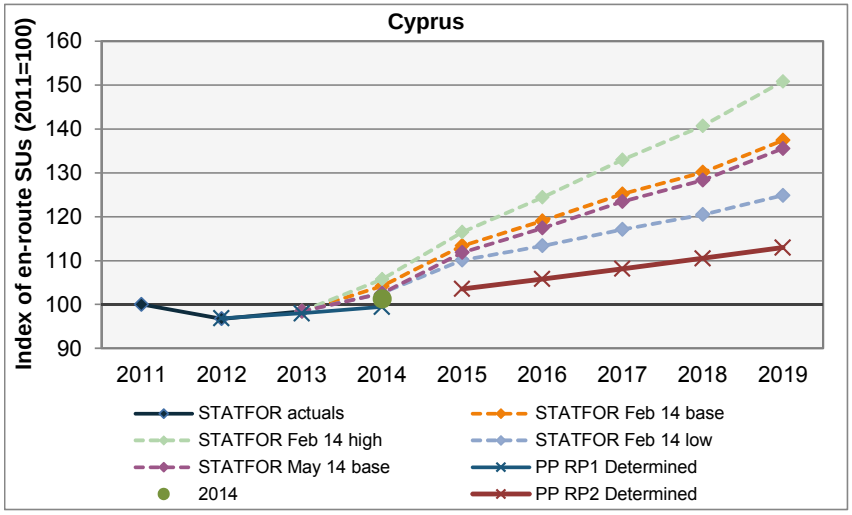
9.4.8 Cyprus, Greece and Malta should describe and/or justify the cost, nature and contribution of its investments in a more detailed, less generic way, allowing proper understanding of the importance and need for such investments.

9.4.9 All Blue Med FAB States should provide evidence of the existence of CBAs for their planned main investments.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Cyprus: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		1,305	1,320	1,340							
Actuals, 2014, PP RP2 Determined	1,347	1,303	1,327	1,365	**1,395**	**1,426**	**1,457**	**1,489**	**1,522**	**1.5%**	**2.2%**
STATFOR Feb 14 base				**1,404**	**1,528**	**1,604**	**1,687**	**1,753**	**1,852**	**4.1%**	**4.9%**
STATFOR Feb 14 high				1,425	1,570	1,677	1,792	1,896	2,033	5.3%	6.7%
STATFOR Feb 14 low				1,382	1,484	1,527	1,578	1,623	1,683	2.8%	3.2%
STATFOR May 14 base				1,381	1,507	1,582	1,664	1,729	1,826	3.9%	4.9%
PP RP2 vs STATFOR Feb 14 base (%)					-8.7%	-11.1%	-13.6%	-15.1%	-17.8%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 21: En-route TSU forecasts

Comments:

Forecast total en-route TSUs for the Cyprus en-route charging zone are lower than the STATFOR February 2014 low case forecasts. The updated 2014 TSU forecast is +2.9% higher than the 2013 actual, and +1.9% higher than the determined value in the RP1 Performance Plan. This increase is lower than the latest actuals for 2014 to date (January – August 2014), which show traffic is +4.5% higher than the equivalent period in 2013 and +3.5% higher than the RP1 determined value.

Over RP2 Cyprus forecast traffic increases of +2.2% p.a., lower than the +4.0% forecast in the STATFOR February 2014 low case. As a result, forecast traffic in the Performance Plan for 2019 is -9.5% lower than the STATFOR February 2014 low case.

In the Performance Plan, Cyprus states that it has not used the STATFOR forecasts as "significant deviations between forecast and actual figures have been observed in the last few years" and that "STATFOR's forecasts are too optimistic". Cyprus states that the Cyprus NSA's forecasts that were applied in RP1 (significantly below STATFOR's May 2011 base case forecast) are more accurate, with a deviation of 0.2% from planned in 2012 and 2013. In RP1, the submitted traffic forecast was lower than the STATFOR May 2011 base case forecasts for all years (a difference of -2.1 percentage points for 2012, -4.3 points for 2013 and -6.5 points for 2014), indicating the choice of a lower forecast than STATFOR's February 2014 forecast is justified. However the positive outturn to date in 2014 may be

grounds for a more optimistic forecast over RP2 than the current +2.2% p.a. growth chosen.

If the STATFOR February 2014 base case forecast eventuated, under the traffic risk sharing mechanisms the following gains would be retained by the State and airspace users respectively:

- Net potential gains to be retained by the State/ANSP are 10.3 M€$_{2009}$ or 6.1% of the total costs subject to traffic risk sharing for RP2.
- Net potential gains to be retained by airspace users are 16.1 M€$_{2009}$ or 9.5% of the total costs subject to traffic risk sharing for RP2.

Based on this analysis, the Cyprus en-route charging zone is assessed as <u>not passing</u> this check.

Economic assumptions

Inflation: Cyprus		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.1%	0.4%	1.2%	1.6%	1.7%	1.7%	1.8%	2.0%
Eurostat/IMF avg	annual % change		0.4%	0.4%	1.4%	1.7%	1.7%	1.8%	1.9%
Difference	p.p. difference		0.0%	0.8%	0.2%	0.0%	0.0%	0.0%	0.1%
PP RP2	2009=100	109.4	109.8	111.1	112.9	114.8	116.8	118.9	121.3
Eurostat/IMF avg	2009=100	109.4	109.8	110.3	111.9	113.8	115.7	117.8	120.0
Difference	index difference	0.0	0.0	0.8	1.1	1.1	1.1	1.1	1.3

Figure 22: Economic assumptions

Comments:

The inflation value provided for 2013 is equivalent to EUROSTAT HICP. Inflation forecasts for 2014, 2015 and 2019 are not equivalent to the IMF average inflation rate forecast published in April 2014 (2016-2018 are equivalent).

The inflation forecast provided in the Performance Plan for 2014 (1.2%) is higher than the IMF forecast (0.4%). The IMF forecast is also lower in 2015 and 2019. The resulting index (2009=100) in in 2019 using the Performance Plan is 121.3, 1.3 points higher than the Eurostat/IMF forecast index of 120.0.

No rationale was provided in the Performance Plan to support the inflation forecasts provided.

There is one consistent inflation rate in the Plan used for all charging zones which is applied to all components of the cost base.

Based on this analysis, the Cyprus en-route charging zone is assessed as <u>not passing</u> this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	43.8	44.9	44.5	47.8	47.0	47.3	52.7	53.6	55.9	57.6	59.4
Inflation rate	annual % change		2.5%	3.5%	3.1%	0.4%	1.2%	1.6%	1.7%	1.7%	1.8%	2.0%
Inflation index	2009=100	100.0	102.5	106.1	109.4	109.8	111.1	112.9	114.8	116.8	118.9	121.3
Determined costs	EUR m (2009)	43.8	43.8	41.9	43.7	42.8	42.6	46.7	46.7	47.9	48.5	49.0
Service units	'000s	1,273	1,352	1,347	1,303	1,327	1,365	1,395	1,426	1,457	1,489	1,522
Determined unit cost	EUR (2009)	34.39	32.38	31.12	33.57	32.27	31.20	33.46	32.74	32.86	32.54	32.16
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	34.39	32.38	31.12	33.57	32.27	31.20	33.46	32.74	32.86	32.54	32.16

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	3.1%	3.7%	4.6%	3.0%
Inflation	CAGR %	1.9%	1.7%	1.8%	1.8%
Determined costs	EUR m (2009)	1.1%	2.0%	2.8%	1.2%
Service units	'000s	1.8%	1.5%	2.2%	2.2%
Determined unit cost	EUR (2009)	-0.7%	0.4%	0.6%	-1.0%
Exchange rate					
Determined unit cost	EUR (2009)	-0.7%	0.4%	0.6%	-1.0%

Table 44: Determined unit cost trend

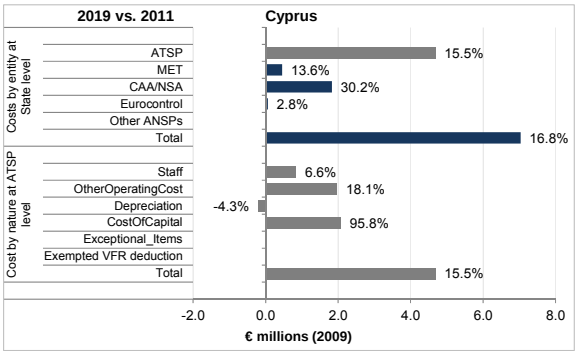


Figure 23: Planned cost category changes over RP1 and RP2

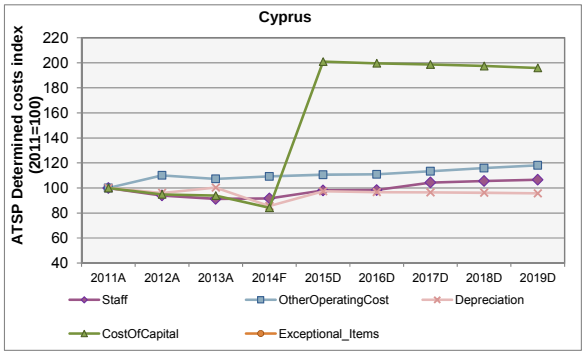


Figure 24: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Annual average % changes in DUCs are worse than the Union-wide targets for all periods analysed. Over the period 2014-2019 Cyprus plans an increase in the DUC of +0.6% compared to the target reduction of -3.3% p.a. A reduction is expected over 2009-2019 (-0.7%) however this is lower than the target of -2.5% p.a.

Planned changes over 2011-2019 (+0.4%) are also worse than the Union-wide DUC target (-1.7% p.a.).

Annual average percentage changes in DCs are worse than the planned DCs changes underpinning the Union-wide targets for all periods analysed:

- 2014-2019: Cyprus plans DCs increases of +2.8% p.a. compared to Union-wide target of -2.1%;
- 2011-2019: Cyprus plans +2.0% p.a. compared to -0.8%; and
- 2009-2019: Cyprus plans +1.1% p.a. compared to -1.1%.

The PRB notes that revised traffic and DCs forecasts have been provided for 2014; with traffic expected to be +2.9% higher than 2013 actuals and costs -0.5% lower than 2013 actuals. As a result, the DUC in 2014 is expected to be -3.3% lower than 2013 and the PRB notes however that the DCs in 2015 are planned to increase by +9.6% on 2014, primarily due to a +13.8% increase in ATSP costs in that year.

The PRB notes that a traffic forecast that is significantly lower than the STATFOR February 2014 low case has been provided in the Performance Plan, and that the inflation forecasts provided are higher than the combined Eurostat actuals and IMF forecasts over the period 2014-2019. The DUC trend forecast for 2014-2019 using normalised traffic and inflation forecasts is improved (-2.7% vs +0.6%), however is still lower than the Union-wide target (-3.3%).

In the Performance Plan, Cyprus states that the economic recession has resulted in budget restrictions that have limited infrastructure upgrades or recruitment which is making it "*increasingly difficult to meet airspace capacity demands*". Cyprus states that increased investment in staff and infrastructure will be required in RP2 as traffic delays result in significant costs for airspace users. However as noted in section 6of this report, DCAC Cyprus' investments over RP2 are planned to be -10.5% lower on average than the 2010-2014 period, and projects foreseen for commission in 2016 and 2017 are not reflected in the depreciation costs. It is also noted that there is no clarity for RP1 investments continuing in RP2, with a possible catch-up effect and possibly generating double charging of airspace users (this was also raised by the users during the FAB Performance Plan consultation).

The PRB notes that the Blue Med FAB capacity targets are not consistent with the reference values and that there are significant levels of delay in Nicosia ACC, the highest levels of the delay throughout the Network. Over RP2 the capacity gap is expected to increase.

According to the Performance Plan and Reporting Tables, plans are currently underway in Cyprus to corporatize the ATSP, DCAC Cyprus (it is currently a government department with a cash budget). It is noted in the Performance Plan that this will likely alter the RP2 forecasts for its ATSP entity, and that there will be additional restructuring costs relating to this. Cyprus expects to submit its Cost Benefit Analysis for the restructuring activity before the next Reference Period (RP3). The PRB notes that the corporatisation process may provide commercial drive and the flexibility to manage its resources and respond to performance requirements. However it is not clear whether this will enhance cooperation with FAB partners, as there are no current indications in the FAB Performance Plan that significant collaborations are planned in the delivery of services within DCAC Cyprus or amongst other ATSPs.

Looking at the contribution of each accountable entity over the 2011-2019 period, the PRB notes that all entities plan an increase in DCs: DCAC Cyprus (the ATSP) DCs increase at +1.8% p.a., the Cyprus NSA DCs increase at +3.4% p.a. and MET costs increase at +1.6% p.a. The increase in EUROCONTROL costs over the period (+0.4% p.a. or 0.06 M€$_{2009}$) is mainly driven by the reduction "*IFRS Budgeting*" accounted for in 2011 (-0.3 M€$_{2009}$ for Cyprus).

Over the 2011-2019 period, all categories of cost by nature increase apart from depreciation, which decreases at -1.1% p.a. or -0.5 M€$_{2009}$ (mainly related to postponed investments). In terms of value, the most significant increases seen is in the other operating costs category, which increases by +4.8 M€$_{2009}$ (+3.6% p.a.). This increase is primarily due to a VAT increase in Cyprus of 2 percentage points in 2012 and an additional percentage point in each of 2013 and 2014. Cost of capital also increases significantly, by +2.0 M€$_{2009}$ over the period or +5.9% p.a. The bulk of this increase occurs in 2015 where the cost of capital increases by +138% on the 2014 value. The Performance Plan states that this is due to "*the economic recession of the State*". This increase, along with other cost category increases that result in a general DC/DUC increase over RP2, are of concern to airspace users.

According to the 2013 Monitoring analysis, the estimated economic surplus for the en-route activity in 2013 amounts to 3.3 M€$_{2009}$, which implies an ex-post rate of return on equity of 10.0% (compared to 6.1% as initially planned in the NPP). This adds to the gains generated by DCAC Cyprus in 2012 (+3.0 M€$_{2009}$ or 9.5% of en-route revenues leading to an ex-post rate of return on equity of 8.7%). The PRB notes that with the significant DCs increase seen in 2015 in the ATSP entity, in particular the 138% increase in the cost of capital, these savings do not appear to be accounted for in RP2.

Based on this analysis, the Cyprus en-route charging zone is assessed as <u>not passing</u> this check.

En-route Determined Unit Cost level

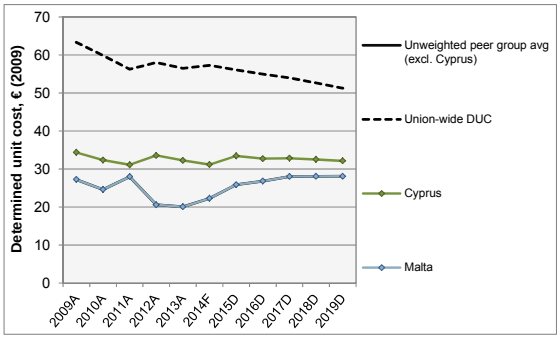


Figure 25: Determined unit cost level

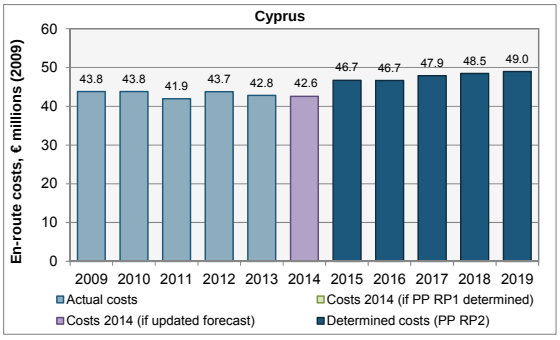


Figure 26: Determined costs 2009-2019

Comments:

Cyprus' en-route charging zone DUC level in 2019 is planned to amount to 32.16 €$_{2009}$, which is +14.4% higher Malta (the other ATSP in its comparator group, 28.12 €$_{2009}$). The PRB notes that it is -37.2% lower than the Union-wide average for that year (51.26 €$_{2009}$).

If the DUC in 2019 is normalised for traffic and inflation, this comparison worsens, and Cyprus is +50.7% higher than its comparator in 2019. However when adjusted for PPP exchange rates, the two comparators move closer and Cyprus' DUC in 2019 is -1.5% lower than Malta's.

Cyprus' DUC trend over the 2009-2019 period (-0.7% p.a.) is better than Malta's (+0.3% p.a.).

The proportion of gate-to-gate ANS costs allocated to en-route in the Cyprus cost base is 87% in each year of RP2, which is significantly higher than the comparator group State (Malta, ranging between 80% and 82% over the 2015-2019 period). However this does not impact the level of the en-route DUCs in 2019 relative to the comparator group State.

Based on this analysis, the Cyprus en-route charging zone is assessed as <u>not passing, with reservations</u>, for this check.

Cost of Capital

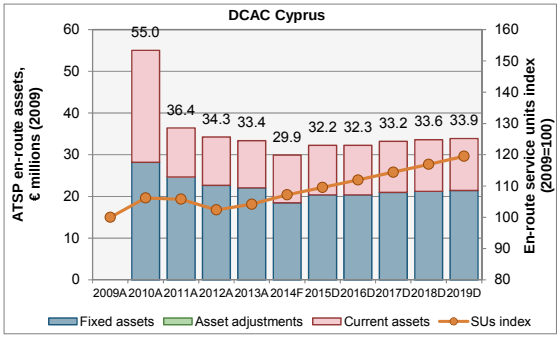


Figure 27: Breakdown of ATSP en-route asset base (2009-2019)

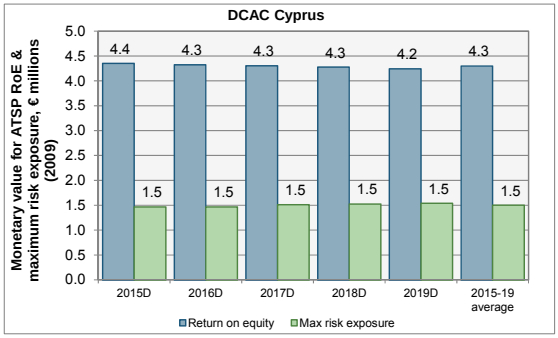


Figure 28: ATSP RoE vs maximum traffic risk exposure

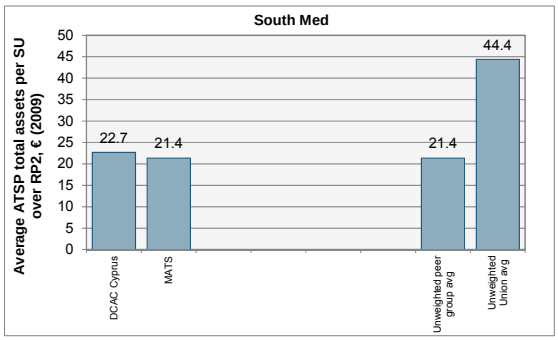


Figure 29: Average en-route asset base per SU over RP2

Comments:

The WACC rate used to calculate the cost of capital for DCAC Cyprus (13.5% - 12.5% over RP2) is significantly higher than the upper bound of the range of values calculated with the methodology laid down in Annex C guidance. The majority of the assumptions used for the different components of the WACC calculation are outside the range of recommended values.

The PRB notes that as a government department, the ATSP, METSP and NSA in Cyprus do not plan any gearing in their capital structures for RP2, although this may change for DCAC Cyprus if it is privatised as planned.

The PRB also notes that the values for the WACC and Return on Equity (RoE) provided in the Additional Information for RP2 differ from those in the Reporting tables for 2016-2019. It is assumed that the values presented in the Reporting Tables are the intended values for RP2 and it is these values that are analysed for the assessment.

The pre-tax rate of return on equity (RoE) that is set for DCAC Cyprus over RP2 ranges from 13.5% to 12.5% per annum for each year of RP2. The monetary value of the RoE for DCAC Cyprus is calculated by taking the relevant components of DCAC Cyprus' capital structure and the total assets used to determine the cost of capital into account. For DCAC Cyprus this is approximately 4.3 M€$_{2009}$ in each year of RP2, significantly higher than the maximum traffic risk exposure which will be borne by DCAC Cyprus over RP2 (approximately 1.5 M€$_{2009}$ in each year of RP2).

The pre-tax RoE rate proposed by Cyprus is significantly higher than the yields of long term government bonds, which, as noted above, was +6.3% on average over the period 2011-

2014 (European Central Bank). Rates have decreased from an average high of +7.0% in 2012 to +6.0% in 2014.

In 2015, Cyprus' en-route asset base per service unit (23 €$_{2009}$) is slightly higher than the comparator group average of ATSPs excluding Cyprus (19 €$_{2009}$). This is expected to reduce over RP2 to 22 €$_{2009}$ per SU in 2019 which is +10.6% higher than the group average (20 €$_{2009}$), but -44.5% lower than the unweighted Union-wide average (40 €$_{2009}$).

The share of fixed / current assets in the asset base used to calculate the en-route cost of capital for DCAC Cyprus is 63%, significantly lower than its comparator, Malta (122%) and the Union-wide average (90%).

Based on this analysis, the Cyprus en-route charging zone is assessed as <u>not passing</u> this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan comprises information about the underlying pension costs assumptions for the defined benefits scheme for each entity. Information on total pensions costs (100% of which are in respect of regular cash payments), the value of the pension liabilities and the number of pensionable staff. However, if it is really a DB scheme managed at State Level, some information such as the contribution rate and the salary base on which it is applied are missing as well as information about the discount rate used. No information on interest rates on loans is provided as there is currently no gearing in the ATSP (or indeed any other entity) capital structure planned for RP2. No assumptions beyond IAS are proposed. **Based on this analysis, the Cyprus en-route charging zone is assessed as not passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Cyprus has reported costs exempt from cost sharing in 2012 (0.3 M€$_{2009}$) and 2013 (0.5 M€$_{2009}$), relating to changes in national taxation law (increases to VAT) and EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions. In the Performance Plan, Cyprus state that other operating costs increases in RP2 include the VAT increases seen in RP1. However it is noted that any further increases in VAT mandated by the Government during RP2 would be considered as costs exempt from risk sharing. Cyprus has considered the following factors as costs exempt from risk sharing: • Unforeseen changes in national pensions law, which is noted to be possible "*due to*

the current economic situation in the State";

- Changes in interest rates in loans: whilst there is no gearing in the ATSP or METSP capital structure, Cyprus notes that this may change if DCAC Cyprus is corporatized;
- Unforeseen cost items required by law;
- Unforeseen changes in national taxation law: VAT increases in 2012-2014 have been taken into account but further changes may be possible, as noted above; and
- Unforeseen changes stemming from international agreements: the Performance Plan notes that cost variations for outsourced services provided by organisations located outside Cyprus would be beyond the control of the ATSP.

The elements have been described qualitatively only, limited quantitative parameters have been provided and the State has not noted the authority responsible for the decision whether they are valid.

Based on this analysis, the Cyprus en-route charging zone is assessed as passing this check.

Cyprus: Assessment of terminal charging zone

Overview of terminal charging zone in Cyprus:

Based on the information provided in the Performance Plan there is one terminal charging zone (TCZ) in Cyprus for RP2. This TCZ comprises two airports: Larnaka Intl (LCLK) and Pafos Intl (LCPH). Neither of these airports has over 70,000 IFR movements per annum.

Traffic risk sharing does not apply in this TCZ. There has been no change in the number of airports included in TCZ between 2014 and 2015.

The Cyprus TCZ covers 92.5% of terminal traffic in Cyprus.

In the Performance Plan, Cyprus notes that no terminal navigation services are currently charged to users. This issue will be re-examined during the Reference Period "*when the financial situation of the state is improved and/or when the work for the corporatisation of the ANSP reaches a mature state*".

Traffic forecast assumptions

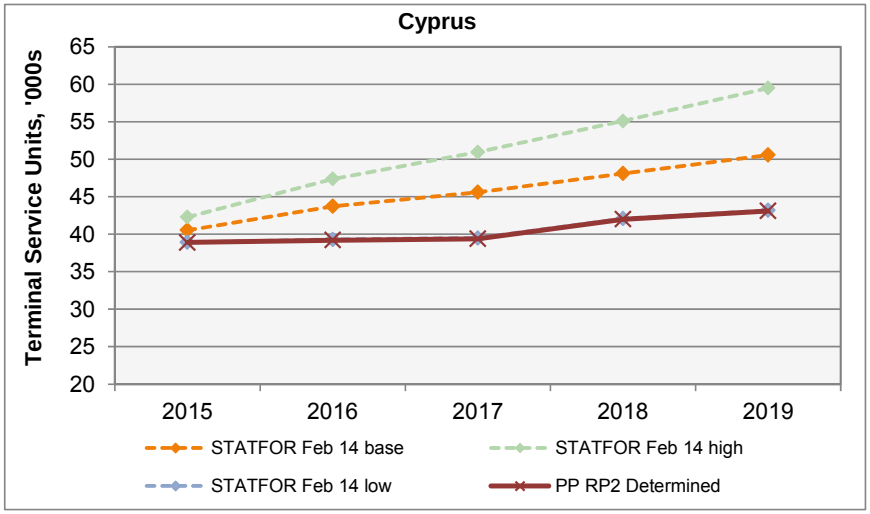


Figure 30: TNSU forecast 2015-2019

Forecast total Terminal Navigation Service Units (TNSUs) for the Cyprus TCZ are slightly lower (-0.2% in each year) than the STATFOR February 2014 low case forecast in each year of RP2. Average annual growth over RP2 for the two forecasts is equivalent. There is virtually zero growth planned in terms of TNSUs from 2015 until 2017. The PRB notes that significant decline in terminal traffic has been seen in recent years, with traffic decreasing -9.6% between 2012 and 2014.

Based on this analysis, the Cyprus terminal charging zone is assessed as not passing, with reservations, for this check.

Economic assumptions

The inflation data provided for the Cyprus TCZ is in line with the en-route assumptions, however these are not equivalent to the IMF forecasts for RP2.

Based on this analysis, the Cyprus terminal charging zone is assessed as <u>not passing</u> this check.

Terminal ANS Determined Unit Cost (DUC) trend

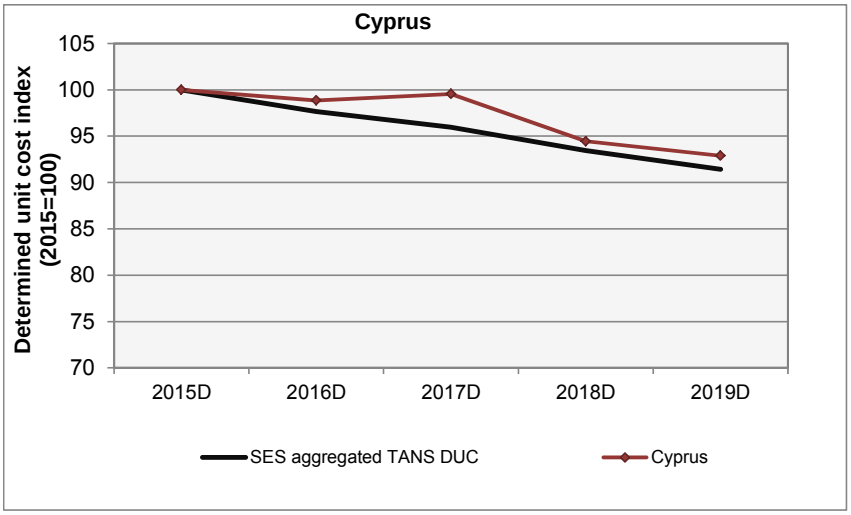


Figure 31: Terminal DUC index, 2015-2019

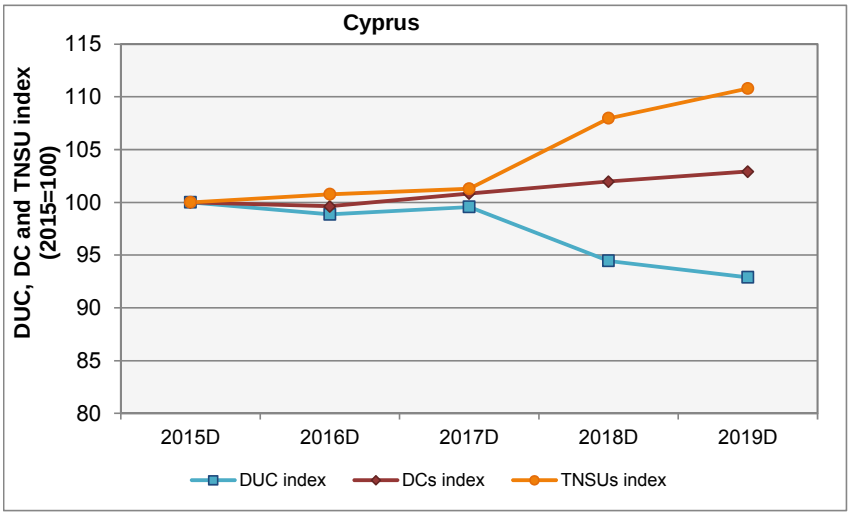


Figure 32: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Cyprus		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	8.1	8.2	8.4	8.7	9.0	2.5%
Inflation rate	annual % change	1.6%	1.7%	1.7%	1.8%	2.0%	1.8%
Inflation index	2009=100	112.9	114.8	116.8	118.9	121.3	
Determined costs	EUR m (2009)	7.2	7.1	7.2	7.3	7.4	0.7%
Terminal service units	'000s	39	39	39	42	43	2.6%
Determined unit cost	EUR (2009)	184.44	182.35	183.63	174.20	171.34	-1.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	184.44	182.35	183.63	174.20	171.34	-1.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 45: Terminal DUC, DC and TNSU trends, 2015-2019

The annual avg. % change in local Terminal ANS DUC (-1.8%) is worse than the profile corresponding to the SES aggregated Terminal ANS DUC (sum of total determined costs divided by sum of TNSU) taken from RP2 Performance Plans (-2.2%) for the 2015-2019 period.

The annual avg. % change in local Terminal ANS DCs (+0.7%) is better than the profile corresponding to the local en-route ANS DCs (+1.2%) for the 2015-2019 period. The change over 2014-2019 is +1.5% for the TCZ DCs compared to +2.8% for the en-route DCs.

There is a significant increase in TCZ DCs forecast in 2015, which are planned to be +5.3% higher than the most recent actuals in 2013.

The annual avg. % change in "gate-to-gate" ANS DCs for Cyprus is +1.1% over 2015-2019, which is worse than the profile corresponding to the Union-wide en-route ANS DCs (-2.3%). This difference increases if the 2014-2019 period is analysed (local gate-to-gate DCs increase at +2.6% p.a. compared to the en-route DCs profile underpinning the Union-wide DUC target of -2.1% p.a.)

Based on this analysis, the Cyprus terminal charging zone is assessed as <u>not passing</u> this check.

Cost of Capital

As for the en-route charging zone, the PRB notes that the WACC assumptions provided in the Additional Information for the WACC differ slightly from those in the Reporting Tables. The PRB has assumed that the Reporting Table values are the intended WACC and RoE rates and it is these that have been used for the analysis.

The traffic risk sharing mechanism is not applied in the Cyprus TCZ. The RoE used to calculate the cost of capital for the TCZ is approximately 8.7% in each year of RP2, which is <u>lower</u> than that used to calculate the RoE for en-route ANS. The PRB notes however that the RoE used to calculate the WACC for the Cyprus TCZ is higher than the "efficient" values calculated with the methodology laid down in Annex C guidance.

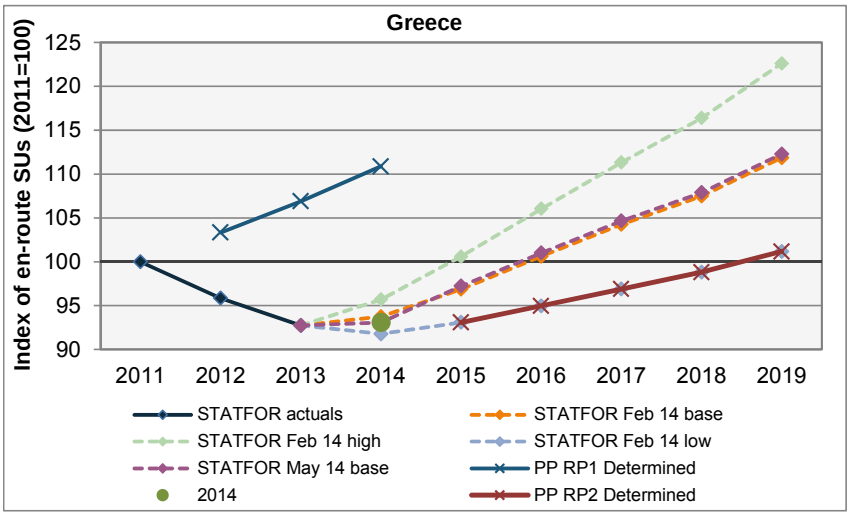
Based on this analysis, the Cyprus terminal charging zone is assessed as <u>passing, with reservations</u>, for this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route (but with values changed to reflect the relevant proportion of the pensions costs for the TCZ). Please refer to the en-route detailed assessment. **Based on this analysis, the Cyprus terminal charging zone is assessed as <u>not</u> passing this check**.

Description, level, composition and justification of costs exempt from risk sharing
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment **Based on this analysis, the Cyprus terminal charging zone is assessed as passing this check**.

Greece: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		4 698	4 860	5 041							
Actuals, 2014, PP RP2 Determined	4 546	4 358	4 216	4 232	**4 232**	**4 318**	**4 405**	**4 493**	**4 600**	**0.1%**	**2.1%**
STATFOR Feb 14 base				**4 262**	**4 404**	**4 575**	**4 740**	**4 887**	**5 086**	**1.4%**	**3.7%**
STATFOR Feb 14 high				4 350	4 574	4 821	5 061	5 292	5 574	2.6%	5.1%
STATFOR Feb 14 low				4 173	4 232	4 318	4 405	4 493	4 600	0.1%	2.1%
STATFOR May 14 base				4 232	4 421	4 592	4 758	4 905	5 105	1.5%	3.7%
PP RP2 vs STATFOR Feb 14 base (%)					-3.9%	-5.6%	-7.1%	-8.1%	-9.6%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 33: En-route TSU forecasts

Comments:

The forecast en-route TSUs are in line with STATFOR low case forecasts published in February 2014 for every year of RP2. However, for year 2014, Greece uses the TSUs of STATFOR May 2014 low case scenario which implies a +0.4% growth TSUs compared to 2013 and no growth in 2015). The trend observed to date (+ 3.7%, January-August 2014 compared to the same period in 2013) is better.

However, the TSU forecast used by Greece also implies no growth between 2014 and 2015 while STATFOR low case shows a growth ranging between +1.4% (February forecast) and +2.2% (May forecast). Therefore, when considering the % increase between 2014 and 2015, Greece traffic forecast (+1.7% p.a.) is lower than the STATFOR low case forecasts published in February 2014 (+2.0% p.a.).

Would the outturn en-route traffic be in line with the STATFOR base case scenario (February 2014), then the net gains in revenues to be retained by the State/ATSP according to the traffic risk sharing would amount to 22.5 M€$_{2009}$ over RP2.

Based on this analysis, Greece en-route charging zone is assessed as not passing this check.

Economic assumptions

Inflation: Greece		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	1.0%	-0.9%	-0.4%	0.3%	1.1%	1.2%	1.3%	1.6%
Eurostat/IMF avg	annual % change		-0.9%	-0.4%	0.3%	1.1%	1.2%	1.3%	1.6%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	109.0	108.0	107.6	107.9	109.1	110.4	111.8	113.6
Eurostat/IMF avg	2009=100	109.0	108.0	107.6	107.9	109.1	110.4	111.8	113.6
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 34: Economic assumptions

Comments:

Inflation forecasts are equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2.

Based on this analysis, Greece en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	178.6	164.9	155.8	155.0	149.8	149.3	147.8	151.2	155.3	156.9	164.6
Inflation rate	annual % change		4.7%	3.1%	1.0%	-0.9%	-0.4%	0.3%	1.1%	1.2%	1.3%	1.6%
Inflation index	2009=100	100.0	104.7	107.9	109.0	108.0	107.6	107.9	109.1	110.4	111.8	113.6
Determined costs	EUR m (2009)	178.6	157.5	144.4	142.1	138.6	138.8	137.0	138.6	140.6	140.4	144.9
Service units	'000s	4 139	4 454	4 546	4 358	4 216	4 232	4 232	4 318	4 405	4 493	4 600
Determined unit cost	EUR (2009)	43.15	35.35	31.75	32.62	32.89	32.80	32.36	32.10	31.93	31.24	31.51
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	43.15	35.35	31.75	32.62	32.89	32.80	32.36	32.10	31.93	31.24	31.51

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	-0.8%	0.7%	2.0%	2.7%
Inflation	CAGR %	1.3%	0.6%	1.1%	1.3%
Determined costs	EUR m (2009)	-2.1%	0.1%	0.9%	1.4%
Service units	'000s	1.1%	0.1%	1.7%	2.1%
Determined unit cost	EUR (2009)	-3.1%	-0.1%	-0.8%	-0.7%
Exchange rate					
Determined unit cost	EUR (2009)	-3.1%	-0.1%	-0.8%	-0.7%

Table 46: Determined unit cost trend

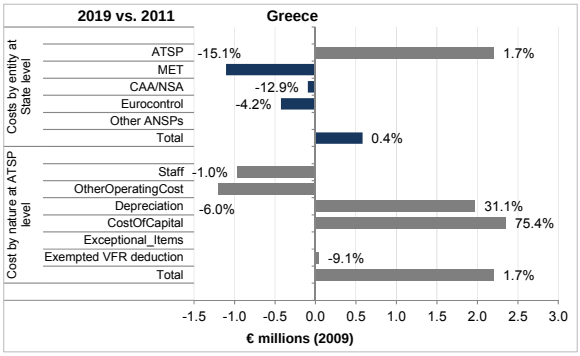


Figure 35: Planned cost category changes over RP1 and RP2

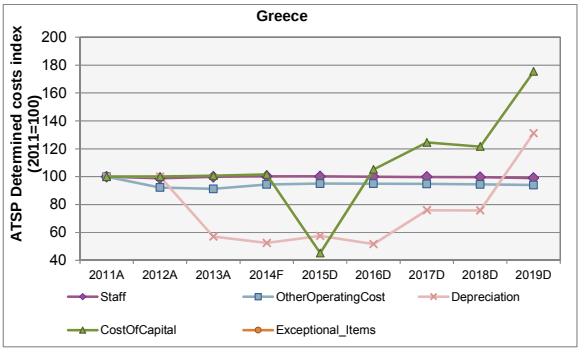


Figure 36: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Greece forecasts a -0.8% annual en-route DUC decrease over the 2014-2019 period, which is worse than the Union-wide cost-efficiency target (i.e. -3.3% p.a.) due to a planned increase in DCs of +0.9% p.a. combined with a forecast increase in traffic of +1.7% p.a..

When assessed between 2011 and 2019, the DUC is planned to fall by -0.1% p.a., which is also worse than the expected decrease at Union-wide level (-1.7% p.a.).

As noted in the RP1 Performance Plan assessment, it is also important to consider that Greece implemented a set of austerity measures before the start of RP1, which led to substantial reductions in DCs between 2009 and 2010. When adopting a longer-term perspective (i.e. 2009-2019), the planned reductions in en-route DUC (-3.1% p.a.) and in en-route DCs (-2.1% p.a.) are better than the Union-wide trends over 2009-2019 (i.e. -2.5% and -1.1% p.a. respectively).

Considering the trends in DCs, these are planned to remain flat in real terms between 2011-2019 (+0.05% p.a.) and to increase by +0.9% p.a. between 2014 and 2019, which is in both cases much worse than the trends expected at Union-wide level for both periods (-0.8% over 2011-2019 and -2.1% over 2014-2019), although the PRB notes that there is some effort to contain staff costs and non-staff operating in both RP1 and RP2.

All accountable entities plan for decreases in DUC over RP2. The largest decreases are planned for the MET provider (-3.3% p.a.) and the NSA (-2.7% p.a.) due to a combination of planned decreases in DCs and increases in traffic.

At ATSP level, the decrease in the en-route DUC planned over RP2 (-0.7% p.a.) is due to the fact that DCs are planned to rise by +1.0% p.a. while TSUs are forecasted to increase by +1.7% p.a. on average. The changes in en-route DCs between 2014 and 2019 result from the combination of opposite trends:

- staff costs are planned to decrease by -0.3% p.a. (-1.2 M€$_{2009}$ over RP2);
- other operating costs are planned to decrease by -0.1% p.a. (-0.1 M€$_{2009}$ over RP2);
- depreciation costs are planned to rise by +20.1% p.a. (+5.0 M€$_{2009}$ over RP2); and
- the cost of capital is planned to rise by +11.5% p.a. (+2.3 M€$_{2009}$ over RP2).

The planned increase in depreciation costs and cost of capital reflect a large capex programme to be commissioned during RP2. On the other hand, actual depreciation costs in 2013 were significantly lower than planned (-44.9% in real terms) due to the postponement of investments to future years. It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-

route DCs provided for RP2. The increasing depreciation over RP2 could be due to investments initially planned in RP1 being postponed to RP2 – in which case the depreciation costs would be charged twice (to airspace users). It is not fully clear whether there are genuinely new investments foreseen in RP2 and justified. The CAPEX assessment part provides a more detailed analysis (see CAPEX Key Points, Section 6).

For RP2, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within HCAA or in collaboration with other ATSPs.

The PRB 2013 monitoring analysis indicates that HCAA actual en-route costs for 2013 were -7.5% lower than planned (-9.9 M€$_{2009}$). On the other hand, traffic was also lower than planned (-13.3%) causing a loss in respect of traffic risk sharing of -5.8 M€$_{2009}$. Overall, HCAA generated a net gain of +4.1 M€$_{2009}$ in 2013 on the en-route activity.

However, when estimating HCAA economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 3.1 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 7.3 M€$_{2009}$, which implies an ex-post rate of return on equity of 7.5% (compared to 3.3% as initially planned in the NPP). This adds to the gains generated by HCAA in 2012 (+6.9 M€$_{2009}$ or 5.4% of en-route revenues leading to an ex-post rate of return on equity of 8.9% in 2012).

Based on this analysis, Greece en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

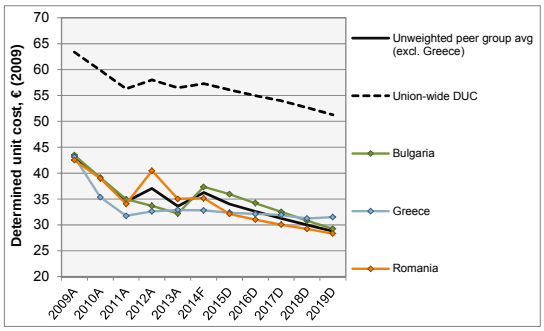


Figure 37: Determined unit cost level

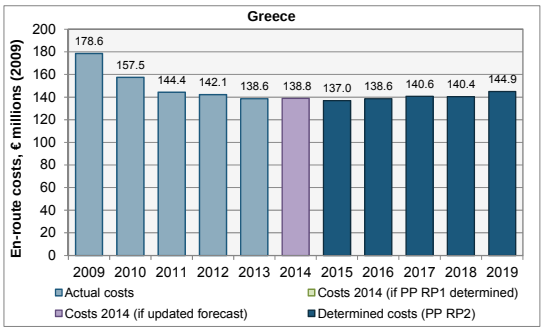


Figure 38: Determined costs 2009-2019

Comments:

Greece's en-route DUC in 2019 is planned to amount to 31.51 €$_{2009}$, which is +9.5% higher than the average of the comparator group (28.79 €$_{2009}$) but -27.4% lower than the Union-wide aggregated DUC. When differences in the cost of living are taken into account (adjusting DUCs by the Purchasing Power Parities), Greece en-route DUC is -43.1% lower than the comparator group average.

The planned reduction in Greece's DUC over the 2011-2019 period (-0.1% p.a.) is worse than the comparator group average (-2.3% p.a.). Similarly, when examining the 2014-2019 period, Greece's DUC is expected to decrease by -0.8% p.a., which is worse than the comparator group average (-4.5% p.a.).

Based on this analysis, Greece's en-route charging zone is assessed as passing this check.

Cost of Capital

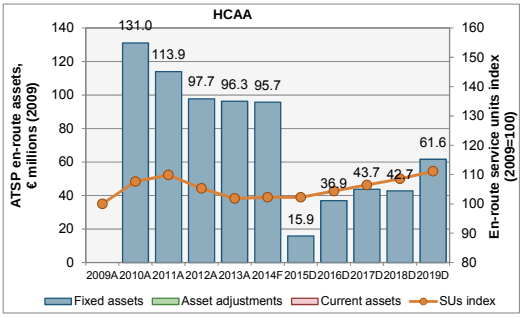


Figure 39: Breakdown of ATSP en-route asset base (2009-2019)

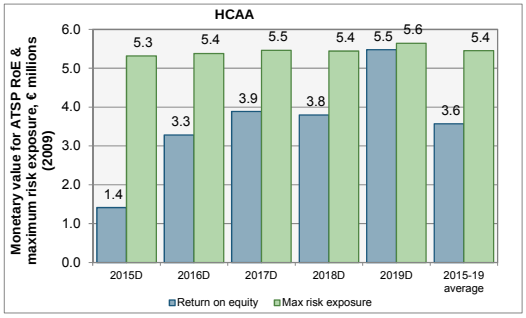


Figure 40: ATSP RoE vs maximum traffic risk exposure

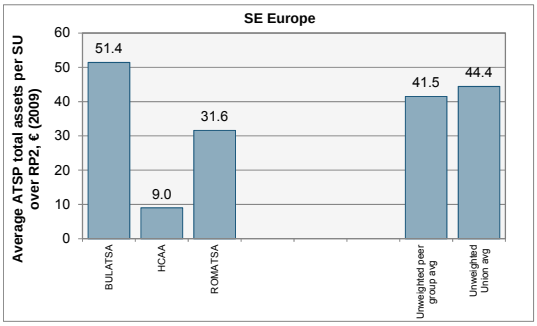


Figure 41: Average en-route asset base per SU over RP2

Comments:

Note: The PRB notes that HCAA budget is part of the Government budget and that HCAA is not in a position to produce a detailed balance sheet. It is therefore inferred that the large decrease in the en-route asset base (from 95.7 M€$_{2009}$ in 2014 to 15.9 M€$_{2009}$ in 2015) reflects changes in the method used by Greece to allocate assets to HCAA rather than a genuine decrease in the NBV of assets used by HCAA.

The WACC rate used to calculate the cost of capital of HCAA (8.9%) is higher than the upper bound of the range of values calculated with the methodology laid down in Annex C guidance, mainly because the gearing assumption reflects 100% equity financing.

The return on equity (RoE) used by HCAA (8.9%) is consistent with the range of recommended values.

Taking into account HCAA capital structure and the amount of total assets used to calculate the cost of capital allows to compute the monetary value of the RoE which ranges between 1.4 M€$_{2009}$ and 3.9 M€$_{2009}$ over RP2. This is lower than the maximum traffic risk exposure which will be borne by HCAA over RP2 (5.3 - 5.6 M€$_{2009}$). Over RP2, the PRB calculates that the monetary value of the aggregate return on equity is -34.5% lower than the maximum traffic risk exposure for HCAA. The main driver for this result is the very low asset base in the early years of RP2. Nevertheless, using STATFOR low case forecast reduces the likelihood of experiencing this scenario.

The PRB notes that the average asset base per SU for HCAA (9.0 M€$_{2009}$) is lower than its comparators (41.5 M€$_{2009}$).

Based on this analysis, HCAA's en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan indicates that pension costs are part of the staff costs, and are calculated as a % of salary (13.33%) but does not provide quantitative information about the annual amounts corresponding to pension costs. The tables from the Performance Plan template have not been completed. No information is provided on the interest rates on loans since the reporting entities have not reported current loans and do not foresee to contract any loans during RP2. The Performance Plan mentions that IAS are not currently applied in the public sector in Greece. **Based on this analysis, Greece's en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Greece has reported costs exempt from risk sharing in 2012 and 2013, relating to the EUROCONTROL costs. These are subject to a separate assessment by the Commission. Greece did not highlight any specific items for costs exempt from risk sharing for RP2, although it highlighted the unexpected change in Eurocontrol costs that took place in RP1. No specific items were reported against each of the following items: new costs items required by law; unforeseen changes in taxation law; and international agreement The Performance Plan also refers to Art. 14.2 of the charging Regulation concerning the costs exempt from risk sharing for RP2., but does not provide specific information on the underlying assumptions of these costs. **Based on this analysis, Greece's en-route charging zone is assessed as passing this check.**

Greece: Detailed assessment of the terminal charging zone

Overview of terminal charging zone in Greece:

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Greece", comprising 1 airport (Athens). Athens airport represents 34% of TNSUs in Greece.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing does not apply in this TCZ.

Traffic forecast assumptions

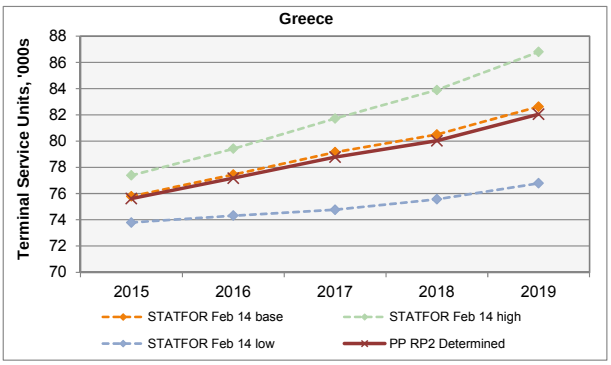


Figure 42: TNSU forecast 2015-2019

The TNSU forecasts for the Greece TCZ are slightly lower than STATFOR base case forecasts published in February 2014, for every year between 2015 and 2019

Greece forecasts correspond to a +2.1% p.a. increase between 2015 and 2019 while the base case scenario of STATFOR is +2.2% per year.

Based on this analysis, Greece's TCZ is assessed as passing this check.

Economic assumptions

Inflation forecasts are equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2.

For the years 2015-2019, a consistent rate of inflation has been used for all charging zones, en-route and terminal.

Based on this analysis, Greece's TCZ is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

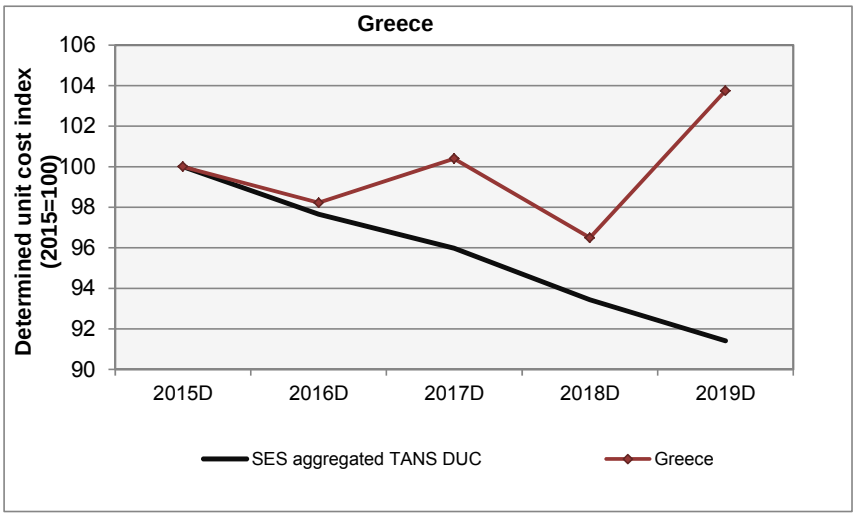


Figure 43: Terminal DUC index, 2015-2019

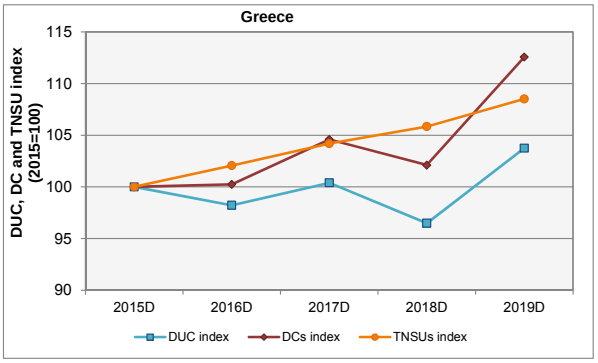


Figure 44: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Greece		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	17.2	17.4	18.4	18.2	20.3	4.3%
Inflation rate	annual % change	0.3%	1.1%	1.2%	1.3%	1.6%	1.3%
Inflation index	2009=100	107.9	109.1	110.4	111.8	113.6	
Determined costs	EUR m (2009)	15.9	15.9	16.6	16.2	17.9	3.0%
Terminal service units	'000s	76	77	79	80	82	2.1%
Determined unit cost	EUR (2009)	210.40	206.66	211.23	203.02	218.27	0.9%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	210.40	206.66	211.23	203.02	218.27	0.9%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 47: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC (+0.9% p.a.) is worse than the SES aggregated DUC trend (-2.2% p.a.).

Greece's terminal DCs are planned to increase by +3.0% p.a. between 2015 and 2019, which is worse than the average % increase of Greece's en-route ANS DCs over the same period (+1.4% p.a.). However, if considering the 2014-2019 period, the terminal ANS DCs trend (-0.9% p.a.) is better than that of en-route ANS DCs (+0.9%).

Over RP2, terminal ANS DCs are based on assumptions of constant staff costs and non-

staff operating costs (in nominal terms), while depreciation costs and the cost of capital are planned to rise by +1.9 M€ and +1.2 M€, respectively (in nominal terms). These increases reflect the deployment of a large capex programme over RP2: the asset base is planned to rise from 1.6 M€ in 2015 to 15.6 M€ in 2019. Given the planned impact of this capex programme on the terminal ANS DUC trend, Greece is expected to provide detailed information in its Performance Plan about the nature of these projects and their rationale.

Finally, it is noteworthy that the level of 2015 DCs is lower than 2012 and 2013 actuals (-17.4% and 5.9%, respectively).

Based on this analysis, Greece's TCZ is assessed as <u>not</u> passing this check.

Cost of Capital

Greece's TCZ is not subject to traffic risk sharing. However, the return on equity and the WACC used to calculate the cost of capital of HCAA for the TCZ are the same as for the en-route charging zone (8.9%).

Based on this analysis, Greece's TCZ is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Greece's TCZ is assessed as <u>not</u> passing this check.

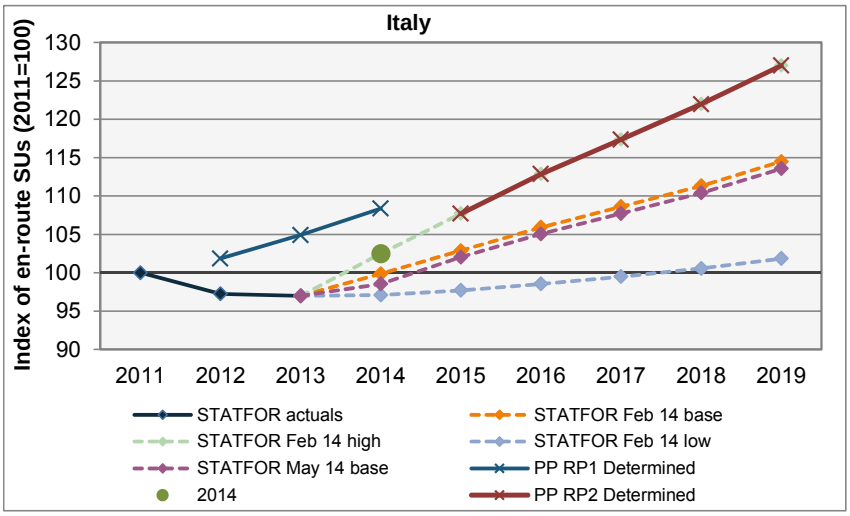
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Greece's TCZ is assessed as passing this check.

Italy: en-route cost-efficiency KPI Assessment

Traffic forecast assumptions (TSU)



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		8 525	8 781	9 071							
Actuals, 2014, PP RP2 Determined	8 370	8 139	8 117	8 579	**9 014**	**9 447**	**9 824**	**10 209**	**10 630**	**3.0%**	**4.2%**
STATFOR Feb 14 base				**8 358**	**8 611**	**8 865**	**9 090**	**9 316**	**9 583**	**1.7%**	**2.7%**
STATFOR Feb 14 high				8 579	9 014	9 447	9 824	10 209	10 630	3.0%	4.2%
STATFOR Feb 14 low				8 127	8 178	8 248	8 327	8 417	8 525	0.2%	1.0%
STATFOR May 14 base				8 248	8 540	8 792	9 016	9 240	9 505	1.6%	2.7%
PP RP2 vs STATFOR Feb 14 base (%)					4.7%	6.6%	8.1%	9.6%	10.9%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 45: En-route TSU forecasts

Comments:

Italy has selected the STATFOR February 2014 high growth scenario for all years 2014-2019, although the latest actual TSU recorded and the latest STATFOR May 2014 would indicate rather less traffic than foreseen in February 2014. Italy would expect a bounce back effect from the drop in traffic recorded in 2011 following the unrest in the North African region/Libya.

In addition the STATFOR TSU May 2014 baseline forecast foresees an even lower growth (+1.6%) vs. 2013 actual TSU.

Although Italy claims they take the "traffic risk", they actually share the risk with airspace users beyond the dead band and should Italy keep this TSU forecast scenario over RP2 and should the STATFOR February 2014 base case scenario materialise, then the net loss in revenues to be borne would be some (-97 M€$_{2009}$) for ENAV and some (-101 M€$_{2009}$) for airspace users. This situation would worsen should the latest STATFOR May 2014 forecast materialise.

Based on this analysis, Italy's en-route charging zone is assessed as not passing this check.

Economic assumptions (Inflation)

Inflation: Italy		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.3%	1.3%	0.7%	1.0%	1.1%	1.3%	1.5%	1.6%
Eurostat/IMF avg	annual % change		1.3%	0.7%	1.0%	1.1%	1.3%	1.5%	1.6%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	108.0	109.4	110.2	111.3	112.5	114.0	115.7	117.5
Eurostat/IMF avg	2009=100	108.0	109.4	110.2	111.3	112.5	114.0	115.7	117.5
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 46: Economic assumptions

Comments:

The inflation forecasts used by Italy for RP2 are in line with the IMF April 2014 CPI forecast. The actual inflation data used for 2012-2013 is in line with Eurostat HICP data.

Based on this analysis, Italy's en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	602.6	593.1	599.1	625.3	617.9	667.0	696.2	712.2	731.5	750.9	765.9
Inflation rate	annual % change		1.6%	2.9%	3.3%	1.3%	0.7%	1.0%	1.1%	1.3%	1.5%	1.6%
Inflation index	2009=100	100.0	101.6	104.6	108.0	109.4	110.2	111.3	112.5	114.0	115.7	117.5
Determined costs	EUR m (2009)	602.6	583.6	572.8	578.8	564.6	605.5	625.5	633.0	641.7	649.0	651.6
Service units	'000s	8 155	8 621	8 370	8 139	8 117	8 579	9 014	9 447	9 824	10 209	10 630
Determined unit cost	EUR (2009)	73.89	67.69	68.44	71.11	69.55	70.58	69.39	67.00	65.32	63.58	61.30
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	73.89	67.69	68.44	71.11	69.55	70.58	69.39	67.00	65.32	63.58	61.30

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.4%	3.1%	2.8%	2.4%
Inflation	CAGR %	1.6%	1.5%	1.3%	1.4%
Determined costs	EUR m (2009)	0.8%	1.6%	1.5%	1.0%
Service units	'000s	2.7%	3.0%	4.4%	4.2%
Determined unit cost	EUR (2009)	-1.9%	-1.4%	-2.8%	-3.1%
Exchange rate					
Determined unit cost	EUR (2009)	-1.9%	-1.4%	-2.8%	-3.1%

Table 48: Determined unit cost trend

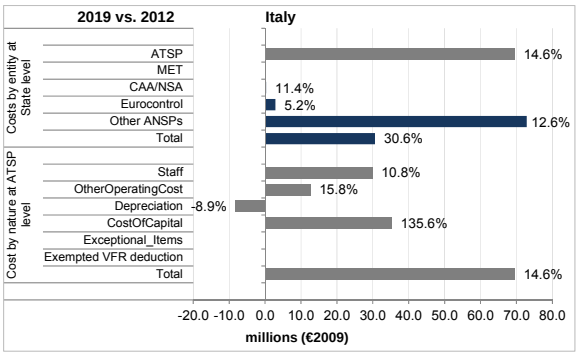


Figure 47: Planned cost category changes over RP1 and RP2

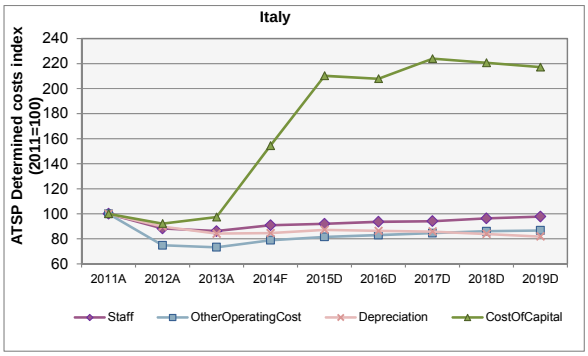


Figure 48: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Since 2014 costs forecast were not revised and 2014 TSU forecasts were revised upwards, the trends analysis mainly focuses on RP1 plus RP2 (2011-2019) and 2009-2019, rather than 2014-2019, although for none of the various period considered does Italy reach a better trend than the Union-wide target trend.

Over RP1 and RP2 (2011-2019) period, Italy plans a worse en-route DUC trend (- 1.4% p.a.) than the Union-wide target trend (-1.7% p.a.). In addition, the increasing DCs trend for Italy (+1.6% p.a.) is much worse than the Union-wide DCs decreasing trend (-0.8% p.a.).

Similarly over the 10-years cycle 2009-2019, Italy shows a worse en-route DUC trend (-1.9% p.a.) than the Union-wide DUC trend (-2.5% p.a.), with costs planned to increase by +0.8% p.a. in a context of an average TSU increase of +2.7% p.a.

A closer look into cost categories evolution indicates that the main drivers are increasing staff costs; other operating costs as well as cost of capital (see costs by nature analysis below).

When looking at the contribution of each accountable entity in terms of DUC, the period of the analysis is slightly reduced by one year to the 2012-2019 period (still covering both RP1 and RP2), for two reasons: ENAV costs in 2011 include the costs of the other ANSP (ITAF, which provides MET services and ATC services to GAT traffic at/around some military airports) and EUROCONTROL 2011 actual costs have been exceptional low due to a one-off adjustment. Over the 2012-2019 period when looking at the en-route DUC trend, it is noted that ENAV, representing 86% of the Italian cost-base, records a unit cost trend (-1.6% p.a.) worse than the Union-wide trend while EUROCONTROL trend (-3.2% p.a.) is better than the Union-wide DUC trend over 2012-2019 (1.8% p.a. when taking actual 2012 data).

For both years 2012 and 2013 there were less traffic (TSU) and less costs than planned: overall over these two years, ENAV managed to generate an aggregated estimated economic surplus of some 103 M€$_{2009}$, even growing over time in a context of decreasing traffic/TSU, mainly through reduced staff costs and depreciation costs.

However in 2015, Italy plans for an increase in real terms and in all costs categories when comparing to the latest actual known figures in 2013 (+6.8% in staff costs, +11.3% in other operating costs; +3.6% in depreciation, +115% in cost of capital (for the latter this correspond to an increase from some 27 M€$_{2009}$ in 2013 to some 59 M€$_{2009}$ in 2015).

It seems that the capacity target is not challenging compared to the current level of delay experienced in Italy and that the likelihood for the ENAV (Italy) to receive some 1% of revenue as a bonus is high (see Capacity and related incentives Key Points, Section 4).

Actual CAPEX were -45% in 2012 and +6% in 2013 vs. what was planned in RP1 respectively. Depreciation costs remain relatively high over RP2 (constant at around 90 M€$_{2009}$) and could be due to investments initially planned in RP1 being postponed to RP2 – in which case the depreciation costs would be charged twice to airspace users. The CAPEX assessment provides a more detailed analysis (see CAPEX Key Points, Section 6).

However, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within ENAV or with its FAB partners, or with other ATSPs. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have led to adjustments on the RP2 DCs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

Based on this analysis, Italy's en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

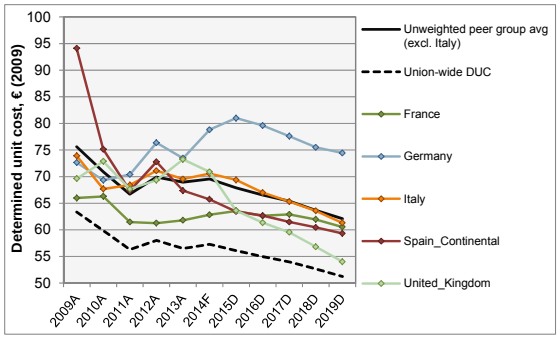


Figure 49: Determined unit cost level

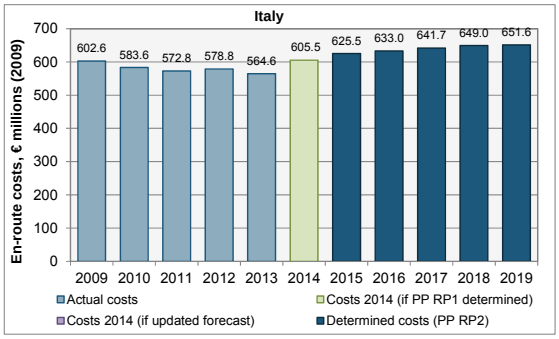


Figure 50: Determined costs 2009-2019

Comments:

In 2019, Italy's en-route DUC (61.30€$_{2009}$) is planned to be -1.3% lower than the peer group average (62.08€$_{2009}$), but significantly higher than the Union-wide aggregated DUC level (51.26 €$_{2009}$).

However, if adjusted by the baseline STATFOR forecast and the IMF inflation for all States, Italy's en-route DUC level would be higher than its peer group average for all years 2015-2019 (+16.6% in 2019).

In addition if adjusted for exchange rates and cost of living (PPP), Italy's en-route DUC in 2019 (66.11 €$_{2009}$) would be slightly higher (+0.8%) than its peer group average (65.62 €$_{2009}$).

Based on this analysis, Italy's en-route charging zone is assessed as <u>not</u> passing this check.

Cost of Capital

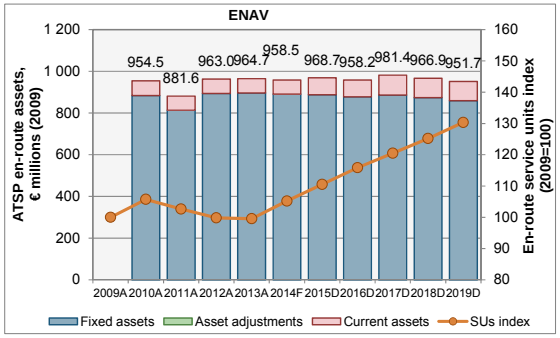


Figure 51: Breakdown of ATSP en-route asset base (2009-2019)

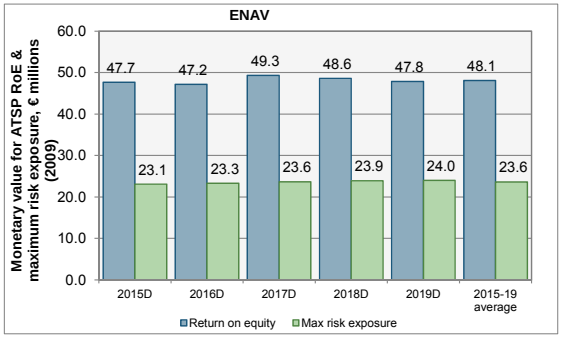


Figure 52: ATSP RoE vs maximum traffic risk exposure

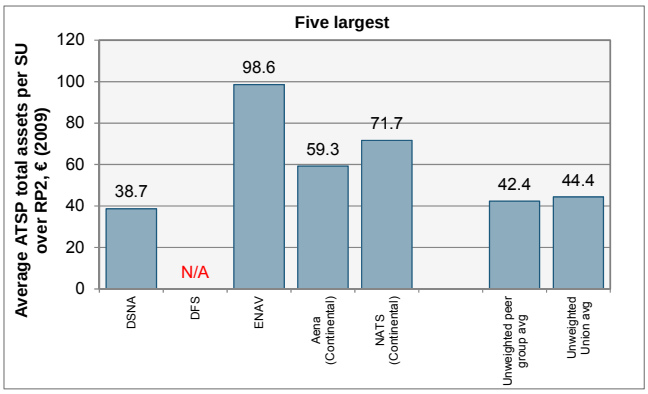


Figure 53: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate (+6.1% to 6.4% over RP2) is within the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values. To note: Italy plans for 30% debt over RP2 (from 0% debt today) and this influences the calculations.

However, the monetary value of the RoE is calculated to reach some 48 M€$_{2009}$ on average over 2015-2019 and is always higher than the maximum revenue risk exposure (due to traffic risk sharing incentives) for every year of RP2 (around 24 M€$_{2009}$). Over the whole of RP2 the PRB calculates that the monetary value of the RoE (241 M€$_{2009}$) is some +104% higher than the total en-route revenue risk exposure (some 118 M€$_{2009}$), i.e.; the ATSP covers more than twice its traffic risk.

Furthermore, Italy's average en-route asset base per service unit over RP2 (98.6 €$_{2009}$) is more than the double of the peer group average (42.4 €$_{2009}$) or the Union-wide average (44.4 €$_{2009}$).

Based on this analysis, Italy's en-route charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
Italy did not provide relevant information as foreseen in the FAB Performance Plan template and guidance. Basically the RP2 Performance Plan refers to the part privatisation process for ENAV which leaves open the door for different options until end 2014/beginning 2015. It is noted that *"(…) the Italian Government has recently launched the part privatisation process of ENAV that will be defined in detail in terms of timing and modality in the coming months. Moreover, ENAV has initiated the transition phase to the International Accounting Standards that will be most likely completed by the end of 2014/ beginning 2015. Considering what above, it is not possible to plan - at the moment and up to the end of the part privatisation process - potential additional costs (i.e., restructuring costs, uncontrollable costs and eventual exceptional items) that might impact RP2 related both to the part privatisation process and the effects of the transition to IFRS. In both cases, Italy will promptly provide complete information as soon as it is available (...)"*. **Based on this analysis, Italy's en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
There were no costs exempt from risk sharing declared for RP1. The RP2 Performance Plan includes references to the regulation for all items potentially eligible as costs exempt from risk sharing relating to RP2. Furthermore it is noted that *"(…) the Italian Government has recently launched the part privatisation process of ENAV that will be defined in detail in terms of timing and modality in the coming months. Moreover, ENAV has initiated the transition phase to the International Accounting Standards that will be most likely completed by the end of 2014/ beginning 2015. Considering what above, it is not possible to plan - at the moment and up to the end of the part privatisation process - potential additional costs (i.e., restructuring costs, uncontrollable costs and eventual exceptional items) that might impact RP2 related both to the part privatisation process and the effects of the transition to IFRS. In both cases, Italy will promptly provide complete information as soon as it is available (...)"*. **Based on this analysis, Italy's en-route charging zone is assessed as <u>not</u> passing this check.**

Italy: Detailed assessment of the terminal ANS Cost-efficiency KPIs

Overview of terminal charging zones (TCZs) in Italy:

There are two TCZ reported in Italy's RP2 Performance Plan:

- Italy-TCZ 1 (with the only airport greater than 225 000 IFR movements): Roma/Fiumicino which cannot be exempted from traffic risk sharing; and,
- Italy-TCZ 2 (4 airports with more than 70 000 IFR movements): Milano/Malpensa (LIMC); Bergamo/Orio al serio (LIME); Milano/Linate (LIML) and Venezia/Tessera (LIPZ), which Italy decided to exempt from traffic risk sharing.
- There were no change of scope of airports between 2014 and 2015, since Italy decided to split its airports into three TCZs (1, 4 and 42 airports) from 2014 onwards. Before 2014, Italy was reporting terminal ANS cost-efficiency data for 47 airports in one single TCZ.
- The harmonized Terminal Navigation Service Units (TNSU) formula (MTO/50)^0.7 was already used before RP2.

Traffic forecast assumptions (TNSU)

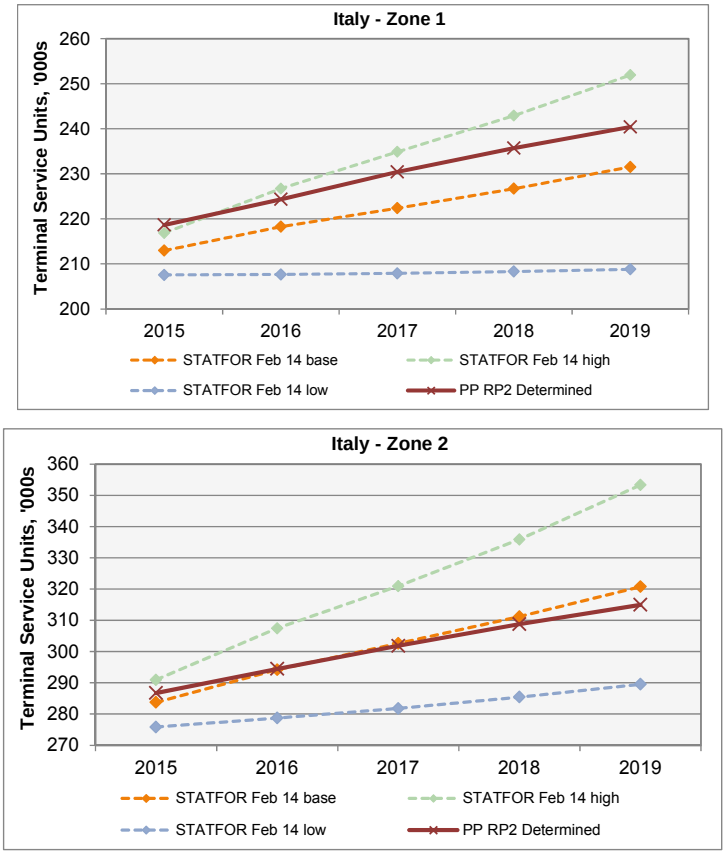


Figure 54: TNSU forecast 2015-2019

TCZ 1: for Roma Fiumicino, the forecast TNSU is between the base case and the high growth STATFOR forecast scenario.

TCZ 2: for these 4 airports the selected TNSU forecast is very close to the base case STATFOR forecast scenario (slightly above in 2015 and then below in later years 2018-2019).

Based on this analysis:

- **Italy's TCZ 1 is assessed as passing this check; and,**
- **Italy's TCZ 2 is assessed as passing this check.**

Economic assumptions (Terminal)

The inflation forecasts used by Italy for RP2 are consistent with the IMF April 2014 CPI forecast.

The actual inflation data used for 2012-2013 is in line with Eurostat HICP data.

Based on this analysis, Italy's TCZ 1 and TCZ 2 are assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

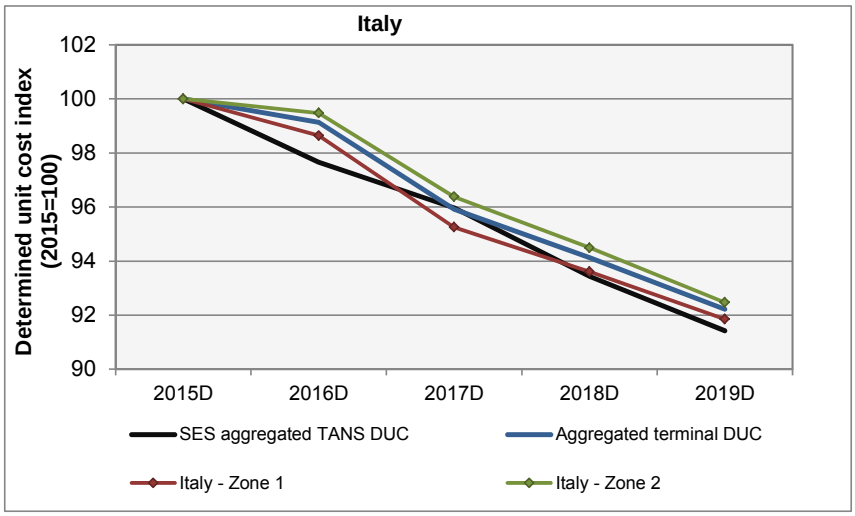
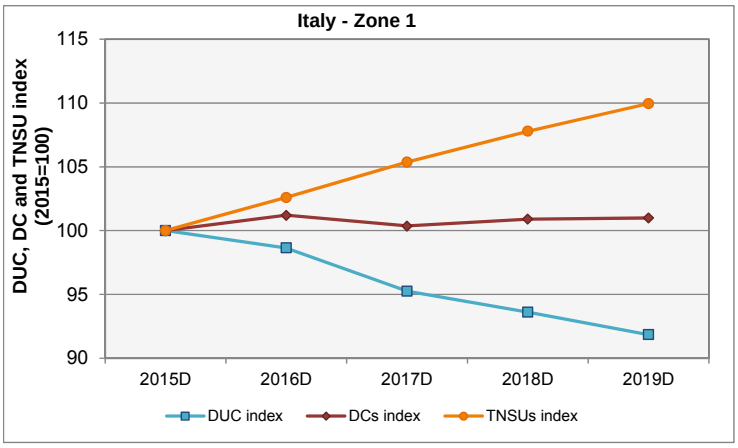


Figure 55: Terminal DUC index, 2015-2019



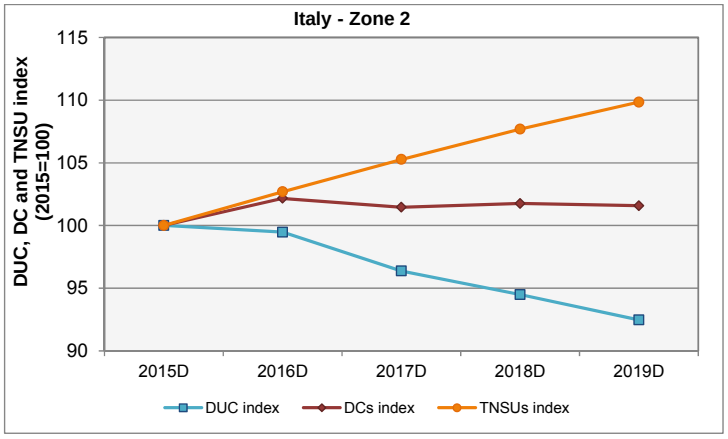


Figure 56: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Italy - Zone 1		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	42.7	43.7	43.9	44.8	45.5	1.6%
Inflation rate	annual % change	1.0%	1.1%	1.3%	1.5%	1.6%	1.4%
Inflation index	2009=100	111.3	112.5	114.0	115.7	117.5	
Determined costs	EUR m (2009)	38.4	38.8	38.5	38.7	38.7	0.2%
Terminal service units	'000s	219	224	230	236	240	2.4%
Determined unit cost	EUR (2009)	175.46	173.07	167.13	164.25	161.17	-2.1%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	175.46	173.07	167.13	164.25	161.17	-2.1%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Key figures: Italy - Zone 2		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	61.5	63.5	63.9	65.0	66.0	1.8%
Inflation rate	annual % change	1.0%	1.1%	1.3%	1.5%	1.6%	1.4%
Inflation index	2009=100	111.3	112.5	114.0	115.7	117.5	
Determined costs	EUR m (2009)	55.2	56.4	56.0	56.2	56.1	0.4%
Terminal service units	'000s	287	294	302	309	315	2.4%
Determined unit cost	EUR (2009)	192.67	191.66	185.69	182.06	178.16	-1.9%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	192.67	191.66	185.69	182.06	178.16	-1.9%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 49: Terminal DUC, DC and TNSU trends, 2015-2019

Over 2015-2019, Italy's Terminal ANS DUC trend for TCZ 1 (-1.9% p.a.) and TCZ 2 (-2.1% p.a.) are in line with the SES aggregated Terminal ANS DUC trend (-2.2% p.a.).

In addition, the PRB notes that over 2015-2019:

- TCZ 1 terminal ANS DCs are planned to increase by +0.2% p.a.; and,
- TCZ 2 terminal ANS DCs are planned to increase by +0.4% p.a.,,

which in both cases is slightly better than Italy's en-route DCs trend (+1.0% p.a.) over 2015-2019 but still much worse than the Union-wide DC trend underpinning the Union-wide target.

However the aggregated level of DCs in 2015 is much higher (+10.8%) than the 2013 actual level (+7.0% to reach 38.4 M€$_{2009}$ for TCZ 1 and +12.4% at 55.2 M€$_{2009}$ in TCZ 2).

Finally, Italy's "gate-to-gate" ANS DC trend (+0.9%) is much worse than the Union-wide en-route DC trend (-2.3%) over the 2015-2019 period – as this is mainly driven by the en-route DC trend.

Based on this analysis, Italy's TCZ 1 and TCZ 2 are assessed as passing this check with reservations.

Cost of Capital

- For TCZ 1: the Return on Equity (RoE) rate (on average 7.9% over RP2) used to calculate the cost of capital for TCZ 1 is higher (+0.8 p.p.) than the one used to calculate the WACC for en-route ANS.
- TCZ 2: Italy decided not to apply traffic risk sharing incentives to TCZ 2. The RoE rate (on average 5.4% over RP2) is 2.5 p.p. lower than the RoE used for TCZ 1 and also lower than en-route RoE used to calculate the cost of capital for en-route ANS.

The PRB notes that over RP2, the terminal asset base per service units is much higher than any comparators or indeed the Union-wide average (343 €$_{2009}$ over RP2 vs. 70 €$_{2009}$ for the peer group average and 163 €$_{2009}$ for the Union-wide average).

Based on this analysis, Italy's TCZ 1 and TCZ 2 are assessed as passing this check with reservations.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the RP2 Performance Plan for the description of economic assumptions is the same as for en-route. Same conclusions apply.

Basically the Performance Plan refers to the part privatisation process for ENAV which leaves open the door for different options until end 2014/beginning 2015.

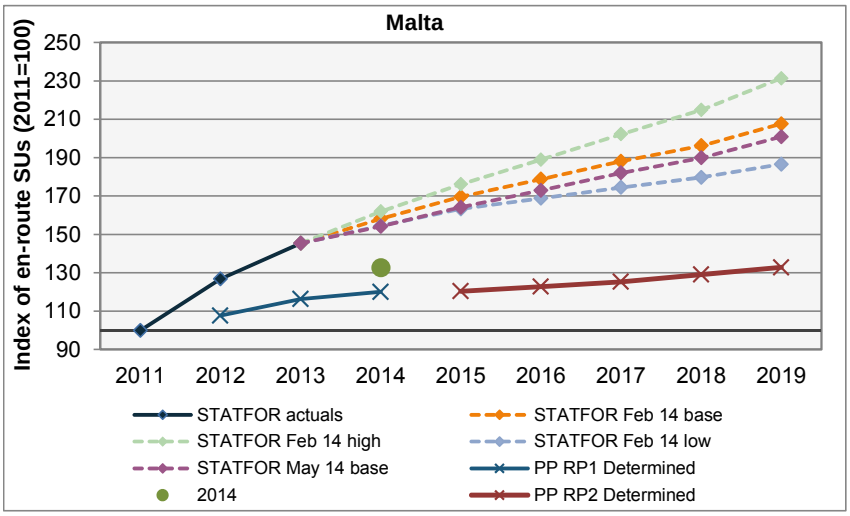
It is noted that *"(…) the Italian Government has recently launched the part privatisation process of ENAV that will be defined in detail in terms of timing and modality in the coming months. Moreover, ENAV has initiated the transition phase to the International Accounting Standards that will be most likely completed by the end of 2014/ beginning 2015. Considering what above, it is not possible to plan - at the moment and up to the end of the part privatisation process - potential additional costs (i.e., restructuring costs, uncontrollable costs and eventual exceptional items) that might impact RP2 related both to the part privatisation process and the effects of the transition to IFRS. In both cases, Italy will promptly provide complete information as soon as it is available (...)"*.

Based on this analysis, Italy's TCZ 1 and TCZ 2 are assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing
The RP2 Performance Plan includes references to the regulation for all items potentially eligible as costs exempt from risk sharing relating to RP2. Furthermore it is noted that *"(…) the Italian Government has recently launched the part privatisation process of ENAV that will be defined in detail in terms of timing and modality in the coming months. Moreover, ENAV has initiated the transition phase to the International Accounting Standards that will be most likely completed by the end of 2014/ beginning 2015. Considering what above, it is not possible to plan - at the moment and up to the end of the part privatisation process - potential additional costs (i.e., restructuring costs, uncontrollable costs and eventual exceptional items) that might impact RP2 related both to the part privatisation process and the effects of the transition to IFRS. In both cases, Italy will promptly provide complete information as soon as it is available (...)"*. **Based on this analysis, Italy's TCZ 1 and TCZ 2 are assessed as <u>not</u> passing this check.**

Malta: Assessment of en-route charging zone

Traffic forecast assumptions (TSU)



Charge area: LM

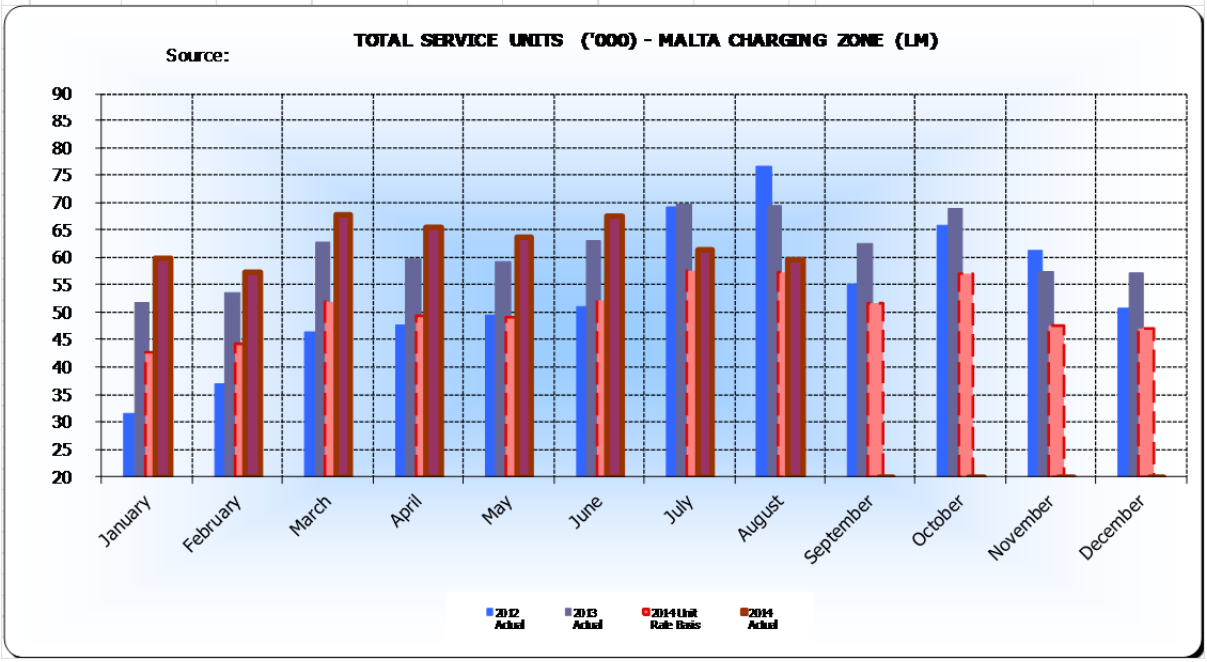
Date of issue: 15-09-14

	Month	2014 Actual	2014 Unit Rate Basis	2013 Actual	2012 Actual	%2014 A / 2014 F	%2014 A / 2013 A	%2013 A / 2012 A
		(1)	(2)	(3)	(4)	(1)/(2)	(1)/(3)	(3)/(4)
1	January	59 877	*42 760*	51 786	31 507	40.0%	15.6%	64.4%
2	February	57 388	*44 149*	53 468	37 045	30.0%	7.3%	44.3%
3	March	67 873	*51 788*	62 720	46 445	31.1%	8.2%	35.0%
4	April	65 361	*49 268*	59 668	47 561	32.7%	9.5%	25.5%
5	May	63 720	*48 982*	59 321	49 464	30.1%	7.4%	19.9%
6	June	67 512	*52 054*	63 042	50 895	29.7%	7.1%	23.9%
7	July	61 259	*57 640*	69 807	69 192	6.3%	-12.2%	0.9%
8	August	59 711	*57 408*	69 525	76 505	4.0%	-14.1%	-9.1%
9	September		*51 599*	62 491	54 993			13.6%
10	October		*56 932*	68 950	65 787			4.8%
11	November		*47 469*	57 489	61 254			-6.1%
12	December		*47 115*	57 060	50 642			12.7%
	TOTAL	502 700	*607 164*	735 327	641 289	24.4%	2.7%	14.7%

Latest Service Units' Forecast	779 913
STATFOR Forecast (September 20	749 753
STATFOR Rev. 1 (SUF 1 - Feb. 14)	800 030
STATFOR Rev. 2 (SUF 2 - May 14)	779 913
STATFOR Rev. 3 (SUF 3 - Sep. 14)	

2014 Unit Rate Basis	607 164
Latest forecast/Unit Rate Basis	28.5%

2013 Actual (System Report)	735 327
Latest Forecast/2013 Actual	6.1%
2014 Unit Rate basis/2013 Actual	-17.4%



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		545	588	607							
Actuals, 2014, PP RP2 Determined	506	641	735	671	**609**	**621**	**634**	**653**	**672**	**3.6%**	**2.5%**
STATFOR Feb 14 base				**800**	**858**	**904**	**952**	**993**	**1 050**	**9.6%**	**5.2%**
STATFOR Feb 14 high				819	891	956	1 023	1 087	1 170	11.1%	7.1%
STATFOR Feb 14 low				781	826	854	882	909	944	8.1%	3.4%
STATFOR May 14 base				780	830	875	921	960	1 016	9.1%	5.2%
PP RP2 vs STATFOR Feb 14 base (%)					-29.0%	-31.3%	-33.4%	-34.2%	-36.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 57: En-route TSU forecasts

Comments:

Malta has selected a TSU forecast below the Low TSU growth scenario of STATFOR February 2014 forecasts for all years 2014-2019 (even by an average -30% per year).

In the additional Information of the Reporting Tables Malta reports that the Libyan airspace started to operate normally and that they now expect less traffic with effect from the second quarter in 2014 *"(…) The reported actual service units varied significantly when compared to forecasts due to the exceptional circumstances that have taken place since 2011. The Libyan crisis resulted in significant disruptions in traffic during 2011 and part of 2012. During 2012 and 2013 Malta benefitted significantly from the fact that the Libyan airspace was closed and a good number of flights diverted through Maltese airspace that resulted in one-off exceptional increase in traffic. This situation lasted till the first quarter of 2014 as the Libyan airspace started to operate gradually and flights returning to original routes.(…)" (Additional Information item 1.I)*

However the 2014 actual TSU monitoring (see above) shows that, after six months in 2014, Malta records some +24.4% more TSUs than the 2014 RP1 Performance Plan forecasts (or +2.4% above 2013 actual TSU for the same period); however the TSU growth is decelerating due to negative growth in July 2014/2013 (-12%) and August 2014/2013 (-14%). In particular the second quarter records around +30% TSU vs RP1 Performance Plan every month April to June 2014.

Based on this analysis, the Malta en-route charging zone is assessed as not passing this check.

Economic assumptions

Inflation: Malta		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.2%	1.0%	1.0%	1.7%	1.8%	1.7%	1.7%	1.7%
Eurostat/IMF avg	annual % change		1.0%	1.2%	2.6%	2.0%	1.8%	1.8%	1.8%
Difference	p.p. difference		0.0%	-0.2%	-0.9%	-0.2%	-0.1%	-0.1%	-0.1%
PP RP2	2009=100	107.9	109.0	110.1	111.9	114.0	115.9	117.9	119.9
Eurostat/IMF avg	2009=100	107.9	109.0	110.3	113.1	115.4	117.4	119.6	121.7
Difference	index difference	0.0	0.0	-0.2	-1.2	-1.4	-1.6	-1.7	-1.8

Figure 58: Economic assumptions

Comments:

The inflation forecasts are always lower than IMF average inflation rate forecast published in April 2014 for every year of RP2 (with a larger difference in 2015 – by -0.9 p.p.), although equivalent to EUROSTAT HICP for 2013 actual inflation. No justification was found for such

difference in inflation forecasts. **Based on this analysis, Malta's en-route charging zone is assessed as <u>not</u> passing this check.**

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	11.3	12.2	14.8	14.3	16.1	16.5	17.7	19.0	20.6	21.6	22.7
Inflation rate	annual % change		2.0%	2.5%	3.2%	1.0%	1.0%	1.7%	1.8%	1.7%	1.7%	1.7%
Inflation index	2009=100	100.0	102.0	104.6	107.9	109.0	110.1	111.9	114.0	115.9	117.9	119.9
Determined costs	EUR m (2009)	11.3	12.0	14.2	13.2	14.8	15.0	15.8	16.7	17.8	18.3	18.9
Service units	'000s	416	487	506	641	735	671	609	621	634	653	672
Determined unit cost	EUR (2009)	27.25	24.61	28.00	20.62	20.07	22.30	25.89	26.84	28.04	28.10	28.12
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	27.25	24.61	28.00	20.62	20.07	22.30	25.89	26.84	28.04	28.10	28.12

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	7.2%	5.5%	6.6%	6.4%
Inflation	CAGR %	1.8%	1.7%	1.7%	1.7%
Determined costs	EUR m (2009)	5.2%	3.7%	4.8%	4.6%
Service units	'000s	4.9%	3.6%	0.0%	2.5%
Determined unit cost	EUR (2009)	0.3%	0.1%	4.7%	2.1%
Exchange rate					
Determined unit cost	EUR (2009)	0.3%	0.1%	4.7%	2.1%

Table 50: Determined unit cost trend

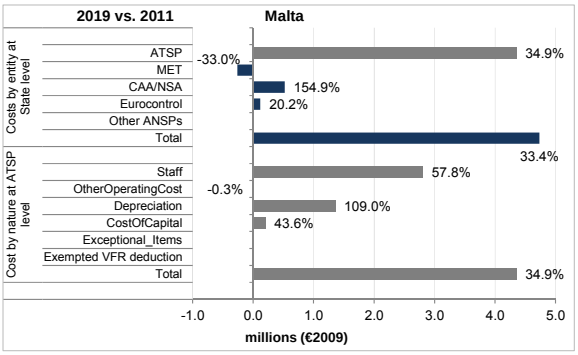


Figure 59: Planned cost category changes over RP1 and RP2

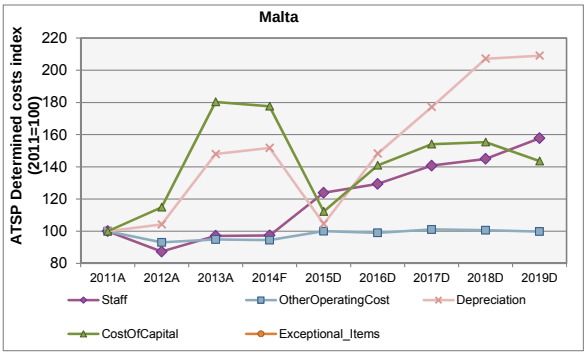


Figure 60: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Malta has revised its 2014 costs estimate for MATS in particular, in line with the outcome of years 2012 and 2013 and this is welcome. However the 2014 TSU traffic forecast revision is well below the latest actual TSU traffic levels recorded to date and STATFOR expectations for 2014.

As a result, for none of the various period considered in the PRB analysis does Malta reach a better trend than the Union-wide target trend with such diverging assumptions of very low TSU growth and also inflation.

Over the 2014-2019 period, Malta plans a much worse and increasing en-route DUC trend (+4.7% p.a.) than the Union-wide target trend (-3.3% p.a.). This is both driven by an average flat TSU growth over the period and increasing DC (+4.8% p.a.), which is much worse than the DC forecast trend underpinning the Union-wide target (-2.1% p.a.).

Over 2011-2019, Malta plans a much worse en-route DUC trend (+0.1% p.a.) than the Union-wide target trend (-1.7% p.a.).

However, if Malta en-route DUC is adjusted by using the baseline STATFOR TSU forecast and the IMF inflation forecasts over 2014-2019, Malta en-route DUC trend would be much better than the Union-wide target trend over RP1 and RP2 taken together; i.e. over 2009-2019 (-4.2%) and 2011-2019 (-5.6%).

A closer look into cost categories indicates that the main drivers are increasing staff costs and depreciation costs and continuing relatively high "other operating costs" (see below).

When looking at the contribution of each accountable entity over the 2011-2019 period in terms of DUC, it is noted that:

- MATS, representing some 88% of the DCs over RP2, reports an increasing DUC trend (+0.2% p.a.) which is much worse than the Union-wide target (-1.7%)
- The NSA (representing some 4.8% in 2019) is building up with an increasing DUC trend of +8.5% p.a.
- EUROCONTROL cost, representing 3.7% of the total DCs in 2019, records a slightly worse trend than the Union-wide target trend (-1.2% p.a.) although when adjusted for the exceptional downward adjustment in 2011 (-81 886 €$_{2009}$ for Malta), it would record a better trend over 2011-2019 (-2.8% p.a.)

However when comparing 2015 DCs to the 2014 revised costs estimate, Malta (MATS) plans for an increase in real terms in staff costs of +27.2% (or 1.3 M€$_{2009}$). Over 2014-2019 staff costs are planned to increase by +10.1% p.a. and depreciation costs by 6.6% p.a. in real terms. In its Additional Information Malta justifies this significant cost increase by recruitment of ATCOs: "*Staff costs are expected to increase due to recruitment of additional staff as per Capacity Building exercise for RP2 and on the operational side after considering the projected increase in traffic and wage increases following Collective Agreement adjustments."* In addition, it is noted that "other operating costs" remain high (the second largest cost item in the cost-base) at the level of staff costs in 2015 and constant over RP2 (close to 6 M€$_{2009}$).

This level of costs and also investment (see separate CAPEX assessment) is counter-intuitive since a very low TSU traffic forecast has been considered in the RP2 Performance Plan (both for en-route TSU and terminal TNSU).

It is also noted that over the first two years of RP1, MATS managed to generate an aggregated estimated economic surplus of some 2.1 M€$_{2009}$ with very high TSU growth.

In addition, actual CAPEX were -62% in 2012 but +237% in 2013 vs. what was planned in RP1, respectively. This could be an indication of some CAPEX catch up in 2013 (see CAPEX/investment assessment for a more detailed analysis, Section 7), although in RP2, depreciation costs are higher than in RP1 almost every year 2015-2019. The planned CAPEX in RP2 amounts to some 5 M€$_{2009}$ p.a. on average (vs. 2.9 M€$_{2009}$ p.a. in RP1 – an increase of some 40% p.a.). There are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within MATS or with its FAB partners, or with other ATSPs.

Based on this analysis, Malta's en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

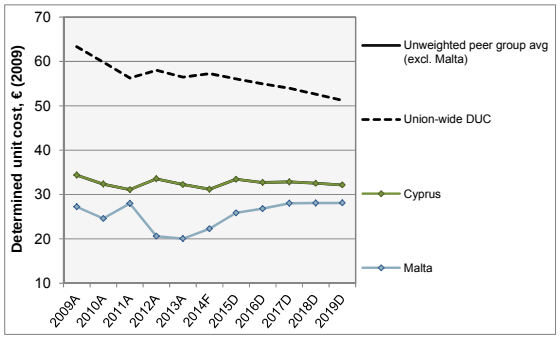


Figure 61: Determined unit cost level

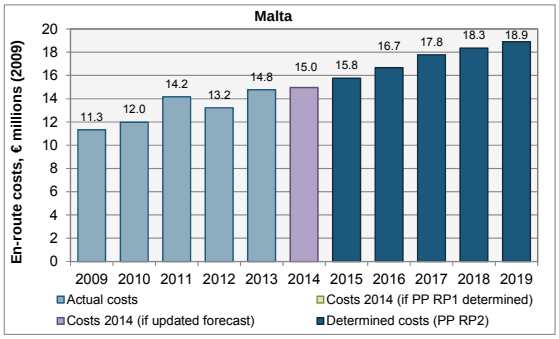


Figure 62: Determined costs 2009-2019

Comments:

In 2019, Malta's en-route DUC (28.12 €$_{2009}$) is planned to be -12.6% lower than its comparator (Cyprus (32.16 €$_{2009}$), and actually remain lower than Cyprus all the way from 2009 to 2019 as pictured above. In addition, its en-route DUC is much lower than the Union-wide aggregated DUC level (51.26 €$_{2009}$).

Malta's en-route DUC would even be lower (-33%) than Cyprus if adjusted by the February 2014 STATFOR baseline forecast, but equivalent if adjusted for exchange rates and cost of living (PPP).

Based on this analysis, Malta's en-route charging zone is assessed as passing this check.

Cost of Capital

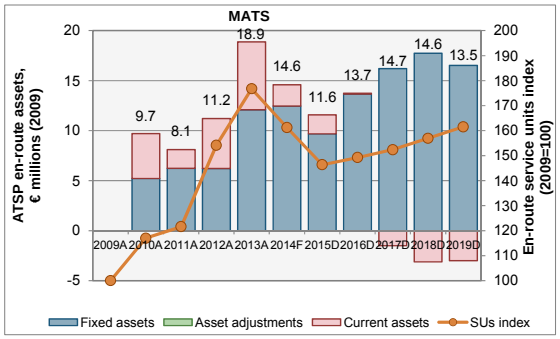


Figure 63: Breakdown of ATSP en-route asset base (2009-2019)

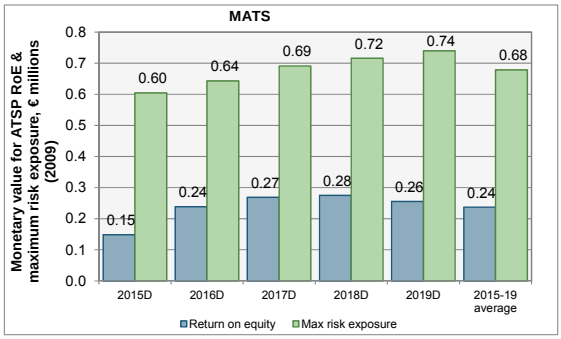


Figure 64: ATSP RoE vs maximum traffic risk exposure

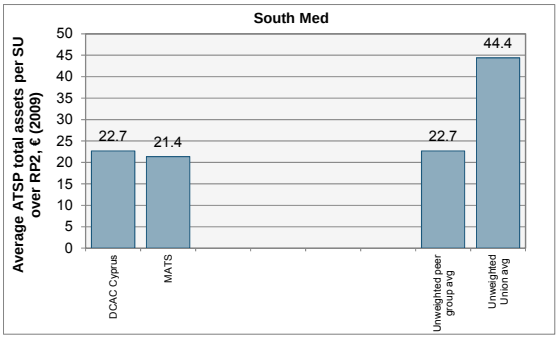


Figure 65: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate (+4.5% to 5% over RP2) is below the range of values calculated with the methodology laid down in Annex C guidance, although some assumptions used for the different components of the WACC calculation are outside the range of recommended values.

In addition, over the whole of RP2, the computed monetary value of the RoE (1.2 M€$_{2009}$) is some -65% lower than the total en-route revenue risk exposure (some 3.4 M€$_{2009}$), i.e.; the ATSP covers less than its traffic risk.

Furthermore, Malta's average en-route asset base per service unit over RP2 (21 €$_{2009}$) is slightly lower than its peer (Cyprus with 23 €$_{2009}$), and always lower than the Union-wide average (44 €$_{2009}$).

It is noted that MATS reports negative net current-assets for years 2017-2019 and no information has been found on the rationale behind those negative net current assets.

Based on this analysis, Malta's en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The information provided on pension costs assumptions and justifications, as well as on interest on loans is not fully consistent with the FAB Performance Plan template and guidance as it is incomplete (e.g. average weighted interest rates is missing).

Based on this analysis, Malta's en-route charging zone is assessed as not passing this check.

Description, level, composition and justification of costs exempt from risk sharing

Comments:

Malta did not report costs exempt from risk sharing for 2012 and 2013.

The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions and loans – see 6. above). EUROCONTROL costs are reported as exempt from cost sharing.

Based on this analysis, Malta's en-route charging zone is assessed as passing this check.

Malta: Assessment of terminal ANS KPI

Overview of TCZ in Malta

- Terminal ANS charging zone Malta
- One airport (Luqa airport (LMML) – no change between 2014 and 2015
- Malta did not charge a separate TNC prior to 2015 and the SES regulations (terminal-related) requirements did not apply to Malta prior to 2015.
- Traffic risk sharing applies in Malta's TCZ
- Covers close to 100% of TNSU traffic

Traffic forecast assumptions (TNSU)

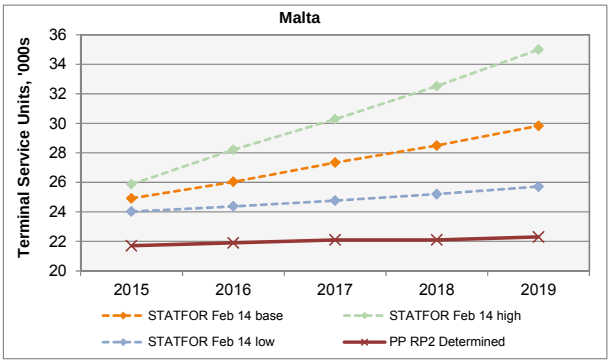


Figure 66: TNSU forecasts 2015-2019

The forecast total Terminal Navigation Service Units (TNSUs) are well below the STATFOR low forecast scenario published in February 2014, for every year 2015-2019.

Based on this analysis, Malta's TCZ is assessed as not passing this check.

Economic assumptions (Inflation)

The inflation forecasts are identical to en-route assumptions, and therefore always lower than IMF average inflation rate forecast published in April 2014 for every year of RP2 (with a larger difference in 2015 – by -0.9 pp) although equivalent to EUROSTAT HICP for 2013 actual inflation.

Based on this analysis, Malta's TCZ is assessed as not passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

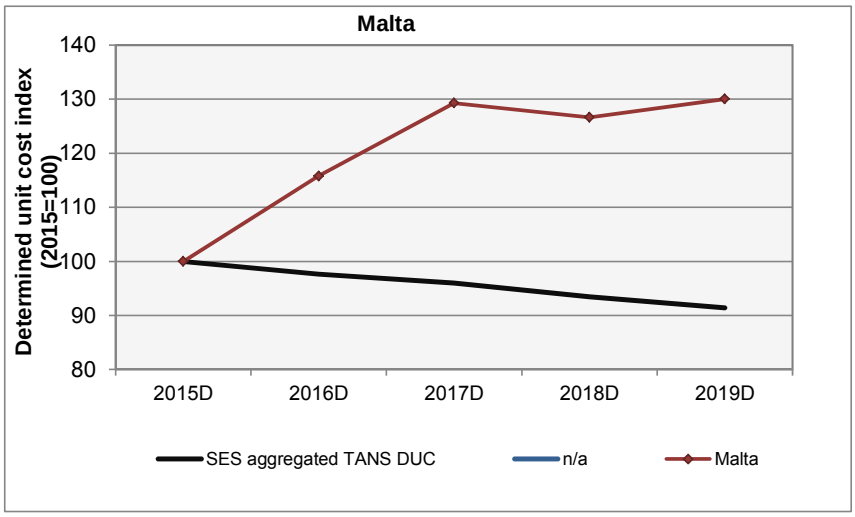


Figure 67: Terminal DUC index, 2015-2019

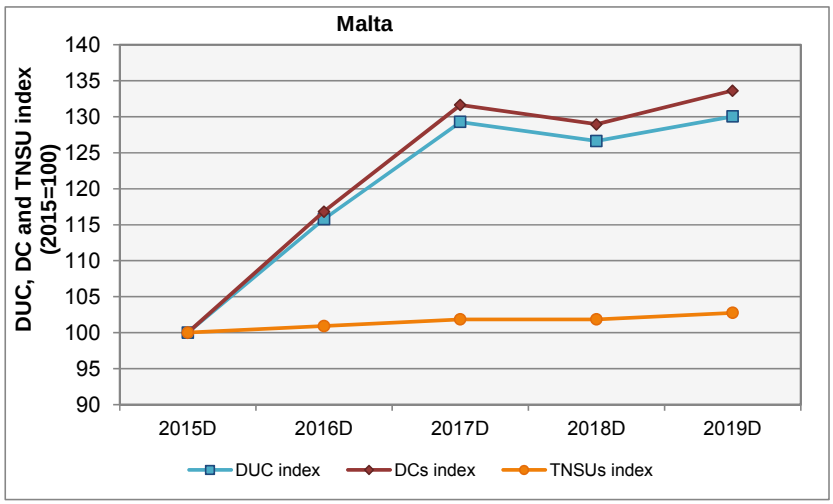


Figure 68: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Malta		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	3.8	4.5	5.2	5.2	5.4	9.4%
Inflation rate	annual % change	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%
Inflation index	2009=100	111.9	114.0	115.9	117.9	119.9	
Determined costs	EUR m (2009)	3.4	4.0	4.5	4.4	4.5	7.5%
Terminal service units	'000s	22	22	22	22	22	0.7%
Determined unit cost	EUR (2009)	156.48	181.16	202.27	198.14	203.47	6.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	156.48	181.16	202.27	198.14	203.47	6.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 51: Terminal DUC, DC and TNSU trends, 2015-2019

Over 2015-2019, Malta's Terminal ANS DUC trend (+6.8% p.a.) is much worse than the SES aggregated Terminal ANS DUC trend (-2.2% p.a.).

In addition, Malta's DCs are increasing by an average of (+7.5% p.a.) over 2015-2019 which

is 2.9 pp above an already increasing en-route DC trend (+4.6% p.a.).

The aggregated level of DC in 2015 (3.4 M€$_{2009}$) is much higher (+18.4%) than the 2013 actual level of costs (2.9M€$_{2009}$) and 37.5% above the 2012 actual level of costs, although there was no declared TCZ in RP1.

Based on this analysis, Malta's TCZ is assessed as <u>not</u> passing this check.

Cost of Capital

The RoE and the WACC rates are identical to those reported for en-route (between 4.7% and 5.1% over RP2) – which is below the recommended values in the Annex C Guidance.

Based on this analysis, Malta's TCZ is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided on pension costs assumptions and justifications, as well as on interest on loans is not consistent with the FAB Performance Plan template and guidance as no information is provided. It is noted that some information on "Pay-as-you-go" is reported.

Based on this analysis, Malta's TCZ is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan includes the exact same information as in en-route Additional Information (including EUROCONTROL Costs reported for TNC).

Based on this analysis, Malta's TCZ is assessed as <u>not</u> passing this check.

References

[1] Commission Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Source: European Economic Forecast (Spring 2014).

[3] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[4] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[5] Notes on the Blue Med FAB consultation on PP for RP2 (C. Stavrou)

[6] En-route charging reporting (June 2014)– Additional information – 4 – item 1.3 (Depreciation)

[7] En-route charging reporting (June 2014)– Additional information – 1 – RP1 Monitoring

[8] En-route charging reporting (June 2014)– Additional information – 4 – item 1.3, page 6/8

[9] "CAPEX Effect"= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[10] "Costs Effect"= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

[11] Athens Airport

[12] Rome Fiumicino, Milan Malpensa, Milan Linate and Venezia Airport

[13] Athens and Tessaloniki Airport

[14] Rome Fiumicino, Milan Malpensa, Milan Linate and Venezia Airport

[15] Tessaloniki Airport reported Partial Completion, Athens Airport reported "planned"

[16] Rome Fiumicino, Milan Malpensa, Milan Linate and Venezia Airports

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

DK-SE FAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

DK-SE FAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The DK-SE FAB Performance Plan was received on 1st July 2014 in English. Some of the material in annex was submitted in Danish and Swedish. It was signed by the Director of the Danish Transport Authority and the Director General of the Swedish Transport Agency.

1.1.2 According to the rules and procedure of the Danish-Swedish FAB Board, the Performance/Charging group is responsible for preparing and coordinating the Performance Plan at FAB level. Therefore, no NSA has been identified as responsible for drawing up the Performance Plan.

1.1.3 The FAB Performance Plan provides performance targets set at local level as defined in the Performance Regulation[1] for the following accountable entities:

- [DK] Danish Transport Authority as the nominated NSA;
- [DK] Naviair as the designated ANSP;
- [DK] The Danish Meteorological Institute (DMI) as the designated MET service provider;
- [SE] Swedish Transport Agency as the nominated NSA;
- [SE] LFV as the designated ANSP;
- [SE] The Swedish Meteorological and Hydrological Institute (SMHI) as the designated MET service provider;
- [SE] Aviation Capacity Resources AB (ACR), as the ATS provider;
- [SE] The Swedish Maritime Administration as the SAR provider;
- [SE] Arvidsjaur Airport (ESNX) as the terminal ANS provider.

1.1.4 The FAB Performance Plan covers the København FIR and Sweden FIR. Additionally, some Air Traffic Services are also provided cross-border as agreed between States, in order to satisfy operational needs/requirements. The exact list of cross-border airspace blocks was not provided.

1.1.5 As far as terminal services are concerned, it covers Copenhagen Airports and Stockholm-Arlanda airports. The list of exempted airports was not provided.

1.1.6 According to Article 14 of the performance Regulation[1], the PRB has assessed this plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

DENMARK

1.2.1 Figure 1 shows that GDP growth for Denmark mirrors the EU average trend with a linear and steady progression. GDP is forecast to expand by 1.5%in 2014 as all indicators are pointing to an improvement in the Danish economy[2].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Denmark sourced from the OECD. No figures for the Growth Domestic Product were expressly presented.

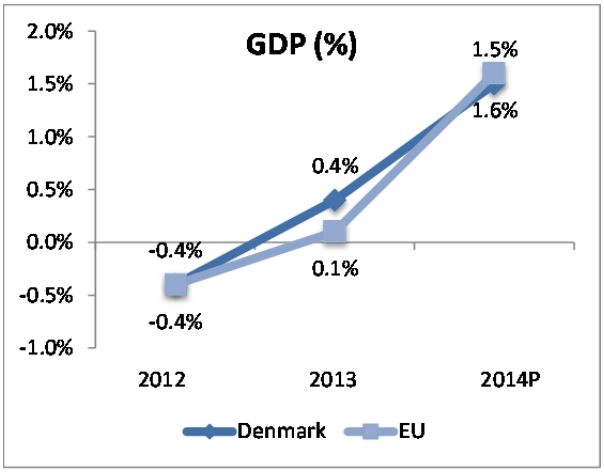


Figure 1: Gross domestic product for Denmark, volume (percentage change on preceding year)[2]

1.2.3 As can be seen in Figure 2, IFR traffic in Danish airspace decreased again in 2012 after a three-year increase in line with the 2009 forecast. The February 2014 STATFOR baseline scenario foresees a three-year shift in traffic demand when compared to the traffic prediction made in 2009.

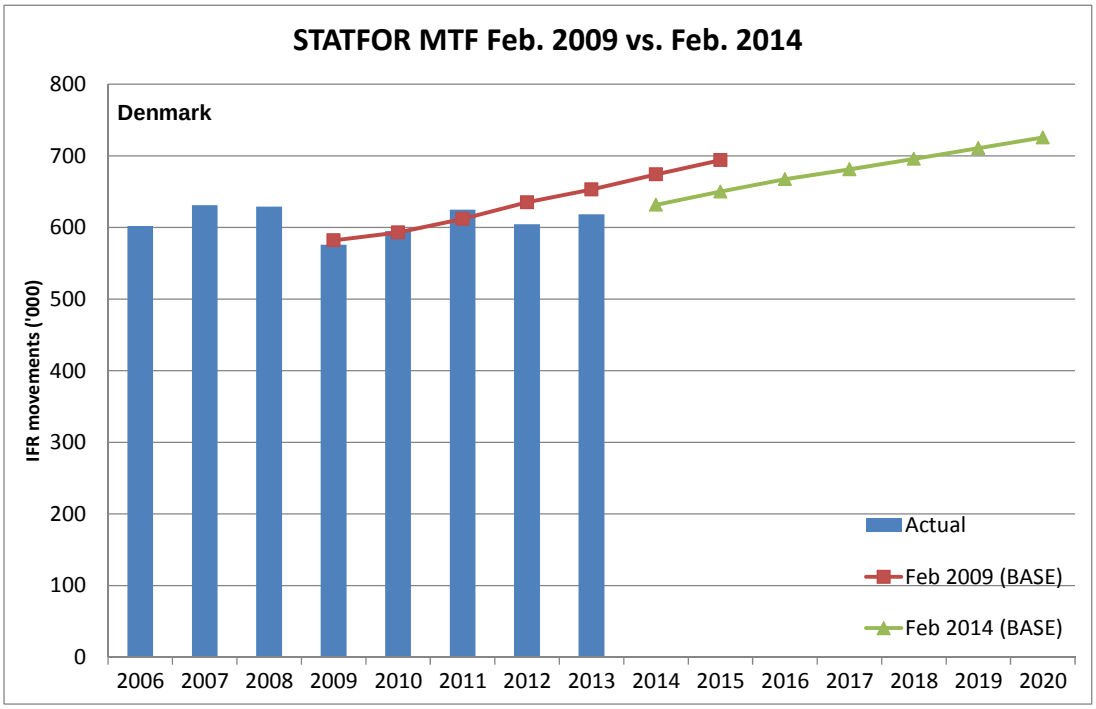


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Denmark

1.2.4 The FAB Performance Plan mentions that traffic expectations for Denmark follow the February 2014 STATFOR low case scenario for 2015-2019.

SWEDEN

1.2.5 Economic growth for Sweden was stronger than expected with 1.5% in 2013. It is now foreseen to accelerate to 2.8% this year, almost doubling the EU average[2].

1.2.6 The FAB Performance Plan contains macroeconomic data and forecasts for Sweden sourced from the OECD. No figures for the Growth Domestic Product were expressly presented.

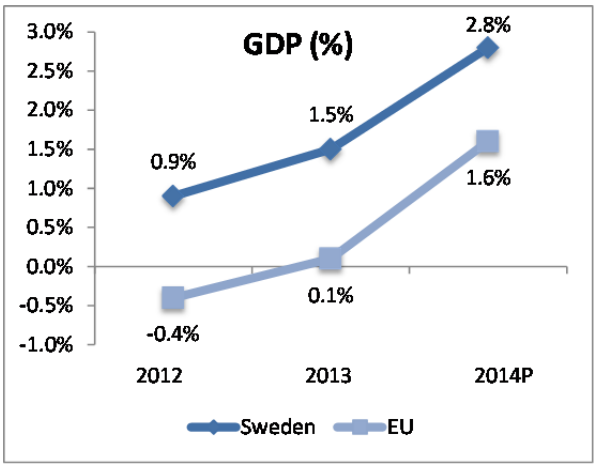


Figure 3: Gross domestic product for Sweden, volume (percentage change on preceding year)[2]

1.2.7 Figure 4 shows that IFR traffic in Swedish airspace has been stalling for the past three years. The February 2014 STATFOR baseline scenario projects that the current traffic forecast for 2019 is what was previously forecast for 2015, which is equivalent to a four-year shift of traffic.

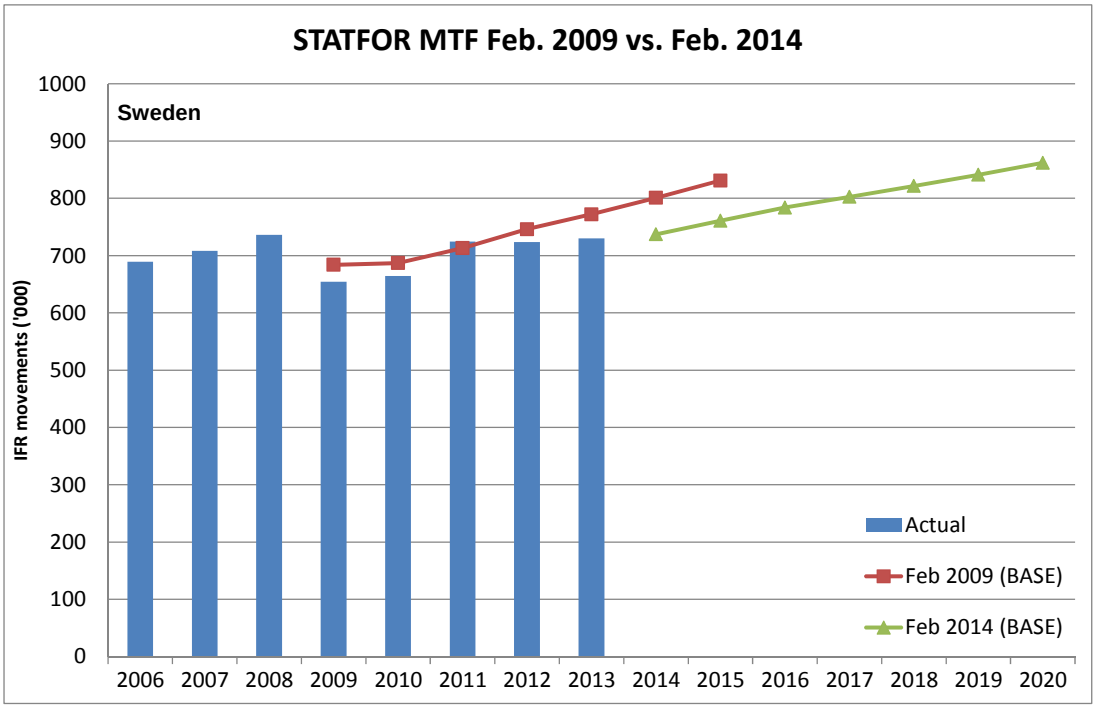


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Sweden

1.2.8 Although the FAB Performance Plan mentions that Sweden decided to use the February 2014 STATFOR low case scenario for RP2, it is unclear whether this applies to traffic forecast, Service Units forecast or both.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Denmark	A
	Sweden	A
	FAB minimum level	*A*
ANSP level	Denmark for Safety Culture MO	D
	Sweden (ACR) for Safety Culture MO	C
	Sweden (ESNX) for Safety Culture MO	D
	Sweden (LFV) for Safety Culture MO	D
	FAB minimum level	*C*
	Denmark for all other MOs	B
	Sweden (ACR) for all other MOs	A
	Sweden (ESNX) for all other MOs	B
	Sweden (LFV) for all other MOs	C
	FAB minimum level	*A*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

RAT application current performance (2013)		Denmark	Sweden (LFV only)	FAB
Separation Minima Infringements (SMIs)	ATM Ground	13%	44%	28.5%
	ATM Overall	0%	0%	0%
Runway Incursions (RIs)	ATM Ground	2%	5%	3.5%
	ATM Overall	0%	0%	0%
ATM Specific Occurrences (ATM-S)	ATM Overall	0%	1%	0.5%

Table 2: Severity classification using the RAT methodology

1.3.3 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[3].

ENVIRONMENT

1.3.4 Current performance in the first semester of 2014 is stable with respect to 2013, showing 1.24% in the first half of 2013 and 1.23% in the first half of 2014.

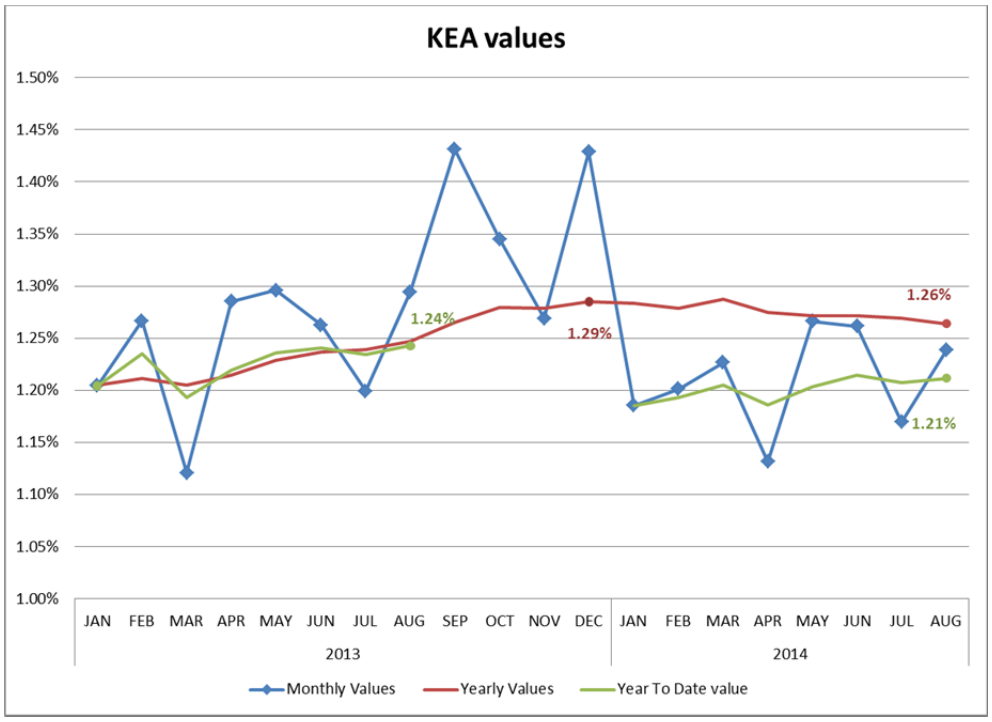


Figure 5: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.5 Current performance in the first eight months of 2014 shows a slight improvement with respect to 2013, going from 1.24% in the first eight months of 2013 to 1.21% in the corresponding period of 2014.

CAPACITY

1.3.6 The DK-SE FAB has provided excellent en-route capacity performance in recent years.

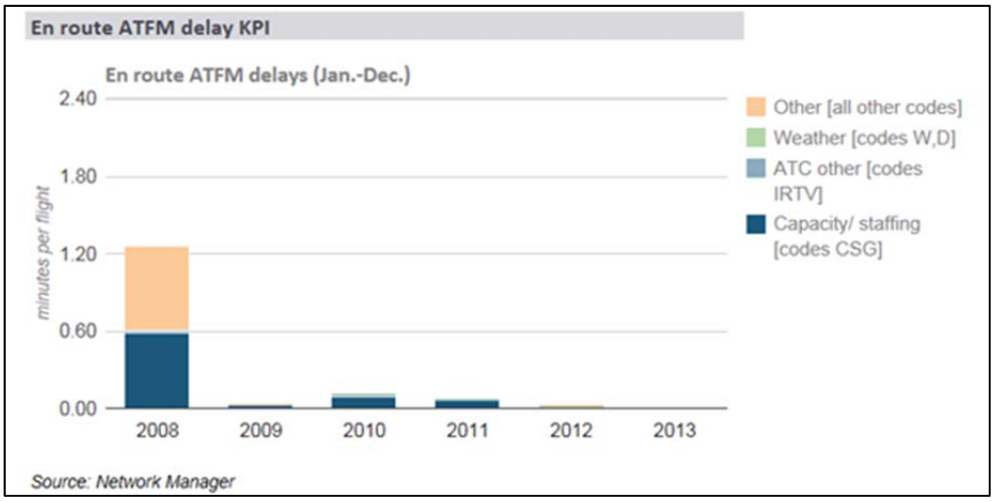


Figure 6: En-route ATFM delay

1.3.7 In terms of arrival ATFM delay, the DK-SE FAB performs very well across the recent 5 years. The accrued delays range well below the European average. The major reported cause for arrival ATFM delay is weather.

1.3.8 The DK-SE FAB contributes positively to the performance European network with a view to managing weather-related impacts on the arrival flow.

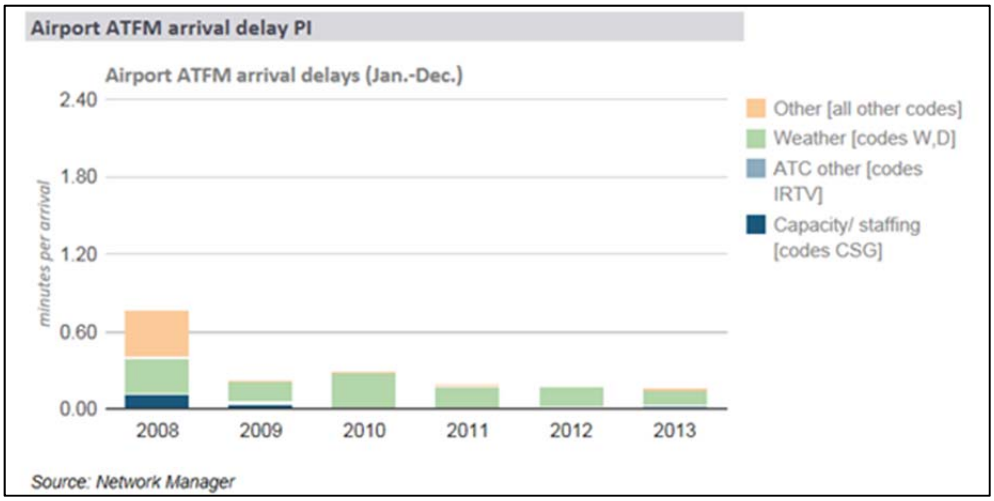


Figure 7: Airport ATFM arrival delay

COST EFFICIENCY

1.3.9 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.2 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the DK-SE FAB to complement the missing and/or incomplete elements as mandated by the Performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in the section "1.3 - Stakeholder consultation" of the Performance Plan. The relevant papers are attached to the Performance Plan as "ANNEX A. PUBLIC CONSULTATION MATERIAL".

1.5.2 Three consultation meetings were held at FAB and national level:

- Meeting #1, 5 May 2014 Denmark national consultation on Cost Efficiency.
- Meeting #2, 7 May 2014, Swedish national consultation on Cost Efficiency.
- Meeting #3, 12 May 2014, FAB Consultation Event.

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Information on the outcome of the consultation (including points of disagreement and reasons) has been made available to the PRB;
- The list of organisation represented at the meeting has been made available to the PRB in section 3.1. In the specific, it appears that only certain categories of stakeholders have attended the meetings and no other categories (e.g. social partners).

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*B*	*C*	*C*	*C*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The DK-SE FAB EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 Only one FAB State was inspected by EASA so far (Denmark). Based on the audit findings they have adjusted few scores in the past year, however most of the values still do not correspond to the true status (some of the scores were found overrated whereas others were underestimated considering the situation).

2.1.3 On the other hand, declared current performance (i.e. EoSM scores) of Sweden shows significant improvement compared to last year. In some cases the declared performance has improved from Levels ‘A’ and ‘B’ to Levels ‘C’ or ‘D’. The EASA assessment shows that the answers are generally consistent; however, it is to be confirmed after the EASA’s audit.

2.1.4 Moreover, Naviair already complies with the Union-wide target Level D for Safety Culture objective within the effectiveness of safety management.

2.1.5 In the area of EoSM the DK-SE FAB is, overall, already performing on a better level (ANSP level) than proposed in the target and further alignment and coordination on a FAB level is expected. Therefore, the PRB does not see the reason for setting targets that are less ambitious (i.e. less than what is already presently achieved).

2.1.6 Overall, based on the current performance, it seems realistic the DK-SE FAB will be able to meet these targets by end of 2019.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*75%*	*75%*	*80%*	*80%*	*100%*	✓
	RIs	*75%*	*75%*	*80%*	*80%*	*100%*	✓
	ATM-S	*75%*	*75%*	*80%*	*80%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*…*	*…*	*80%*	*80%*	*80%*	✓
	RIs	*…*	*…*	*80%*	*80%*	*80%*	✓
	ATM-S	*…*	*…*	*80%*	*80%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The DK-SE FAB severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level.

2.2.2 Based on the current performance and information available in the Performance Plan (i.e. no additional information regarding possible actions to improve the RAT application is available) the PRB is concerned how the DK-SE FAB will improve application of the RAT methodology given the current levels of performance and meet the targets. Therefore, the PRB recommends that the introduction of the RAT methodology, especially at State level be closely monitored.

2.2.3 The information about the application of severity classification based on RAT methodology for each year of the reference period is missing (i.e. for 2015 and 2016). Since Performance Regulation Annex II, 3.1 specifies that local EoSM targets should be provided for each year of reference period, clarification as to why information for 2015 and 2016 forecast targets are missing was requested. The PRB was informed by the DK-SE FAB that no target has been set for one service provider (ESNX) for 2015 and 2016, although all other providers already comply with the RAT methodology use targets. Therefore, the assignment of zero to the RAT methodology application for ATM Ground has been made, for figures covering

2015 and 2016, for the service provider ESNX. In addition, no information about the RAT methodology application is provided for 2015 and 2016 for ATM Overall for both Denmark and Sweden.

2.2.4 The DK-SE FAB should consider that the RAT methodology application values for 2015 and 2016, for ATM-S, should be the same for ATM Ground and ATM Overall.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The DK-SE FAB indicates in its Performance Plan that a common FAB approach in certain areas for Just Culture improvements **has not been established** at State level, although both Danish and Swedish NSAs recognise Just Culture principles and include them as part of the Safety Culture under their State Safety programme.

2.3.3 However, the ANSPs (NAVIAIR and LFV) have implemented a harmonised Safety Management System (SMS) and have also harmonised a written Safety Culture and Just Culture approach.

2.3.4 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has not been set**. However, some information explaining the basis of the elements already in place to promote the effective application of Just Culture at FAB level is provided.

2.4 Key points

2.4.1 The PRB is confident the DK-SE FAB will be able to meet Union-wide EoSM and RAT application targets.

2.4.2 The PRB recommends that safety targets are added for each year of the reference period (as per the performance Regulation, Annex II, 3.1.).

2.4.3 The PRB suggests that improvements and progress in application of the RAT methodology severity classification should be closely monitored in the DK-SE FAB.

2.4.4 The local/FAB target for the level of presence or absence of just culture has not been set.

2.4.5 Lastly, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	1.20%	1.20%	1.20%	1.20%	1.19%
FAB Target	*1.20%*	*1.20%*	*1.20%*	*1.20%*	*1.19%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The DK-SE FAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 Naviair and LFV have adopted non-financial incentives (as per Article 12.4 of the performance Regulation[1]) to reinforce the commitment towards the adopted targets.

3.4 Key points

3.4.1 The DK-SE FAB has adopted annual targets which are consistent with the reference values and non-financial incentives to reinforce the commitment towards the adopted targets.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.10	0.10	0.10	0.09	0.09
FAB Target	*0.10*	*0.10*	*0.10*	*0.09*	*0.09*
Consistency check	✓	✓	✓	✓	✓

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The DK-SE FAB en-route capacity targets are **consistent** with the respective FAB reference values for each year in RP2.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.2 The DK-SE FAB has adopted capacity targets that, although consistent with the Union-wide targets, will not provide a performance surplus that can be used by other FABs.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.3 The latest ANSP capacity plans (from the NOP 2014-2019, June 2014) indicate that the DK-SE FAB en-route capacity performance will meet the required level of performance for each year during RP2.

Year	2015	2016	2017	2018	2019
Annual reference value	0.10	0.10	0.10	0.09	0.09
Delay forecast full year	0.05	0.06	0.09	0.08	0.07

Table 7: Extract from Network Operations Plan 2014-2019

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.4 The DK-SE FAB did not provide an individual breakdown of the expected contribution from each ANSP.

Year		2015	2016	2017	2018	2019
FAB reference value		0.10	0.10	0.10	0.09	0.09
ANSP contribution	Naviair	N/A	N/A	N/A	N/A	N/A
	LFV	N/A	N/A	N/A	N/A	N/A

Table 8: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.5 The FAB plan contained details of how the FUA legislation is applied in the FAB. Although the Performance Plan lacked specific details on how the application of FUA will provide additional capacity for general air traffic, it is evident from the information provided that the FUA concept is applied to the benefit of airspace users.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.6 The DK-SE FAB combined has provided a positive contribution to the Union-wide capacity target in 2012 & 2013 and a vastly superior performance to that set in the FAB Performance Plan for RP1.

4.1.7 Denmark has had excellent capacity performance in 2012 & 2013 with zero delay.

4.1.8 Sweden has had very low levels of delay at 0.04 (2012) & 0.03 (2013) minutes per flight in RP1.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Denmark	*0.11*	*0.11*	*0.11*	*0.11*	*0.11*
Sweden	*0.35*	*0.35*	*0.35*	*0.35*	*0.35*

Table 9: National target on average arrival ATFM delays [minutes per arrival]

4.2.1 The scope of the DK-SE FAB Performance Plan comprises the terminal air navigation services at one airport in Denmark (i.e. EKCH) and one airport in Sweden (i.e. ESSA).

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay for each of the States which reflects the breakdown per airport for each of the years of the reference period.

4.2.3 In all cases, the description and explanation of the target, and the contribution to improvement of performance is very limited. The targets are kept constant across the reference period and frame the projected growth of air traffic.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.4 In both cases, the national target on arrival ATFM delay is consistent with the observed historical performance. Considering the share of accrued arrival ATFM delay over the last 5 years for Sweden, the target is set as an upper bound and provides a buffer to cater for variations in terms of arrival ATFM delay and projected traffic growth. On the other hand, Denmark sets a challenging target of 0.11 minutes per arrival which represents the 50%-level of the observed historical performance over the last five years (average arrival ATFM delay [2009-2013]:0.22 minutes per arrival).

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.5 The national target for Denmark and Sweden represents the contribution of the respective only airport subject to RP2.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.6 The performance at EKCH and ESSA is fairly stable across the recent years and ranges well below the European average for similar airports in terms of traffic volume. Within the group of Scandinavian airports, EKCH and ESSA show a very low level of arrival ATFM delay

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.7 The plan does not list or discuss anticipated benefits from planned initiatives and how these activities may positively impact the performance.

Primary check:

- *Other justifications provided*

4.2.8 The DK-SE FAB Performance Plan provides no further justification concerning

ATFM delay attributable to terminal or aerodrome ANS.

4.3 Additional indicators

EN-ROUTE

4.3.1 The DK-SE FAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The DK-SE FAB Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 10 lists the incentives for the en-route included in the Performance Plan which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

Incentive Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance
ATFM delay for en-route	Yes	Yes	Yes	Yes	Yes

Table 10: Incentives on en-route Capacity

4.4.2 The PRB has the following observations on the proposed en-route capacity incentive scheme for the DK-SE FAB:

- The incentive scheme is based on FAB performance;
- The incentive scheme is symmetrical;
- The target value is consistent with the FAB reference value;
- The incentive scheme encourages a high level of performance.

AIRPORT

4.4.3 The DK-SE FAB Performance Plan presents no capacity incentive schemes for the national targets on arrival ATFM delay.

4.4.4 A reference is provided in the supporting documentation that the establishment of an incentive scheme for terminal ANS may be reviewed in 2017.

4.5 Key points

EN-ROUTE

4.5.1 The DK-SE FAB has adopted en-route capacity targets that are consistent with the Union-wide targets.

4.5.2 The existing capacity plans from the ANSPs indicate that such performance will be

achieved.

4.5.3 The proposed en-route capacity incentive scheme is consistent with Article 12 of the performance Regulation.

AIRPORT

4.5.4 The scope of the DK-SE FAB Performance Plan comprises the terminal air navigation services at one airport in Denmark (i.e. EKCH) and one airport in Sweden (i.e. ESSA). The plan sets national targets on arrival ATFM delay both states, Denmark and Sweden.

4.5.5 The national targets are consistent with the observed historical performance. The Danish target is challenging setting the target value at 50% of the historical performance. Sweden sets an upper bound in line with the maximum of arrival ATFM delay observed throughout the recent years.

4.5.6 The targets on arrival ATFM delay are realistic and consistent with the requirements under the performance Regulation, and therefore acceptable.

4.5.7 No evidence is provided concerning the justification or anticipated benefits from planned activities that may positively influence the level of performance.

4.5.8 The DK-SE FAB is not compliant with the requirement to establish an incentive scheme for capacity-related targets (i.e. national target on arrival ATFM delay).

5 COST-EFFICIENCY

5.1 Denmark: Setting the scene for RP2 cost-efficiency target assessment

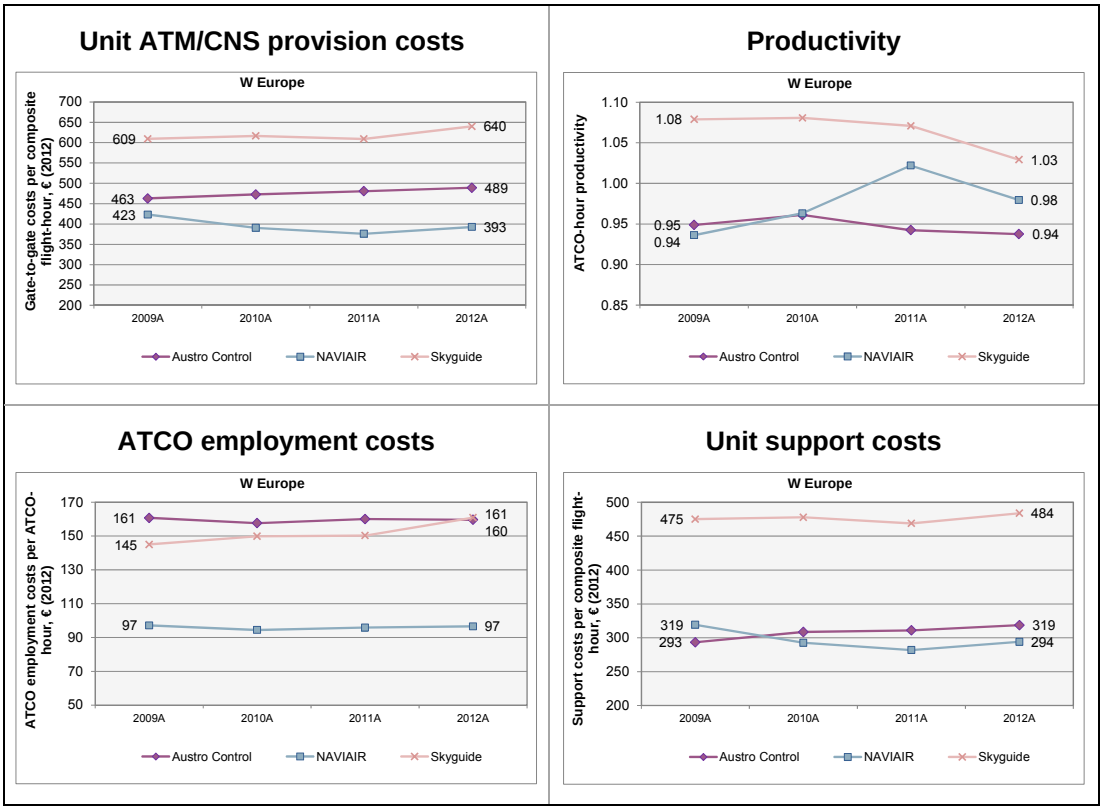
5.1.1 This section sets the scene for the RP2 cost-efficiency target assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report and from the PRB 2012 and 2013 monitoring analysis. It focuses on Naviair, the main ATSP in the Denmark, which represented 1.5% of the European system ATM/CNS provision costs in 2012.

5.1.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Naviair is part of the Western Europe ANSPs comparator group, which also includes Austro Control (Austria) and Skyguide (Switzerland).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- Naviair's productivity (0.98) is equivalent to the comparator group average (0.98);
- Employment costs per ATCO-hour (97 €2012) are -39.7% lower than the comparator group average (160 €2012); and
- Support costs per composite flight-hour (294 €2012) are -26.7% lower than the comparator group average (401 €2012).

5.1.4 As a result, Naviair's unit ATM/CNS provision costs (393 €$_{2012}$) were -30.4% lower than the comparator group average in 2012 (565 €$_{2012}$).



5.1.5 The PRB 2013 monitoring analysis indicates that Naviair's actual en-route costs for 2013 were lower than planned (-7.9 M€$_{2009}$). This more than compensates for the impact of the lower than planned traffic (-3.1%) on Naviair's revenues. Taking into

account the traffic risk sharing arrangements, Naviair generated a net gain of +6.0 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Naviair's economic surplus, it is important to account for the profit embedded in the cost of capital (+2.9 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for en-route activity in 2013 amounts to +9.0 M€$_{2009}$, which implies an ex-post rate of return on equity of 15.4% (compared to 5.0% as initially planned in the NPP). This adds to the gains generated by Naviair in 2012 (+6.2 M€$_{2009}$ or 7.9% of en-route revenues leading to an ex-post rate of return on equity of 8.6%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	81,314	82,961
Actual costs for the ATSP	75,745	75,015
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	5,569	7,946
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**5,569**	**7,946**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-8.00%	-3.09%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-3,005**	**-1,905**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	2,564	**6,041**

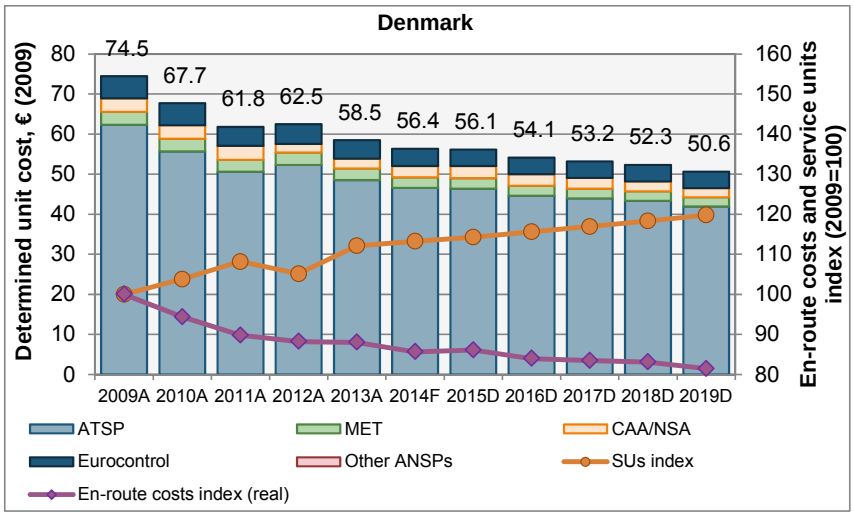
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	3,611	2,917
Overall estimated surplus (+/-) for the en-route activity	6,175	8,958
Revenue/costs for the en-route activity	78,309	81,056
Estimated surplus (+/-) in percent of en-route revenue/costs	**7.9%**	**11.1%**
Estimated ex-post RoE pre-taxe rate (in %)	**8.6%**	**15.4%**

Table 11: ANSP estimated surplus 2012 & 2013

5.2 Denmark: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route charging zone. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	62.38	55.67	50.64	52.34	48.56	46.57	46.41	44.63	43.96	43.39	41.97	-2.3%	-2.1%
MET	EUR (2009)	3.19	3.18	2.94	3.09	2.86	2.66	2.58	2.50	2.42	2.34	2.27	-3.2%	-3.1%
CAA/NSA	EUR (2009)	3.36	3.36	3.52	2.12	2.43	2.81	3.07	2.87	2.68	2.49	2.31	-5.1%	-3.8%
Eurocontrol	EUR (2009)	5.57	5.52	4.73	4.95	4.62	4.31	4.05	4.10	4.11	4.10	4.09	-1.8%	-1.0%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**74.49**	**67.73**	**61.84**	**62.50**	**58.48**	**56.35**	**56.12**	**54.10**	**53.17**	**52.32**	**50.64**	**-2.5%**	**-2.1%**

Figure 8: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	DKK m (nom)	753.4	726.9	710.2	714.3	716.4	710.5	726.9	724.5	736.0	749.0	750.2
Inflation rate	annual % change		2.2%	2.7%	2.4%	0.5%	1.9%	1.8%	2.2%	2.2%	2.2%	2.2%
Inflation index	2009=100	100.0	102.2	105.0	107.5	108.0	110.1	112.0	114.5	117.0	119.6	122.2
Determined costs	DKK m (2009)	753.4	711.2	676.6	664.6	663.2	645.5	648.7	632.7	628.9	626.2	613.7
Service units	'000s	1,359	1,411	1,470	1,429	1,524	1,539	1,553	1,571	1,589	1,608	1,628
Determined unit cost	DKK (2009)	554.49	504.12	460.27	465.19	435.28	419.44	417.71	402.71	395.76	389.45	376.95
Exchange rate	DKK:EUR	7.44										
Determined unit cost	EUR (2009)	74.49	67.73	61.84	62.50	58.48	56.35	56.12	54.10	53.17	52.32	50.64

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	DKK m (nom)	0.0%	0.7%	1.1%	0.8%
Inflation	CAGR %	2.0%	1.9%	2.1%	2.2%
Determined costs	DKK m (2009)	-2.0%	-1.2%	-1.0%	-1.4%
Service units	'000s	1.8%	1.3%	1.1%	1.2%
Determined unit cost	DKK (2009)	-3.8%	-2.5%	-2.1%	-2.5%
Exchange rate					
Determined unit cost	EUR (2009)	-3.8%	-2.5%	-2.1%	-2.5%

Table 12: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The determined costs (DCs) and planned TSUs reported for the year 2014 in the RP2 Performance Plan have been updated.

As a result the reported DCs for 2014 are materially below the RP1 NPP value (56.5 M€$_{2009}$ versus 63.5 M€$_{2009}$), and below the 2013 actual (56.5 M€$_{2009}$ versus 58.5 M€$_{2009}$).

The 2014 forecast of en-route TSUs has been revised downwards by -4.1% from 1,605 ('000s) TSUs in the RP1 NPP to 1,539 ('000s) in the RP2 Performance Plan. The 2014 starting point provides a true reflection of the current situation and a good basis to analyse projected RP2 performance.

Key points for Denmark's en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

Over the RP2 period the TSU traffic forecast in the Performance Plan is in line with the STATFOR February 2014 low case. For the first eight months of 2014, there has been a +2.0% growth in TSUs as compared to 2013, this is lower than forecast by STATFOR in its base case.

2. Economic assumptions:	**Not passed** **➔ Passed**

The inflation assumptions submitted in Denmark's Performance Plan over the RP2 period for en-route cost efficiency are not in line with IMF average inflation forecasts. There is a 0.4 percentage point difference in 2014 which is carried forward throughout RP2.

➔ During the fact verification process (16-09 until 26-09 2014) Denmark has submitted a revised inflation forecast for 2014, in line with the IMF inflation forecast (1.5%).

3. En-route DUC trend:	**Passed with reservations**

Denmark plans for a -2.1% decrease in the DUC over the period 2014-2019 which is worse than the Union-wide target (-3.3%). The DCs trend over the period (-1.0%) is also lower than the assumptions underpinning the Union-wide targets (-2.1%). The trends in Denmark's RP2 Performance Plan reflect the modest SU increase from the STATFOR February 2014 low case.

Between 2011 and 2019 the en-route DUC trend (-2.5%) is equivalent to the Union-wide target trend, and 2009-2019 is significantly better (-3.8% compared to a target of -2.5%).

In 2014 DCs are forecast to be lower than 2013 actual, with a lower DUC also resulting from a forecast of modest traffic growth.

If the STATFOR base case February 2014 forecast and IMF inflation forecast were applied then this would result in a -3.6% DUC trend for RP2.

4. En-route DUC level:	**Passed**
Denmark's en-route DUC in 2019 is planned to be 50.64 €$_{2009}$ which is -20.7% lower than the average of the comparator group (excluding Denmark) (63.87 €$_{2009}$). The PRB notes that over the period 2014-2019 Denmark's DUC is expected to be materially below the comparator group average and the Union-wide average. The planned reduction in Denmark's DUC over the 2009-2019 period is significantly better (-3.8% p.a.) than the other States in the comparator group (-0.8%).	
5. En-route cost of capital:	**Passed with reservations**
The pre-tax Weighted Average Cost of Capital (WACC) used to calculate Naviair's en-route cost of capital in the Reporting Tables ranges from 3.6% to 4.5% p.a. This is lower than the range for the notional "efficient" pre-tax WACC using methodology provided in Annex C of the Additional Information tables. The monetary value of the Return on Equity ranges some 2.6-2.9 M€$_{2009}$, which is slightly lower than the maximum risk exposure which will be borne by Naviair over RP2 (3.0-3.2 M€$_{2009}$), reflecting the low traffic case chosen. On average over RP2, Naviair's en-route asset base per service unit (101 €$_{2009}$) is materially higher (nearly twice as high) than the comparator group average of 53 €$_{2009}$. **The PRB has reservations about the size of the asset base.** The share of current assets is high (greater than 30%).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The Performance Plans should be updated to provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the WACC submitted in the Reporting Tables.	
7. Costs exempt from risk sharing:	**Passed**
The information in the Performance Plan (AI 4(h)) is presented in the format of the FAB template. However it only makes reference to pensions assumptions in 4(g) and interest rate assumptions in 4(c). As discussed above the level of transparency of interest rate assumptions is insufficient. Further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section is requested.	

Overall consistency assessment of Denmark's en-route cost-efficiency KPI

Taking into account these key points, in particular 3, 4, and 5, Denmark's en-route cost-efficiency target is assessed as being consistent with, and making an adequate contribution to, the achievement of the en-route Union-wide cost-efficiency target over RP2, with reservations about the use of the high asset base per SU.

However the PRB advises the Commission to issue a Recommendation to the DK-SE FAB to adopt a revised Performance Plan and, in particular, for Denmark to revise its en-route cost efficiency target, including to:

a) **reconsider the value of the 2014 inflation assumption; => revised 2014 inflation assumption provided by Denmark during the fact verification process**

b) **provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the Weighted Average Cost of Capital submitted in the Reporting Tables (based on key point 6); and,**

c) **provide further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section is requested (based on key point 7).**

d) **reconcile the WACC and RoE in the Reporting Tables to that provided in the Additional Information.**

Additional clarifications/revised data provided in the fact verification process

During the fact verification process (16-09 until 26-09 2014) Denmark submitted a revised 2014 inflation forecast in line with the IMF inflation forecast (1.5%).

This does not materially change the conclusions of the PRB assessment of Denmark en-route cost-efficiency target for RP2.

5.3 Denmark: Overview of terminal charging zones assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for the terminal ANS KPI assessment. The full assessment is provided as Annex 1.

Overview:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Denmark: Copenhagen. This is the only airport with more than 70,000 IFR movements and it is subject to traffic risk sharing as it has more than 225,000 IFR movements. The number of airports in the TCZ has not changed between 2014 and 2015.

The TCZ represents 79.2% of Terminal Navigation SUs (TNSU) in Denmark.

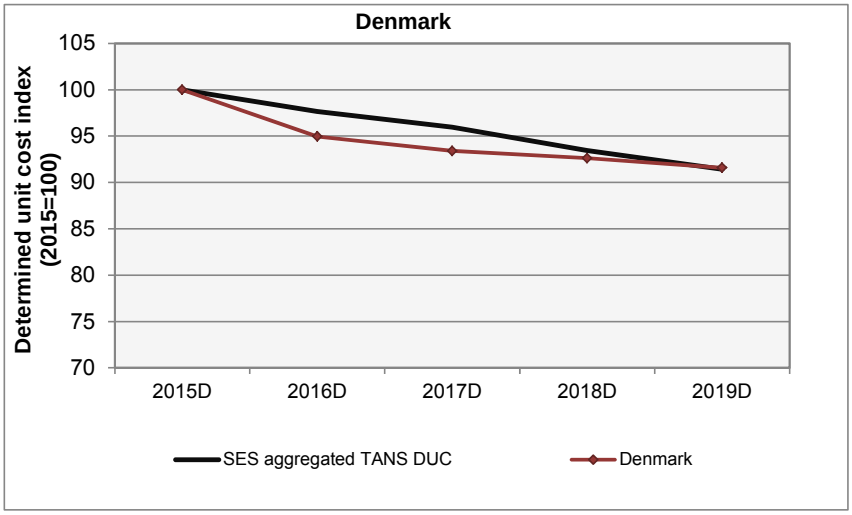


Figure 9: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	DKK m (nom)	180.6	176.8	179.2	183.2	186.8	0.8%
Inflation rate *	annual % change	1.8%	2.2%	2.2%	2.2%	2.2%	2.2%
Inflation index *	2009=100	112.0	114.5	117.0	119.6	122.2	
Determined costs	DKK m (2009)	161.2	154.4	153.2	153.2	152.8	-1.3%
Terminal SUs	'000s	150.5	151.8	153.1	154.4	155.7	0.9%
Determined unit cost	DKK (2009)	1,071.29	1,017.23	1,000.56	992.27	981.21	-2.2%
Exchange rate	DKK:EUR (2009)	7.44					
Determined unit cost	EUR (2009)	143.93	136.66	134.42	133.31	131.82	-2.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 13: Terminal DUC breakdown

Key points for Denmark's terminal charging zone	
1. Traffic forecast assumptions:	**Passed**
The forecast Terminal Navigation Service Units (TNSUs) lie between the STATFOR February 2014 low and base cases for every year of RP2.	
2. Economic assumptions:	**Not passed** ➔ **Passed**
Over RP2 Denmark's inflation is identical to the en-route. However, it is not in line with the IMF forecasts for the year 2014. ➔ During the fact verification process (16-09 until 26-09 2014) Denmark has submitted a revised inflation forecast for 2014, in line with the IMF inflation forecast (1.5%).	
3. Terminal ANS DUC trend:	**Passed**
Over the 2015-2019 period, the profile of terminal ANS DUC for Denmark is similar to the SES aggregated DUC (-2.2% p.a.). Denmark's annual average % change in local terminal ANS DCs is slightly lower than the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (TANS -1.3%, en-route -1.4%).	
4. Terminal cost of capital:	**Not passed**
The TCZ applies traffic risk sharing. The RoE used to calculate the cost of capital for Naviair in Denmark TCZ is much higher than that used to calculate the RoE for its en-route CZ (12.6% compared to 5.0% for en-route).	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to section on economic assumptions in the en-route detailed assessment. The Performance Plans should be updated to provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the WACC submitted in the Reporting Tables.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to section on costs exempt from risk sharing for RP2 in the en-route detailed assessment. Further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section is requested.	

Overall consistency assessment of Denmark terminal ANS cost-efficiency KPI

Taking into account these key points, in particular 1, 3 and 4, Denmark's terminal charging zone terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation (EU).

Therefore the PRB advises the Commission to issue a Recommendation to the DK-SE FAB to adopt a revised Performance Plan, and in particular for Denmark to revise its terminal ANS cost-efficiency target, including to:

a) **reconsider the value of the 2014 inflation assumption; => revised 2014 inflation assumption provided by Denmark during the fact verification process**

b) **reconsider the RoE applied by Naviair in the light of the rate applied for the en-route activity;**

c) **provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the Weighted Average Cost of Capital submitted in the Reporting Tables (based on key point 5); and,**

d) **provide further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section is requested (based on key point 6).**

e) **reconcile the WACC and RoE in the Reporting Tables to that provided in the Additional Information.**

Additional clarifications/revised data provided in the fact verification process

During the fact verification process (16-09 until 26-09 2014) Denmark has submitted a revised 2014 inflation forecast in line with the IMF inflation forecast (1.5%).

This does not materially change the conclusions of the PRB assessment of Denmark terminal cost-efficiency target for RP2.

5.4 Sweden: Setting the scene for RP2 cost-efficiency target assessment

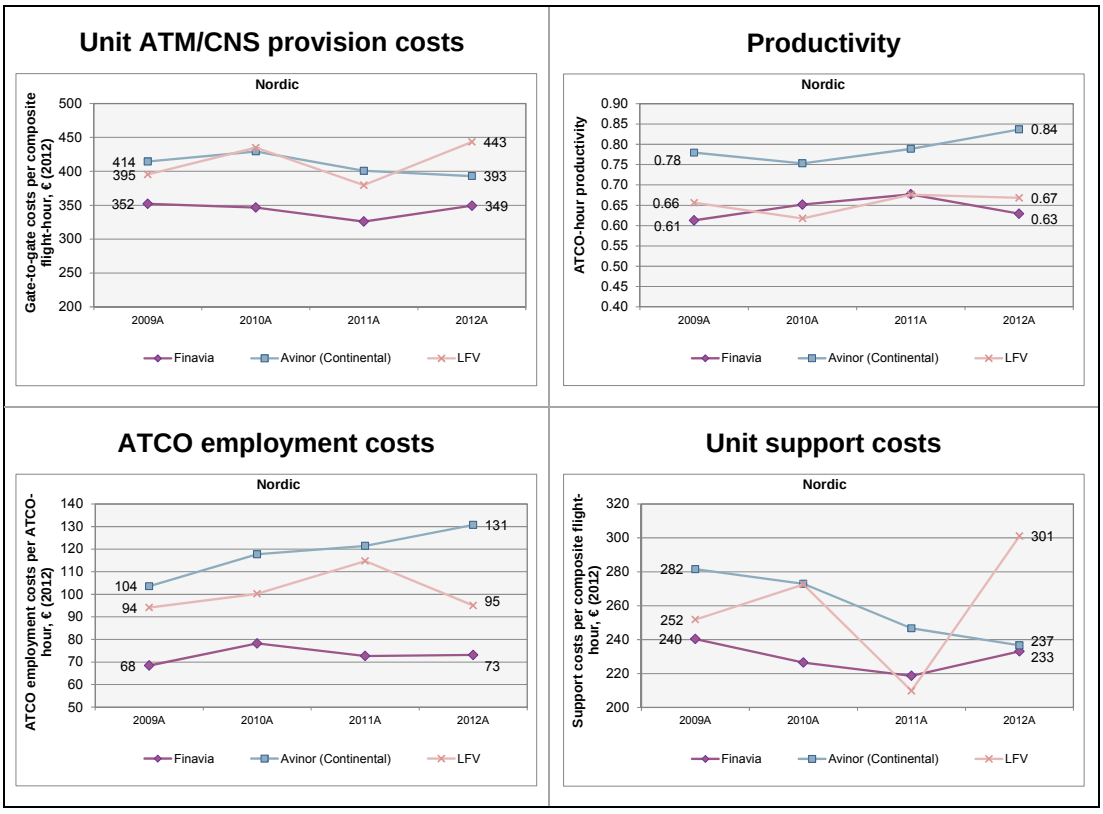
5.4.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report and from the PRB 2012 and 2013 monitoring analysis. It focuses on LFV, the main ATSP in Sweden, which represented 3.3% of the European system ATM/CNS provision costs in 2012.

5.4.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. LFV is part of the Nordic ANSPs comparator group, also including Avinor (Continental) (Norway) and Finavia (Finland).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- LFV's productivity (0.67) is -8.8% lower than the comparator group average (0.74);
- Employment costs per ATCO-hour (95 €$_{2012}$) are -6.9% lower than the comparator group average (102 €$_{2012}$); and,
- Support costs per composite flight-hour (301 €$_{2012}$) are +28.1% higher than the comparator group average (235 €$_{2012}$).

5.4.4 As a result, LFV's unit ATM/CNS provision costs (443 €$_{2012}$) were +19.4% higher than the comparator group average in 2012 (371 €$_{2012}$).



5.4.5 The PRB 2013 monitoring analysis indicates that LFV's actual en-route costs for 2013 were marginally lower than planned (-1.7 M€$_{2009}$). This was not sufficient to compensate for the impact of the lower traffic than planned (-2.8%) on LFV's revenues. However, taking into account the amount of costs exempt from the cost sharing applied for +16.6 M€$_{2009}$ and the traffic risk sharing arrangements, LFV generated a net gain of +13.1 M€$_{2009}$ in 2013 on the en-route activity. However,

when estimating LFV's economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 2.8 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 15.8 M€$_{2009}$, which implies an ex-post rate of return on equity of 9.0% (compared to 5.43% pre-tax RoE (4.0% post tax) as initially planned in the NPP). This adds to the gains generated by LFV in 2012 (+11.1 M€$_{2009}$ or 6.0% of en-route revenues leading to an ex-post rate of return on equity of 6.3%). The results for 2012 and 2013 are highly impacted by the claim for costs exempt from cost sharing which mainly relate to pensions costs. In the event that these costs were assessed by the Commission as not recoverable, the results would be very different (loss making).

Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	151,608	150,814
Actual costs for the ATSP	176,052	149,103
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-24,444	1,711
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	35,200	14,918
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**10,756**	**16,629**

Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-2.58%	-2.83%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-3,398**	**-3,571**

Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	**7,359**	**13,058**

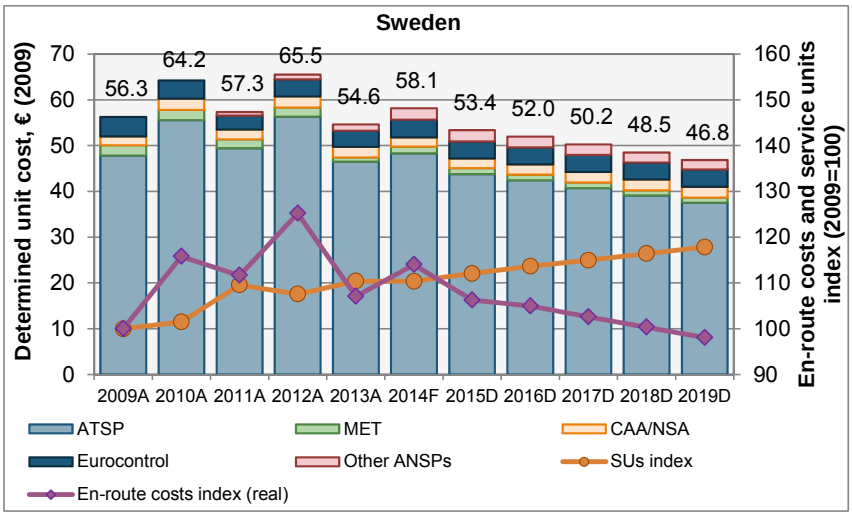
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	3,727	2,777
Overall estimated surplus (+/-) for the en-route activity	11,086	15,835
Revenue/costs for the en-route activity	183,410	162,161
Estimated surplus (+/-) in percent of en-route revenue/costs	**6.0%**	**9.8%**
Estimated ex-post RoE pre-taxe rate (in %)	**6.3%**	**9.0%**

Table 14: ANSP estimated surplus 2012 & 2013

5.5 Sweden: Overview of en-route charging zone assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	47.86	55.58	49.40	56.31	46.47	48.31	43.76	42.39	40.72	39.09	37.53	-3.4%	-4.9%
MET	EUR (2009)	2.21	2.23	1.96	2.01	0.98	1.46	1.30	1.26	1.21	1.16	1.12	-6.8%	-5.2%
CAA/NSA	EUR (2009)	1.97	2.48	2.14	2.38	2.28	1.99	2.15	2.24	2.29	2.32	2.36	1.2%	3.4%
Eurocontrol	EUR (2009)	4.25	3.91	3.05	3.72	3.53	3.90	3.71	3.74	3.75	3.75	3.75	2.6%	-0.8%
Other ANSPs	EUR (2009)	-	-	0.80	1.09	1.33	2.47	2.44	2.36	2.27	2.18	2.09	12.8%	-3.2%
Total	**EUR (2009)**	**56.29**	**64.19**	**57.35**	**65.52**	**54.59**	**58.13**	**53.36**	**51.99**	**50.24**	**48.51**	**46.84**	**-2.5%**	**-4.2%**

Figure 10: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	SEK m (nom)	1,736	2,033	1,988	2,250	1,932	2,065	1,956	1,979	1,975	1,969	1,964
Inflation rate	annual % change		1.2%	1.4%	0.9%	0.4%	0.4%	1.6%	2.4%	2.1%	2.0%	2.0%
Inflation index	2009=100	100.0	101.2	102.6	103.5	104.0	104.3	106.1	108.6	110.9	113.1	115.4
Determined costs	SEK m (2009)	1,736	2,009	1,938	2,173	1,859	1,979	1,844	1,822	1,781	1,741	1,702
Service units	'000s	2,906	2,950	3,185	3,126	3,209	3,208	3,257	3,303	3,341	3,383	3,425
Determined unit cost	SEK (2009)	597.26	681.11	608.49	695.20	579.22	616.77	566.19	551.61	533.09	514.71	497.01
Exchange rate	SEK:EUR	10.61										
Determined unit cost	EUR (2009)	56.29	64.19	57.35	65.52	54.59	58.13	53.36	51.99	50.24	48.51	46.84

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	SEK m (nom)	1.2%	-0.2%	-1.0%	0.1%
Inflation	CAGR %	1.4%	1.5%	2.0%	2.1%
Determined costs	SEK m (2009)	-0.2%	-1.6%	-3.0%	-2.0%
Service units	'000s	1.7%	0.9%	1.3%	1.3%
Determined unit cost	SEK (2009)	-1.8%	-2.5%	-4.2%	-3.2%
Exchange rate					
Determined unit cost	EUR (2009)	-1.8%	-2.5%	-4.2%	-3.2%

Table 15: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes with reservations

The determined costs (DCs) and planned TSUs reported for the year 2014 in the RP2 Performance Plan have been updated.

DCs for 2014 are forecast at 2,065 MSEK which is marginally lower (-1.7%) than the value of 2,100 MSEK submitted in the RP1 Performance Plan. Traffic is also lower (-5.5%) in the RP2 Performance Plan for 2014 at 3,208 ('000s SUs) compared to 3,393 ('000s SUs) in the RP1 Performance Plan. These revisions result in a higher starting point for the 2014 DUC.

The PRB notes that the updated costs in 2014 are 186.5 M€$_{2009}$, +6.5% higher than actual 2013 costs (176.2 M€$_{2009}$). There are large claims for costs exempt from cost sharing (for 2012 and 2013), which have not yet been assessed by the Commission. Furthermore, it is not clear how these pensions costs have been taken account in the RP2 DCs.

For the purposes of en-route DUC trend assessments, attention will therefore be given to the 2011-2019 (RP1+RP2) periods.

Key points for Sweden en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

Over RP2 the traffic is in line with the STATFOR February 2014 low case.

The PRB notes that Sweden forecast zero growth in 2014 vs 2013. This contrasts with the first eight months to-date (January-August) where there has been a +3.0% SU growth compared to 2013.

Therefore analysis of a normalised version (using the STATFOR base case) of checks 3 and 4 has taken place in addition to analysis using the Performance Plan traffic forecast.

2. Economic assumptions:	**Passed**

The inflation assumptions submitted in Sweden's Performance Plan over the RP2 period for the en-route cost efficiency target are in line with the IMF average inflation forecasts.

3. En-route DUC trend:	**Passed with reservations**

Sweden plans for a -4.2% decrease in the DUC over the period 2014-2019 which is better than the Union-wide target (-3.3% p.a.). DCs trends over the same period (-3.0%) are also better than the assumptions underpinning the Union-wide targets (-2.1%). When assessed over 2015-2019, the DUC improves by -3.2% p.a.

Between 2011 and 2019 the en-route DUC trend (-2.5%) is also better than the Union-wide target (-1.7%), while for 2009-2019 the en-route DUC trend (-1.8%) is worse than the Union-wide target trend (-2.5%).

DCs trends between 2011 and 2019 (-1.6%) are better than the assumptions underpinning the Union-wide average (-0.8%), however over the 2009 to 2019 period (-0.2%) they are

worse than the Union-wide average (-1.1%).

The PRB notes that in 2014 the updated costs are forecast to be +6.5% higher than the actual 2013 costs in €$_{2009}$ terms. This is the equivalent of two years of cost improvements in RP2 and materially impacts the starting point for RP2.

The magnitude of the costs exempt from cost sharing (pensions liabilities), appears to be providing a large amount of volatility in the DC base. Adjustments for pensions costs have taken place in each of 2011, 2012 and 2013, and probably 2014 and it is therefore difficult to find a long term trend in DCs which is not impacted by one-off pensions costs.

4. En-route DUC level:	**Not passed with reservations**

Sweden's en-route DUC in 2019 is planned to be 46.84 €$_{2009}$ per SU which is the highest of the comparator group and +11.7% higher than the average of the comparator group (excluding Sweden) of 41.93 €$_{2009}$ per SU. Using PPP widens the gap to +26.4%. It is also higher than the Union-wide average.

However, if normalised traffic is taken into consideration then this result changes and the level is only slightly higher than the comparator average in 2019 (+0.5%).

The proportion of costs allocated to en-route in Sweden, at 92% is significantly higher than the peer group average of 71% which will impact comparisons.

5. En-route cost of capital:	**Passed with reservations**

The WACC rate used to calculate the cost of capital of LFV (starting from 3.5% in 2014 and increasing to 5.1% by 2019) is either below or towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance. LFV has not used the CAPM methodology to calculate its RoE, but rather applied the Government of Sweden's required RoE of 4.00% post tax (5.13% pre-tax).

The value of LFV's RoE (M€$_{2009}$) is below the maximum risk from traffic sharing.

By 2019 LFV's en-route asset base per service unit (30 €$_{2009}$) is expected to be lower than the comparator group average (35 €$_{2009}$).

The PRB notes that the small provider of en-route services in Sweden (ACR), which accounts for some 4% of the total DCs in RP2, applies an RoE of 17.0% and a pre-tax WACC of 11.3%. As its costs are subject to the same risk sharing arrangements as LFV, this apparent inconsistency should be addressed.

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

Some information is provided in AI 1(c), (e), 4 (b), (c).

Further information is requested on:

- the detailed differences between Swedish legal requirements on the accounting of pensions and depreciation of fixed assets as compared to International Accounting Standards; and
- on the value of the pension liabilities used to calculate the cost of debt in the WACC

calculation.	
7. Costs exempt from risk sharing:	**Not passed**
Sweden is requested to provide greater clarity on how it has reflected the costs exempt from cost sharing identified in RP1 in 2014 and in RP2 projections. There are large claims for costs exempt from cost sharing for 2012 and 2013 for RP1, for which the Commission will assess eligibility following the principles set out in the SSC paper 14/53/23 in March 2014.	

Overall consistency assessment of Sweden's en-route cost-efficiency KPI

Taking into account these key points, in particular 1 and 5, Sweden's en-route cost-efficiency target is assessed as being consistent with, and making an adequate contribution to, the achievement of the en-route Union-wide cost-efficiency target over RP2.

However the PRB advises the Commission to issue a Recommendation to the DK-SE FAB to adopt a revised Performance Plan and, in particular for Sweden to revise its en-route cost-efficiency target, including to:

a) reconsider the traffic forecast in the light of the latest available year-to-date actual situation (key point 1);

b) Address the inappropriate level of the cost of capital and RoE for ACR. The PRB notes that the small provider of en-route services in Sweden (ACR), which accounts for some 4% of the total DCs in RP2, applies an RoE of 17.0% and a pre-tax WACC of 11.3%. As its costs are subject to the same risk sharing arrangements as LFV, this apparent inconsistency should be addressed. (key point 5).

In addition, the PRB advises the Commission to issue a provision of information request to Sweden to:

c) provide further information on the detailed differences between Swedish legal requirements on the accounting of pensions and depreciation of fixed assets as compared to International Accounting Standards and on the value of the pension liabilities used to calculate the cost of debt in the WACC calculation (based on key point 6); and,

d) provide greater clarity on how it has reflected the costs exempt from cost sharing identified in RP1 in 2014 and RP2 projections – particular given the intention to smooth these costs evenly over the five years of RP2 (based on key point 7).

5.6 Sweden: Overview of terminal charging zones assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Sweden at Arlanda which is exempt from traffic risk sharing. The number of airports reduces from two to 1 between 2014 and 2015.

Arlanda TCZ represents 49.8% of total TNSUs in Sweden.

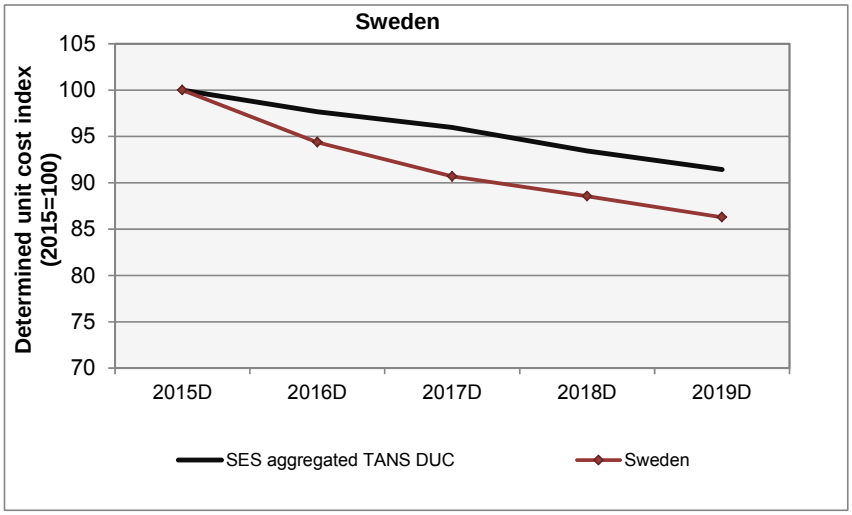


Figure 11: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	SEK m (nom)	169.7	170.1	172.1	176.0	179.0	1.3%
Inflation rate *	annual % change	1.6%	2.4%	2.1%	2.0%	2.0%	2.1%
Inflation index *	2009=100	106.1	108.6	110.9	113.1	115.4	
Determined costs	SEK m (2009)	160.0	156.6	155.2	155.6	155.1	-0.8%
Terminal SUs	'000s	136.6	141.7	146.1	150.0	153.5	3.0%
Determined unit cost	SEK (2009)	1,171.29	1,105.47	1,062.40	1,037.23	1,010.71	-3.6%
Exchange rate	SEK:EUR (2009)	10.61					
Determined unit cost	EUR (2009)	110.39	104.19	100.13	97.76	95.26	-3.6%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 16: Terminal DUC breakdown

Key points for Sweden's terminal charging zones

1. Traffic forecast assumptions:	**Passed**

The forecast total Terminal Navigation Service Units (TNSUs) are slightly lower than, or the same as, the STATFOR February 2014 base case for every year of RP2.

2. Economic assumptions:	**Passed**
Over RP2 period, the inflation for Sweden's TCZ is consistent with that used for en-route and in line with IMF forecasts.	
3. Terminal ANS DUC trend:	**Passed with reservations**
Over the 2015-2019 period, the annual avg. % change in Sweden's Terminal ANS DUC (-3.6%) is better than the profile corresponding to the SES aggregated Terminal ANS DUC (-2.2%). Sweden's annual average % change in Terminal ANS DCs is worse than the profile corresponding to the local en-route ANS DCs, for the 2015-2019 period (TANS -1.3%, en-route -3.0%) and for the 2014-2019 period (TANS -0.8%, en-route -2.0%). The PRB notes that the level of ambition for TANS is linked to the Swedish NSA setting a minimum target of no increase in the DUC in nominal terms for Sweden during the reference period.	
4. Terminal cost of capital:	**Not passed**
Swedavia's RoE (pre-tax 11.5%, post-tax 9.0%) is set by the Swedish Government. The PRB notes that despite the fact that there is no traffic risk sharing applied to the TCZ, the RoE used to calculate the cost of capital for Sweden's regulated TCZ is much higher than that used to calculate the RoE for its en-route CZ (RoE post-tax 4%). The value applied is towards the top of the range of the notional efficient WACC. This apparent inconsistency raises an issue as the WACC/RoE should be related to the risk incurred rather than the form of governance/ownership.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
Further information is requested on the detailed differences between Swedish legal requirements on the accounting pensions and depreciation of fixed assets as compared to International Accounting Standards.	
6. Costs exempt from risk sharing:	**Not passed**
Sweden is requested to provide greater clarity on how it has reflected pensions costs assumptions and how these are reflected in RP2 projections. The PRB understands that changes in pensions liabilities were reflected in 2012 and 2013 that were charged to users under the full cost recovery mechanism. As these were one-off costs, then a more rapid recovery to baseline would be expected.	

Overall consistency assessment of Sweden's terminal ANS cost-efficiency KPI

Taking into account the above key points, in particular 1, 2 and 3 Sweden's terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

In addition, the PRB advises the Commission to issue a request for information to Sweden to:

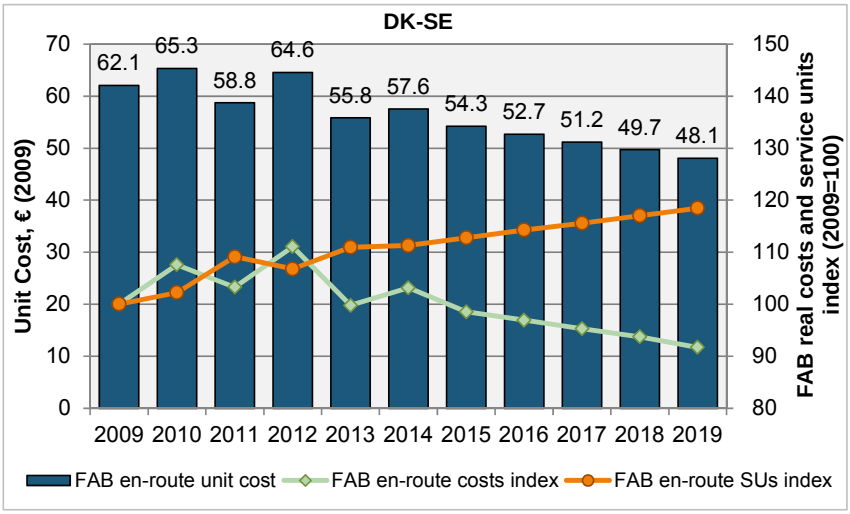
a) provide further information on the detailed differences between Swedish legal requirements on the accounting of pensions and depreciation of fixed assets as compared to International Accounting Standards and on the value of the pension liabilities used to calculate the cost of debt in the WACC calculation (based on key point 5); and,

b) to provide greater clarity on how it has reflected the costs exempt from cost sharing identified in RP2 projections (based on key point 6).

The PRB notes the apparent inconsistency between the approach to the WACC/RoE calculate for Swedavia's TCZ as compared to LFV en-route. The WACC/RoE should be related to the risk incurred rather than the form of governance/ownership. Sweden should reconsider its approach for Swedavia in the context of no traffic risk sharing.

5.7 DK-SE FAB: Aggregated en-route trend at FAB level

Overview



Key figures: DK-SE		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	264.8	284.9	273.5	294.1	264.3	273.2	261.0	256.7	252.4	248.2	242.9
FAB en-route service units	'000s	4,265	4,361	4,655	4,555	4,732	4,747	4,810	4,874	4,930	4,991	5,053
FAB en-route unit cost	EUR (2009)	62.09	65.34	58.77	64.57	55.84	57.55	54.25	52.67	51.19	49.74	48.07

Key figures: DK-SE CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	-0.9%	-1.5%	-2.3%	-1.8%
FAB en-route service units	'000s	1.7%	1.0%	1.3%	1.2%
FAB en-route unit cost	EUR (2009)	-2.5%	-2.5%	-3.5%	-3.0%

Figure 12: FAB en-route unit cost trend overview

Key points for the DK-SE FAB

<u>Note:</u> the following comments on the aggregated FAB en-route cost trend should not be interpreted as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level, and for RP2 there are no FABs with a common charging zone and a single unit rate.

Sweden's en-route DCs represent 66% of the total en-route costs for the DK-SE FAB over RP2. The trend of the en-route unit costs aggregated at FAB level is therefore considerably impacted by Sweden's contribution.

In 2013, the FAB en-route costs (264.3 M€$_{2009}$) represent 4.4% of the total SES en-route costs. By 2019, these are planned (242.9 M€$_{2009}$) to be 3.9%.

The en-route unit cost trend for the DK-SE FAB over RP2 (-3.5% p.a. between 2014 and 2019) is better than the Union-wide cost-efficiency target trend (-3.3%).

When estimated over RP1 and RP2 combined (i.e. 2011-2019), the en-route unit cost trend for the DK-SE FAB (-2.5% p.a.) is also better than the Union-wide target (-1.7% p.a.).

In addition, the PRB notes that by 2019 the DK-SE FAB unit cost (48.07 €$_{2009}$) is -6.2% lower than the Union-wide aggregated DUC (51.26 €$_{2009}$).

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

DENMARK

6.1.1 The planned main investments of NAVIAIR are compatible and coherent with the SESAR deployment requirements. The links to the ATM Master Plan provided seem justified. However, the scope of the investment plan in terms of coverage of the Master Plan seems very limited (only COOPANS and Voice-Over IP) and many elements seem to be missing (e.g. CDM, ADQ, PBN). Furthermore, there is limited foresight regarding PCP functionalities.

6.1.2 In general, the information provided in the template regarding the justification and nature of the investments is very poor and the explanations seem to have been included in the wrong fields of the template.

SWEDEN

6.1.3 The planned main investments of LFV are compatible and coherent with SESAR deployment requirements. The links to the ATM Master Plan provided are justified and accurate.

6.1.4 Two projects are linked to PCP although they are implementing pre-requisites or enablers to PCP ATM Functionalities rather than the functionalities themselves.

6.2 FAB and/or Regional dimension

6.2.1 Both LFV and NAVIAIR are partners to COOPANS ("COOPeration between Air Navigation Services providers"). This brings obvious synergies in terms of financial savings and systems interoperability and should facilitate common initiatives. However, COOPANS is the only project reported as a FAB project (but in fact it goes beyond the FAB) and there are no other joint investments. Although COOPANS represents ~60-70% of the total CAPEX for both ANSPs, it would seem that there are no other areas of cooperation in terms of investments.

6.2.2 Neither ANSP seems to be involved in any other regional initiative other than COOPANS.

6.2.3 The investment plans of both ANSPs seem to have been developed in isolation and responding mostly to their individual needs.

6.2.4 Stakeholders have stressed that "overall clear evidence from FAB achievements is missing. The users request that the Danish-Swedish FAB cooperates with the NEFAB for further improvements, in particular in regard to the FRA area."[4]

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 As shown in the table below, total planned investment average per year for RP2 is foreseen to be 3% lower than the average for the previous five years (updated for 2010-14[5]) (19.5M€$_{2009}$ RP2 planned annual average vs. 20.1M€$_{2009}$ updated annual average for 2010-14).

DK-SE FAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	19.7	19.0	20.3	19.4	19.1	97.5	19.5

Table 17: RP2 DK-SE FAB CAPEX

DK-SE FAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	36.1	32.6	19.7	20.2	19.8	128.4	25.7
Total Updated Planned	28.3	22.4	15.6	15.5	18.6	100.5	20.1
U-P (M€2009, real terms)	-7.8	-10.2	-4.1	-4.7	-1.2	-27.9	-5.6
U/P (%)	-21.5%	-31.2%	-20.7%	-23.4%	-5.9%	79.5%	-21.8%

Table 18: 2010-14 DK-SE FAB CAPEX

6.3.2 This FAB level assessment does not reflect different situations at national level, as described below:

DENMARK ANSP

6.3.3 Denmark's ANSP investments are planned to be on average 9.8% lower for RP2 than for the period 2010-14 (9.3M€$_{2009}$ RP2 yearly average vs. 10.3M€$_{2009}$ updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	**Planned**	9.0	8.6	10.1	9.4	9.3	46.4	9.3
MAIN	**Planned**	6.0	6.2	8.1	7.6	7.5	35.5	7.1
MAIN versus TOTAL		67.1%	72.1%	80.5%	80.8%	80.8%	76.5%	76.5%

Table 19: RP2 Denmark ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	16.7	20.0	7.7	7.7	7.8	60.0	12.0
	Updated Plan	15.4	14.3	6.5	7.5	7.8	51.4	10.3
	U-P (M€2009, real terms)	-1.3	-5.8	-1.3	-0.2	0.0	-8.6	-1.7
	U/P (%)	-7.9%	-28.8%	-16.2%	-3.0%	0.0%	-14.3%	-11.2%
MAIN	Planned	14.3	17.0	5.2	5.5	4.9	47.0	9.4
	Updated Plan	14.2	13.4	4.2	6.1	4.9	42.8	8.6
	U-P (M€2009, real terms)	-0.1	-3.6	-1.0	0.6	0.0	-4.1	-0.8
	U/P (%)	-0.8%	-21.3%	-18.5%	10.8%	0.0%	-8.8%	-6.0%
MAIN versus TOTAL (Planned)		85.9%	85.1%	67.2%	71.0%	62.5%	78.2%	66.9%
MAIN versus TOTAL (Updated Plan)		92.5%	94.1%	65.4%	81.1%	0.0%	83.3%	48.8%

Table 20: 2010-14 Denmark ANSP CAPEX (Actual vs. Planned)

6.3.4 Main investment projects planned for RP2 are continuing from the ones for RP1.

6.3.5 FDP COOPANS (Cooperation for procurement of ANSP Systems) is a joint project at FAB level and with other partners (IAA-Ireland, Croatia Control, and AustroControl). It is NAVIAIR's main project for both reference periods. This project is planned in 2011-2014 with a total cost of 16.4M€$_{2009}$, whilst for RP2 the planned CAPEX amounts to an additional 27.2M€$_{2009}$ and consists of upgrades to be deployed once or twice per year. However, only 11.4M€$_{2009}$ is expected to be spent during RP1, "*due to a revision in budget*"[6] and it is assumed that the unspent amount is not carried-forward to RP2.

6.3.6 Another important main project for RP2 refers to CNS upgrades (i.e. VoIP) planned for 8.3M€$_{2009}$ in addition to 5.1M€$_{2009}$ planned for RP1. However, only 3.9M€$_{2009}$ is expected to be spent during RP1 due to a late start of the project. It is not mentioned and it is not clear if the unspent amount will be carried forward to RP2.

6.3.7 All Naviair's deployment dates are "continuous" without specification. Therefore the impact on the depreciation costs cannot be determined. However, total planned depreciation costs for RP2 are foreseen to be very close to the actual depreciation costs for the previous five years. The trend for 2015-19 is foreseen to decrease by 1.4% on average over the period. Denmark stated that "*investments were scrutinised as a result of the drop in traffic in 2012. Current investments levels are kept to a minimum level, however with due respect to the fulfilment of external requirements, implementing rules etc. and focus on strategic alliances which can trigger scale economies.*"[7]

SWEDEN ANSP

6.3.8 Sweden's ANSP investments are planned to be on average 4% higher for RP2 than for the period 2010-14 (10.2M€$_{2009}$ RP2 yearly average vs. 9.8M€$_{2009}$ updated average over the past five years).

6.3.9 FDP COOPANS (Cooperation for procurement of ANSP Systems) is a joint project at FAB level and with other partner's (IAA-Ireland, Croatia Control and AustroControl). It is LFV's main project for both reference periods. This project is planned for 2010-2014 with a total cost of 13.9M€$_{2009}$, whilst for RP2 the planned

CAPEX amounts to an additional 14.2M€$_{2009}$ and consists of upgrades for the existing system. It is noted that only 7.3M€$_{2009}$ are foreseen to be spent during RP1 for this project "*due to the limitation in resources which is a consequence of saving costs*"[8] and also due to a change in COOPANS partnership. Therefore it is assumed that the unspent amount in RP1 is not carried forward to RP2.

6.3.10 Several other projects are linked to RP1 (SUPS –WAM and VHF). For VHF no amounts were spent over RP1 (vs. 2.3M€$_{2009}$ planned) so the 1M€$_{2009}$ planned for RP2 is assumed to be a catch-up from the previous timeframe.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	10.7	10.4	10.2	10.0	9.8	51.1	10.2
MAIN	Planned	9.8	8.8	5.6	5.0	4.5	33.6	6.7
MAIN versus TOTAL		91.7%	84.2%	55.0%	50.0%	45.8%	65.9%	65.9%

Table 21: RP2 Sweden ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	19.4	12.5	11.9	12.5	12.0	68.4	13.7
	Updated Plan	12.9	8.1	9.1	8.0	10.8	49.0	9.8
	U-P (M€2009, real terms)	-6.5	-4.4	-2.8	-4.5	-1.2	-19.4	-3.9
	U/P (%)	-33.3%	-35.1%	-23.6%	-36.1%	-9.8%	-28.3%	-27.6%
MAIN	Planned	19.2	12.5	5.6	5.7	3.4	46.4	9.3
	Updated Plan	12.9	8.1	6.3	4.2	4.2	35.7	7.1
	U-P (M€2009, real terms)	-6.3	-4.4	0.7	-1.5	0.8	-10.7	-2.1
	U/P (%)	-32.7%	-35.1%	12.0%	-26.6%	23.7%	-23.1%	-11.7%
MAIN versus TOTAL (Planned)		99.0%	100.0%	47.1%	45.5%	28.0%	67.9%	40.2%
MAIN versus TOTAL (Updated Plan)		100.0%	100.0%	69.0%	52.3%	38.3%	72.8%	53.2%

Table 22: 2010-14 Sweden ANSP CAPEX (Actual vs. Planned)

6.3.11 During the consultation with stakeholders, IATA has expressed its concern as regards the investment postponed from RP1 to RP2. "*As the transparency on those cost items is limited for the users we urge the Swedish Transport Agency to carefully analyse those investments.*" In addition, a CBA was required for RTC project "*to ensure that the users are not funding potential commercial activities from the ANSP and do not have to invest in high risk projects where the benefit remains to be defined.*"[9]

6.3.12 For several projects the planned commissioning dates are phased over the RP2 timeframe and for others beyond that. However the depreciation costs are planned at lower levels for RP2 (-18% in volume) and are foreseen to decrease by -2.4% over the timeframe, continuing the trend recorded for the previous years (-19% actual vs. planned for 2012, -15% for 2013 and -24% for 2014). Sweden has explained that the decrease foreseen over RP2 is due to "*less and more cost efficient investment*" and, for RP1, it is due to "a *changed amortisation period*" (for 2012) and "*some investments (IT) have been replaced with operating costs for services*"[10] (for 2013 and 2014).

6.4 Total investments vs Total ANS costs

DENMARK

6.4.1 Over RP2, total CAPEX is foreseen to represent on average 9.4% of gate-to-gate costs with a peak in 2017 (reaching 10.3%). This is due to important amounts planned for COOPANS-FDP system (see also details in 6.3.5 above). CAPEX will remain relatively constant (+0.7%) whilst gate-to-gate ANS costs are expected to decrease (-1.1%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	8.9%	8.7%	10.3%	9.6%	9.6%	9.4%

Table 23: % RP2 Denmark ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.2 For the 2010-2014 period, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 10% (vs. 11.2% planned), due to -11.2% "CAPEX effect"[11] and -4.6% "Costs effect"[12].

SWEDEN

6.4.3 Over RP2, total CAPEX is foreseen to represent on average 6.8% of gate-to-gate costs being relatively constant over the period. Both CAPEX and gate-to-gate ANS costs are expected to decrease (-2.1% for CAPEX and -2.4% for gate-to-gate ANS costs).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	6.8%	6.7%	6.8%	6.8%	6.9%	6.8%

Table 24: % RP2 Sweden ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For the 2010-2014 period, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 5.8% (vs. 7.8% planned), due to -27.6% "CAPEX effect" and -3.3% "Costs effect".

6.5 Ancillary assessments

Ancillary assessments	Denmark ANSP (Naviair)	Sweden ANSP (LFV)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Both main Naviair's projects, FDP COOPANS and CNS are linked to RP1 planning.	Two of the main projects in terms of costs (FDP COOPANS and SUPS) are clearly traceable to RP1. The rest of the projects reported seem to be new although some of them might correspond to 'Other' projects of RP1. This should be clarified Sweden provided clear and to-the-point information about consultation with stakeholders and decision-making processes, where relevant

Ancillary assessments	Denmark ANSP (Naviair)	Sweden ANSP (LFV)
Overview, impact and date of expected benefits per KPA	FDP-COOPANS, the major project in partnership with several other ANSPs (27.2M€$_{2009}$ planned CAPEX in RP2), Had NAVIAIR not been part of the COOPANS alliance, system development costs would have been approximately 30% higher, according to the Danish NSA. For all other projects, information is limited.	For FDP-COOPANS expected benefits on capacity are expected in the period 2016-2018. SUPS will enable full Mode-S and will impact all KPAs (safety, environment, capacity and cost-efficiency). As for PSR/SSR Mode S, surveillance improvement for Stockholm TMA expected benefits are foreseen from March 2015.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Consultation documentation at FAB level. No information on the existence of a CBA. Denmark did not provide information about any consultation with stakeholders and insufficient information about their decision-making processes.	Consultation documentation at FAB level. CBA performed by external consulting company showing the benefit for sharing the development, integration and maintenance costs for COOPANS. A reduced CBA for the replacement of radars with WAM. No CBA for VHF or PSR/SSR Mode S TMA.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	NAVIAIR" Technical - Operational Development Plan for 2014-2018" provides additional qualitative information on future and current initiatives and investments. "Business Plan for 2014-2018" details the benefits and synergies expected to be achieved but do not provide CAPEX for any of the projects.	Investment plan for LFV was provided and is consistent with the RP2 Performance Plan. Additional qualitative information is included.

Table 25: DK-SE FAB ancillary assessments

6.6 PCP prerequisites View

PCP	ESSIP	Denmark	Sweden
AF1	ATC15		
	ATC07.1		
	NAV03		
AF2	AOP05	2016	
	AOP04.1		
	AOP04.2		2015
AF3	AOM19		2015
	AOM21		
	ATC12		
AF4	FCM04		
	FCM05		
AF5	COM09	2014	2014
AF6	ITY-AGDL		2015

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 26: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: The total planned investment average per year for RP2 is foreseen to be 3% lower than the average for the previous five years (updated 2010-14).

6.7.2 **FAB / Regional approach**: There is no FAB approach to investment. The investment plans of both ANSPs seem to have been developed in isolation and responding mostly to their individual needs.

6.7.3 **Consultation:** Whilst information is provided on the consultation at FAB level, there is no information at all on the consultation at National level, in particular related to the decision-making on investments. Denmark provided no information on the existence of CBAs and Sweden's information was very basic.

6.7.4 **Link with Master Plan:** Overall, the Danish and Swedish main investments are compatible and coherent with the SESAR deployment requirements.

6.7.5 The investments of the DK-SE FAB Member States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

6.7.6 However, the names / titles of the investments are too generic.

6.7.7 Even if Denmark and Sweden have detailed projects showing foresight of the PCP, they have not earmarked any investment with reference to the relevant ATM functionalities. This might have potential impact on the ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period.

DENMARK

6.7.8 Denmark's ANSP investments are planned to be on average 9.8% lower for RP2 than for the period 2010-14.

6.7.9 The main investment projects planned for RP2 are continuing from the ones for RP1. FDP COOPANS is a joint project at FAB level with other partner's (IAA-Ireland, CCL-Croatia Control and AustroControl) (see details in 6.3.5).

6.7.10 All Naviair's deployment dates are "continuous" without specification. Therefore the impact on the depreciation costs cannot be determined. However, total planned depreciation costs for RP2 are foreseen to be very close to the actual depreciation costs for the previous five years.

6.7.11 Over RP2, total CAPEX is foreseen to represent on average 9.4% of gate-to-gate costs with a peak in 2017 (reaching 10.3%).

SWEDEN

6.7.12 Sweden's ANSP investments are planned to be on average 4% higher for RP2 than for the period 2010-14.

6.7.13 FDP COOPANS (Cooperation for procurement of ANSP Systems) is a joint project at FAB level and with other partner's (IAA, CCL, and AustroControl). It is LFV's

main project for both reference periods (see details in 6.3.9).

6.7.14 The depreciation costs are planned at lower levels for RP2 and are foreseen to decrease by -2.4% over the timeframe.

6.7.15 Over RP2, total CAPEX is foreseen to represent on average 6.8% of gate-to-gate costs being relatively constant over the period. Both CAPEX and gate-to-gate ANS costs are expected to decrease.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Performance Plan clearly describes which entities are responsible, at FAB level, for the monitoring and reporting in “Section 7 - Implementation of the performance plan”.

7.1.2 No description is made regarding the measures in place to monitor and report.

7.1.3 There is no indication of how the situation would be addressed if targets were not met during the reference period.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 The FAB Performance Plan contained details of how the FUA legislation is applied in the FAB. Although the Performance Plan lacked specific details on how the application of FUA will provide additional capacity for general air traffic, it is evident from the information provided that the FUA concept is applied to the benefit of airspace users.

8.2 Additional indicators

8.2.1 No additional civil military indicators were described in the FAB Performance Plan.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In section 9.2 the PRB identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.3 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the DK-SE FAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the DK-SE FAB Performance Plan is consistent with and does adequately contribute to the Union-wide targets.

9.2 Compliance issues

Nevertheless, the PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.2.1 The DK-SE FAB should provide the list of airports exempted from the provisions of the performance and charging Regulations.

9.2.2 The DK-SE FAB should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, in particular:

- The DK-SE FAB should provide the list of invited stakeholders and the list of actual participants to all its consultation meetings;
- The DK-SE FAB should provide the dates on which the material for each of the consultation meetings were sent to stakeholders.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.2.3 The DK-SE FAB should add safety targets for each year of the reference period as far as the application of the severity classification based on the Risk Analysis Tool (RAT) methodology is concerned.

9.2.4 The DK-SE FAB should revise the RAT methodology application target for ATM-S (for 2015 and 2016) to ensure the values for ATM Ground and ATM Overall scores

are identical.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.2.5 The DK-SE FAB should provide a breakdown of the contribution of each air navigation service provider to the achievement of the en-route capacity performance targets set for the FAB.

9.2.6 The DK-SE FAB should establish an incentive scheme for the national targets on arrival ATFM delay.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.2.7 Denmark should:

- Provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the Weighted Average Cost of Capital submitted in the Reporting Tables.

9.2.8 Sweden should:

- Provide further information on the detailed differences between Swedish legal requirements on the accounting of pensions and depreciation of fixed assets as compared to International Accounting Standards and on the value of the pension liabilities used to calculate the cost of debt in the WACC calculation.
- Provide greater clarity on how it has reflected the costs exempt from cost sharing identified in RP1 in 2014 and RP2 projections - particular given the intention to smooth these costs evenly over the five years of RP2.

9.3 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.3.1 The DK-SE FAB should provide a detailed description of the measures put in place to monitor and report on the implementation of the performance plans, including how the situation would be addressed if targets are not reached during the reference period.

9.3.2 The DK-SE FAB should specify, in the FAB Performance Plan, which traffic assumptions were used, and establish a clear distinction between traffic and Service Unit forecasts.

OBSERVATIONS FOR THE SAFETY KPA

9.3.3 The DK-SE FAB should closely monitor improvements and progress in application of the RAT methodology severity classification.

9.3.4 The DK-SE FAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.3.5 Denmark should:

- reconsider the value of the 2014 inflation assumption; **=> revised 2014 inflation assumption provided by Denmark during the fact verification process**
- reconsider the Return on Equity applied by Naviair for the terminal charging zone in the light of the rate applied for the en-route activity;
- provide further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section.

9.3.6 Sweden should:

- revise the TSU forecast in the light of the latest available information;
- address the level of the cost of capital and RoE for ACR, provider of en-route services in Sweden accounting for some 4% of the total DCs in RP2. ACR applies an RoE of 17.0% and a pre-tax WACC of 11.3%. As its costs are subject to the same risk sharing arrangements as LFV, this apparent inconsistency should be addressed;
- address the apparent inconsistency between the approach to the WACC/RoE calculated for Swedavia's TCZ as compared to LFV en-route. The WACC/RoE should be related to the risk incurred rather than the form of governance/ownership. It should also reconsider its approach to Swedavia in the context of absence of traffic risk sharing.

9.3.7 The DK-SE FAB should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information on how this is ensured.

OBSERVATIONS FOR THE INVESTMENTS

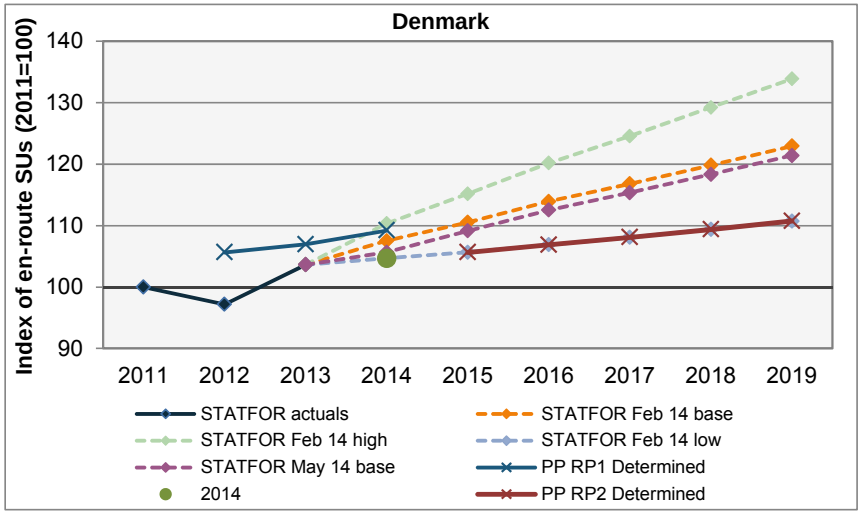
9.3.8 Denmark should describe and/or justify the cost, nature and contribution of its investments in a more detailed, less generic way, allowing proper understanding of the importance and need for such investments.

9.3.9 Denmark and Sweden should update the field "Common Project" with adequate reference to the proper PCP ATM functionalities.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Denmark: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		1,553	1,572	1,605							
Actuals, 2014, PP RP2 Determined	1,470	1,429	1,524	1,539	**1,553**	**1,571**	**1,589**	**1,608**	**1,628**	**1.3%**	**1.2%**
STATFOR Feb 14 base				**1,581**	**1,625**	**1,675**	**1,717**	**1,762**	**1,807**	**2.6%**	**2.7%**
STATFOR Feb 14 high				1,622	1,693	1,767	1,831	1,900	1,968	3.7%	3.8%
STATFOR Feb 14 low				1,539	1,553	1,571	1,589	1,608	1,628	1.3%	1.2%
STATFOR May 14 base				1,553	1,605	1,654	1,696	1,740	1,785	2.5%	2.7%
PP RP2 vs STATFOR Feb 14 base (%)					-4.4%	-6.2%	-7.5%	-8.7%	-9.9%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 13: En-route TSU forecasts

Comments:

The forecast total en-route TSUs per en-route charging zone used the STATFOR February 2014 low case for each year of RP2.

For the first eight months of 2014, there has been a +2.0% growth in TSUs as compared to 2013, this is lower than forecast by STATFOR in its base case, but higher than the low case used by Denmark.

Based on this analysis, Denmark's en-route charging zone is assessed as passing this check with reservations.

Economic assumptions

Inflation: Denmark		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.4%	0.5%	1.9%	1.8%	2.2%	2.2%	2.2%	2.2%
Eurostat/IMF avg	annual % change		0.5%	1.5%	1.8%	2.2%	2.2%	2.2%	2.2%
Difference	p.p. difference		0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	107.5	108.0	110.1	112.0	114.5	117.0	119.6	122.2
Eurostat/IMF avg	2009=100	107.5	108.0	109.6	111.6	114.1	116.6	119.1	121.8
Difference	index difference	0.0	0.0	0.4	0.4	0.4	0.5	0.5	0.5

Figure 14: Economic assumptions

Comments:

The inflation value provided for 2013 is equivalent to EUROSTAT HICP for 2013.

For 2014, Denmark used an inflation forecast of 1.9% rather than 1.5% provided by IMF. No justification for the difference is provided in the Performance Plan.

For 2015-2019 Denmark's annual inflation forecasts are equivalent to the IMF average inflation rate forecast.

Based on this analysis, Denmark's en-route charging zone is assessed as <u>not passing</u> this check.

➔ During the fact verification process (16-09 until 26-09 2014) Denmark has submitted a revised inflation forecast for 2014, in line with the IMF inflation forecast (1.5%).

➔ **Taking this revised data into account, Denmark's en-route charging zone is assessed as passing this Check.**

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	DKK m (nom)	753.4	726.9	710.2	714.3	716.4	710.5	726.9	724.5	736.0	749.0	750.2
Inflation rate	annual % change		2.2%	2.7%	2.4%	0.5%	1.9%	1.8%	2.2%	2.2%	2.2%	2.2%
Inflation index	2009=100	100.0	102.2	105.0	107.5	108.0	110.1	112.0	114.5	117.0	119.6	122.2
Determined costs	DKK m (2009)	753.4	711.2	676.6	664.6	663.2	645.5	648.7	632.7	628.9	626.2	613.7
Service units	'000s	1,359	1,411	1,470	1,429	1,524	1,539	1,553	1,571	1,589	1,608	1,628
Determined unit cost	DKK (2009)	554.49	504.12	460.27	465.19	435.28	419.44	417.71	402.71	395.76	389.45	376.95
Exchange rate	DKK:EUR	7.44										
Determined unit cost	EUR (2009)	74.49	67.73	61.84	62.50	58.48	56.35	56.12	54.10	53.17	52.32	50.64

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	DKK m (nom)	0.0%	0.7%	1.1%	0.8%
Inflation	CAGR %	2.0%	1.9%	2.1%	2.2%
Determined costs	DKK m (2009)	-2.0%	-1.2%	-1.0%	-1.4%
Service units	'000s	1.8%	1.3%	1.1%	1.2%
Determined unit cost	DKK (2009)	-3.8%	-2.5%	-2.1%	-2.5%
Exchange rate					
Determined unit cost	EUR (2009)	-3.8%	-2.5%	-2.1%	-2.5%

Table 27: Determined unit cost trend

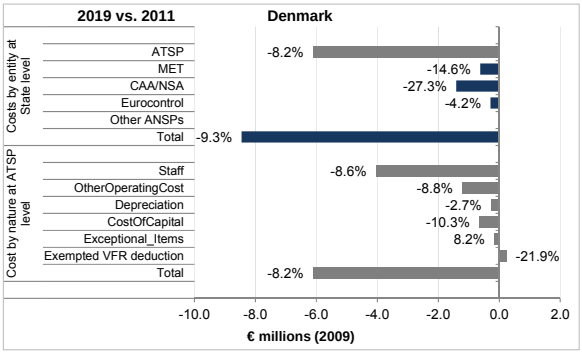


Figure 15: Planned cost category changes over RP1 and RP2

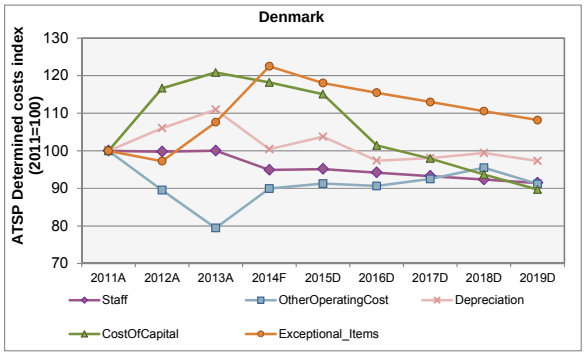


Figure 16: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Denmark plans for a -2.1% decrease in the DUC over the period 2014-2019 which is worse than the Union-wide target (-3.3%). The DCs trend over the period (-1.0%) is also lower than the assumption underpinning the Union-wide target (-2.1%).

Over the 2015-19 period the trend in the DUC is -2.5% and in DCs -1.4%. The trends in Denmark's RP2 Performance Plan reflect the modest SU increase from the STATFOR low case.

Between 2011 and 2019 the en-route DUC trend (-2.5%) is equivalent to the Union-wide target trend, and over 2009-2019 it is significantly better (-3.8% compared to a target of -2.5%).

In 2014 the DCs are forecast to be lower than 2013 actuals, with a lower DUC also resulting from a forecast of modest traffic growth.

If the STATFOR base case February 2014 forecast and IMF inflation forecast were applied, then this would result in a -3.6% DUC trend over RP2.

All accountable entities make a significant contribution over the 2011-2019 period. Over 2014-2019 Naviair (-1.0% p.a.), the NSA (-2.7% p.a.) and MET provider (-2.1% p.a) all forecast reductions in DCs.

At State level there are large variations in the individual costs by nature over the 2011-2019 period:

- The largest variation in proportional terms is other operating costs (-10.9% or –2.7 M€$_{2009}$).
- By 2019 staff costs are forecast to be -9.2% lower than in 2011 (-4.8 M€$_{2009}$).
- The cost of capital is planned to reduce by -10.7% (0.7 M€$_{2009}$) over the period.
- Depreciation costs are planned to reduce -3.2% (0.3 M€$_{2009}$) over the period.

The EUROCONTROL costs trend is influenced by the one-off reduction "IFRS budgeting" which accounted for a -1.0 M€$_{2009}$ reduction in costs for Denmark. Without this one-off reduction the EUROCONTROL costs for Denmark would show a decrease of over RP1 and RP2 of -1.3 M€$_{2009}$ or -16.3%.

The proportion of costs allocated to en-route/ terminal do not change significantly for Denmark's en-route charging zone over RP2.

Airspace users have identified the following issues with Denmark's cost-efficiency target: they would prefer the use of the base case STATFOR forecast and are concerned that investment paid for by users but not undertaken in RP1 may roll over to RP2.

For RP2 there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within Naviair or amongst other ATSPs.

Based on this analysis, the Denmark's en-route charging zone is assessed as passing this check with reservations. The 2014 starting point and long term trend is recognised (2011-2019) as being consistent with Union-wide targets.

En-route Determined Unit Cost level

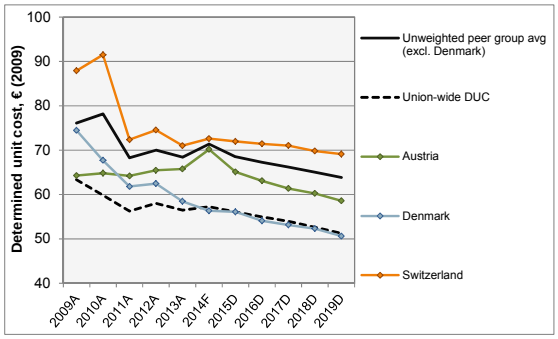


Figure 17: Determined unit cost level

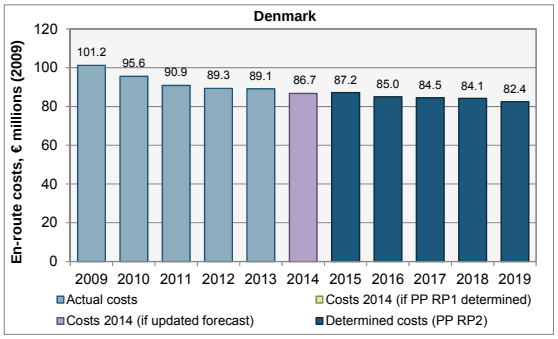


Figure 18: Determined costs 2009-2019

Comments:

Denmark's en-route DUC in 2019 is planned to be 50.64 €$_{2009}$ which is -20.7% lower than the average of the comparator group (excluding Denmark) (63.87 €$_{2009}$). The PRB notes that over the period 2014-2019 Denmark's DUC is expected to be materially below the comparator group average and the Union-wide average.

The planned reduction in Denmark's DUC over the 2009-2019 period is significantly better (-3.8% p.a.) than the other States (-0.8%). This mainly reflects the decline in en-route DCs over the period as demonstrated in Figure 9.

Based on this analysis, the Denmark's en-route charging zone is assessed as passing this check.

Cost of Capital

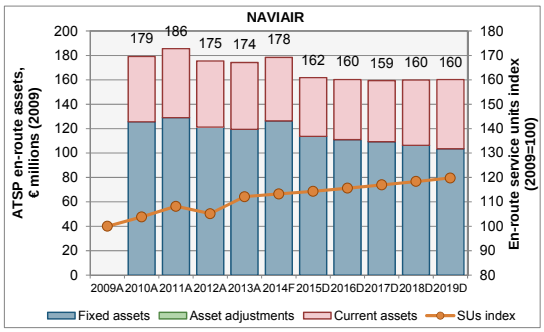


Figure 19: Breakdown of ATSP en-route asset base (2009-2019)

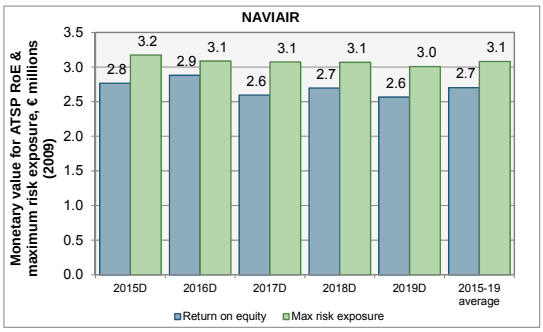


Figure 20: ATSP RoE vs maximum traffic risk exposure

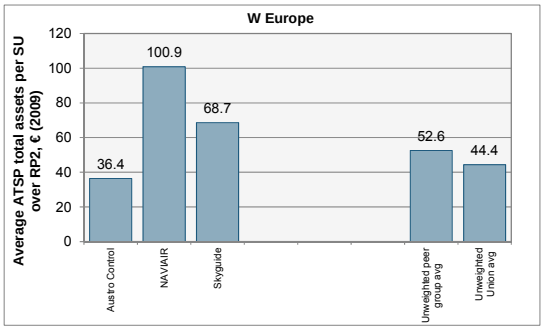


Figure 21: Average en-route asset base per SU over RP2

Comments:

The pre-tax WACC used to calculate Naviair's en-route cost of capital in the Reporting Tables ranges from 3.6% to 4.5%. A different 4.9% value is provided in the supporting Additional Information tables. For this assessment we have used the values provided in the Reporting Tables to undertake the check and note that it is lower than the range for the notional "efficient" pre-tax WACC using methodology provided in Annex C of the Additional Information tables.

Naviair states that it does not use the Capital Asset Pricing Model to calculate its cost of capital.

The Reporting Tables provide a pre-tax return on equity (RoE) that is set for Naviair of 5.0% p.a. over RP2. Taking into account Naviair's capital structure and the amount of total assets used to calculate the cost of capital enables the calculation of the monetary value of the RoE which ranges some 2.6 M€$_{2009}$ to 2.8 M€$_{2009}$ in RP2. This is lower than the maximum risk exposure which will be borne by Naviair over RP2 (3.0-3.2 M€$_{2009}$ per annum) reflecting the low traffic case chosen.

However the PRB notes that on average over RP2, Naviair's en-route asset base per service unit (101 €$_{2009}$) is materially higher (nearly twice as high) than the comparator group average of 53 €$_{2009}$ and there is a high proportion of current assets (above 30%).

Based on this analysis, Denmark's en-route charging zone is assessed as passing this check with reservations about the size of the asset base.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan AI 4b provides information about Naviair's defined contribution pension scheme using the template tables provided. The tables show an expectation that the contribution rate will remain at 17% over the 2015-2019 period. In AI 1(e) and 4 (c) Naviair provides some information on the cost of debt and interest rates on loans. However in the explanation the description of the loan with the Danish Government is classified as equity. There is a lack of clarity about the cost of debt. There is an inconsistency between the WACC and RoE in the Reporting Tables and that presented in the AI. The Performance Plan reports (AI 1d) that Naviair follows the Danish Accounting Act, meaning that Naviair uses international accounting standards to the greatest extent possible. **Based on this analysis, Denmark's charging zone is assessed as <u>not</u> passing this check.** **Further information is requested to provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the WACC submitted in the Reporting Tables.** **Denmark is asked to reconcile the WACC and RoE in the Reporting Tables with that provided in the AI.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Denmark describes in AI 4(g) that it did not have uncontrollable costs in RP1 and does not anticipate any costs exempt from risk sharing in RP2. The Performance Plan indicates that Denmark will return 0.2 M€$_{2009}$ to users to RP2 exclusively for EUROCONTROL costs in 2012. The information in the Performance Plan (AI 4(h)) is presented in the format of the FAB template, however it only makes reference to pensions assumptions in 4(g) and interest rate assumptions in 4(c). As discussed above the level of transparency of interest rate assumptions is insufficient. **Based on this analysis, Denmark's en-route charging zone is assessed as passing this check, however further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section is requested.**

Denmark: Assessment of terminal charging zones

Overview of terminal charging zone in Denmark:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Denmark: Copenhagen. This is the only airport with more than 70,000 IFR movements and it is subject to traffic risk sharing as it has more than 225,000 IFR movements. The number of airports in the TCZ has not changed between 2014 and 2015.

The TCZ represents 78.5% of Terminal Navigation SUs in Denmark.

Traffic forecast assumptions

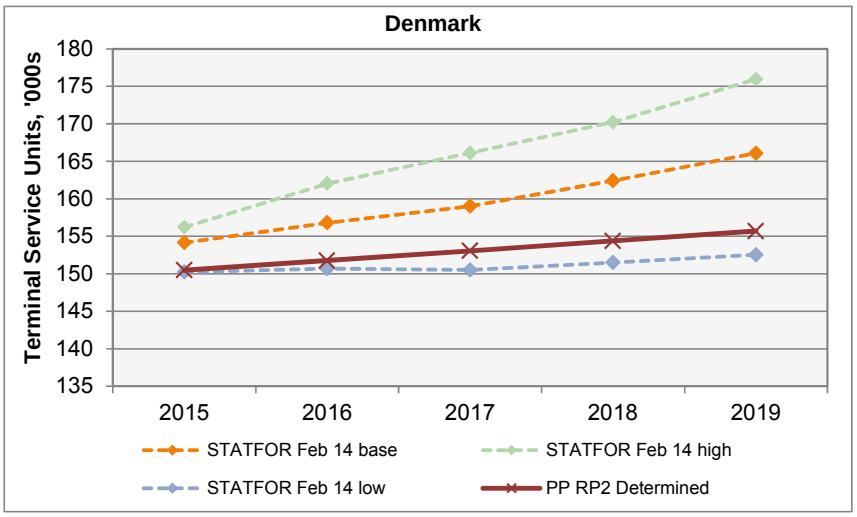


Figure 22: TNSU forecast 2015-2019

The forecast Terminal Navigation Service Units (TNSUs) lie between the STATFOR February 2014 low and base cases for every year of RP2.

Based on this analysis, Denmark's terminal charging is assessed as passing this check.

Economic assumptions

Over RP2 Denmark's inflation is identical to the en-route. However, it has a different 2014 value as compared to IMF forecasts

Based on this analysis, Denmark's terminal charging zone is assessed as <u>not</u> passing this check.

➔ During the fact verification process (16-09 until 26-09 2014) Denmark has submitted a revised inflation forecast for 2014, in line with the IMF inflation forecast (1.5%).

➔ **Taking this revised data into account, Denmark's terminal charging zone is assessed as passing this Check.**

Terminal ANS Determined Unit Cost (DUC) trend

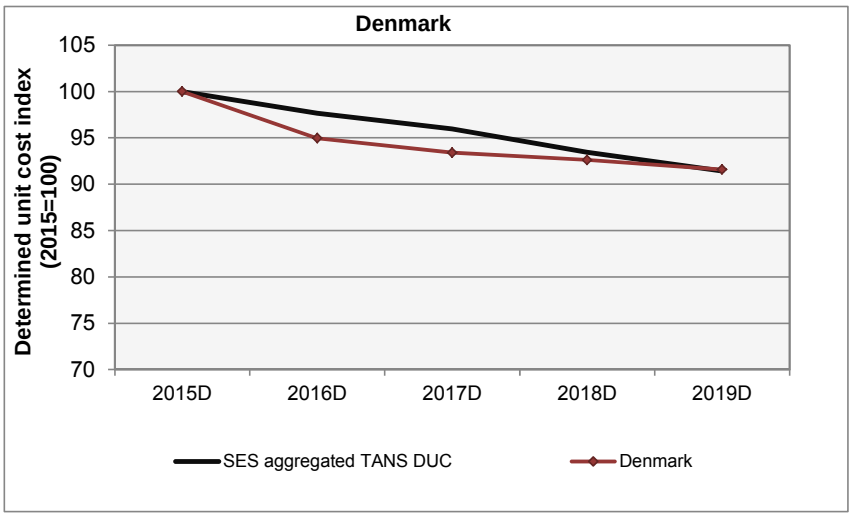


Figure 23: Terminal DUC index, 2015-2019

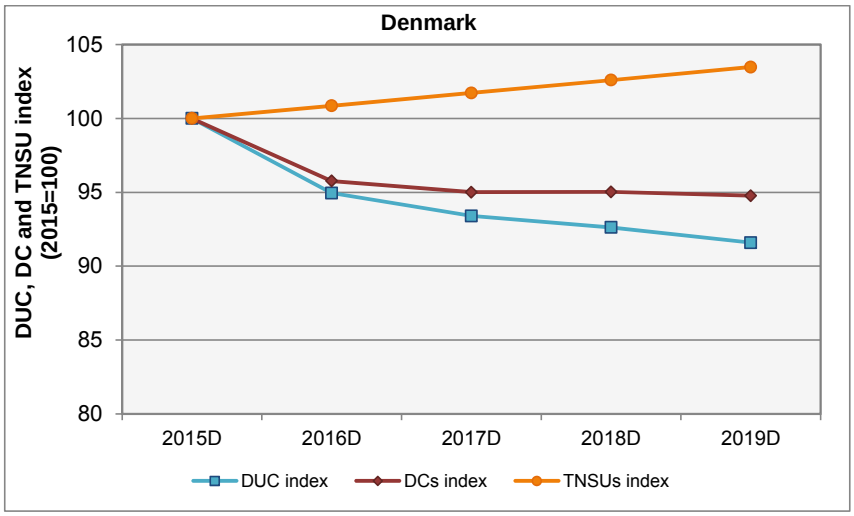


Figure 24: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Denmark		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	DKK m (nom)	180.6	176.8	179.2	183.2	186.8	0.8%
Inflation rate	annual % change	1.8%	2.2%	2.2%	2.2%	2.2%	2.2%
Inflation index	2009=100	112.0	114.5	117.0	119.6	122.2	
Determined costs	DKK m (2009)	161.2	154.4	153.2	153.2	152.8	-1.3%
Terminal service units	'000s	150	152	153	154	156	0.9%
Determined unit cost	DKK (2009)	1,071.29	1,017.23	1,000.56	992.27	981.21	-2.2%
Exchange rate	DKK:EUR (2009)	7.44					
Determined unit cost	EUR (2009)	143.93	136.66	134.42	133.31	131.82	-2.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 28: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for Denmark is similar to the SES aggregated DUC (-2.2% p.a.).

Denmark's annual average % change in local terminal ANS DCs is slightly lower than the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (TANS -1.3%, en-route -1.4%).

The 2015 Terminal ANS DC is similar to the actual 2013.

The annual average % change in "gate-to-gate" ANS DCs is worse than the profile corresponding to the SES en-route ANS DCs for 2015-2019 (Denmark -1.4%, SES -2.3%).

Based on this analysis, Denmark's terminal charging zone is assessed as passing this check.

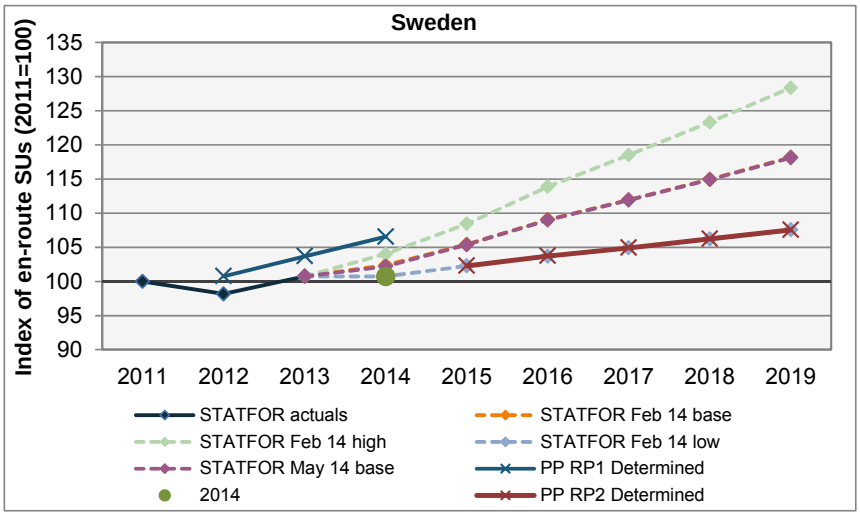
Cost of Capital
The TCZ applies traffic risk sharing. The RoE used to calculate the cost of capital for Naviair in Denmark TCZ is much higher than that used to calculate the RoE for its en-route CZ (12.6% compared to 5.0% for en-route). **Based on this analysis, Denmark's terminal charging zone is assessed as not passing this check.**

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to section on economic assumptions in the en-route detailed assessment. **Based on this analysis Denmark's terminal charging zone is assessed as <u>not</u> passing this check.** **Further information is requested to provide greater transparency on the cost of debt of the subordinated and commercial loans and a reconciliation with the WACC submitted in the Reporting Tables.** **Denmark is asked to reconcile the WACC and RoE in the reporting tables to that provided in the AI.**

Description, level, composition and justification of costs exempt from risk sharing
The information provided in the Performance Plan for the description of costs exempt from risk sharing is the same as for en-route. Please refer to section on costs exempt from risk sharing in RP2 in the en-route detailed assessment **Based on this analysis Denmark's terminal charging zone is assessed as passing this check.** **Further transparency of the interest rate assumptions underpinning the costs of debt referenced in the costs exempt from risk sharing section is requested.**

Sweden: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		3,209	3,302	3,393							
Actuals, 2014, PP RP2 Determined	3,185	3,126	3,209	3,208	**3,257**	**3,303**	**3,341**	**3,383**	**3,425**	**0.9%**	**1.3%**
STATFOR Feb 14 base				**3,260**	**3,357**	**3,472**	**3,565**	**3,661**	**3,763**	**2.1%**	**2.9%**
STATFOR Feb 14 high				3,312	3,453	3,627	3,774	3,927	4,088	3.2%	4.3%
STATFOR Feb 14 low				3,208	3,257	3,303	3,341	3,383	3,425	0.9%	1.3%
STATFOR May 14 base				3,254	3,356	3,471	3,564	3,660	3,762	2.1%	2.9%
PP RP2 vs STATFOR Feb 14 base (%)					-3.0%	-4.9%	-6.3%	-7.6%	-9.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 25: En-route TSU forecasts

Comments:

The forecast total en-route TSUs per en-route charging zone are the February 2014 low case forecasts, for every year 2014-2019.

If the outturn en-route traffic forecast was in line with the STATFOR base case then:

- the net potential gains to be retained by the State/ANSP are 22.5 M€$_{2009}$ or 3.4% of the total costs subject to traffic risk sharing for RP2; and
- the net potential gains to be retained by airspace users are 21.2 M€$_{2009}$ or 3.2% of the total costs subject to traffic risk sharing for RP2.

For the first eight months of 2014, there has been a +3.0% growth in TSUs compared to 2013. This is higher than forecast by Sweden (i.e. zero growth vs 2013) and on track for the STATFOR February 2014 high case.

As the low case traffic projection has been used, greater emphasis has been placed on the normalised version of the checks 3 and 4 below.

Based on this analysis, Sweden's en-route charging zone is assessed as passing this check with reservations.

Economic assumptions

Inflation: Sweden		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	0.9%	0.4%	0.4%	1.6%	2.4%	2.1%	2.0%	2.0%
Eurostat/IMF avg	annual % change		0.4%	0.4%	1.6%	2.4%	2.1%	2.0%	2.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	103.5	104.0	104.3	106.1	108.6	110.9	113.1	115.4
Eurostat/IMF avg	2009=100	103.5	104.0	104.3	106.0	108.6	110.9	113.1	115.3
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 26: Economic assumptions

Comments:

The inflation forecasts used by Sweden are equivalent to the IMF average inflation rate forecast published in April 2014 for every year 2014-2019 and equivalent to the EUROSTAT HICP for 2013.

Based on this analysis, Sweden's en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	SEK m (nom)	1,736	2,033	1,988	2,250	1,932	2,065	1,956	1,979	1,975	1,969	1,964
Inflation rate	annual % change		1.2%	1.4%	0.9%	0.4%	0.4%	1.6%	2.4%	2.1%	2.0%	2.0%
Inflation index	2009=100	100.0	101.2	102.6	103.5	104.0	104.3	106.1	108.6	110.9	113.1	115.4
Determined costs	SEK m (2009)	1,736	2,009	1,938	2,173	1,859	1,979	1,844	1,822	1,781	1,741	1,702
Service units	'000s	2,906	2,950	3,185	3,126	3,209	3,208	3,257	3,303	3,341	3,383	3,425
Determined unit cost	SEK (2009)	597.26	681.11	608.49	695.20	579.22	616.77	566.19	551.61	533.09	514.71	497.01
Exchange rate	SEK:EUR	10.61										
Determined unit cost	EUR (2009)	56.29	64.19	57.35	65.52	54.59	58.13	53.36	51.99	50.24	48.51	46.84

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	SEK m (nom)	1.2%	-0.2%	-1.0%	0.1%
Inflation	CAGR %	1.4%	1.5%	2.0%	2.1%
Determined costs	SEK m (2009)	-0.2%	-1.6%	-3.0%	-2.0%
Service units	'000s	1.7%	0.9%	1.3%	1.3%
Determined unit cost	SEK (2009)	-1.8%	-2.5%	-4.2%	-3.2%
Exchange rate					
Determined unit cost	EUR (2009)	-1.8%	-2.5%	-4.2%	-3.2%

Table 29: Determined unit cost trend

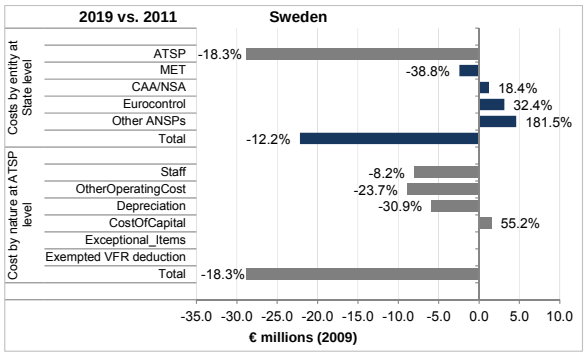


Figure 27: Planned cost category changes over RP1 and RP2

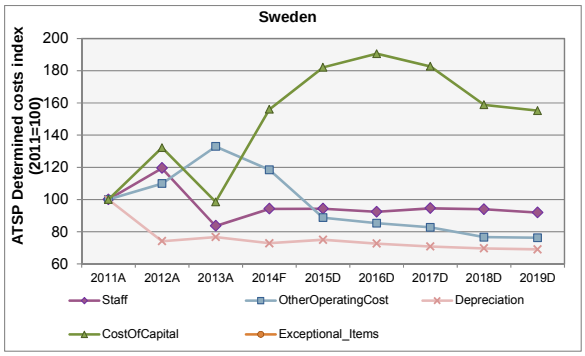


Figure 28: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Sweden plans for a -4.2% decrease in the DUC over the period 2014-2019 which is better than the Union-wide target (-3.3% p.a.). DC trends over the same period (-3.0%) are also better than the assumptions underpinning the Union-wide targets (-2.1%). When assessed over 2015-2019, the DUC still improves by -3.2% p.a.

Between 2011 and 2019 the en-route DUC trend (-2.5%) is also better than the Union-wide trend (-1.7%), while for 2009-2019 the en-route DUC trend (-1.8%) is worse than the Union-wide trend (-2.5%).

The DCs trend between 2011 and 2019 (-1.6%) is better than the Union-wide average (-0.8%), however over the 2009 and 2019 period (-0.2%) the DCs trend is worse than the Union-wide average (-1.1%).

In 2014 DCs are forecast to be +6.5% higher than the 2013 DCs in €$_{2009}$ terms. This is the equivalent of two years of cost improvements in RP2.

The magnitude of the costs exempt from cost sharing (pensions liabilities), appears to be providing a large amount of volatility in the DC base. Adjustments for pensions costs have taken place in each of 2011, 2012 and 2013, and probably 2014 and it is therefore difficult to find a long term trend in DCs which is not impacted by one-off pensions costs.

Amongst the accountable entities, the ATSP, LFV and MET provider plan for material decreases in DUC over RP2. LFV plan a decrease of -4.9% p.a. over RP2 while the MET provider plans a reduction of -5.2% p.a. over the same period. The CAA/NSA in contrast forecasts an increase in DUC of +3.4% p.a. over the same period.

Other ANSPs (including ACR) show a small improvement over this period (-0.2% p.a.). This masks a large increase, from a small base, 4.3 M€$_{2009}$ to 8.0 M€$_{2009}$ in 2014.

EUROCONTROL costs are expected to grow by +0.5% p.a. over the 2014-19 period, and by 3.6% p.a. over the 2011-2019 period (reflecting an one-off adjustment of -1.4 M€$_{2009}$ in 2011 related to IFRS Budgeting). Without this one-off reduction, the EUROCONTROL costs for Sweden would show a smaller increase of +1.7 M€2009 or +15.7% (+1.8% p.a.) over the RP1 and RP2 period.

At State level there are large variations in individual costs by nature over the 2011-2019 period:

- The largest variation in proportional terms is cost of capital which is planned to increase by +59% or +1.8 M€$_{2009}$.

- By 2019 staff costs are planned to be only -2% lower than in 2011, in part reflecting the large increase in staff costs forecast in 2014, related to pensions costs.
- Other operating costs are planned to reduce by -10% over the period, or -5.2 M€$_{2009}$.
- Depreciation costs are planned to reduce by -23% or -4.5 M€$_{2009}$.

Airspace users believe that Sweden could contribute more to the Union-wide cost efficiency target by applying the STATFOR base case and addressing the fact that they remain one of the most expensive ATSPs in Europe (6th highest). They are also concerned about underspend in investment from RP1 being rolled over to RP2 (and paid for twice).

For RP2 there are no indications in the FAB Performance Plan of significant structural and organisational changes in the delivery of services for LFV or amongst other ATSPs.

Based on this analysis, Sweden's en-route charging zone is assessed as passing this check with reservations as the significant +6.3% increase in 2014 costs over 2013 actual impacts the starting point for RP2.

En-route Determined Unit Cost level

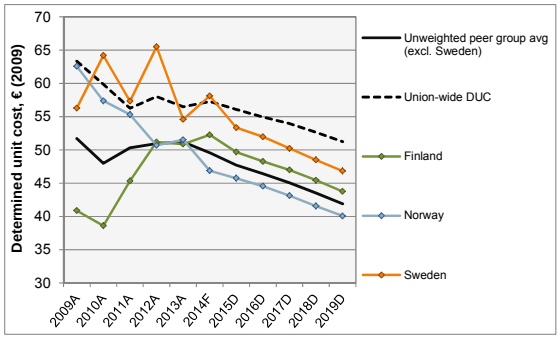


Figure 29: Determined unit cost level

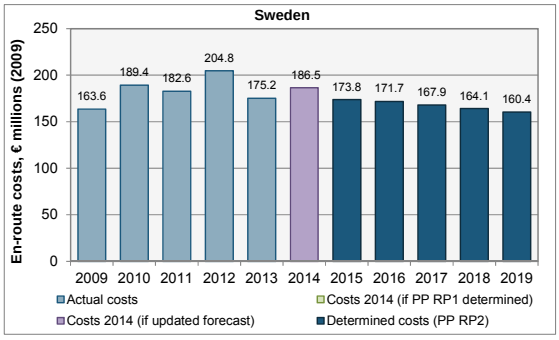


Figure 30: Determined costs 2009-2019

Comments:

Sweden's en-route DUC in 2019 is planned to be 46.84 €$_{2009}$ per SU which is the highest of the comparator group and +11.7% higher than the average of the comparator group (excluding Sweden) of 41.93 €$_{2009}$ per SU. The PRB notes that a gap between Sweden and the rest of its comparator group remains over the 2014-2019 period.

Using PPP widens the gap to +26.4%.

However, if normalised traffic is taken into consideration then this result changes and the level is only slightly higher than the comparator average in 2019 (+0.5%).

The planned reduction over the 2009-2019 period for Sweden of -1.8% p.a. is worse than the comparator group average of -2.1% p.a.

The proportion of costs allocated to en-route in Sweden, at 92% is significantly higher than the peer group average of 71%.

Based on this analysis, Sweden's en-route charging zone is assessed as <u>not</u> passing this check with reservations.

Cost of Capital

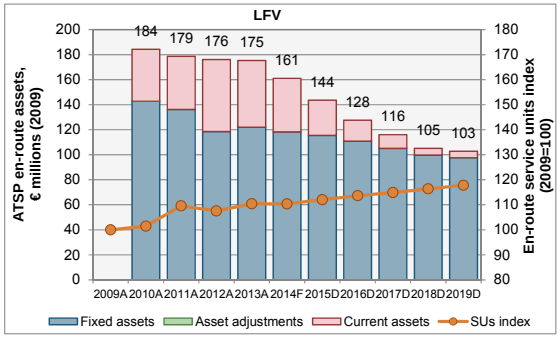


Figure 31: Breakdown of ATSP en-route asset base (2009-2019)

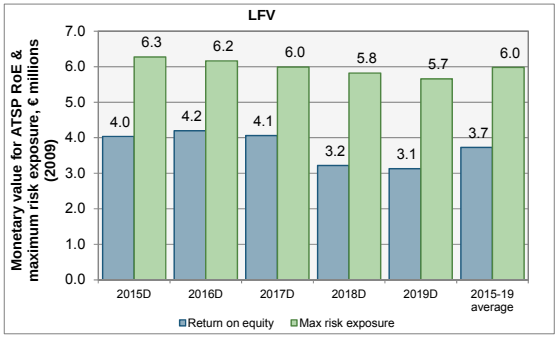


Figure 32: ATSP RoE vs maximum traffic risk exposure

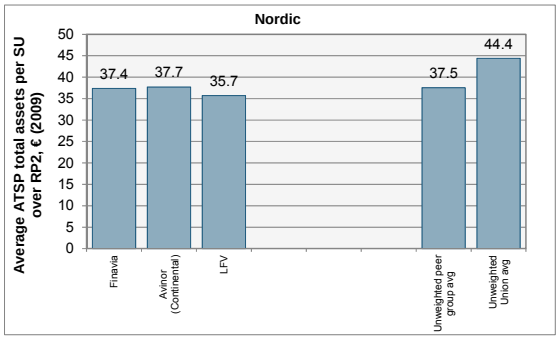


Figure 33: Average en-route asset base per SU over RP2

Comments:

The pre-tax WACC which is used to calculate the LFV en-route cost of capital varies by each year in RP2, it increases from 3.5% in 2014 to a high of 5.1% in 2019. This is either below or towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance.

The WACC and return on equity (RoE) relevant for LFV is influenced by their choice of the STATFOR low traffic forecast, as well as the Government of Sweden's mandated post tax RoE of 4.0% (5.13% pre-tax) and a diminishing proportion of debt over RP2 (forecast to reduce from 46% in 2015 to 2% in 2019).

LFV does not provide the detailed assumption around the calculation of the cost of capital or cost of debt to compare to the values provided in the Annex C guidance.

The pre-tax RoE that will be used by LFV over RP2 amounts to 5.13% per annum. Taking into account LFV's capital structure and the amount of total assets used to calculate the cost of capital enables the calculation of the monetary value of the RoE, which ranges from 3.1 to 4.2 M€$_{2009}$ over RP2. This is lower than the maximum risk exposure which will be borne by LFV over RP2 (5.7 to 6.3 M€$_{2009}$).

In 2015 LFV's en-route asset base per service unit (44 €$_{2009}$) is higher than the unweighted comparator group average of ATSPs (39 €$_{2009}$). Over RP2, relatively lower planned capital investment means that by 2019 LFV's en-route asset base per service unit (30 €$_{2009}$) is expected to be lower than the comparator group average (35 €$_{2009}$).The PRB notes that

there is a high proportion of current assets in Sweden's asset base (from around 30% in 2012 and 2013 reducing down to 5% by 2018). These are understood to be receivables from EUROCONTROL, relating to large under-recoveries in 2009 and 2010, which will be gradually recovered until 2016.

ACR is a small provider of en-route services in Sweden (4% of total DCs). Its RoE of 17.0% and pre-tax WACC of 11.3% lie outside the range of values produced using Annex C values.

Based on this analysis, Sweden's en-route charging zone is assessed as passing this check with reservations about ACR's cost of capital.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan (AI 4b) provides information about the defined benefits pension scheme at LFV using the tables provided in the template. Some transparency of the key assumptions taken in RP2 (discount rate, average salary, value of assets and liabilities) are provided. Information is also provided about the defined contributions scheme used in Swedavia.

No information is provided on the interest rates on loans or weighted average cost of debt (AI 1e and 4c). It is our understanding that debt provided in the calculation of the cost of capital relates to pension fund liabilities as no external loans are expected to be taken out during RP2.

In relation to accounting adjustments beyond IAS (AI 1c), Sweden describes that *"LFV is not allowed to produce the accounts according to international financial reporting standards according to Swedish law. It is compulsory to follow Swedish recommendations based on international standards. The main difference is in the areas of pensions and depreciations of fixed assets."* Details of these differences are not provided.

Based on this analysis, Sweden's en-route charging zone is assessed as <u>not</u> passing this check.

Further information is requested on the detailed differences between Swedish legal requirements on the accounting pensions and depreciation of fixed assets as compared to International Accounting Standards. This relates to providing a better understanding of the causes of costs exempt from cost sharing in RP1 and the volatility in DCs that have resulted.

Further information on the value of the pension liabilities used to calculate the cost of debt in the WACC calculation is also requested.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Sweden describes in AI 4 (g) that it intends to consult users over the proposal to spread RP1 costs exempt from cost sharing evenly over each of the five years of RP2. It is not clear whether this is already included in the cost base. For Reference Period 2 (in AI 4(h)), Sweden has considered the following factors as costs exempt from cost sharing at LFV and the Swedish Transport Agency: • For pensions, Sweden highlights the assumed value of the discount rate identified in AI 4 (b). • For interest rates they highlight the assumptions provided in AI 4(c). • For costs required by law Sweden highlights an adjustment made to pensions costs at LFV in 2009 and the potential for that adjustment to be reversed through legal challenge. • For international agreements Sweden highlights the EUROCONTROL agreement with two uncontrollable factors: the exchange rate SEK/€ and allocation key (driven by macroeconomic factors). No specific items were reported against unforeseen changes in taxation law. It is not clear how the planning information for 2014, and beyond, reflects the costs exempt from cost sharing identified in 2012 and 2013. In particular, in the case of Sweden, the additional pensions costs do not appear to be reflected in the DC base. **Based on this analysis, Sweden's en-route charging zone is assessed as <u>not</u> passing this check.** **Sweden is requested to provide greater clarity on how it has reflected the costs exempt from cost sharing identified in RP1 in 2014 and RP2 projections.**

Sweden: Assessment of terminal charging zones

Overview of terminal charging zone in Sweden:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Sweden at Arlanda which is exempt from traffic risk sharing

The number of airports reduces from two to 1 between 2014 and 2015. In RP2 Sweden will have one TCZs: Arlanda.

Arlanda TCZ represents 49.8% of total TNSUs in Sweden.

Traffic forecast assumptions

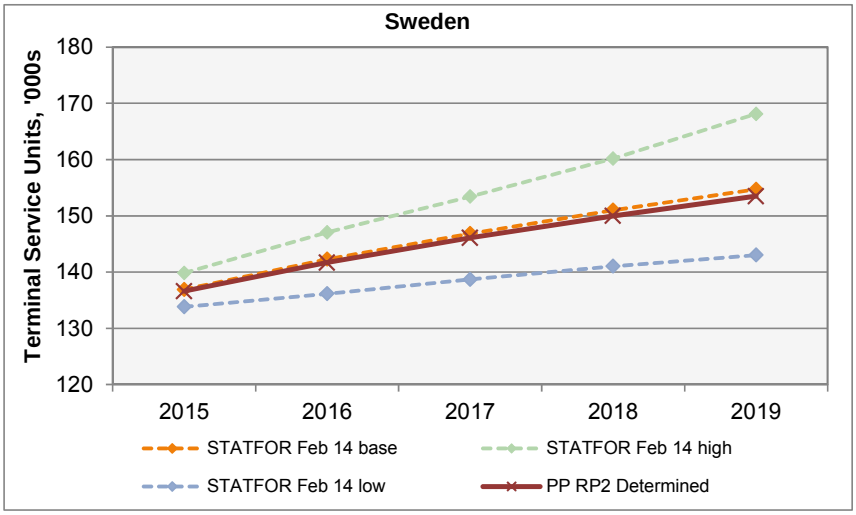


Figure 34: TNSU forecast 2015-2019

The forecast total Terminal Navigation Service Units (TNSUs) are slightly lower than the STATFOR base case forecast published in February 2014 in 2018 and 2019 and the same in 2015, 2016 and 2017.

Based on this analysis, Sweden's terminal charging zone is assessed as passing this check.

Economic assumptions

Over the 2013-2019 period, the inflation for Sweden's TCZ is identical to en-route and in line with IMF/ Eurostat HICP.

Based on this analysis, Sweden's terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

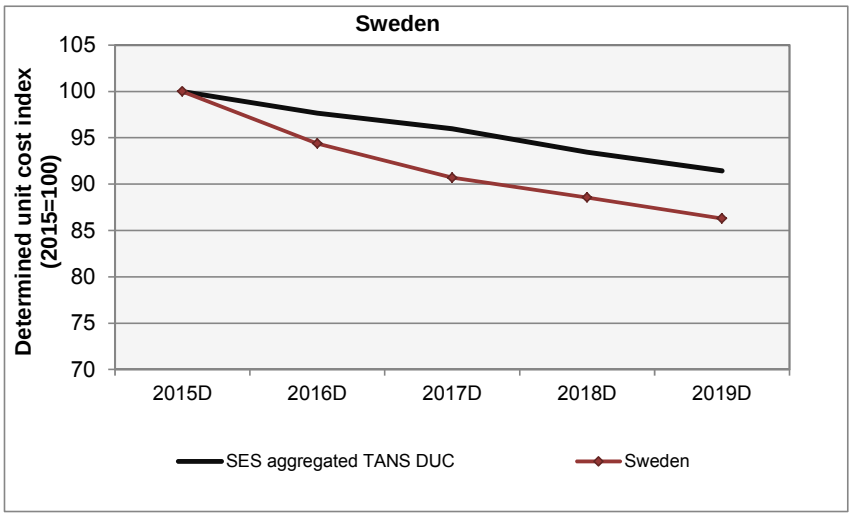


Figure 35: Terminal DUC index, 2015-2019

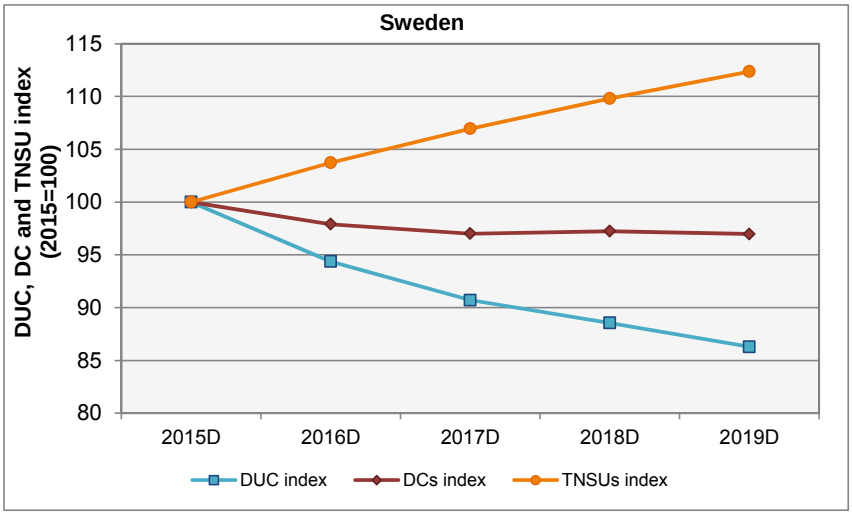


Figure 36: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Sweden		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	SEK m (nom)	169.7	170.1	172.1	176.0	179.0	1.3%
Inflation rate	annual % change	1.6%	2.4%	2.1%	2.0%	2.0%	2.1%
Inflation index	2009=100	106.1	108.6	110.9	113.1	115.4	
Determined costs	SEK m (2009)	160.0	156.6	155.2	155.6	155.1	-0.8%
Terminal service units	'000s	137	142	146	150	154	3.0%
Determined unit cost	SEK (2009)	1,171.29	1,105.47	1,062.40	1,037.23	1,010.71	-3.6%
Exchange rate	SEK:EUR (2009)	10.61					
Determined unit cost	EUR (2009)	110.39	104.19	100.13	97.76	95.26	-3.6%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 30: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the annual avg. % change in Sweden's Terminal ANS DUC (-3.6%) is better than the profile corresponding to the SES aggregated Terminal ANS DUC (-

2.2%).

Sweden's annual average % change in Terminal ANS DCs is worse than the profile corresponding to the local en-route ANS DCs, for the 2015-2019 period (TANS -1.3% p.a., en-route -3.0%) and for the 2014-2019 period (TANS -0.8%, en-route -2.0%).

The level of ambition for TANS is linked to the Swedish NSA setting a minimum target of no increase in the costs of LFV in nominal terms during the reference period.

Based on this analysis, Sweden's terminal charging zone is assessed as passing this check with reservations about the profile of DCs.

Cost of Capital

Swedavia's Return on Equity (pre-tax 11.5%, post-tax 9.0%) is set by the Swedish Government. Despite the fact that there is no traffic risk sharing applied to the TCZ, the Return on Equity used to calculate the cost of capital for the terminal charging zone is significantly higher than that used to calculate the Return on Equity for en-route ANS (RoE post-tax 4.0%).

As a result, the WACC pre-tax applied to Swedavia over the 2015-2019 period is much higher at 6.8% than the range used for LFV's en-route business (3.5%-5.1%). Moreover, the value applied is towards the top of the range of the notional efficient WACC.

Based on this analysis, Sweden's terminal charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route with the exception of information on the WACC relating to Swedavia as the TANS provider. Please refer to section on economic assumptions in the en-route detailed assessment.

Further information is requested on the detailed differences between Swedish legal requirements on the accounting pensions and depreciation of fixed assets as compared to International Accounting Standards to enable a better understanding of these as drivers of costs exempt from cost sharing.

The PRB notes the apparent inconsistency between the approach to the WACC/RoE calculate for Swedavia's TCZ as compared to LFV en-route. The WACC/RoE should be related to the risk incurred rather than the form of governance/ownership. Sweden should reconsider its approach for Swedavia in the context of no traffic risk sharing.

Based on this analysis, Sweden's terminal charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the description of costs exempt from cost sharing for RP2 is the same as for en-route with the exception of an unforeseen cost by law. Please refer to section on cost exempt from risk sharing for RP2 in the en-route detailed assessment.

The PRB notes that the Performance Plan reports that from 1 January 2018 Stockholm Arlanda Airport faces a risk of a capacity decrease from maximum 84-90 movements per hour down to maximum 44-56 movements per hour. This is due to a condition in the environmental permit that the airport is required by law to follow. To mitigate this risk, Swedavia has applied for a new environmental permit, but the outcome of the legal process is still uncertain.

Based on this analysis, Sweden's terminal charging zone is assessed as <u>not</u> passing this check.

Sweden is requested to provide greater clarity on how it has reflected the costs exempt from cost sharing identified in RP2 projections.

References

[1] Commission Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Source: European Economic Forecast (Spring 2014).

[3] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[4] Swedish Aviation Industry Group letter in regard to Draft performance plan for the Danish-Swedish FAB in RP2, 16.05.2014

[5] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[6] 2013 Monitoring Report, June 2014

[7] En-route charging reporting (June 2014) – Denmark, Additional information 4 – paragraph a), page 13/17

[8] 2013 CAPEX Monitoring Report

[9] IATA letter in regard to Consultation meeting on cost efficiency and performance plan for Sweden, 11 May 2014

[10] En-route charging reporting (June 2014) – Sweden, Additional information 4 – paragraph a), and Additional information 1 – paragraph k), RP1 Monitoring (1.3 Depreciation)

[11] "CAPEX Effect"= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[12] "Costs Effect"= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

DANUBE FAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

DANUBE FAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the DANUBE FAB was received on 27 June 2014 in English. It was co-signed by the Director General of the Civil Aviation Administration of Bulgaria and the Civil Aeronautical Authority of Romania.

1.1.2 The NSAs responsible for drawing up the Performance Plan are the Directorate General of Civil Aviation Administration of the Republic of Bulgaria and the Romanian Civil Aeronautical Authority.

1.1.3 The coordination within the FAB was entrusted to the DANUBE FAB NSA Board.

1.1.4 The FAB Performance Plan provides performance targets set at local level as defined in the performance Regulation[1] for the following accountable entities:

- [BG] Bulgarian Air Traffic Services Authority (BULATSA), as the designated service provider;
- [BG] Directorate General "Civil Aviation Administration" within the Ministry of Transport, Information Technology and Communication, as the nominated NSA;
- [RO] Romanian Air Traffic Services Administration (ROMATSA), as the designated service provider;
- [RO] Romanian Civil Aeronautical Authority (ROCAA), as the nominated NSA.

1.1.5 The FAB Performance Plan covers the airspace over the territory of the Republic of Bulgaria, the territory over Romania and the airspace over those parts of the high seas where the parties have accepted, pursuant to a regional agreement, the responsibility of providing air traffic services, referred to Sofia FIR and Bucharest FIR.

1.1.6 As far as terminal services are concerned, it covers one airport in Bulgaria and two Romania. The list of airports exempted from the performance and charging Regulations was not provided.

1.1.7 According to Article 14 of the performance scheme Regulation[1], the PRB has assessed this plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

BULGARIA

1.2.1 Figure 1 shows that Bulgaria's economy, after expanding below the one percent threshold until 2013, is expected to rise and stabilize in 2014, but is said to operate well below its potential[2].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Bulgaria sourced from the Ministry of Finance, the National Statistical Institute, the International Monetary Fund (IMF), the European Central Bank and Eurostat.

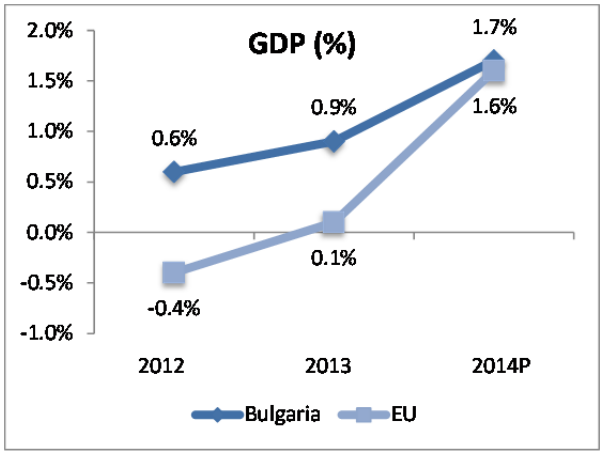


Figure 1: Gross domestic product for Bulgaria, volume (percentage change on preceding year)[2]

1.2.3 As shown in Figure 2, except for the marginal decrease in 2009, IFR traffic has been in constant progression since 2006. Nevertheless, the February 2014 STATFOR baseline scenario highlights a three-year shift in traffic demand as the 2009 forecast for 2015 should now be reached in 2018.

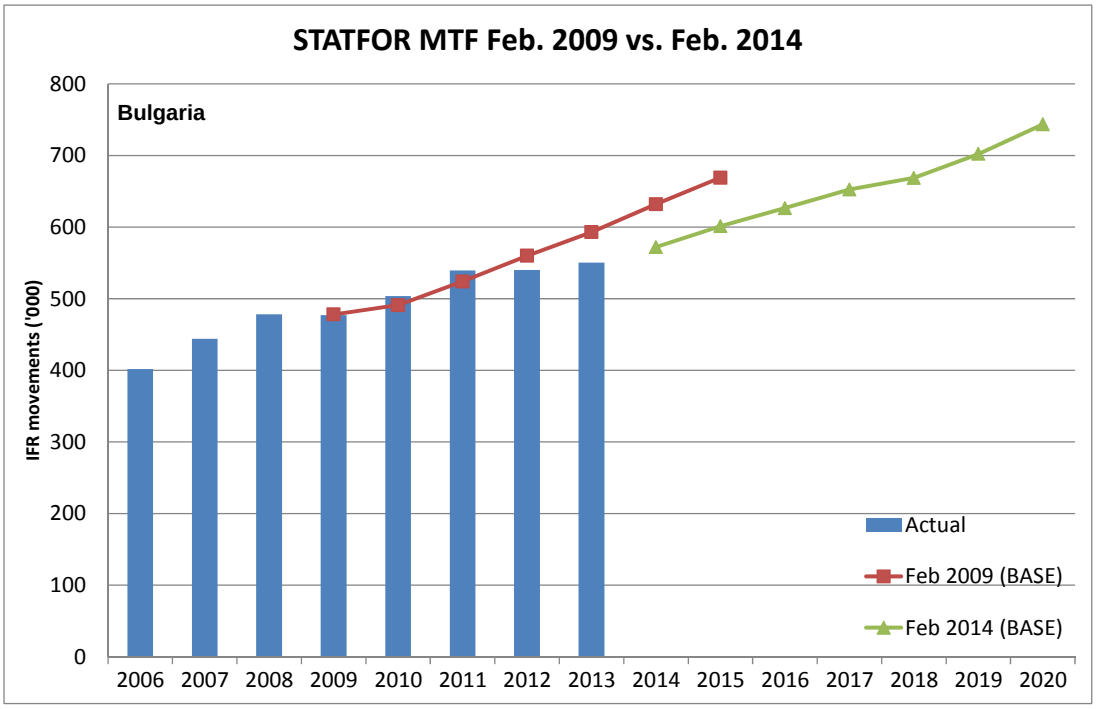


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Bulgaria

1.2.4 The FAB Performance Plan mentions several events that may have a significant impact in the future on the traffic in the Bulgarian airspace, such as the opening of the Kosovo airspace, the closure of route UP975, the unrest in North-East Africa and the situation with the Simferopol ACC.

1.2.5 For the purpose of drawing up the FAB Performance Plan, Bulgaria decided to establish a traffic forecast scenario based on the numbers of overflying aircraft during RP1. It provides a forecast which sits between the February 2014 STATFOR base and low scenarios.

ROMANIA

1.2.6 Romania's economy beat expectations by growing as much as 3.5% in 2013. Growth is set to slow, but to remain robust at 2.5% in 2014[2].

1.2.7 The FAB Performance Plan contains macroeconomic data and forecasts for Romania sourced from the National Bank of Romania, the Business Monitor International (BMI), the International Monetary Fund and Eurostat.

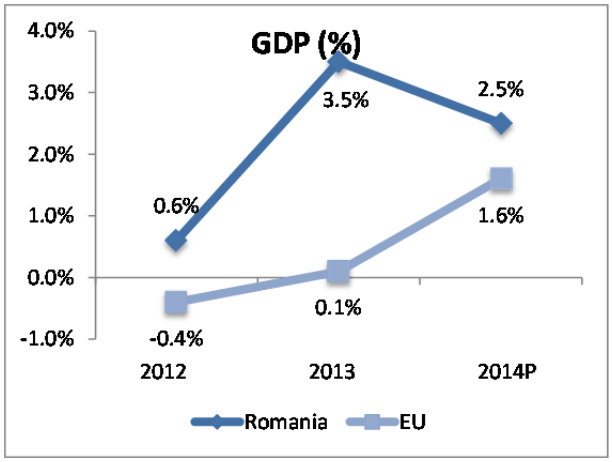


Figure 3: Gross domestic product for Romania, volume (percentage change on preceding year) [2]

1.2.8 The GDP data from BMI is more optimistic for 2014 with a forecast of 2.8%.

1.2.9 Figure 4 shows a similar trend as Bulgaria in terms of actual IFR traffic. Nevertheless, the February 2014 STATFOR baseline scenario expects IFR movements to exhibit lower levels of growth than the 2009 forecast, and will not recover the originally expected traffic for 2015 until 2019 (i.e. a four year shift of traffic).

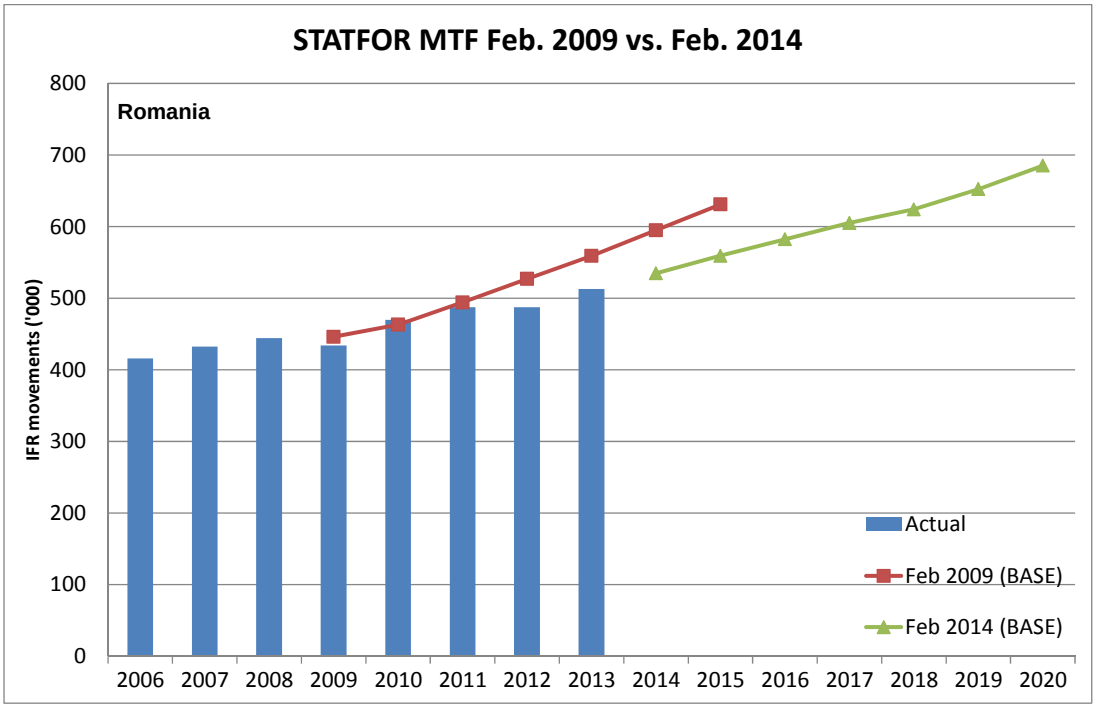


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Romania

1.2.10 The FAB Performance Plan specifies that Romania does not consider the February 2014 STATFOR baseline scenario to be a realistic traffic forecast and decided to apply the low scenario for the purpose of the exercise. Nevertheless, there seems to be some confusion, as seen in Section 1.2 of the FAB Performance Plan, in the terminology used to differentiate traffic forecast and en-route Service Unit forecast.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Bulgaria	B
	Romania	B
	FAB minimum level	*B*
ANSP level	Bulgaria for Safety Culture MO	C
	Romania for Safety Culture MO	D
	FAB minimum level	*C*
	Bulgaria for all other MOs	C
	Romania for all other MOs	C
	FAB minimum level	*C*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

1.3.3 'Not available' in the table below (N/A) refers to the fact that there were no reported occurrences of that type in the DANUBE FAB in 2013. Hence, the current FAB level of the RAT methodology application could not have been directly computed (i.e. indicated by '?').

RAT application current performance (2013)		Bulgaria	Romania	FAB
Separation Minima Infringements (SMIs)	ATM Ground	100%	100%	100%
	ATM Overall	0%	100%	50%
Runway Incursions (RIs)	ATM Ground	N/A	100%	?
	ATM Overall	N/A	100%	?
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	100%	100%

Table 2: Severity classification using the RAT methodology

1.3.4 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[3].

ENVIRONMENT

1.3.5 Current performance shows a marked improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.4 percentage points (from 1.73% in the first half of 2013 to 1.33% in the first half of 2014).

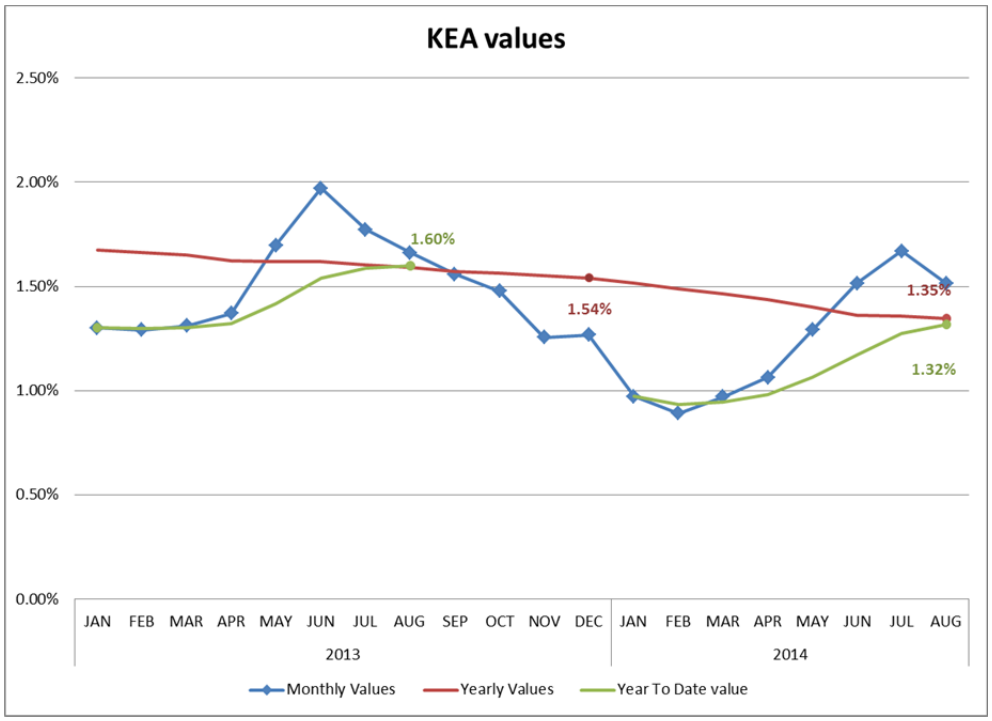


Figure 5: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.6 Current performance shows a marked improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of 0.28 percentage points (from 1.60% in the first eight months of 2013 to 1.32% in the corresponding period of 2014).

CAPACITY

1.3.7 The DANUBE FAB has provided excellent capacity performance in recent years with virtually no delay since 2008.

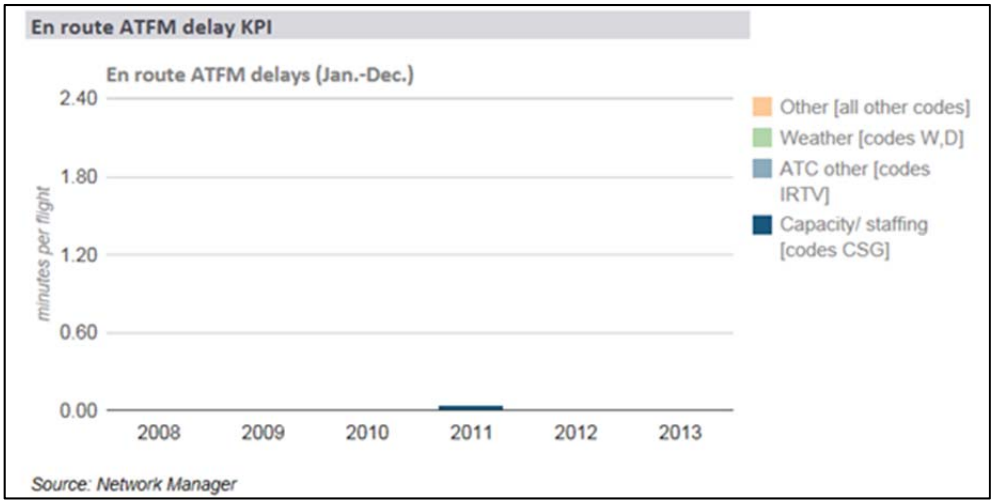


Figure 6: En-route ATFM delay

1.3.8 Throughout the recent years, there have been no terminal or aerodrome capacity-related constraints at the DANUBE FAB airports.

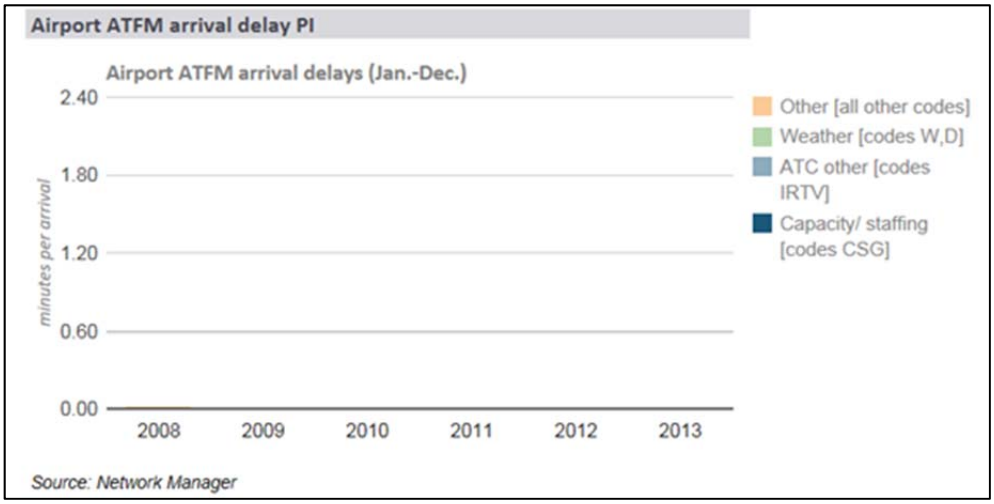


Figure 7: Airport ATFM arrival delay

COST EFFICIENCY

1.3.9 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the DANUBE FAB to complement the missing and/or incomplete elements as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in the section “1.3 - Stakeholder consultation” of the Performance Plan. The relevant papers are attached to the Performance Plan as “ANNEX A. PUBLIC CONSULTATION MATERIAL”.

1.5.2 Three consultation meetings were held at FAB and national level:

- Meeting #1, 20 May 2014, national consultation for Bulgarian stakeholders (meeting and written consultation).
- Meeting #2, 28 May 2014, national consultation for Romanian stakeholders (meeting and written consultation).
- Meeting # 3, 29 May 2014, DANUBE FAB Consultation for RP2 Performance Plan in Sofia (meeting and written consultation).

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Minutes of the meetings have been made available to the PRB;
- IATA provided written comments on FAB and national Romanian consultation, to which written answers were presented;
- The list of invited stakeholders is not attached to Annex A, only the list of actual attendees has been made available to the PRB;

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*B*	*B*	*B*	*B*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The DANUBE FAB EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 Bulgaria was inspected by EASA in 2012. Results of the visit showed that Bulgaria slightly adjusted its scores to the results of the audit and to the status of the corrective action plan. However, there is a concern and possible indication that the scores still might be overrated and the reported improvements do not correspond to the situation.

2.1.3 For Romania, although not inspected yet, the assessment of light verification was the same; the provided scores seem to be rather high, and only three EoSM objectives have been downgraded from Level 'E' to Level 'D' (based on the fact that the current procedures listed as justification and/or references are under revision).

2.1.4 In the DANUBE FAB Performance Plan, the Romanian ANSP (ROMATSA) has provided planned EoSM level for Safety Culture as Level C for the period 2015-2019. However, the current ROMATSA minimum level achieved in Safety Culture is reported in 2013 as Level D. It is not clear why forecasted downgrading of EoSM result is reported and no justification was provided.

2.1.5 Overall, the current EASA assessment shows possible overestimation of the replies in both States.

2.1.6 Nevertheless, based on the current performance, it seems realistic that the DANUBE FAB will be able to meet these targets by the end of 2019. However, the PRB recommends close monitoring on the DANUBE FAB performance, especially on some of the core element of the safety oversight system.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*90%*	*90%*	*90%*	*90%*	*100%*	✓
	RIs	*90%*	*90%*	*90%*	*90%*	*100%*	✓
	ATM-S	*80%*	*83%*	*85%*	*88%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*55%*	*70%*	*80%*	*90%*	*90%*	✓
	RIs	*70%*	*80%*	*85%*	*90%*	*90%*	✓
	ATM-S	*70%*	*70%*	*80%*	*80%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The DANUBE FAB severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 Note that since there were no reported RIs in Bulgaria in 2012 and 2013, the current performance of Bulgaria for the severity classification for these types of occurrences could not have been assessed. Therefore, the PRB suggests that improvements and progress in application of the RAT methodology severity classification should be closely monitored in Bulgaria.

2.2.3 The DANUBE FAB has reported different figures for the RAT methodology application for ATM-S, for ATM Ground and ATM Overall. This should not be the case as these values should be the same (i.e. the ANSP target established for 'ATM Ground' severity should be identical to the NSAs/States target established for 'ATM Overall' severity). Therefore, the PRB expresses concern as it appears that the DANUBE FAB Member States may not be aware how the classification of ATM-S occurrences should be performed. Furthermore, the PRB recommends that the DANUBE FAB clarifies this information.

2.2.4 In consideration of §2.2.2 it is suggested that attention be paid to understanding the reasons why no occurrences were reported. Nevertheless, based on available

information on the current performance and the one provided in the FAB Performance Plan, the PRB believes that it is possible for the DANUBE FAB to meet the forecasted targets.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The DANUBE FAB indicates in its Performance Plan that a common FAB approach in certain areas for Just Culture improvements **has been established**. However, the common approach as described in the Performance Plan merely states *that "the approach is to implement Just Culture provisions contained in EU Regulations"*, which does not indicate actions taken or planned in order to improve Just Culture at FAB level.

2.3.3 The PRB further notes that the DANUBE FAB has adopted a Safety Policy, which has elements to establish a safety culture but this does not provide sufficient information on the actions envisaged to improve Just Culture. In addition, although Just Culture is an element of Safety Culture, it appears that the DANUBE FAB is using the terms Safety Culture and Just Culture interchangeably (DANUBE FAB Performance Plan, page 54).

2.3.4 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has not been set**, as no information has been provided as to the elements in place to promote the application of Just Culture is provided. As a result, it is not clear what has been achieved with regards to Just Culture so far and what is planned for the future.

2.4 Key points

2.4.1 The PRB is confident that the DANUBE FAB will be able to meet the Union-wide EoSM and RAT application targets.

2.4.2 The DANUBE FAB has reported different targets for the RAT methodology application for ATM-S for ATM Ground and ATM Overall (while it should not be the case). The PRB recommends that this information is clarified.

2.4.3 In addition, the PRB suggests that improvements and progress in application of the RAT methodology severity classification should be closely monitored in the DANUBE FAB.

2.4.4 Lastly, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	1.55%	1.50%	1.46%	1.41%	1.37%
FAB Target	*1.55%*	*1.50%*	*1.46%*	*1.41%*	*1.37%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The DANUBE FAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.1.2 The DANUBE FAB has added a second line to take into consideration a difference between KEA at network level and a contribution at local level, but that is already included in the reference values.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 ROMATSA and BULATSA have both adopted non-financial incentives (as per Article 12.4 of the performance Regulation[1]) to reinforce the commitment towards the adopted targets.

3.4 Key points

3.4.1 The DANUBE FAB has adopted annual targets which are consistent with the reference values and non-financial incentives to reinforce the commitment towards the adopted targets.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.04	0.04	0.04	0.05	0.06
FAB Target	*0.08*	*0.08*	*0.08*	*0.09*	*0.09*
Consistency check	✘	✘	✘	✘	✘
Shortfall	**0.04**	**0.04**	**0.04**	**0.04**	**0.03**

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The DANUBE FAB targets for en-route capacity are **not consistent** with the respective FAB reference values for the period 2015-2019. In accordance with Annex IV section 4 of the performance Regulation[1], the official FAB reference value is the value contained within the Network Operations Plan (June 2014).

4.1.2 The additional cost to airspace users from the additional delay is estimated at €3 million per year from 2015-2018 and €2 million in 2019, a total of €14 million.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.3 No other FAB has adopted capacity targets that will make up for the projected performance deficit from the DANUBE FAB for the period 2015-2019.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.4 The latest ANSP en-route capacity plans (from the NOP 2014-2019, June 2014 edition) indicate that the DANUBE FAB capacity performance should meet the required level of performance to be consistent with the Union-wide target for each year in RP2.

Year	2015	2016	2017	2018	2019
Annual reference value	0.04	0.04	0.04	0.05	0.06
Delay forecast full year	0.00	0.00	0.00	0.00	0.00

Table 7: Extract from Network Operations Plan 2014-2019

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.5 When the expected contribution of the individual ANSPs (as listed in the Performance Plan) is analysed against the predicted traffic scenario (STATFOR 7 year baseline forecast, February 2014), the expected delay forecast changes significantly.

4.1.6 It is evident that if BULATSA is only expected to deliver a capacity performance of between 0.12 and 0.14 minutes per flight, that the airspace users in the DANUBE FAB can expect almost double the delays during RP2, than what was original foreseen.

Year		2015	2016	2017	2018	2019
FAB reference value		0.04	0.04	0.04	0.05	0.06
ANSP contribution	BULATSA	0.12	0.12	0.12	0.14	0.14
	ROMATSA	0.00	0.00	0.00	0.00	0.00
Aggregated ANSP contribution		**0.09**	**0.09**	**0.09**	**0.10**	**0.10**

Table 8: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.7 The DANUBE FAB plan contains details of how the FUA legislation is applied in the FAB. The Performance Plan refers to improvement in sector capacity figures following a redesign of the airspace, including temporary segregated and restricted areas, and changes in the daily management of the airspace by the AMC.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.8 Romania and Bulgaria have provided excellent capacity performance during RP1, with zero delay for airspace users.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Bulgaria	*0*	*0*	*0*	*0*	*0*
Romania	*0*	*0*	*0*	*0*	*0*

Table 9: National target on average arrival ATFM delays [minutes per arrival]

4.2.1 The scope of the DANUBE FAB Performance Plan comprises the terminal air navigation services at one airport in Bulgaria (i.e. LBSF) and two airports in Romania (i.e. LROP, LRBS).

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay with a breakdown per airport for each of the years of the reference period for both, Bulgaria and Romania.

4.2.3 In both cases, the description and explanation of the target, and the contribution to improvement of performance is very limited. The target is motivated based on the historical record of negligible arrival ATFM delay and the projected growth of air traffic.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.4 For both, Bulgaria and Romania, the national target on arrival ATFM delay is consistent with the observed historical performance and suggests no capacity constraints for arriving air traffic under the projected traffic conditions.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.5 For Bulgaria and Romania, the national target reflects the observed historical performance at the respective airports. In particular, no increase in arrival ATFM delay is anticipated throughout RP2.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.6 The historical performance for Bulgaria and Romania in terms of arrival ATFM delay signals no prevailing airport capacity constraints at the time being. In that respect the performance is in line with other non-congested airports.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.7 No particular improvement activities are listed.

Primary check:

- *Other justifications provided*

4.2.8 The DANUBE FAB Performance Plan provides no further relevant justification for ATFM delay attributable to terminal or aerodrome ANS.

4.3 Additional indicators

EN-ROUTE

4.3.1 The DANUBE FAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The DANUBE FAB Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 10 lists the Incentives for the en-route included in the Performance Plan which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance	Notes
ROMATSA	No	No (penalty only)	Yes	Yes	Yes	
BULATSA	No	No	Yes	Yes	No	No independent verification of delay classification.

Table 10: Incentives on en-route Capacity

4.4.2 The PRB has the following comments on the DANUBE FAB en-route ATFM incentive schemes:

- The FAB targets are not consistent with the Union-wide capacity requirement, and are therefore not considered to be a 'high-level of performance';
- The incentive scheme are not linked to FAB performance, but are purely local;
- BULATSA would be paid out approx. 2/3 of the total bonus at a level of capacity performance that is just consistent with the Union-wide capacity target;
- There is no mention of an independent verifiable method of reconciling attributed delay to actual events, which raises the possibility of errors or gaming.

AIRPORT

4.4.3 The DANUBE FAB Performance Plan presents an incentive scheme for the national targets on arrival ATFM delay for Bulgaria and Romania.

4.4.4 Both incentive schemes are aligned and meet the requirements of Article 12 of the performance Regulation[1]. In particular, the non-discriminatory and proportional character has been established through a "dead band" catering for pragmatic variations of the achieved performance in respect to a zero-delay target, and thus induces performance-oriented behaviour to meet the target.

4.4.5 The incentive schemes are consistent with the principles of Article 15 of the

charging Regulation[4]. Given the low target (i.e. 0 min/arrival), the thresholds for penalties are buffered with a "dead band". Though not symmetrical, this approach is acceptable for the given target. The bonuses and penalties are set at 0.1% of the revenue. Bulgaria makes o adjustments for certain ATFM causes, while Romania applies the exemption clauses.

4.4.6 Therefore, the PRB concludes that both, Bulgaria and Romania, have established incentive schemes for the respective local (i.e. national) target on arrival ATFM delay. The schemes are consistent with the principles set out by Article 12 and Article 15 of the charging Regulation.

4.5 Key points

EN-ROUTE

4.5.1 Despite the excellent capacity performance coupled with existing capacity plans that are expected to comfortably cope with the traffic demand over RP2, the FAB targets for en-route capacity for the DANUBE FAB is not consistent with the FAB reference values.

4.5.2 The expected contribution of the FAB ANSPs, especially BULATSA, is neither consistent with the existing capacity plans, nor with the required level of service from the DANUBE FAB, in regards to meeting the Union-wide target for en-route capacity.

4.5.3 The en-route capacity incentive scheme is not fully consistent with Article 12 of the performance Regulation.

AIRPORT

4.5.4 The scope of the DANUBE FAB Performance Plan comprises the terminal air navigation services at one Bulgarian airport (i.e. Sofia) and two airports (i.e. LROP, LRBS) in Romania. The plan sets national targets on arrival ATFM delay for both Member States with a breakdown per airport for each of the years of RP2.

4.5.5 The national targets are consistent with the observed historical performance. The traffic assumptions are balanced against the level of traffic congestion at the airports. The targets are set at constant 0 min/arrival throughout 2015-2019.

4.5.6 Both, the Bulgarian and Romanian, national targets on arrival ATFM delay are realistic and consistent with the requirements of the performance Regulation[1], and therefore acceptable.

5 COST-EFFICIENCY

5.1 Bulgaria: Setting the scene for the RP2 cost-efficiency assessment

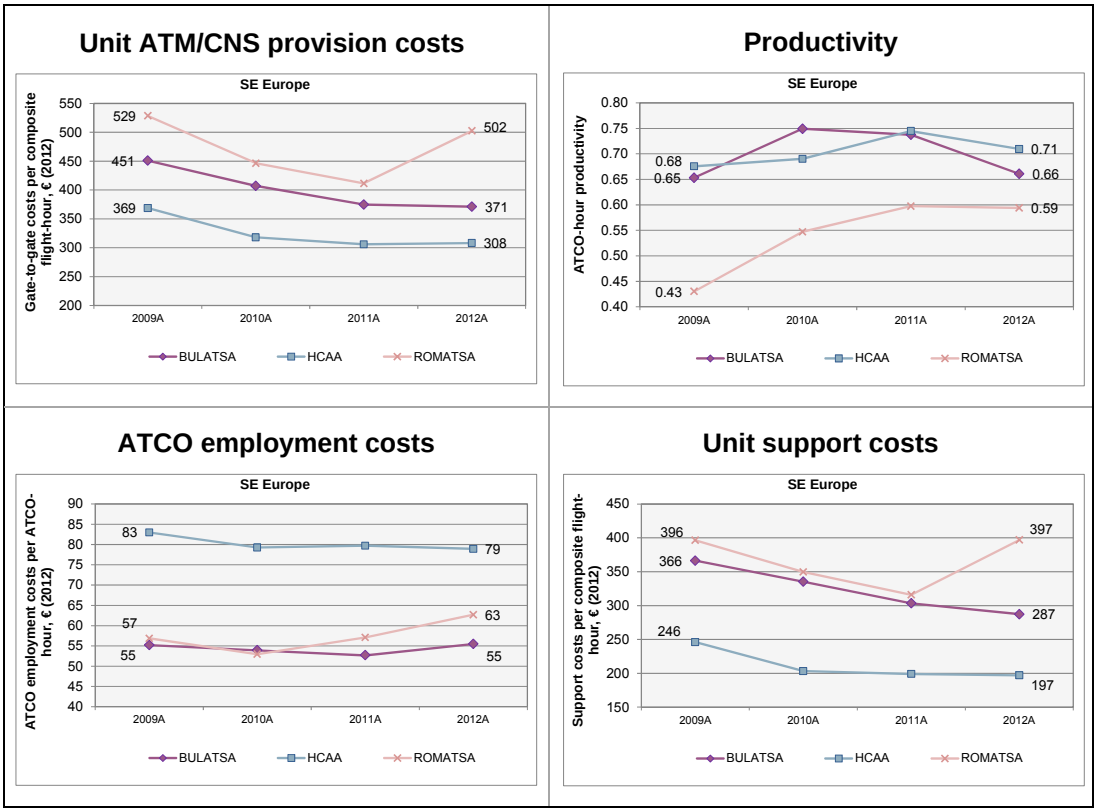
5.1.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate to gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of Bulgaria's main ATSP, the Bulgarian Air Traffic Services Authority (BULATSA), which represented some 74 M€ of ATM/CNS costs in 2012 (about 1% of the overall gate-to-gate SES ATM/CNS costs).

5.1.2 In the context of the ACE benchmarking analysis, an ATSP's performance is often compared to other European ATSPs operating in a similar economic and operational environment (so called "comparators or peer group"). BULATSA is part of the "South Eastern Europe" ATSPs comparator group, also including HCAA (Greece) and ROMATSA (Romania).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- BULATSA's productivity (0.66) is +2% higher than the comparator group average (0.65);
- ATCO employment costs (55 €$_{2012}$) are -22% lower than the comparator group average (€71); and,
- Unit support costs (287 €$_{2012}$) are -3% lower than the comparator group average (297 €$_{2012}$).

5.1.4 Overall, BULATSA's unit ATM/CNS provision costs (371 €$_{2012}$) were -8% lower than the comparator group average in 2012 (405 €$_{2012}$).



5.1.5 The PRB 2013 monitoring analysis indicates that BULATSA's actual en-route costs for 2013 were substantially lower than planned (-8.5 M€$_{2009}$). This adds to the impact of the slightly higher traffic than planned (+0.7%) on BULATSA's revenues.

Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, BULATSA generated a net gain of 9.0 M€$_{2009}$ in 2013 on the en-route activity which is higher than the gain already achieved in 2012 (6.1 M€$_{2009}$). However, when estimating BULATSA's economic surplus, it is important to also account for the profit embedded in the cost of capital through the return on equity (some 6.8 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounted to 15.7 M€$_{2009}$, which implied an ex-post rate of return on equity of 16.3% or an equivalent of 22.2% of en-route revenues.

5.1.6 In 2012, the estimated economic surplus generated by BULATSA for the en-route activity amounted to 13.0 M€$_{2009}$, which implied an ex-post rate of return on equity of 13.1% or an equivalent of 18.7% of its en-route revenues.

5.1.7 Therefore during the first two years of RP1, BULATSA managed to generate an aggregated estimated economic surplus of some 28.7 M€$_{2009}$.

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	68 633	70 341
Actual costs for the ATSP	63 845	61 837
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	4 788	8 505
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-159	-10
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**4 629**	**8 495**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	2.75%	0.69%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**1 441**	**465**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	**6 070**	**8 960**

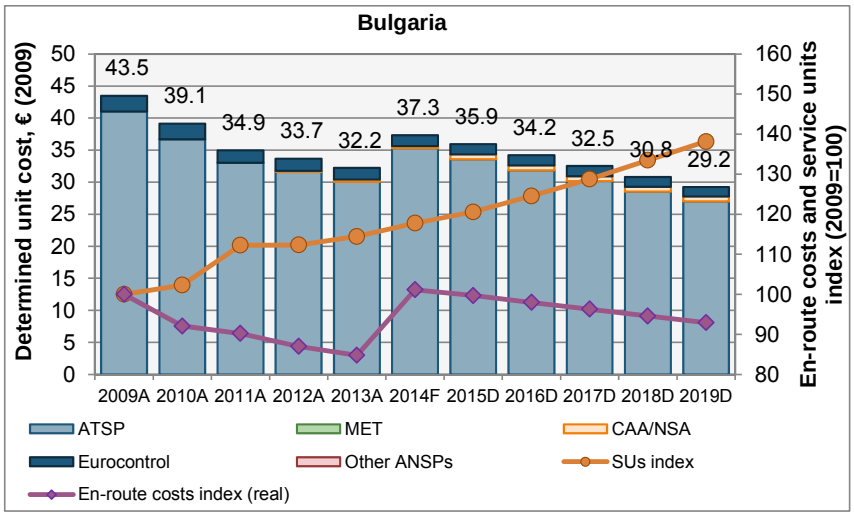
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	6 971	6 768
Overall estimated surplus (+/-) for the en-route activity	13 041	15 728
Revenue/costs for the en-route activity	69 915	70 796
Estimated surplus (+/-) in percent of en-route revenue/costs	**18.7%**	**22.2%**
Estimated ex-post RoE pre-taxe rate (in %)	**13.1%**	**16.3%**

Table 11: BULATSA estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.2 Bulgaria: Overview of en-route KPI assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Summary of en-route KPI assessment



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	41.04	36.71	33.02	31.60	30.05	35.31	33.57	31.84	30.18	28.54	27.02	-2.5%	-5.2%
MET	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
CAA/NSA	EUR (2009)	-	-	0.00	0.18	0.36	0.34	0.76	0.77	0.76	0.75	0.74		16.6%
Eurocontrol	EUR (2009)	2.44	2.43	1.93	1.89	1.81	1.68	1.61	1.60	1.57	1.53	1.49	-3.2%	-2.4%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**43.48**	**39.14**	**34.95**	**33.68**	**32.21**	**37.34**	**35.94**	**34.20**	**32.51**	**30.82**	**29.25**	**-2.2%**	**-4.8%**

Figure 8: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	BGN m (nom)	152.9	145.0	146.9	145.1	141.9	168.6	167.8	167.9	168.6	169.3	169.9
Inflation rate	annual % change		3.0%	3.4%	2.4%	0.4%	-0.4%	0.9%	1.8%	2.2%	2.2%	2.2%
Inflation index	2009=100	100.0	103.0	106.5	109.1	109.5	109.1	110.1	112.1	114.5	117.0	119.6
Determined costs	BGN m (2009)	152.9	140.8	137.9	133.0	129.6	154.6	152.4	149.8	147.2	144.6	142.1
Service units	'000s	1 798	1 840	2 019	2 020	2 058	2 118	2 168	2 240	2 316	2 400	2 484
Determined unit cost	BGN (2009)	85.01	76.53	68.33	65.85	62.98	73.00	70.28	66.88	63.56	60.26	57.19
Exchange rate	BGN:EUR	1.96										
Determined unit cost	EUR (2009)	43.48	39.14	34.95	33.68	32.21	37.34	35.94	34.20	32.51	30.82	29.25

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	BGN m (nom)	1.1%	1.8%	0.2%	0.3%
Inflation	CAGR %	1.8%	1.5%	1.9%	2.1%
Determined costs	BGN m (2009)	-0.7%	0.4%	-1.7%	-1.7%
Service units	'000s	3.3%	2.6%	3.2%	3.5%
Determined unit cost	BGN (2009)	-3.9%	-2.2%	-4.8%	-5.0%
Exchange rate					
Determined unit cost	EUR (2009)	-3.9%	-2.2%	-4.8%	-5.0%

Table 12: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	NO
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	YES

Partial update of 2014 forecasts data:

Bulgaria provided an updated (slightly revised downwards) 2014 estimate costs (-0.5% vs. 2014 Determined Costs in RP1 Performance Plan, but +19.3% compared to 2013 actuals) but no updated 2014 TSU forecast. It should be stressed that after 8 months in 2014, Bulgaria records some +27.7% actual en-route TSU growth vs. 2013 or +24% TSU vs. 2014 TSU estimated in their RP1 Performance Plan. Although these figures are highly impacted by the changes in route network use since April 2014 (more than +35% actual growth on average over April-August 2014 vs. 2013 due to closure of the airspace in Crimea), Bulgaria already recorded more traffic in January-March than expected back in 2011 in its Performance Plan.

This issue seriously affects the en-route Total Service Units (TSU) and Determined Unit Costs (DUC) trends when calculated over the 2014-2019 period. For the purposes of en-route DUC trend assessments, more attention will therefore be given to the 2011-2019 as well as 2009-2019 and 2015-2019 periods, where appropriate.

Key points for Bulgaria en-route charging zone	
1. Traffic forecast assumptions:	**Not passed**

Bulgaria has selected a TSU forecast close to, but not fully in line with, the STATFOR Feb. 2014 Low TSU growth scenario for all years 2015-2019. In addition Bulgaria did not update its 2014 TSU forecast, although after the first eight months of 2014 it records close to +27.7% actual growth to date vs. 2013.

The PRB notes that Bulgaria and the airspace users agreed that the situation in Ukraine (Crimea peninsula and Simferopol FIR) leads to major changes in traffic flows affecting both DANUBE FAB partners in particular. They agreed and will propose to the RPB/ Commission to monitor the traffic and review the situation towards October/November 2014.

2. Economic assumptions:	**Passed**

The inflation forecasts used by Bulgaria are aligned with the IMF CPI April 2014 forecast for RP2.

3. En-route DUC trend:	**Not passed**

Face value, Bulgaria plans a better en-route DUC trend than the Union-wide target trend over the different periods under scrutiny, although since 2014 TSU forecasts were not revised (despite high TSU growth to date) and 2014 costs forecast only slightly revised downwards, the analysis had to be mainly focused on 2011-2019.

However, the RP2 determined costs (DCs) are planned to increase, when Low traffic forecast are selected and when the Union-wide DCs targets is reducing by -2.1% over the same period and against the background of important savings generated by BULATSA in 2012 and 2013 (see previous section).

A more detailed analysis indicates that the main drivers are increasing staff costs, as well as higher other (non-staff) operating costs, depreciation costs and cost of capital.

4. En-route DUC level:	**Not passed**
In 2019, Bulgaria's en-route DUC (29.25 €$_{2009}$) is planned to be -2.2% lower than the (unweighted) peer group average (29.92 €$_{2009}$), the two other comparators being very close to Bulgaria in terms of DUC level expressed in real terms (Greece (31.51 €$_{2009}$) and Romania (28.33 €$_{2009}$)). The PRB notes however that Bulgaria en-route DUC profile is always higher than its peer group average but the gap is gradually decreasing over RP2 (+11.5%); 2016 (+8.4%); 2017 (+4.9%) and 2018 (+2.0%). If adjusted to account for exchange rates and cost of living (PPP), Bulgaria's en-route DUC in 2019 would be much higher than its two comparators and some 37% higher than the peer group average.	
5. En-route cost of capital:	**Not passed**
Although BULATSA's Weighted Average Cost of Capital (WACC) rate (7%) is generally in line with the methodology laid down in Annex C guidance, assumptions used for the different components of the WACC calculation are sometimes outside the range of recommended values. BULATSA's RoE covers more than twice its revenue risk exposure and in addition, the value of BULATSA en-route asset base per service unit over RP2 (51 €$_{2009}$) is always significantly higher than its peers (9 €$_{2009}$ for Greece and 32 €$_{2009}$ for Romania) with a ratio fixed to total assets significantly lower than its peers (76% on average vs. 92% for its peers and 90% Union-wide).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The assumptions, description and justification of pension costs and description of national pension regulations are not consistent with FAB Performance Plan template and guidance.	
7. Costs exempt from risk sharing:	**Passed**
The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 6. above) and on how costs exempt from cost sharing in RP1 are taken into account in the RP2 DC.	

Overall consistency assessment of Bulgaria en-route cost-efficiency KPI
Taking into account these key points, in particular 1, 3, 4 and 5, the Bulgaria en-route cost-efficiency target is assessed as <u>not</u> being consistent with, and <u>not</u> making an adequate contribution to, the en-route Union-wide cost-efficiency target over RP2. **The PRB therefore advises the Commission to issue a Recommendation to the DANUBE FAB to adopt a revised Performance Plan and, in particular for Bulgaria to revise its cost-efficiency target and, including to:** **a) Revise its RP2 TSU forecasts in the light of latest information available and in line with their request to the Commission and agreement with airspace users;** **b) Revise downward its en-route DCs over RP2, in particular its en-route RoE/cost of capital (in line with the revenue risk actually faced by Bulgaria) and also in**

the light of the economic surplus being generated for RP1, with a better control of operating costs and reduced actual depreciation costs, the latter to be transparently taken into account for RP2 (to ensure that airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1);

c) Provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance.

5.3 Bulgaria: Overview of terminal ANS KPI assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview of Bulgaria terminal charging zone (TCZ)

- Name: TCZ Bulgaria.
- Number of airports: 5 (Sofia, Burgas, Varna, Plovdiv and Gorna Oryahovitsa), none with more than 70 000 IFR movements per year and covering close to 100% of TNSU in Bulgaria.
- No change of scope in the TCZ between 2014 and 2015, however Bulgaria recalls that the SES regulations did not apply to Bulgaria for TNC prior to 2015.
- Traffic risk sharing applies in this TCZ from 2015 onwards.

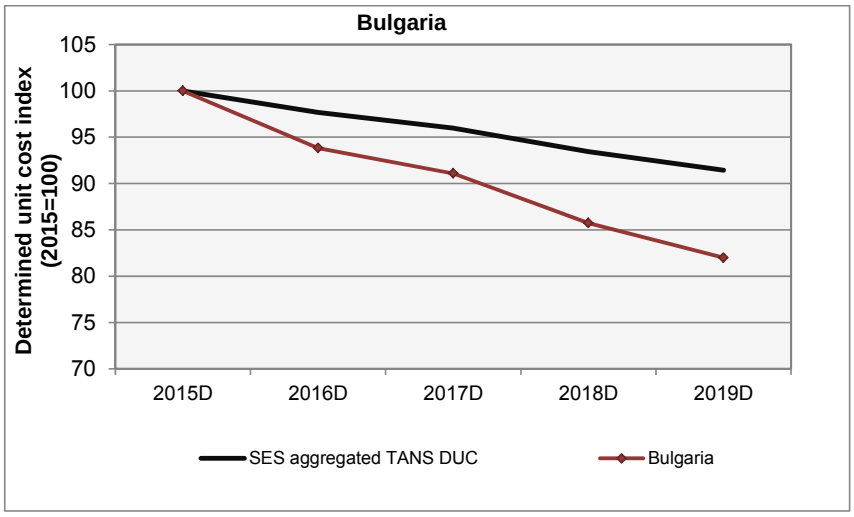


Figure 9: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	BGN m (nom)	22.5	22.4	23.1	23.1	23.5	1.0%
Inflation rate *	annual % change	0.9%	1.8%	2.2%	2.2%	2.2%	2.1%
Inflation index *	2009=100	110.1	112.1	114.5	117.0	119.6	
Determined costs	BGN m (2009)	20.4	19.9	20.1	19.7	19.6	-1.0%
Terminal SUs	'000s	45.1	46.9	48.8	50.7	52.7	4.0%
Determined unit cost	BGN (2009)	453.40	425.43	413.01	388.69	371.74	-4.8%
Exchange rate	BGN:EUR (2009)	1.96					
Determined unit cost	EUR (2009)	231.88	217.58	211.22	198.79	190.12	-4.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 13: Terminal DUC breakdown

Key points for the Bulgaria terminal ANS KPI Assessment

1. Traffic forecast assumptions:	Not passed

The TNSU forecast for Bulgaria TCZ is close to the low forecast for all years but lower than STATFOR Low forecasts published in February 2014 for 2019.

2. Economic assumptions:	**Passed**
The inflation forecasts used by Bulgaria for the Terminal ANS cost-efficiency KPI are consistent with the IMF April 2014 CPI forecast (same as for the en-route KPI assumptions).	
3. Terminal ANS DUC trend:	**Passed with reservations**
Bulgaria Terminal ANS DUC trend (-4.8%) is much better than the SES aggregated Terminal ANS DUC trend (-2.2%) over the period 2015-2019. To note that the terminal ANS DCs are planned to decrease by -1.0% p.a. in real terms which is less than Bulgaria en-route DCs trend (-1.7% p.a.) over 2015-2019. Overall, the "gate-to-gate" ANS DC trend (-1.7%) is worse than the Union-wide target trend (-2.3%).	
4. Terminal cost of capital:	**Not passed**
The WACC rate (also the RoE applied) for Terminal ANS is 7% and is identical to the one used for en-route ANS cost-efficiency KPI. The same conclusions as for en-route apply.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The same conclusions as for en-route apply.	
6. Costs exempt from risk sharing:	**Passed**
The same conclusions as for en-route apply.	

Assessment: overall consistency of Bulgaria terminal ANS cost-efficiency KPI

Taking into account the above key points, Bulgaria's terminal ANS cost-efficiency target is assessed as not being consistent with Annex IV of the performance regulation.

Therefore the PRB advises the Commission to issue a Recommendation to the DANUBE FAB to adopt a revised Performance Plan, and specifically for Bulgaria to revise its terminal ANS cost-efficiency KPI, including to:

a) **Revise its RP2 TNSU forecasts in the light of the agreement with airspace users;**

b) **Revise downward its terminal DCs over RP2, in particular in the light of the common costs being reduced and impacting both the en-route and terminal (e.g. better control of operating costs and reduced actual depreciation costs);**

c) **Revise downward its terminal RoE/cost of capital in line with the revenue risk actually faced by Bulgaria;**

d) **Provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and Guidance.**

5.4 Romania: Setting the scene for the RP2 cost-efficiency assessment

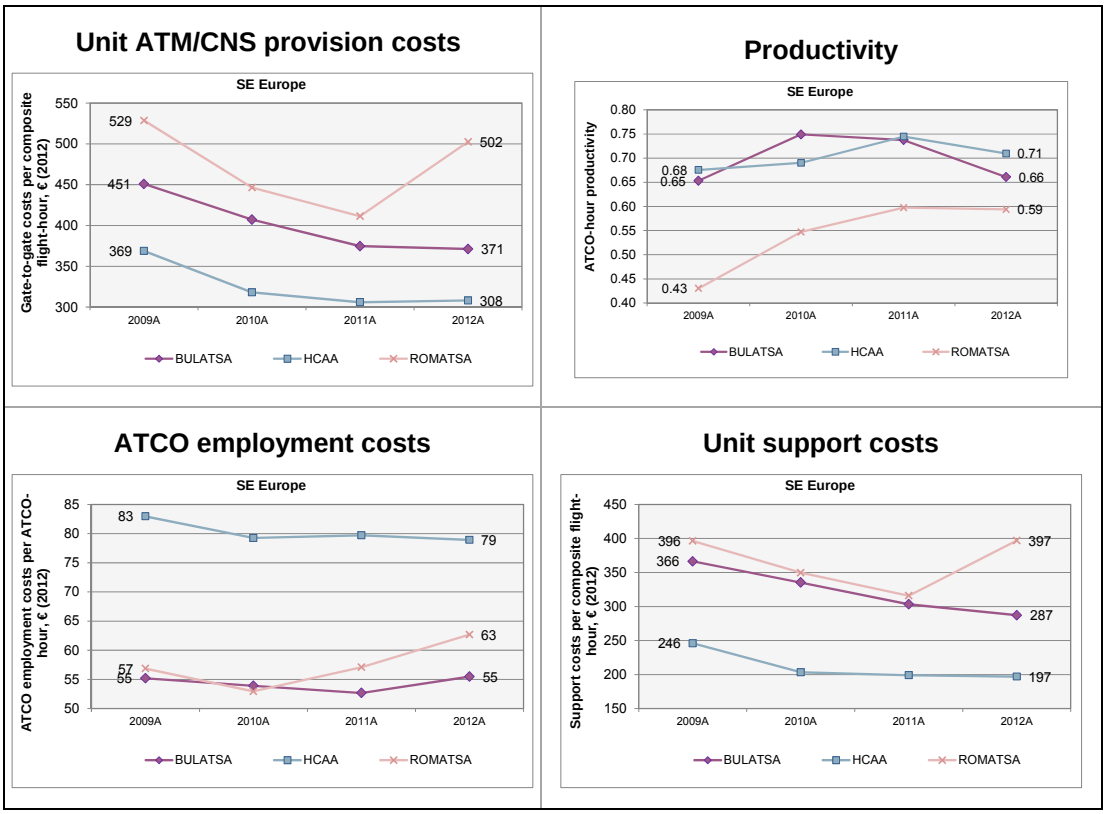
5.4.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate-to-gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of Romania's main ATSP, the Romanian Air Traffic Services Administration (ROMATSA), which represented some 165 M€$_{2012}$ of ATM/CNS costs in 2012 (some 2.3% of the total gate-to-gate SES ATM/CNS costs).

5.4.2 In the context of the ACE benchmarking analysis, an ATSP's performance is often compared to other European ATSPs operating in a similar economic and operational environment (so called "comparators or peer group"). ROMATSA is part of the "South Eastern Europe" ATSPs comparator group, also including HCAA (Greece) and BULATSA (Bulgaria).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- ROMATSA's productivity (0.59) is -14% lower than the comparator group average (0.69) and the lowest in the group;
- ATCO employment costs (63 €$_{2012}$) are -7% lower than the comparator group average (67 €$_{2012}$); and,
- Unit support costs (397 €$_{2012}$) are +64% higher than the comparator group average (242 €$_{2012}$) and the highest in the group.

5.4.4 Overall, ROMATSA's unit ATM/CNS provision costs (502 €$_{2012}$) were +48% higher than the comparator group average in 2012 (340 €$_{2012}$) and the highest in the group.



5.4.5 The PRB 2013 monitoring analysis indicates that ROMATSA's actual en-route costs for 2013 were in line with what was planned. This was not sufficient to compensate for the impact of the slightly lower traffic than planned (-1.3%) on ROMATSA's revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, ROMATSA generated a net loss

of -1.6 M€$_{2009}$ in 2013 on the en-route activity which is significantly lower than the loss on the en-route activity achieved in 2012 (-15.6 M€$_{2009}$). However, when estimating ROMATSA's economic surplus, it is important to also account for the profit embedded in the cost of capital through the return on equity (some 9.6 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounted to 8.0 M€$_{2009}$, which implied an ex-post rate of return on equity of 6.7% or an equivalent of 6.7% of en-route revenues.

5.4.6 In 2012, the estimated economic surplus generated by ROMATSA for the en-route activity amounted to -5.3 M€$_{2009}$, which implied an ex-post rate of return on equity of -4.2% or an equivalent of -4.5% of its en-route revenues.

5.4.7 Therefore during the first two years of RP1, ROMATSA managed to generate an aggregated estimated economic surplus of some 2.7 M€$_{2009}$, in a context of decreasing traffic (TSU) and related revenues.

5.4.8 It should be noted that in both years 2012 and 2013, ROMATSA reported an increase in the ""provisions for employee benefits" as exceptional costs. This increase represented +19.4 M€$_{2009}$ in 2012 and +2.7 M€$_{2009}$ in 2013. If we exclude these exceptional costs:

- In 2012, the estimated economic surplus generated by ROMATSA for the en-route activity would have amounted to +14.1 M€$_{2009,}$ which would have implied an ex-post rate of return on equity of 11% or an equivalent of 11.9% of its en-route revenues.
- In 2013, the estimated economic surplus generated by ROMATSA for the en-route activity would have amounted to +10.7 M€$_{2009,}$ which would have implied an ex-post rate of return on equity of 8.9% or an equivalent of 8.9% of its en-route revenues.

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	119 685	121 811
Actual costs for the ATSP	134 087	121 835
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-14 403	-24
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**-14 403**	**-24**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-1.02%	-1.33%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-1 168**	**-1 547**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	-15 571	-1 572

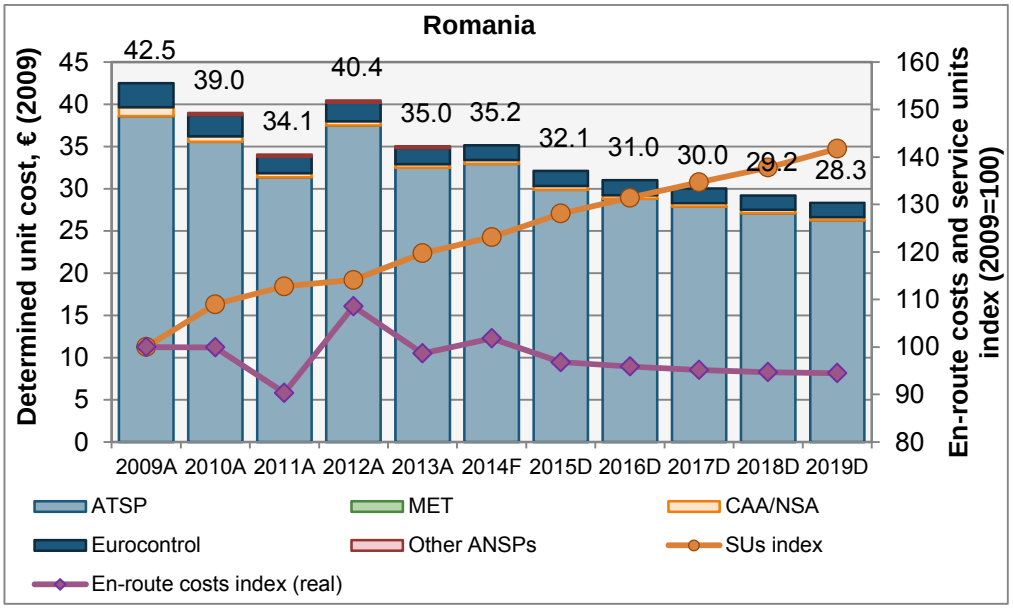
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	10 237	9 591
Overall estimated surplus (+/-) for the en-route activity	-5 334	8 020
Revenue/costs for the en-route activity	118 517	120 264
Estimated surplus (+/-) in percent of en-route revenue/costs	**-4.5%**	**6.7%**
Estimated ex-post RoE pre-taxe rate (in %)	**-4.2%**	**6.7%**

Table 14: ROMATSA estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.5 Romania: Overview of en-route cost-efficiency KPI assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	38.59	35.55	31.35	37.50	32.48	32.94	29.87	28.81	27.86	27.08	26.24	-2.2%	-4.4%
MET	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
CAA/NSA	EUR (2009)	1.08	0.67	0.49	0.48	0.45	0.46	0.44	0.43	0.42	0.41	0.39	-2.8%	-3.1%
Eurocontrol	EUR (2009)	2.84	2.49	1.95	2.21	1.86	1.75	1.81	1.79	1.76	1.73	1.69	-1.8%	-0.7%
Other ANSPs	EUR (2009)	-	0.28	0.26	0.25	0.23	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**42.51**	**38.99**	**34.06**	**40.44**	**35.02**	**35.16**	**32.13**	**31.03**	**30.04**	**29.21**	**28.33**	**-2.3%**	**-4.2%**

Figure 10: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	RON m (nom)	563.7	597.8	571.7	710.3	666.2	707.0	692.7	707.0	721.1	737.6	755.8
Inflation rate	annual % change		6.1%	5.8%	3.4%	3.2%	2.8%	3.1%	3.0%	2.8%	2.8%	2.7%
Inflation index	2009=100	100.0	106.1	112.3	116.1	119.8	123.1	126.9	130.7	134.4	138.2	141.9
Determined costs	RON m (2009)	563.7	563.5	509.3	612.0	556.2	574.1	545.7	540.7	536.5	533.8	532.6
Service units	'000s	3 133	3 414	3 533	3 575	3 752	3 858	4 013	4 117	4 219	4 317	4 442
Determined unit cost	RON (2009)	179.94	165.03	144.16	171.17	148.25	148.82	135.99	131.34	127.16	123.66	119.91
Exchange rate	RON:EUR	4.23										
Determined unit cost	EUR (2009)	42.51	38.99	34.06	40.44	35.02	35.16	32.13	31.03	30.04	29.21	28.33

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	RON m (nom)	3.0%	3.6%	1.3%	2.2%
Inflation	CAGR %	3.6%	3.0%	2.9%	2.8%
Determined costs	RON m (2009)	-0.6%	0.6%	-1.5%	-0.6%
Service units	'000s	3.6%	2.9%	2.9%	2.6%
Determined unit cost	RON (2009)	-4.0%	-2.3%	-4.2%	-3.1%
Exchange rate					
Determined unit cost	EUR (2009)	-4.0%	-2.3%	-4.2%	-3.1%

Table 15: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	NO

Partial update of 2014 forecasts data:

- Romania provided an updated 2014 TSU estimate (-3.7% vs. 2014 TSU in RP1 Performance Plan) but did not update its 2014 costs forecast (vs. RP1 NPP). This issue significantly affects the Determined Unit Costs (DUC) trends when computed over the 2014-2019 period. For the purposes of en-route DUC trend assessments, more attention will therefore be given to the 2009-2019, 2011-2019 and 2015-2019 periods.
- The downwards revision of the 2014 TSU does not tally with the latest actual traffic data for the first 8 months of 2014, since Romania records some 8.4% actual en-route TSU growth vs. 2013 (or +1.5% above the 2014 determined TSU forecasted in their RP1 Performance Plan).
- Moreover, the data suggests that so far the impact on Romania en-route TSU from the changes in use of Ukraine's airspace since April 2014 does not seem to be as significant as the impact on Bulgaria's en-route TSU growth (the latter +30% over April-June 2014).

Key points for Romania en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

Romania has selected a TSU forecast fully in line with the STATFOR February 2014 Low TSU growth scenario for all years 2014-2019. Therefore the 2014 revised TSU forecast is +2.8% vs 2013 actual, whereas Romania records + 8.4% actual 2014 TSU growth to date (situation after 8 months).

The PRB notes that Romania and its DANUBE FAB partner together with the airspace users agreed that the situation in Ukraine (Crimea peninsula and Simferopol FIR) leads to major changes in traffic flows affecting both DANUBE FAB partners in particular. They agreed and will propose to the PRB/ Commission to monitor the traffic, reconsider the traffic forecast and review the situation towards October/November 2014.

2. Economic assumptions:	**Passed**

The inflation forecasts used by Romania are aligned with the IMF April 2014 forecast for RP2.

3. En-route DUC trend:	**Passed with reservations**

Since 2014 costs forecast were not revised and 2014 TSU forecasts were revised downwards (despite +6.7% TSU growth to-date), the trend analysis mainly focuses on RP1 plus RP2 (2011-2019) and 2009-2019, rather than the 2014-2019 period.

Over RP1 and RP2 period, Romania plans a better en-route DUC trend (- 2.3% p.a.) than the Union-wide target trend (-1.7% p.a.). On the other hand, the DCs trend for Romania (+0.6% p.a.) is significantly worse than the DCs trend underpinning the Union-wide DUC

targets trend (-0.8% p.a.).

Similarly over the 10-years cycle 2009-2019, Romania also shows a better en-route DUC trend (-4.0% p.a.) than the Union-wide DUC target trend (-2.5% p.a.), with costs planned to decrease by -0.6% p.a. in a context of an average TSU increase of +3.6% p.a.

However, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within ROMATSA or with its FAB partner (BULATSA), or with other ATSPs. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have led to adjustments on the RP2 DCs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

4. En-route DUC level:	**Passed**

In 2019, Romania's en-route DUC (28.33 €$_{2009}$) is planned to be -6.8% lower than the peer group average (30.38 €$_{2009}$), the two other comparators being close to Romania in terms of DUC levels - Greece (31.51 €$_{2009}$) and Bulgaria (29.25 €$_{2009}$), and significantly lower than the Union-wide aggregated DUC (51.26 €$_{2009}$).

It is noted that Romania en-route DUC profile is always lower than its peer group and decreasing over 2015-2019. However, if adjusted to account for exchange rates and cost of living (PPPs), Romania's en-route DUC in 2019 would be much higher than the peer group average.

5. En-route cost of capital:	**Not passed**

The Weighted Average Cost of Capital (WACC) rate is within the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values. For Romania the WACC and the return on equity (RoE) are the same as ROMATSA has no debt and this influence greatly the CAPM calculations.

In addition, over the whole of RP2 the PRB calculates that the monetary value of the RoE (45 M€$_{2009}$) is some +74% higher than the total en-route revenue risk exposure (26 M€$_{2009}$). Furthermore, the downside traffic risk is minimized since the STATFOR Low traffic forecast is considered for the en-route cost-efficiency DUR KPI.

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

The assumptions, description and justification of pension costs and description of national pension regulations are not consistent with the FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.

7. Costs exempt from risk sharing:	**Passed**

The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2.

Overall consistency assessment of Romania en-route cost-efficiency KPI

Taking into account the above key points, in particular 1, 3, and 5, Romania en-route cost-efficiency target is assessed as not being consistent with and not making an adequate contribution to the Union-wide cost-efficiency target over RP2.

Therefore the PRB advises the Commission to recommend DANUBE FAB to revise their Performance Plan, and specifically for Romania to revise its en-route cost-efficiency target, including to:

a) Revise its RP2 TSU forecasts in the light of latest information available and in line with their request to the Commission and agreement with airspace users;

b) Revise downwards its DCs over RP2, in particular in respect of depreciation costs (to ensure that airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1) and cost of capital (to ensure that it better reflects the revenue risk actually faced by Romania);

c) Provide information on the underlying pension costs assumptions, in line with the requirements of the FAB Performance Plan template.

5.6 Romania: Overview of terminal ANS cost-efficiency KPI assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview of Romania's Terminal ANS Charging zone (TCZ):

- Romania has declared one single terminal charging zone (TCZ): "Romania Terminal Bucharest Airports".
- The harmonised SES formula for the TNSU (MTOW/50)^0.7 already applies to the Romanian TCZ.
- The scope of the TCZ remains identical in RP2 with the same 2 airports as in 2013-2014 (Bucharest Henri Coandă International and with effect from 2013 Bucharest Aurel Vlaicu International Airport). No further changes between 2014 and 2015.
- The share of traffic covered is close to 70% of TNSU in Romania.
- Romania decided not to apply the traffic risk sharing to its TCZ/KPI, in line with Art.13 (6) of the charging Regulation.

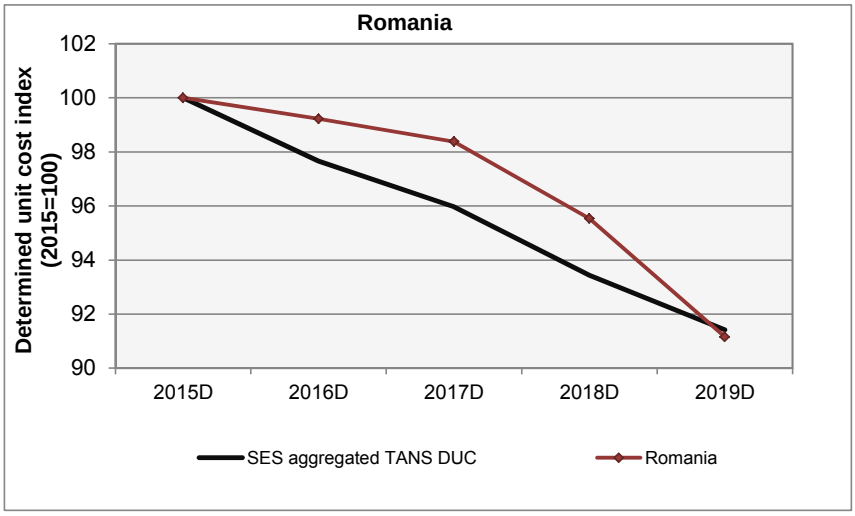


Figure 11: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	RON m (nom)	57.8	61.6	65.4	68.0	69.7	4.8%
Inflation rate *	annual % change	3.1%	3.0%	2.8%	2.8%	2.7%	2.8%
Inflation index *	2009=100	126.9	130.7	134.4	138.2	141.9	
Determined costs	RON m (2009)	45.5	47.1	48.7	49.2	49.1	1.9%
Terminal SUs	'000s	50.7	52.8	55.1	57.3	59.9	4.3%
Determined unit cost	RON (2009)	898.72	891.71	884.14	858.60	819.28	-2.3%
Exchange rate	RON:EUR (2009)	4.23					
Determined unit cost	EUR (2009)	212.31	210.66	208.87	202.83	193.54	-2.3%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 16: Terminal DUC breakdown

Key points for Romania terminal ANS KPI assessment	
1. Traffic forecast assumptions:	**Passed**
The TNSU forecast for the Romania TCZ is very close to the STATFOR base case forecasts published in February 2014 for RP2.	
2. Economic assumptions:	**Passed**
The inflation forecasts used by Romania for the Terminal ANS cost-efficiency KPI are consistent with the IMF April 2014 CPI forecast (same as for the en-route KPI assumptions).	
3. Terminal ANS DUC trend:	**Passed with reservations**
Over 2015-2019, Romania's Terminal ANS DUC trend (-2.3% p.a.) is in line with the SES aggregated Terminal ANS DUC trend (-2.2% p.a.). However, Romania terminal ANS DCs are planned to increase by +1.9% p.a. in real terms over 2015-2019, which is much worse than Romania en-route DCs trend (-0.6% p.a.) over 2015-2019. Moreover, the PRB notes that the level of 2015 DCs is +8.8% higher than the actual 2013 costs (with same airports scope). This contrasts with en-route where 2015 DCs are -3.6% lower than 2013 actuals.	
4. Terminal cost of capital:	**Not passed**
The WACC/RoE rate (ROMATSA has no debt) applied for its TCZ ranges from 6.8% (in 2015) to 7.5% (in 2019) and is on average +0.5 p.p higher than the WACC/RoE rate used for en-route ANS cost efficiency KPI. However Romania decided not to apply the traffic risk sharing incentives to its TCZ, which, everything else being equal, should lead to the ATSP facing less risk.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route – same conclusions apply.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route – same conclusions apply.	

Overall consistency assessment of Romania terminal ANS cost-efficiency KPI

Taking into account these key points, Romania's terminal ANS cost-efficiency target is assessed as <u>not</u> being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to issue a Recommendation to the DANUBE FAB to adopt a revised Performance Plan, and specifically for Romania to revise its terminal ANS cost-efficiency KPI, including to:

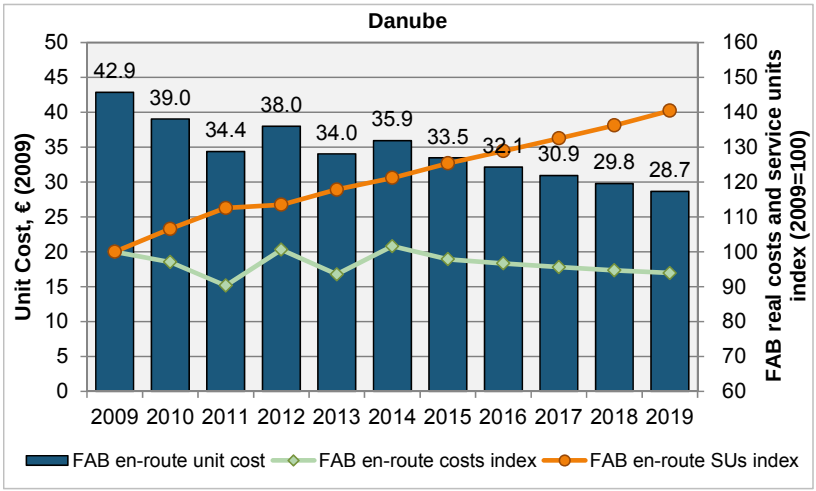
a) **Revise its terminal DUC trend, and specifically reducing its DCs over RP2, in particular in the light of the level observed in 2013;**

b) **Revise downward their en-route RoE/cost of capital in line with the revenue risk actually faced by Romania;**

c) **Provide the description/justification of economic assumptions on pensions in particular.**

5.7 DANUBE FAB: Overview of FAB en-route trend

Overview of DANUBE FAB aggregated en-route unit cost trend



Key figures: Danube		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	211.4	205.1	190.9	212.6	197.7	214.7	206.9	204.4	202.0	200.1	198.5
FAB en-route service units	'000s	4 931	5 254	5 551	5 595	5 810	5 976	6 181	6 357	6 535	6 717	6 926
FAB en-route unit cost	EUR (2009)	42.86	39.04	34.38	38.00	34.03	35.93	33.47	32.15	30.91	29.79	28.66

Key figures: Danube CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	-0.6%	0.5%	-1.6%	-1.0%
FAB en-route service units	'000s	3.5%	2.8%	3.0%	2.9%
FAB en-route unit cost	EUR (2009)	-3.9%	-2.2%	-4.4%	-3.8%

Figure 12: FAB en-route unit cost trend overview

Key points for the DANUBE FAB en-route unit cost trend

<u>Note</u>: the following comments on the aggregated FAB en-route trend should not be seen as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level (en-route and terminal) and for RP2 there are no FAB with a common charging zone and a single unit rate.

Within the DANUBE FAB, Romania represents 63% of the total FAB en-route costs and Bulgaria 37%. The trend of the en-route unit costs aggregated at FAB level is therefore considerably impacted by Romania's contribution.

In 2013 the total FAB en-route costs (some 197.7 M€$_{2009}$) represented some 3.3% of the total SES en-route costs and by 2019, these are planned to be 198.5 M€$_{2009}$ (3.2% of the total SES costs).

The en-route unit cost trend for the DANUBE FAB over 2011-2019 is (-2.2%) which is slightly better than the Union-wide en-route DUC target trend (-1.7%).

Over 2014-2019, the aggregated en-route unit cost trend computed for the DANUBE FAB (-4.4%) is better than the Union-wide target trend (-3.3%) although the 2014 cost and traffic data were not revised in line with actual 2012-2013 and recent TSU in 2014 and therefore this affects the analysis.

Nevertheless, the PRB notes that in 2019 the planned en-route unit cost (28.66 €$_{2009}$) is much lower (-44.1%) than the Union-wide aggregated en-route DUC (51.26 €$_{2009}$).

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

BULGARIA

6.1.1 The information provided in the RP2 Performance Plan investment section is limited. Bulgaria indicates eight CAPEX projects in the RP2 Performance Plan, however there are very little details and description of those projects, which makes it very difficult to make a depth and complete assessment.

6.1.2 Links with the Master Planare provided. Three Projects were considered as being linked with PCP ("New ATM system", "SATCAS upgrade" and "Communication infrastructure for A/G Data Link Services"). However, PCP needs/activities do not seem to have been fully considered when developing the investment plan. The project which refers to the ATM system will comply with elements of AF1, AF3, AF4 and AF6. The other two are just enablers for AF6. It is worth noting that Sofia airport does not pertain to the list of 25 airports targeted for the implementation of AF1.

ROMANIA

6.1.3 There are eleven CAPEX projects described in the Performance Plan. The description of the projects is limited but the titles are meaningful.

6.1.4 The links with the Master Plan are provided. References to PCP are provided but only two projects are identified as having links with PCP (ATM System Steps 1 and 2 respectively are indicated just as enablers for AF3, AF5 and AF6 but they are not aimed at implementing them). All the other projects are related to NAVAIDS, RADAR, ADS-B and VCSS systems that are not included in the scope of PCP. Therefore, the PCP needs/activities do not seem to have been fully considered when developing the investment plan.

6.2 FAB and/or Regional dimension

6.2.1 One project – VCS (Voice Communication System) – is a joint investment of the two DANUBE FAB partners (the same project but with different locations and time frames).

6.2.2 Some other projects were indicated as promoting synergies at FAB or interoperability level. This is the case of "New ATM system" and "Communication Infrastructure for A/G Data Link Services" for BULATSA and "ATM System ROMATSA 2015+ (Step 1 and 2)", "Improvement of surveillance services using ADS-B solutions" and "MSSR Mode-S radar" for ROMATSA.

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 As shown in the table below, the planned investment average per year for RP2 is foreseen to be 10% higher than the average for the previous five years (updated for 2010-14[5]) (27.7M$_{€2009}$ RP2 planned annual average vs. 25.2M$_{€2009}$ updated annual average for 2010-14).

DANUBE FAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	53.0	30.8	18.9	14.0	21.6	138.4	27.7

Table 17: RP2 DANUBE FAB CAPEX

DANUBE FAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	24.2	43.9	47.4	51.1	35.8	202.4	40.5
Total Updated Planned	11.5	19.0	16.4	13.0	66.1	126.0	25.2
U-P (M€2009, real terms)	-12.7	-24.9	-31.0	-38.1	30.3	-76.4	-15.3
U/P (%)	-52.4%	-56.8%	-65.3%	-74.5%	84.6%	-37.7%	-37.7%

Table 18: 2010-14 DANUBE FAB CAPEX

6.3.2 This FAB level assessment does not reflect different situations at national level, as described below:

BULGARIA ANSP

6.3.3 Bulgaria's ANSP investments are planned to be on average 2% higher in RP2 than for the period 2010-14 (8.7 M€$_{2009}$ RP2 yearly average vs. €8.6 M€$_{2009}$ updated average over the past five years).

6.3.4 The planned total CAPEX will significantly fluctuate over RP2, reaching higher levels for the marginal years (2015 and 2019) and significantly lower levels for mid-years (2016 to 2018). It is noted that a sharp decline was recorded (-58.7%) for 2010-2013 actual spent amounts, but in 2014 updated planned CAPEX is foreseen to rise by 253% (Source: 2013 Bulgaria Monitoring Report).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	**Planned**	18.7	9.9	2.4	2.4	10.3	43.7	8.7
MAIN	**Planned**	15.5	7.4	0.0	0.0	7.9	30.8	6.2
MAIN versus TOTAL		82.5%	74.8%	0.0%	0.0%	77.4%	70.5%	70.5%

Table 19: RP2 Bulgaria ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	2.3	15.6	23.3	16.8	7.2	65.2	13.0
	Updated Plan	1.9	4.0	7.5	4.2	25.3	42.8	8.6
	U-P (M€2009, real terms)	-0.4	-11.6	-15.9	-12.6	18.1	-22.4	-4.5
	U/P (%)	-17.1%	-74.5%	-68.0%	-75.0%	253.1%	-34.4%	3.7%
MAIN	Planned	2.2	10.6	22.0	15.1	5.9	55.7	11.1
	Updated Plan	0.5	2.4	6.4	2.9	19.5	31.7	6.3
	U-P (M€2009, real terms)	-1.7	-8.1	-15.6	-12.2	13.6	-24.0	-4.8
	U/P (%)	-76.5%	-76.9%	-70.9%	-80.9%	232.1%	-43.0%	-14.6%
MAIN versus TOTAL (Planned)		95.6%	95.6%	67.9%	94.2%	89.6%	82.1%	85.4%
MAIN versus TOTAL (Updated Plan)		27.0%	27.0%	61.5%	85.7%	68.4%	77.3%	74.2%

Table 20: 2010-14 Bulgaria ANSP CAPEX (Actual vs. Planned)

6.3.5 Very few main investment projects planned for RP2 are in continuation to the ones from RP1 (e.g. SATCAS upgrade and WAM/ADS-B). It is also noted that for two years, 2017 and 2018, BULATSA has foreseen "other" (not detailed) CAPEX (2.4 M€$_{2009}$p.a.) and "main" CAPEX are null.

6.3.6 The most important main projects refer to a "New ATM system (incl. en-route-AMAN)" planned for 7.9M€$_{2009}$ in 2019 and "New PSR and SSRs (en-route and TMA)" planned for 12.3M€$_{2009}$ over the first two years of RP2. The first one is not in continuation of RP1, but for the second project BULATSA has planned 9.2M€$_{2009}$ over 2010-14 and has not spent any amount; therefore this project could be considered a catch-up from the previous timeframe.

6.3.7 Main projects planned for RP2 are foreseen to be commissioned starting with 2015 but depreciation seems to be relatively constant.

6.3.8 On the other hand, important savings were achieved in 2010-14 due to 33% lower costs for A-SMGCS or to delays recorded for other projects (procurement of investments related to surveillance service provision). It is noted that these savings have generated a significant decrease (-11%) into the depreciation costs over 2010-14, whilst for 2014, using the updated plan depreciation costs submitted with the corrigendum, are foreseen to increase by 58%. Cost of capital was also partly affected by the decrease in CAPEX for 2010-13 (-8.9%, the average decrease actual vs. plan).

6.3.9 Bulgaria has mentioned during the consultation with stakeholders that the excess in depreciation costs was included in the charges during RP1 and that they will be returned to the airlines "*at the appropriate time in RP2*."[6]

ROMANIA ANSP

6.3.10 Romania's ANSP investments are planned to be on average 14% higher in RP2 than for the period 2010-14 (18.9 M€$_{2009}$ RP2 yearly average vs. 16.6 M€$_{2009}$, updated average over the past five years).

6.3.11 A peak in CAPEX is noted for 2015 (34.3 M€$_{2009}$) and 2016 (20.9 M€$_{2009}$). During the consultation with stakeholders it was explained that "*ROMATSA is trying to catch up which projects that have been delayed*" and "*peaks are sometimes required to*

ensure meeting the targets in the KPAs and to different replacement cycles of equipment and technologies"[7].

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	34.3	20.9	16.5	11.7	11.3	94.7	18.9
MAIN	Planned	23.2	7.4	7.8	3.0	0.0	41.4	8.3
MAIN versus TOTAL		67.6%	35.3%	47.5%	25.8%	0.0%	43.7%	43.7%

Table 21: RP2 Romania ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	21.9	28.3	24.1	34.3	28.6	137.2	27.4
	Updated Plan	9.6	15.0	9.0	8.8	40.8	83.2	16.6
	U-P (M€2009, real terms)	-12.3	-13.3	-15.1	-25.5	12.2	-54.0	-10.8
	U/P (%)	-56.1%	-47.0%	-62.8%	-74.3%	42.6%	-39.3%	-39.5%
MAIN	Planned	20.4	26.8	21.4	32.6	25.8	127.1	25.4
	Updated Plan	5.4	14.1	2.4	4.1	19.2	45.3	9.1
	U-P (M€2009, real terms)	-15.0	-12.7	-18.9	-28.5	-6.7	-81.8	-16.4
	U/P (%)	-73.5%	-47.3%	-88.5%	-87.4%	-25.8%	-64.4%	-64.5%
MAIN versus TOTAL (Planned)		93.3%	94.9%	88.5%	95.2%	90.3%	92.6%	92.4%
MAIN versus TOTAL (Updated Plan)		56.3%	94.3%	27.3%	46.8%	47.0%	54.4%	54.3%

Table 22: 2010-14 Romania ANSP CAPEX (Actual vs. Planned)

6.3.12 The percentage of main versus total investments is lower for each year in RP2 than it was for the previous five years (43.7% on average in RP2 vs. 54.3% updated average for 2010-14).

6.3.13 "ATM System ROMATSA 2015+ (Step 1)" Romania's main project for RP2 is linked to RP1. It was planned for 64.2 M€$_{2009}$ over 2010-14 and foreseen for 14.2M€$_{2009}$ over RP2. It is noted that only 21 M€$_{2009}$ are expected to be spent for this project over RP1, so it could be considered a catch-up from RP1.

6.3.14 Another main project, "MSSR Mode-S radar" (4.9 M€$_{2009}$ planned over RP2), is foreseen to be a joint project being part of "DANUBE FAB Strategic and Harmonisation Plan for CNS Assets" (2013-2017 and beyond). This project is linked to the previous five years list of investments (5.1 M€$_{2009}$ planned over 2010-14, 200k€$_{2009}$ spent), so it could be considered a catch-up effect.

6.3.15 The decline in CAPEX has impacted depreciation which has decreased significantly in 2012 (-32.1%) and 2013 (-10.9%)[8]. During the stakeholder consultation several questions with regard to the depreciation costs were raised (see details in section 6.5.1.).

6.3.16 During RP2 depreciation is planned to decrease by 3.5% on average over the period.

6.4 Total investments vs Total ANS costs

BULGARIA

6.4.1 For the RP2 timeframe, total CAPEX is foreseen to represent on average 10% of gate-to-gate costs with a peak in 2015 (reaching 20.7%). This is due to important planned amounts for "New PSR and SSRs" (4.9M€$_{2009}$), "Modernisation of the A/G radio communication equipment" (4.0M€$_{2009}$) and VOR-DME upgrade (3.3M€$_{2009}$) that will generate a significant increase in CAPEX (+51.9%) whilst gate-to-gate ANS costs are expected to decrease (-1.9%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	20.7%	11.2%	2.8%	2.8%	12.3%	10.0%

Table 23: % RP2 Bulgaria ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.2 For the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 10.6% (vs. 16.5% planned), due to +3.7% "CAPEX effect"[9] and -2.8% due to "Costs effect"[10]. (See item 6.3.4 and last bullet from item 6.5.1 referring to Bulgaria).

ROMANIA

6.4.3 Total CAPEX is foreseen to represent on average 12.6% of gate-to-gate costs in average over RP2, with a peak in 2015 (22.6%) due to important amounts planned for "ATM System ROMATSA 2015+ (Step 1)" (14.2M€$_{2009}$) and "MSSR Mode S radar" (4.9M€$_{2009}$). Both CAPEX and gate-to-gate ANS costs are expected to decrease (-23% for CAPEX and -0.5% for gate-to-gate costs).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	22.6%	13.9%	11.0%	7.8%	7.6%	12.6%

Table 24: % RP2 Romania ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 11.6% (vs. 21.4% planned), due to -39.5% "CAPEX effect"[9] and +10.6% due to "Costs effect"[10].

6.5 Ancillary assessments

Ancillary assessments	Bulgaria ANSP (BULATSA)	Romania ANSP (ROMATSA)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Very few main investment projects planned for RP2 are in continuation to the ones from RP1 (e.g. SATCAS upgrade and WAM/ADS-B). (See 6.3.5 and 6.3.6). There is some continuity and limited traceability of some projects coming from RP1 Performance Plan for a few projects (SATCAS upgrade, New PSR and SSR en-route and TMA, ADS-B and WAM, VOR and DME upgrades, modernisation of VHF air ground radio equipment).	"ATM System ROMATSA 2015+ (Step 1)", "MSSR Mode S radar" and "VCSS Systems Upgrade" projects are linked to RP1, seem to be a catch-up from the previous timeframe (see 6.3.13 and 6.3.14.).
Overview, impact and date of expected benefits per KPA	Most of the projects will impact and benefit starting with 2015. Only new ATM System will be commissioned beyond RP2 (i.e. in 2022). Several projects (i.e. new PSR and SSRs, new VCSS system are expected to benefit all the 4 KPAs (safety, environment, capacity and cost-efficiency).	For the most important main project "ATM System ROMATSA 2015+ (Step 1)" FDPS, RDPS and CWP/HMI are expected to be commissioned in 2016 and development of ADQ and CDM functionalities and preliminary functionalities for 4D Trajectory and SWIM are planned to be commissioned in 2019. Expected benefits are planned for these two projects for all 4 KPAs.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	No information on the decision making process or on the existence of a CBA for any of the main projects. Airspace users said "*we are concerned there is no actually planning behind these figures*".	Feasibility studies have been performed for all main projects. No information on the existence of a CBA. Romania has answered to the issues raised by IATA explaining the rationale behind each project, the existence of feasibility studies instead of CBAs for the decision making process and added that the lifecycle for the projects is set in accordance with Romanian legislation.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Investment plan not available	ROMATSA Investment plan is not consistent with the RP2 Performance Plan for all the projects or for the planning of amounts per year (e.g. for "ATM ROMATSA System 2015+" no amounts planned for 2016 to 2019 whilst €13.7M planned for RP2 Performance Plan).

Table 25: Ancillary assessments for the DANUBE FAB

6.5.1 Further to the consultation meeting at national and FAB level with IATA and AEA, the following conclusions related to investments were drawn:

FAB LEVEL

6.5.2 No Business case with CBA and NPV was provided;

6.5.3 No efforts are visible in rationalising navigation infrastructure across the FAB and there is no description of achieved or planned synergies;

6.5.4 The cost allocation assumptions and the reasoning behind the asset life assumed were questioned by stakeholders for several projects.

BULGARIA

6.5.5 The need for the CAPEX planned for the ATM System, the expected date of benefits (2022) and depreciation and the break-down into en-route and terminal was not agreed by stakeholders;

6.5.6 The "other" CAPEX looks significantly high and airspace users expressed concern.

ROMANIA

6.5.7 The ATM system replacement needs further clarifications and Step 2 seems to be 100% allocated to en-route activity.

6.5.8 *"The forecast for RP2 does not seem realistically taking into account the developments in RP1*." The main issue rose *"is the allowance for depreciation and cost of capital for projects that were planned but were not finalised in RP1. IATA would expect that these costs are returned to users in RP2."*

6.5.9 ROMATSA has explained that *"the contract with users is at the level of determined costs and not at the level of particular cost categories."* IATA suggested *"establishing such a mechanism for RP2 that would enable returning the funds to users, even if not in full, users should not pay twice for the same investment".*[11]

6.6 PCP prerequisites View

PCP	ESSIP	BULGARIA	ROMANIA
AF1	ATC15		2017
	ATC07.1		2015
	NAV03	2016	
AF2	AOP05		
	AOP04.1	2014	2014
	AOP04.2	2015	2014
AF3	AOM19	2015	2015
	AOM21		
	ATC12		
AF4	FCM04		
	FCM05	2014	2016
AF5	COM09	2014	2014
AF6	ITY-AGDL	2015	2015

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 26: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: The planned investment average per year for RP2 is foreseen to be 10% higher than the average for the previous five years (updated for 2010-14).

6.7.2 **FAB / Regional approach**: VCS system is claimed to bring synergies at FAB level.

6.7.3 **Consultation:** From the consultation with stakeholders: the total amount of

investments planned for RP2 seems not to be "*feasible*" based on the experience from RP1.

6.7.4 **Link with Master Plan:** Overall, the DANUBE FAB Member States have correctly linked their planned projects to the IOP IRs, Master Plan, NSP and/or PCP.

6.7.5 The investments of the DANUBE FAB Member States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation[4]. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

6.7.6 The DANUBE FAB Member States have shown some foresight of the requirements of the PCP prerequisites and enablers. However there is no clear reference to investments linked to PCP ATM functionalities. The ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period may therefore be at risk.

BULGARIA

6.7.7 Bulgaria's ANSP investments are planned to be on average 2% higher in RP2 than for the period 2010-14.

6.7.8 Very few main investment projects planned for RP2 are in continuation to the ones from RP1 (i.e. SATCAS upgrade and WAM/ADS-B). "New PSR and SSRs (en-route and TMA)", can be considered a catch-up from RP1 (details in 6.3.6 above).

6.7.9 Main projects planned for RP2 are foreseen to be commissioned starting with 2015 but depreciation seems to be relatively constant, whilst for 2010-14 it is expected to decrease in average over the period by 11%.

6.7.10 Total CAPEX is foreseen to represent on average 10% of gate-to-gate costs with a peak in 2015 (reaching 20.7%). A similar ratio of CAPEX into costs is expected for 2010-14 (10.9%).

ROMANIA

6.7.11 Romania's ANSP investments are planned to be on average 14% higher in RP2 than for the period 2010-14.

6.7.12 The planned total CAPEX will decrease on average by 23% during RP2, whilst for the past five years (2010-14[12]) it is foreseen to decrease by an annual average of 39% in total.

6.7.13 "ATM System ROMATSA 2015+ (Step 1)" Romania's main project is linked to RP1, and could be considered a catch-up from RP1.

6.7.14 During RP2 depreciation is planned to decrease by 3.5% on average over the period.

6.7.15 Total CAPEX is foreseen to represent 12.6% of gate-to-gate costs on average over RP2, whilst for the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 11.6%.

7 MONITORING PERFORMANCE PLANS

7.1.1 The FAB Performance Plan clearly describes which entities are responsible, at national and FAB levels, for the monitoring and reporting in “Section 7 - Implementation of the Performance Plan”.

7.1.2 No accurate description is made regarding the measures in place to monitor and report, with the exception of an additional comment on environment PIs from the Bulgarian NSA.

7.1.3 Similarly, no description could be found on how the situation would be addressed if targets were not met during the reference period.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 The DANUBE FAB Performance Plan contained information on how the FUA concept is applied within the FAB. Furthermore, it contains specific reference to improving sector capacities by reorganising the airspace, including the civil military airspace structures, and by improving the management of the airspace through the daily allocation of airspace by the AMC

8.2 Additional indicators

8.2.1 No additional civil military indicators were described in the FAB Performance Plan.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the DANUBE FAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the DANUBE FAB Performance Plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 The DANUBE FAB targets for en-route capacity are not consistent with the respective FAB reference values for each year in RP2.

9.1.4 The PRB is of the opinion that the DANUBE FAB is in a position to adopt a more stringent capacity target, as a minimum the FAB reference values, and thus provide a positive contribution to network capacity performance. The PRB has formed this view after considering the ANSP capacity plans, historical performance and expected traffic development.

COST EFFICIENCY

9.1.5 The cost-efficiency targets for the en-route charging zones of Bulgaria and Romania are assessed as not being consistent with and not adequately contributing to the achievement of the en-route Union-wide target.

9.1.6 The cost-efficiency targets for the terminal charging zones of Bulgaria and Romania are assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the DANUBE FAB in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The DANUBE FAB should revise the en-route capacity FAB targets to be consistent with the FAB reference values from the Network Operations Plan of the Network Manager (2014-2018/2019).

RECOMMENDATIONS FOR THE COST-EFFICIENCY KPA

9.2.2 Bulgaria should:

- revise downwards the en-route determined costs planned for RP2, in the light of the level of determined costs observed in 2013;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise downwards the terminal ANS determined costs planned for RP2.
- revise the TNSU forecast in the light of the latest available information.

9.2.3 Romania should:

- revise downwards the en-route determined costs planned over RP2, in the light of the level of determined costs observed in 2013;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise downwards the terminal ANS determined costs planned for RP2;
- revise the TNSU forecast in the light of the latest available information.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The DANUBE FAB should provide the list of airports that are exempted from the provisions of the performance and charging Regulations.

9.3.2 The DANUBE FAB should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, in particular:

- The DANUBE FAB should provide the list of invited stakeholders and the list of actual participants to all its consultation meetings.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.3.3 The DANUBE FAB should revise the RAT methodology application target for ATM-S, as the values for ATM Ground and ATM Overall scores should be the same.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.4 The DANUBE FAB should ensure that the individual ANSP contributions for en-route capacity, in particular BULATSA, are revised so that, when aggregated, they are consistent with the required level of performance, as determined by the DANUBE FAB reference values from the Network Operations Plan (2014-2018/2019).

9.3.5 The DANUBE FAB should revise its incentive scheme for en-route capacity in accordance with Article 12 of the performance Regulation and Article 15 of the charging Regulation. In particular the following items should be addressed:

- The incentive schemes are not linked to FAB performance;
- The aggregated targets are not consistent with the FAB reference values and therefore do not meet a high level of performance;
- By simply meeting the effort required to be consistent with the reference value, BULATSA would already be paid 2/3 of the possible bonus pool;
- The exclusion of certain delay classifications from the calculation of the incentive, combined with the absence of an independent verification mechanism to ensure that delay classification, as determined by the ANSP, reflects the actual cause of the regulation raises the possibility of errors or gaming.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.6 Bulgaria should:

- complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance (for both en-route and terminal).

9.3.7 Romania should:

- complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance (for both en-route and terminal).

9.3.8 The DANUBE FAB should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.4.1 The DANUBE FAB should provide a detailed description of the measures put in

place to monitor and report on the implementation of the performance plan, including how the situation would be addressed if targets are not reached during the reference period.

9.4.2 The DANUBE FAB should clarify which traffic forecast was used by Romania in the preparation of the performance plan, and establish a clear distinction between traffic and Service Unit forecasts.

OBSERVATIONS FOR THE SAFETY KPA

9.4.3 The DANUBE FAB should closely monitor improvements and progress in ATM Overall severity classification.

9.4.4 The DANUBE FAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE INVESTMENTS

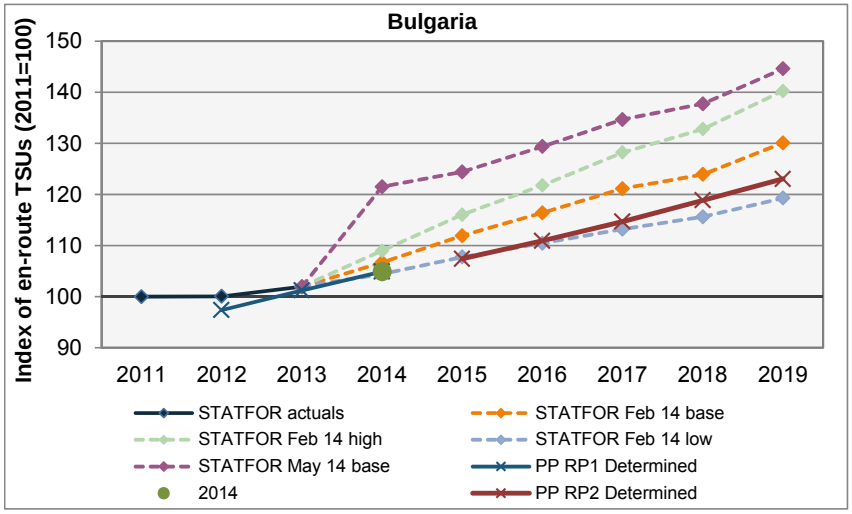
9.4.5 Bulgaria and Romania should describe and/or justify the cost, nature and contribution of the CAPEX investments in a more detailed, less generic way, allowing proper understanding of the importance and need for such investments.

9.4.6 Bulgaria and Romania should update the field “Common Project” with adequate reference to the proper PCP ATM functionalities.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Bulgaria: en-route KPI Assessment

Traffic forecast assumptions (TSU)



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		1 966	2 044	2 118							
Actuals, 2014, PP RP2 Determined	2 019	2 020	2 058	2 118	**2 168**	**2 240**	**2 316**	**2 400**	**2 484**	**2.6%**	**3.5%**
STATFOR Feb 14 base				**2 154**	**2 260**	**2 350**	**2 446**	**2 502**	**2 626**	**3.3%**	**3.8%**
STATFOR Feb 14 high				2 200	2 343	2 459	2 589	2 681	2 832	4.3%	4.9%
STATFOR Feb 14 low				2 108	2 176	2 230	2 286	2 334	2 408	2.2%	2.6%
STATFOR May 14 base				2 454	2 512	2 612	2 719	2 781	2 919	4.7%	3.8%
PP RP2 vs STATFOR Feb 14 base (%)					-4.0%	-4.7%	-5.3%	-4.1%	-5.4%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Charge area :	LB

Month		2014 Actual	2014 Unit Rate Basis	2013 Actual	2012 Actual	% 2014 A / 2014 F	% 2014 A / 2013 A	% 2013 A / 2012 A
		(1)	(2)	(3)	(4)	(1)/(2)	(1)/(3)	(3)/(4)
1	January	**128 142**	*125 407*	121 853	124 632	2.2%	5.2%	-2.2%
2	February	**119 845**	*116 450*	113 150	115 618	2.9%	5.9%	-2.1%
3	March	**143 438**	*139 544*	135 590	133 747	2.8%	5.8%	1.4%
4	April	**209 464**	*157 830*	153 358	153 016	32.7%	36.6%	0.2%
5	May	**249 977**	*192 555*	187 098	178 495	29.8%	33.6%	4.8%
6	June	**273 312**	*217 476*	211 314	206 022	25.7%	29.3%	2.6%
7	July	**307 769**	*232 614*	226 022	226 245	32.3%	36.2%	-0.1%
8	August	**326 551**	*235 158*	228 495	222 045	38.9%	42.9%	2.9%
9	September		*214 588*	208 507	205 515			1.5%
10	October		*202 062*	196 336	185 170			6.0%
11	November		*147 859*	143 669	135 909			5.7%
12	December		*136 454*	132 587	133 735			-0.9%
TOTAL		**1 758 499**	***2 117 995***	2 057 979	2 020 149	**24.1%**	**27.7%**	1.9%

Figure 13: En-route TSU forecasts

Comments:

Bulgaria has selected a TSU forecast close to, but not fully in line with, the STATFOR Feb. 2014 Low TSU growth scenario for all years 2015-2019. In addition Bulgaria did not update

its 2014 TSU forecast, although it now records close to +27.7% actual growth to date vs. 2013 (situation after 8 months) and an even better growth than during the first trimester 2014 vs. 2013, already 2-3% above the 2014 forecast estimated back in 2011 for the RP1 Performance Plan.

From the above CRCO published report on the monitoring of en-route TSU in Bulgaria, very clearly Bulgaria is experiencing very high TSU growth since April 2014, due to changes in routings by users, as a consequence of the situation in Crimea.

The STATFOR TSU May 2014 baseline forecast assumes high growth in 2014 and 2015 and then return to historical trends for 2016-2019.

The PRB notes that Bulgaria and the airspace users agreed that the situation in Ukraine (Crimea peninsula and Simferopol FIR) lead to major changes in traffic flows affecting both DANUBE FAB partners in particular. They propose to monitor and review the situation later in the year towards the beginning of the Winter season.

It is acknowledged that there are many uncertainties on the duration of the crisis and impact in terms of TSU traffic growth for Bulgaria and neighbouring countries. Nevertheless the 2014 forecast TSU is very much underestimated under all existing traffic scenario and assumptions. However the 2014 TSU revised forecast seems underestimated at this point in time, which includes 3 months of traffic with the impact of the situation in Ukraine, and this might well have an impact on RP2 TSU Forecasts.

Based on this analysis, the Bulgaria en-route charging zone is assessed as <u>not</u> passing this check.

Economic assumptions (Inflation)

Inflation: Bulgaria		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.4%	0.4%	-0.4%	0.9%	1.8%	2.2%	2.2%	2.2%
Eurostat/IMF avg	annual % change		0.4%	-0.4%	0.9%	1.8%	2.2%	2.2%	2.2%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	109.1	109.5	109.1	110.1	112.1	114.5	117.0	119.6
Eurostat/IMF avg	2009=100	109.1	109.5	109.1	110.1	112.1	114.5	117.0	119.6
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 14: Economic assumptions

Comments:

The inflation forecasts used by Bulgaria for the period 2014-2019 are consistent with the IMF April 2014 CPI forecast.

The actual inflation data used for 2012-2013 is in line with Eurostat HICP data.

Based on this analysis, the Bulgaria en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	BGN m (nom)	152.9	145.0	146.9	145.1	141.9	168.6	167.8	167.9	168.6	169.3	169.9
Inflation rate	annual % change		3.0%	3.4%	2.4%	0.4%	-0.4%	0.9%	1.8%	2.2%	2.2%	2.2%
Inflation index	2009=100	100.0	103.0	106.5	109.1	109.5	109.1	110.1	112.1	114.5	117.0	119.6
Determined costs	BGN m (2009)	152.9	140.8	137.9	133.0	129.6	154.6	152.4	149.8	147.2	144.6	142.1
Service units	'000s	1 798	1 840	2 019	2 020	2 058	2 118	2 168	2 240	2 316	2 400	2 484
Determined unit cost	BGN (2009)	85.01	76.53	68.33	65.85	62.98	73.00	70.28	66.88	63.56	60.26	57.19
Exchange rate	BGN:EUR	1.96										
Determined unit cost	EUR (2009)	43.48	39.14	34.95	33.68	32.21	37.34	35.94	34.20	32.51	30.82	29.25

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	BGN m (nom)	1.1%	1.8%	0.2%	0.3%
Inflation	CAGR %	1.8%	1.5%	1.9%	2.1%
Determined costs	BGN m (2009)	-0.7%	0.4%	-1.7%	-1.7%
Service units	'000s	3.3%	2.6%	3.2%	3.5%
Determined unit cost	BGN (2009)	-3.9%	-2.2%	-4.8%	-5.0%
Exchange rate					
Determined unit cost	EUR (2009)	-3.9%	-2.2%	-4.8%	-5.0%

Table 27: Determined unit cost trend

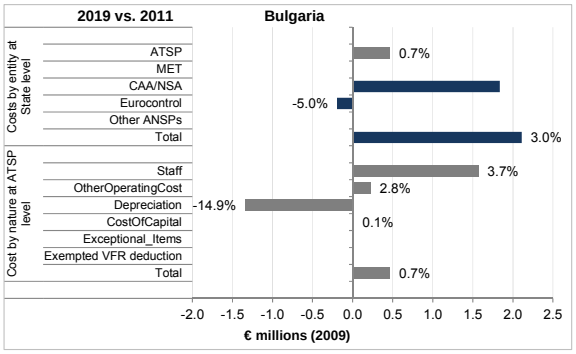


Figure 15: Planned cost category changes over RP1 and RP2

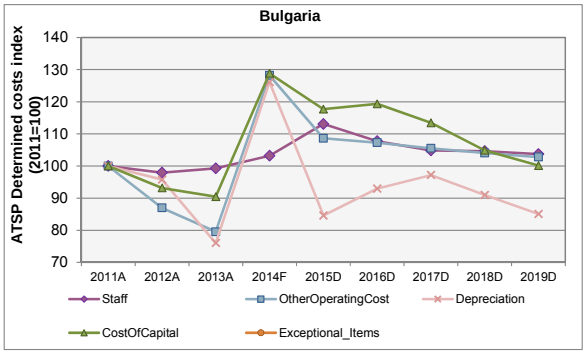


Figure 16: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

As Bulgaria did not update its 2014 TSU forecast vs. RP1 Performance Plan, the focus of this check is on the 2011-2019 period (although 2009-2019 and 2015-2019 trends as well).

Bulgaria plans for a **-2.2%** p.a. decrease in en-route DUC over the **2011-2019** period, which is slightly better than the Union-wide target (-1.7% p.a.); in addition,

- over 2009-2019, the en-route DUC trend (-3.9% p.a.) is much better than the Union-wide target trend (-2.5% p.a.); and,
- over 2015-2019, the en-route DUC trend is (-5.0% p.a.).

Actually, the level of costs in 2014 (some 79 M€$_{2009}$, +19.3% vs. 2013) and in 2015 (+17.6% vs 2013 actual) are much higher than the levels actually reached in 2012 (some 68M€$_{2009}$) and 2013 (some 66 M€$_{2009}$).

Furthermore, over the 2011-2019 period, DCs are planned to increase by +0.4% p.a. which is much worse than the Union-wide target trend (-2.1% p.a.). A closer look into cost

categories evolution indicates that the main drivers are increasing staff costs, as well as other (non-staff) operating costs (see costs by nature analysis below).

When looking at the contribution of each accountable entity over the 2011-2019 period, it is noted that:

- EUROCONTROL (-3.2%) and Bulgaria main ANSP (BULATSA) (-2.5%), the two highest contributors, both record a better unit cost reduction than the Union-wide target over 2011-2019 (-1.7% p.a.).

There are large variations in individual costs by nature over the 2011-2019 period,:

- 2014 has not been updated since RP1 Performance Plan and is clearly an "outlier" in the analysis when compared to the trend observed before and after for every cost item (staff costs are +4% higher, "other operating costs" are +61% higher, depreciation +66% higher and the cost of capital some +42% higher than in 2013);
- In 2015, the PRB notes high increases in staff costs (+4.1M€$_{2009}$ vs. 2014 non-revised costs and +5.8M€$_{2009}$ vs. 2013 actual staff costs which leads to some +14% increase in two years. Bulgaria's additional information and information contained in the report of the stakeholders' consultation refers to increase in *the maximum social security income, on which social security costs are planned* [later referred to as "uncontrollable"]*, compensation for the expected inflation, increase due to expected higher productivity* [reference is provided to 8-10% salary increase and a Collective Labour Agreement in force until 2016];
- In terms of other cost items: "other operating costs" +36.5% increase in 2015 vs. 2013 actual to reach 8.8 M€$_{2009}$ which is +1.3 M€$_{2009}$ increase vs. 2013 (2014 is not updated); Depreciation costs: 2015D/2013A: +11.3% to reach 7.6M€$_{2009}$ in 2015 (some 1 M€$_{2009}$ more than in 2013) and cost of capital (2015D/2013 A: +30%) to reach 8.8 M€$_{2009}$ in 2015 (some +1M€ more than in 2013).
- Against this background, the PRB notes that during the first two years of RP1, BULATSA managed to generate an aggregated estimated economic surplus of some 28.7 M€$_{2009}$, even growing over time (see Introduction in Section 5.1), mainly as a results of savings in other operating costs, depreciation costs and cost of capital (much less investments leading to less depreciation costs and the related asset base to be remunerated).
- Actual CAPEX were -68% and -75% less than in planned in 2012-2013 respectively. The increasing depreciation over RP2 could be due to investments initially planned in RP1 being postponed to RP2 – in which case the depreciation costs would be charged twice (to airspace users). It is not fully clear whether there are genuinely new investments foreseen in RP2 and justified. The CAPEX assessment part provides a more detailed analysis (see CAPEX Key Points, Section 6). However in their "national consultation for Bulgarian stakeholders" document, the Bulgaria announced that *"(…) as far as in RP1 there were commitments for implementation of certain projects, some of which were not realized, a calculation of excess depreciation through charges was made and at the appropriate time in RP2 it will be returned to the airlines. (…)".*
- The PRB notes that Bulgaria has a proportion of (en-route) MET costs (around +7%) significantly higher than its comparators (less than 5%), although aeronautical MET is solely provided by the ANSP BULATSA.

Based on this analysis, the Bulgaria en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

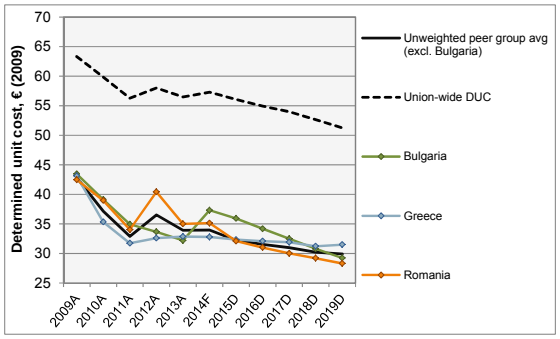


Figure 17: Determined unit cost level

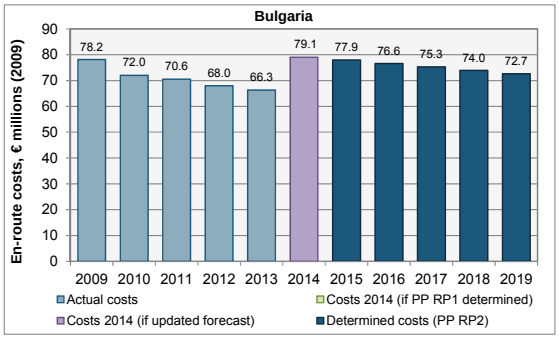


Figure 18: Determined costs 2009-2019

Comments:

In 2019, Bulgaria's en-route DUC (29.25 €$_{2009}$) is planned to be -2.2% lower than the (unweighted) peer group average (29.92 €$_{2009}$), the two other comparators being very close to Bulgaria in terms of DUC level expressed in real terms (Greece (31.51 €$_{2009}$) and Romania (28.33 €$_{2009}$), and significantly lower than the Union-wide aggregated DUC level (51.26 €$_{2009}$).

The PRB notes however, that Bulgaria en-route DUC profile is always higher than its peer group average and decreasing over 2015-2018: 2015 (+11.5%); 2016 (+8.4%); 2017 (+4.9%) and 2018 (+2.0%). If adjusted to account for exchange rates and cost of living (PPP), Bulgaria's en-route DUC in 2019 would be much higher than its two comparators and some 37% higher than the peer group average.

In addition, the level of both 2014 and 2015 costs appears significantly high vs. 2012-2013 actual costs; indeed in 2014 (some 79 M€$_{2009}$, +19.3% vs. 2013) and in 2015 (+17.6% vs 2013 actual) are much higher than the level actually reached in 2012 (some 68 M€$_{2009}$) and 2013 (some 66 M€$_{2009}$).

Based on this analysis, the Bulgaria en-route charging zone is assessed as <u>not</u> passing this check.

Cost of Capital

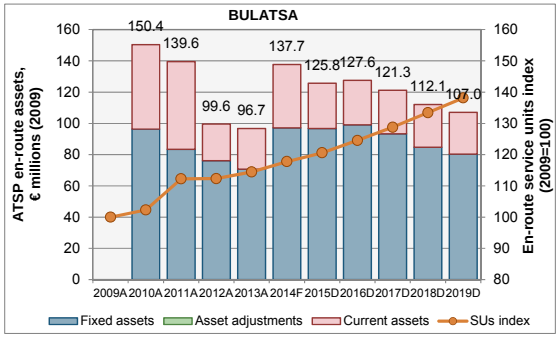


Figure 19: Breakdown of ATSP en-route asset base (2009-2019)

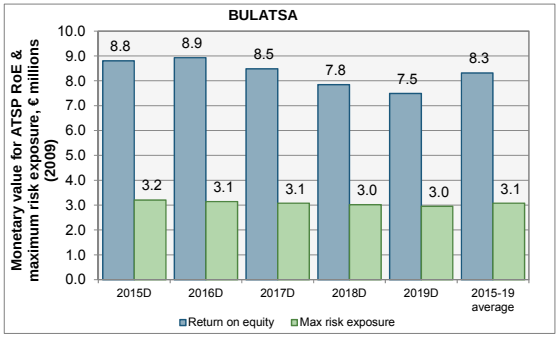


Figure 20: ATSP RoE vs maximum traffic risk exposure

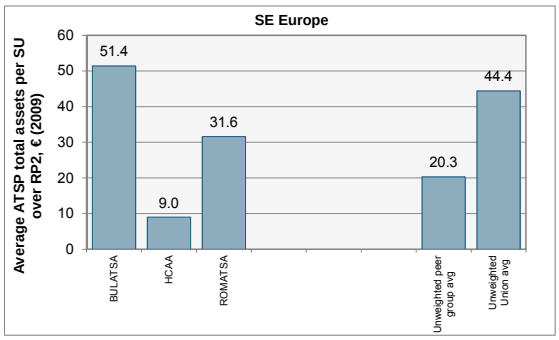


Figure 21: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate used to compute the cost of capital of the en-route ATSP (7%) is towards the upper bound of the range of values calculated with the methodology laid down in Annex C guidance, although assumptions used for the different components of the WACC calculation are sometimes outside the range of recommended values.

It is noted that Bulgaria does not follow the CAPM and did not report the full table recommended by Annex C Guidance under the Additional Information tables for en-route. Bulgaria justifies that in the case of BULATSA, *the direct application of CAPM is limited, since BULATSA is a State-owned enterprise and its capital is not divided into shares traded on the Bulgarian stock exchange.* In addition BULATSA has no debt.

It is also noted that the monetary value of the return on equity (RoE) is calculated to reach some 8.3 M€$_{2009}$ on average over 2015-2019 and is always higher than the maximum revenue risk exposure (due to traffic risk sharing incentives) for every year of RP2 (around 3 M€$_{2009}$). Over the whole of RP2 the PRB calculates that the monetary value of the RoE (41.6 M€$_{2009}$) is +170% higher than the total en-route revenue risk exposure (15.4 M€$_{2009}$). Moreover, the downside traffic risk is minimized since a low traffic forecast is considered in the Performance Plan.

In addition, the value of BULATSA en-route asset base per service unit over RP2 (51 €$_{2009}$) is always significantly higher than its peers (9 €$_{2009}$ for Greece and 32 €$_{2009}$ for Romania) and the unweighted Union-wide average (44 €$_{2009}$), whereas the ratio fixed to total assets is significantly lower than its peers (76% on average vs. 92% for its peers and 90% Union-

wide).

Based on this analysis, the Bulgaria en-route charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The assumptions, description and justification of pension costs and description of national pension regulations are not consistent with FAB Performance Plan template and guidance (relevant tables Additional Information item 4b requested under Annex C guidance are not filled in). No figure has been provided and explanations are insufficient. **Based on this analysis, the Bulgaria en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing for 2012 and 2013. These are the subject to a separate assessment by the European Commission. Some description, level, composition and justification of costs exempt from risk sharing for RP2 are not fully in line with the Annex C guidance requirements (relevant Additional Information item 4b requested under Annex C guidance are not filled in). **Based on this analysis, the Bulgaria en-route charging zone is assessed as passing this check.**

Bulgaria: Assessment of terminal ANS KPI

Overview of terminal ANS KPI assessment

- One single terminal charging zone (TCZ) is declared for Bulgaria.
- The scope of the TCZ remains identical in RP2 with the same 5 airports as in RP1 (Sofia, Varna, Burgas, Plovdiv, Gorna Oryahovitsa).
- The share of (TNSU) traffic covered is close to 100%.
- No airport above the 50 000 movements threshold during RP1: Bulgaria emphasized in the Additional Information of 2009-2014 reporting that the regulation 1794/2006 was not applied for any of these airports over 2009-2014 – although Bulgaria has kept the same scope of airports and applied the common TNSU formula since 2014.

Traffic forecast assumptions (TNSU)

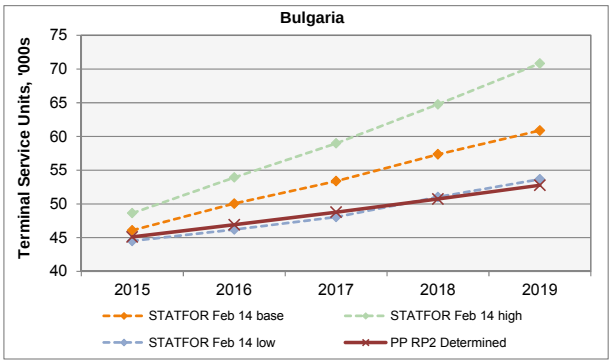


Figure 22: RP2 Determined TNSU Forecasts (2015-2019)

The total Terminal Navigation Service Units (TNSUs) forecast for Bulgaria TCZ is not in line with the STATFOR Low to Baseline forecasts published in February 2014, for every year 2015-2019 (slightly above the STATFOR Low case in 2015-2017 and just below the Low case in 2018-2019). It is therefore outside the STATFOR Low to High range of the TNSU forecast published in February 2014.

Based on this analysis, the Bulgaria terminal ANS charging zone is assessed as <u>not</u> passing this check.

Economic assumptions

The inflation forecasts used by Bulgaria for the period 2015-2019, and for the Terminal ANS cost-efficiency KPI, are consistent with the IMF April 2014 CPI forecast and indeed the en-route KPI assumptions.

Based on this analysis, the Bulgaria terminal ANS charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

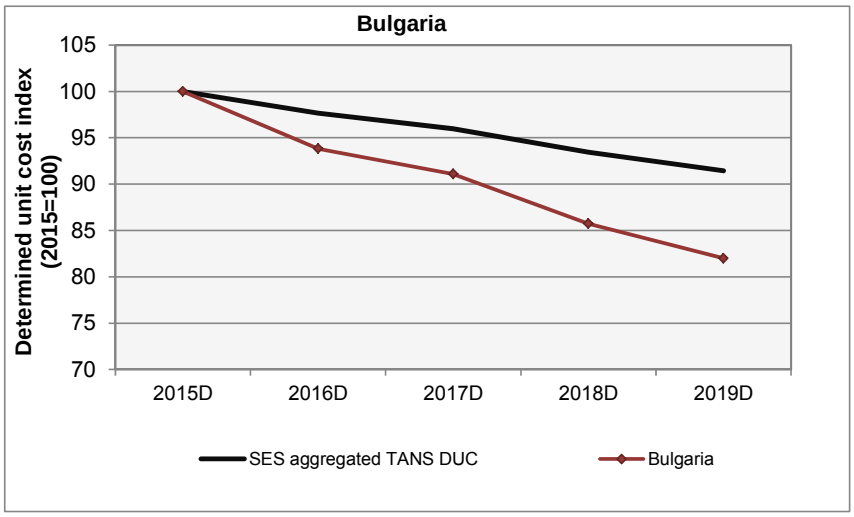


Figure 23: Terminal DUC index, 2015-2019

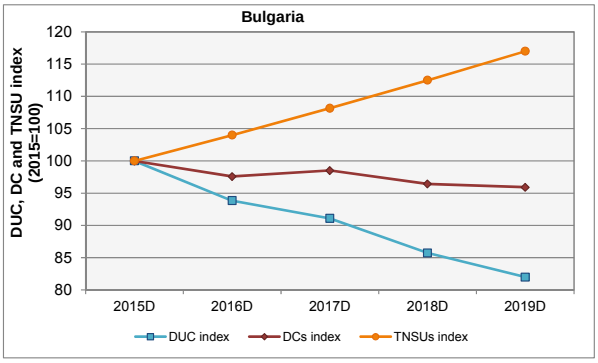


Figure 24: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Bulgaria		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	BGN m (nom)	22.5	22.4	23.1	23.1	23.5	1.0%
Inflation rate	annual % change	0.9%	1.8%	2.2%	2.2%	2.2%	2.1%
Inflation index	2009=100	110.1	112.1	114.5	117.0	119.6	
Determined costs	BGN m (2009)	20.4	19.9	20.1	19.7	19.6	-1.0%
Terminal service units	'000s	45	47	49	51	53	4.0%
Determined unit cost	BGN (2009)	453.40	425.43	413.01	388.69	371.74	-4.8%
Exchange rate	BGN:EUR (2009)	1.96					
Determined unit cost	EUR (2009)	231.88	217.58	211.22	198.79	190.12	-4.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 28: Terminal DUC, DC and TNSU trends, 2015-2019

Over 2015-2019, Bulgaria Terminal ANS DUC trend (-4.8%) is much better than the SES aggregated Terminal ANS DUC trend (-2.2% p.a.). In addition, Bulgaria terminal ANS DCs are planned to decrease by -1.0% p.a. in real terms over 2015-2019, which is slightly worse than Bulgaria en-route DCs trend (-1.7% p.a.) over 2015-2019. However the level of DCs in 2015 is +2.7% above 2013 actual and in between the levels recorded in 2012 and 2013 actual.

Bulgaria's "gate-to-gate" ANS DCs trend (-1.7%) is worse than the Union-wide en-route DCs

target trend (-2.3%) over the 2015-2019 period.

Based on this analysis, the Bulgaria terminal ANS charging zone is assessed as passing this check with reservations.

Cost of Capital

Bulgaria decided to apply the traffic risk sharing incentives to Terminal, in line with Art. 13 (6) of the charging Regulation.

The WACC rate and the RoE applied for Terminal ANS is 7% is identical to the one used for en-route ANS cost efficiency KPI (BULATSA has no debt). The same conclusions as for en-route apply.

Based on this analysis, the Bulgaria terminal ANS charging zone is assessed as not passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided for the description and justification of economic assumptions is the same as for the en-route KPI and therefore the results of this check are the same as for en-route.

Based on this analysis, the Bulgaria terminal ANS charging zone is assessed as not passing this check.

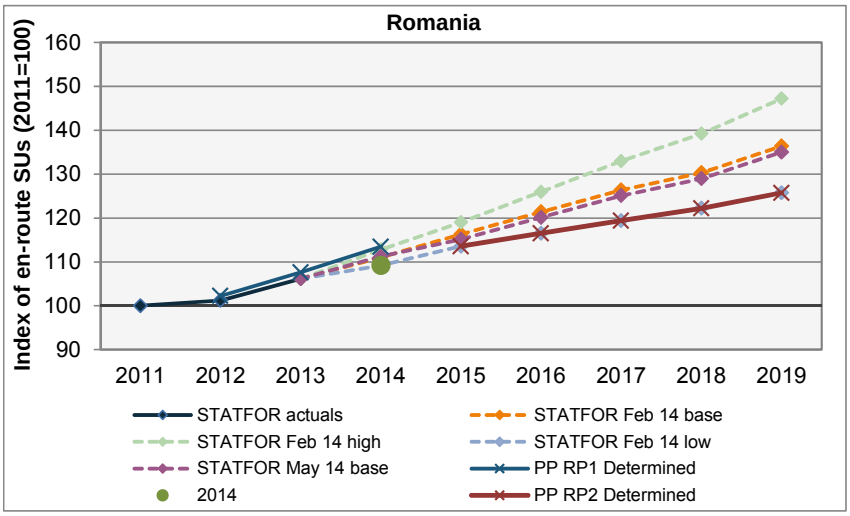
Description, level, composition and justification of costs exempt from risk sharing

The information provided for the description, level and justification of cost exempt from risk sharing is the same as for the en-route KPI and therefore the results of this check are the same as for en-route.

Based on this analysis, the Bulgaria terminal ANS charging zone is assessed as passing this check.

Romania: en-route cost-efficiency KPI Assessment

Traffic forecast assumptions (TSU)



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		3 612	3 802	4 008							
Actuals, 2014, PP RP2 Determined	3 533	3 575	3 752	3 858	**4 013**	**4 117**	**4 219**	**4 317**	**4 442**	**2.9%**	**2.6%**
STATFOR Feb 14 base				**3 922**	**4 109**	**4 289**	**4 464**	**4 603**	**4 819**	**4.0%**	**4.1%**
STATFOR Feb 14 high				3 985	4 204	4 450	4 698	4 919	5 200	5.0%	5.5%
STATFOR Feb 14 low				3 858	4 013	4 117	4 219	4 317	4 442	2.9%	2.6%
STATFOR May 14 base				3 930	4 067	4 245	4 419	4 556	4 769	3.8%	4.1%
PP RP2 vs STATFOR Feb 14 base (%)					-2.3%	-4.0%	-5.5%	-6.2%	-7.8%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 25: En-route TSU forecasts

Comments:

Romania has selected a TSU forecast fully in line with the STATFOR Feb. 2014 Low TSU growth scenario for all years 2014-2019. The 2014 revised TSU forecast is +2.8% vs 2013 actual whereas Romania records +8.4% actual TSU growth to date (situation after 8 months).

The STATFOR TSU May 2014 baseline forecast would see 2014 end up between the February 2014 base case and Romania revised 2014 forecast (February 2014 Low scenario).

According to the traffic risk sharing incentives, should Romania keep their Low case TSU forecast scenario over RP2 and should the STATFOR base case scenario (Feb. 2014) materialise, the net gains in revenues to be retained by ROMATSA would be 3.4 M€ (17 M€ gain for ROMATSA and 13.6 M€ for airspace users).

The PRB notes that Romania and its DANUBE FAB partner together with the airspace users agreed that the situation in Ukraine (Crimea peninsula and Simferopol FIR) leads to major changes in traffic flows affecting both DANUBE FAB partners in particular. They agreed and will propose to the PRB/ Commission to monitor the traffic, reconsider the traffic forecast and review the situation towards October/November 2014.

Based on this analysis, Romania's en-route charging zone is assessed as passing this check with reservations.

Economic assumptions (Inflation)

Inflation: Romania		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.4%	3.2%	2.8%	3.1%	3.0%	2.8%	2.8%	2.7%
Eurostat/IMF avg	annual % change		3.2%	2.2%	3.1%	3.0%	2.8%	2.8%	2.7%
Difference	p.p. difference		0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	116.1	119.8	123.1	126.9	130.7	134.4	138.2	141.9
Eurostat/IMF avg	2009=100	116.1	119.8	122.4	126.2	129.9	133.6	137.3	141.0
Difference	index difference	0.0	0.0	0.8	0.8	0.8	0.8	0.9	0.9

Figure 26: Economic assumptions

Comments:

The inflation forecasts used by Romania for RP2 are consistent with the IMF April 2014 CPI forecast. However there is a slight difference between the 2014 estimate (2.8%) and IMF estimate (2.2%).

The actual inflation data used for 2012-2013 is in line with Eurostat HICP data.

Based on this analysis, Romania's en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	RON m (nom)	563.7	597.8	571.7	710.3	666.2	707.0	692.7	707.0	721.1	737.6	755.8
Inflation rate	annual % change		6.1%	5.8%	3.4%	3.2%	2.8%	3.1%	3.0%	2.8%	2.8%	2.7%
Inflation index	2009=100	100.0	106.1	112.3	116.1	119.8	123.1	126.9	130.7	134.4	138.2	141.9
Determined costs	RON m (2009)	563.7	563.5	509.3	612.0	556.2	574.1	545.7	540.7	536.5	533.8	532.6
Service units	'000s	3 133	3 414	3 533	3 575	3 752	3 858	4 013	4 117	4 219	4 317	4 442
Determined unit cost	RON (2009)	179.94	165.03	144.16	171.17	148.25	148.82	135.99	131.34	127.16	123.66	119.91
Exchange rate	RON:EUR	4.23										
Determined unit cost	EUR (2009)	42.51	38.99	34.06	40.44	35.02	35.16	32.13	31.03	30.04	29.21	28.33

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	RON m (nom)	3.0%	3.6%	1.3%	2.2%
Inflation	CAGR %	3.6%	3.0%	2.9%	2.8%
Determined costs	RON m (2009)	-0.6%	0.6%	-1.5%	-0.6%
Service units	'000s	3.6%	2.9%	2.9%	2.6%
Determined unit cost	RON (2009)	-4.0%	-2.3%	-4.2%	-3.1%
Exchange rate					
Determined unit cost	EUR (2009)	-4.0%	-2.3%	-4.2%	-3.1%

Table 29: Determined unit cost trend

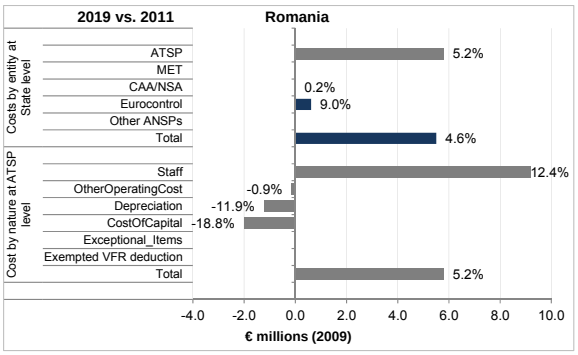


Figure 27: Planned cost category changes over RP1 and RP2

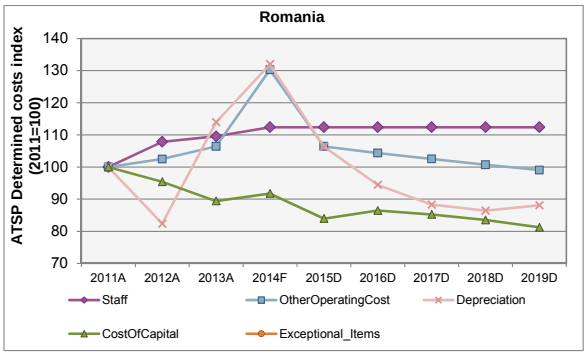


Figure 28: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Since 2014 costs forecast were not revised and 2014 TSU forecasts were revised downwards (despite +8.4% TSU growth after 8 months), the trends analysis mainly focuses on RP1 plus RP2 (2011-2019) and 2009-2019, rather than 2014-2019.

Over RP1 and RP2 (2011-2019) period, Romania plans a better en-route DUC trend (- 2.3% p.a.) than the Union-wide target trend (-1.7% p.a.). On the other hand, the DCs trend for Romania (+0.6% p.a.) is significantly worse than the Union-wide DCs trend (-0.8% p.a.).

Similarly over the 10-years cycle 2009-2019, Romania also shows a better en-route DUC trend (-4.0% p.a.) than the Union-wide DUC target trend (-2.5% p.a.), with costs planned to decrease by -0.6% p.a. in a context of an average TSU increase of +3.6% p.a.

However, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within ROMATSA or with its FAB partner (BULATSA), or with other ATSPs. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have led to adjustments on the RP2 DCs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

A closer look into cost categories evolution indicates that the main drivers are increasing staff costs, as well as other (non-staff) operating costs (see costs by nature analysis below).

When looking at the contribution of each accountable entity over the 2011-2019 period in terms of DUC, the PRB notes that:

- ROMATSA (-2.2% p.a.) and EUROCONTROL (-1.8%) both record a unit cost decrease slightly better than the Union-wide DUC target trend (-1.7%) over 2011-2019.
- It is noted that AIS staff from the Romanian CAA has been reallocated to ROMATSA with effect from 2014 and therefore this would impact 2014 costs and any 2014-2019 trend for ROMATSA.

When looking at individual costs by nature over the 2011-2019 period there are some variations:

- "Staff costs" is the most important item (representing some 85 M€$_{2009}$ or 70% of ROMATSA costs) and has increased by 12.4% over 2011-2019 (some 9 M€$_{2009}$) (this is without exceptional cost for "provisions for employee benefits" in 2012-2013);
- Romania declared that *"(…)The key improvements in en-route cost-efficiency include:*

- *3,53% average staff costs increase during RP1 and RP2 (in nominal terms);*
- *2,9% average annual increase of staff costs over RP2;*
- *2019 staff costs (in real terms RON2009) are projected to be maintained at the same level as the 2009 actual figures (…)"*

- The 2014 costs estimates have not been updated since 2011 and is clearly an "outlier" in the analysis when compared to the trend observed before and after for some of the cost items ("other operating costs" are +22% higher than the 2013 level and depreciation +16% higher);
- Actual CAPEX were -63% and -74% less than planned in 2012-2013 respectively. Depreciation costs remain relatively high over RP2 and could be due to investments initially planned in RP1 being postponed to RP2 – in which case the depreciation costs would be charged twice (to airspace users). Romania does not deny the possibility that users will be charged twice for the same investments because of delays or cancellations. From the "national consultation for Romanian stakeholders", Annex A2 document), Romania announced that *"(…) if a project is delayed, the money has been already received. (…) IATA would expect that these costs are returned to users in RP2." The ROMATSA representatives explained that at the moment there is no such mechanism available and applicable for all EU Member States*." [actually a mechanism has been proposed and the related amounts can be recorded as negative exceptional costs - to note: BULATSA, the DANUBE FAB partner, has committed to reimburse airlines for non-realised/postponed investments]. The CAPEX assessment part provides a more detailed analysis (see CAPEX Key Points, Section 6).

Based on this analysis, the Romania's en-route charging zone is assessed as passing this check <u>with reservations</u>.

En-route Determined Unit Cost level

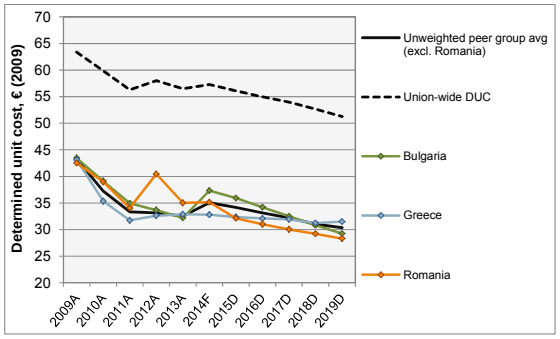


Figure 29: Determined unit cost level

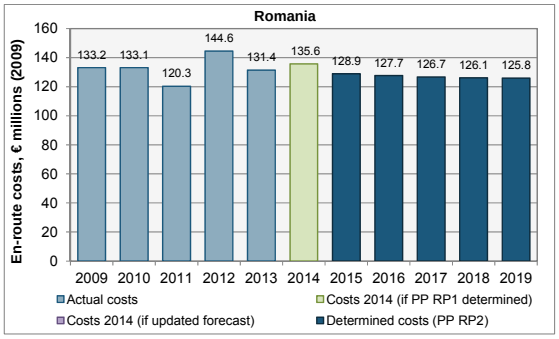


Figure 30: Determined costs 2009-2019

Comments:

In 2019, Romania's en-route DUC (28.33 €$_{2009}$) is planned to be -6.8% lower than the (unweighted and excluding Romania) peer group average (30.38 €$_{2009}$), the two other comparators being close to Romania in terms of DUC level expressed in real terms - Greece (31.51 €$_{2009}$) and Bulgaria (29.25 €$_{2009}$), and significantly lower than the Union-wide aggregated DUC level (51.26 €$_{2009}$).

It is noted that Romania en-route DUC profile is always lower than its peer group and

decreasing over 2015-2019. However If adjusted to account for exchange rates and cost of living (PPP), Romania's en-route DUC in 2019 (64.63 €$_{2009}$) would be much higher (+18%) than the peer group average (54.70 €$_{2009}$) and also higher (+11%) than the Union-wide PPP-adjusted DUC (58.35 €$_{2009}$).

Based on this analysis, Romania's en-route charging zone is assessed as passing this check.

Cost of Capital

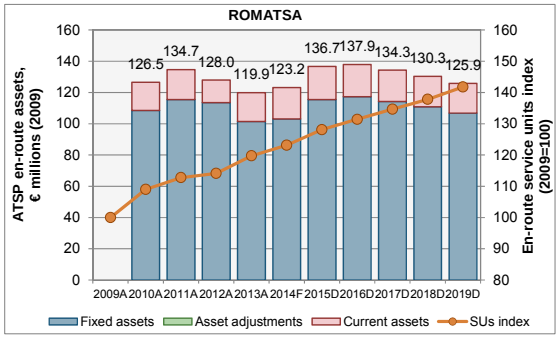


Figure 31: Breakdown of ATSP en-route asset base (2009-2019)

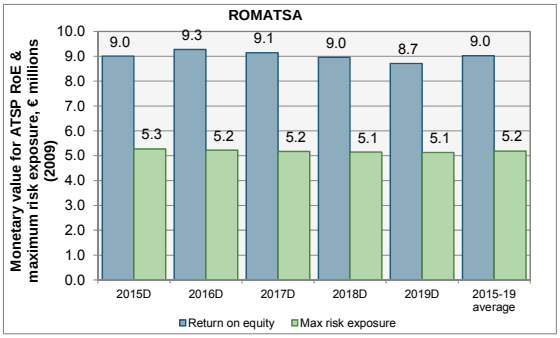


Figure 32: ATSP RoE vs maximum traffic risk exposure

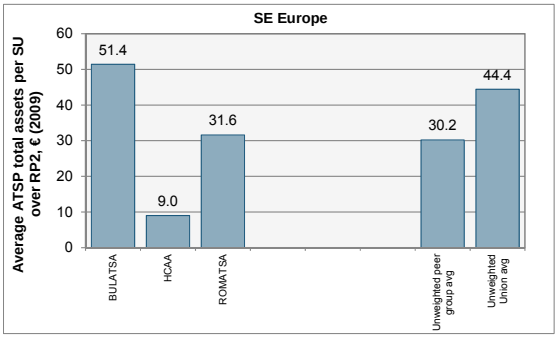


Figure 33: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate (7.85%) is within the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values. For Romania the WACC and the return on equity (RoE) are the same as ROMATSA has no debt and this influence greatly the CAPM calculations.

In addition, over the whole of RP2 the PRB calculates that the monetary value of the RoE (45 M€$_{2009}$) is some +74% higher than the total en-route revenue risk exposure (26 M€$_{2009}$). Furthermore, the downside traffic risk is minimized since the STATFOR Low traffic forecast is considered for the en-route cost-efficiency DUR KPI.

It is noted that Romania adopted a so-called "vanilla WACC" of 7.854% which is applied to asset at historic values and at 4.977% for assets at modified (readjusted) values (7.854%-2.8774% inflation) – overall the average WACC applied ranges from 6.6% to 6.9% over RP2.

In addition, ROMATSA has no debt (similarly to its FAB partner BULATSA).

However, the monetary value of the RoE is calculated to reach some 9M€$_{2009}$ on average over 2015-2019 and is always higher than the maximum revenue risk exposure (due to traffic risk sharing incentives) for every year of RP2 (around 5 M€$_{2009}$). Over the whole of RP2 the PRB calculates that it is some +74% higher (45 M€$_{2009}$) than the total en-route revenue risk exposure (26 M€$_{2009}$).

Furthermore, the downside traffic risk is minimized since the STATFOR Low traffic forecast is considered for the en-route DUR cost-efficiency KPI.

It is noted that the value of ROMATSA en-route asset base per service unit over RP2 (32€$_{2009}$) is close to the peer group average and below the Union-wide average (44€$_{2009}$).

Based on this analysis, the Romania's en-route charging zone is assessed as not passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The assumptions, description and justification of pension costs and description of national pension regulations are not fully consistent with FAB Performance Plan template and guidance.

In addition, the State reports that *"no adjustments were performed beyond the provisions of the IFRS".* (Additional Information item 1 c.)

"IFRS adjustments:

- *Revaluation of some assets at fair value (AI Item 1 d.)* [a decreased value from 378 MRON (325 MRON for en-route) to 294 MRON (253 MRON for en-route) or some -22% devaluation of assets at 31/12/2013]
- *Adjustments for defined benefits – The ANSP ROMATSA pays the employees defined amounts at retirement and at defined Jubilees. A provision is established for these benefits according to IAS 19. The provision was adjusted at 31.12.2013, from 216.713 kRON at. 31.12. 2012 (all activities) to 231.854 kRON at 31.12.2013 (all activities), taking into account following main elements:*
  - *Employees at 31.12.2013;*
  - *Salary increase indexes for 2014-2016 and beyond;*
  - *Mortality rate table for Romania 2004-2006 published by the National Institute of Statistics;*
  - *A discount rate of 5,27% calculated as average bid and ask rates of the Romanian National Bank for 10 year government bonds (…)"*

Based on this analysis, Romania's en-route charging zone is assessed as not passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing (EUROCONTROL costs) for 2012 and 2013. These are subject to a separate assessment by the Commission. The costs exempt from cost-sharing filed for RP1 (EUROCONTROL costs) do not affect the planned determined costs in RP2. The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2. **Based on this analysis, Romania's en-route charging zone is assessed as passing this check.**

Romania: Detailed assessment of the terminal ANS Cost-efficiency KPI

Overview of Romania's Terminal ANS Charging zone (TCZ):

- Romania has declared one single terminal charging zone (TCZ): "Romania Terminal Bucharest Airports".
- The harmonised SES formula for the TNSU (MTOW/50)^0.7 already applies to the Romanian TCZ.
- The scope of the TCZ remains identical in RP2 with the same 2 airports as in 2013-2014 (Bucharest Henri Coandă International and with effect from 2013 Bucharest Aurel Vlaicu International Airport). No further changes between 2014 and 2015.
- The share of (TNSU) traffic covered is close to 66% of traffic.
- Romania decided not to apply the traffic risk sharing to its TCZ/KPI, in line with Art.13 (6) of the charging Regulation.

Traffic forecast assumptions (TNSU)

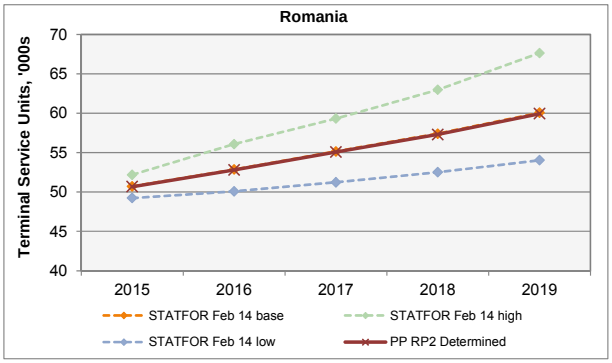


Figure 34: TNSU forecast 2015-2019

The forecast total Terminal Navigation Service Units (TNSUs) for the Romania terminal charging zone (TCZ) is very close to the STATFOR base case forecasts published in February 2014 for RP2

Based on this analysis, the Romania TCZ is assessed as passing this check.

Economic assumptions

The inflation forecasts used by Romania for the Terminal ANS cost-efficiency KPI are consistent with the IMF April 2014 CPI forecast (same as for the en-route KPI assumptions).

Based on this analysis, the Romania TCZ is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

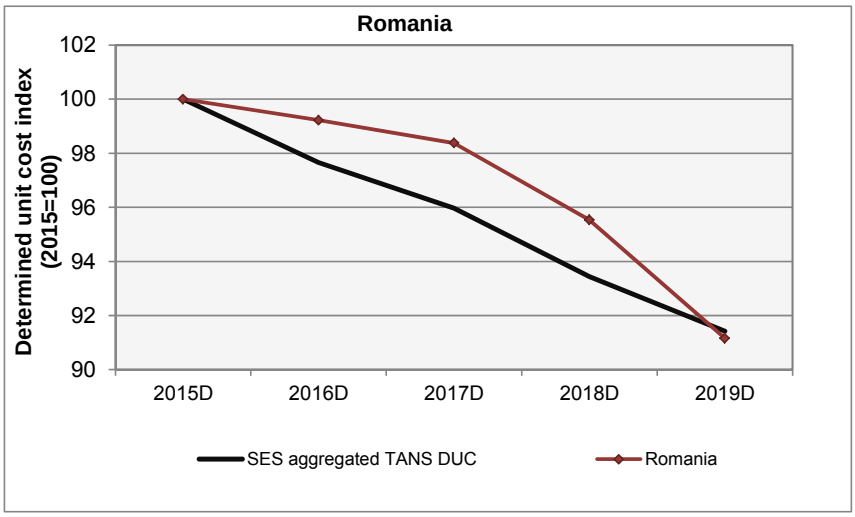


Figure 35: Terminal DUC index, 2015-2019

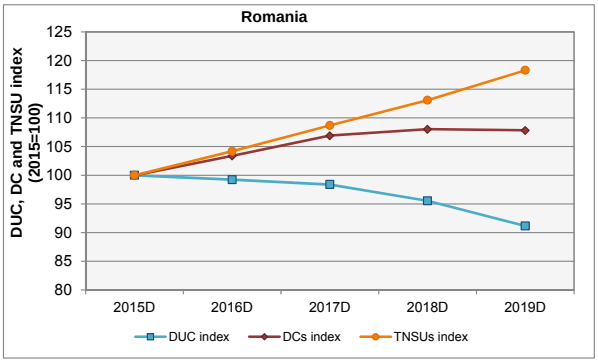


Figure 36: Terminal DUC, DC and TNSU indexes, 2015-2019

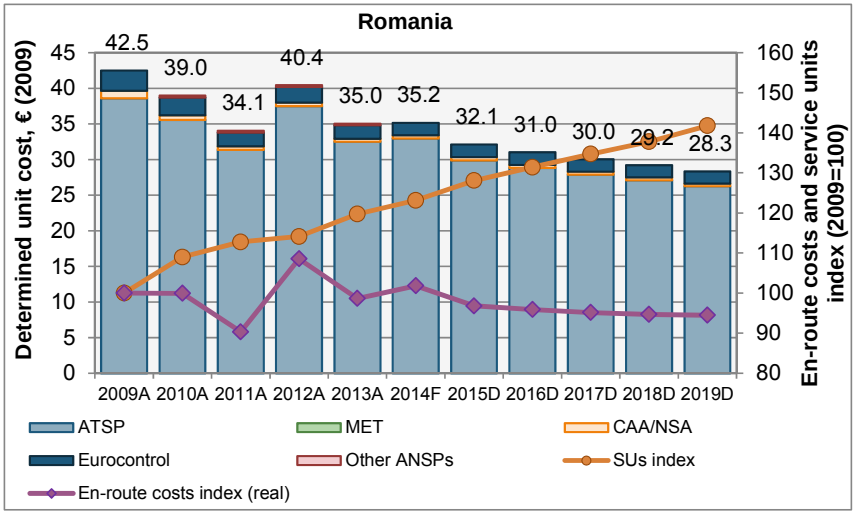


Table 30: Terminal DUC, DC and TNSU trends, 2015-2019

Over 2015-2019, Romania's Terminal ANS DUC trend (-2.3% p.a.) is in line with the SES

aggregated Terminal ANS DUC trend (-2.2% p.a.). However, Romania terminal ANS DC are planned to increase by +1.9% p.a. in real terms over 2015-2019, which is much worse than Romania en-route DC trend (-0.6% p.a.) over 2015-2019. However the level of DC in 2015 is +8.8% above 2013 actual.

Bulgaria's "gate-to-gate" ANS DC trend (-0.4%) is much worse than the Union-wide en-route DC target trend (-2.3%) over the 2015-2019 period.

Based on this analysis, Romania TCZ is assessed as passing this check with reservations.

Cost of Capital

The WACC rate and the RoE applied for Terminal ANS ranges from 6.8% (in 2015) to 7.5% (in 2019) and is on average +0.5% p.p. higher than the WACC/RoE rate used for en-route ANS cost efficiency KPI (ROMATSA has no debt).

However Romania decided not to apply the traffic risk sharing incentives to Terminal, in line with Art. 13 (6) of the charging Regulation, which, everything else being equal, should lead to the ATSP facing less risk.

Based on this analysis, the Romania's TCZ is assessed as not passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

If the information provided in the Performance Plan for terminal is the same as for en-route (i.e. no specific information provided for terminal), then include a sentence to describe this situation.

The information provided in the Performance Plan for the description economic assumptions is the same as for en-route. Same conclusions apply. Please refer to the en-route detailed assessment.

Based on this analysis, Romania's TCZ is assessed as not passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan includes no specific information on the assumptions for costs exempt from risk sharing relating to RP2 for terminal but reproduces the table provided in the guidance material. No costs exempt from risk sharing are expected.

Based on this analysis, Romania's TCZ is assessed as passing this check.

References

[1] Commission Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Source: European Economic Forecast (Spring 2014).

[3] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[4] Commission Implementing Regulation (EU) No 391/2013 of 3 May 2013 laying down a common charging scheme for air navigation services.

[5] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[6] BULATSA Minutes of the Meeting, consultation between representatives of BULATSA and IATA, 20 May 2014, page 4

[7] Summary of the Romanian Stakeholder consultation on Cost Efficiency, 28 May 2014, Investments (page 11)

[8] En-route charges reporting – June 2014, Additional Information 1, k), page 6-7/22

[9] "CAPEX Effect"= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[10] "Costs Effect"= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

[11] Summary of the Romanian Stakeholder Consultation on Cost Efficiency, 28 May 2014, Depreciation costs, page 9

[12] 2010-13 Actual CAPEX, 2014 updated Planned CAPEX (2013 Monitoring Report)

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

FAB CE

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

FAB CE

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the FAB Central Europe (the FAB CE) was received on 19 June 2014 in English. It was signed by:

- the Director Safety and ANS of the Austrian Federal Ministry for Transport, Innovation and Technology;
- the Director of Civil Aviation Sector of the Croatian Ministry of Maritime Affairs, Transport and Infrastructure;
- the Flight Standards Division Director of the Czech Republic Civil Aviation Authority;
- the Director General of Civil Aviation of the Hungarian Ministry for National Development;
- the Director General of Civil Aviation of the Slovak Ministry of Transport, Construction and Regional Development; and
- the Head of Aviation Division of the Slovenian Ministry of Infrastructure and Spatial Planning.

1.1.2 The NSAs responsible for drawing up the Performance Plan are:

- the Civil Aviation Authority of the Austrian Federal Ministry of Transport, Innovation and Technology;
- the Croatian Civil Aviation Agency;
- the Czech Civil Aviation Authority;
- the Hungarian National Transport Authority;
- the Slovak Transport Authority; and
- the Slovenian Civil Aviation Agency.

1.1.3 The responsibility for the coordination between all the NSAs has been entrusted to the FAB CE Performance Body (FPB) established in 2013.

1.1.4 The FAB Performance Plan provides performance targets set at local level as defined in the Commission Implementing Regulation (EU) No 390/2013[1] (the performance Regulation) for the following accountable entities:

- [AT] the Federal Ministry of Transport, Innovation and Technology as the designated NSA;
- [AT] Austro Control as the designated ANS and MET service provider;
- [HR] the Croatian Civil Aviation Agency as the designated NSA;
- [HR] Croatia Control as the designated ANS provider;
- [HR] the National Protection and Rescue Directorate;
- [CZ] the Civil Aviation Authority as the designated NSA;
- [CZ] ANS CR as the designated ANS provider;
- [CZ] Czech Hydrometeorological Institute (CHMI) as the designated MET service provider;

- [HU] the National Transport Authority as the designated NSA;
- [HU] HungaroControl as the designated ANS provider;
- [SK] the Transport Authority as the designated NSA;
- [SK] LPS SR as the designated ANS provider;
- [SK] the Slovak Hydrometeorological Institute as the designated MET service provider;
- [SI] the Slovenian Civil Aviation Agency as the designated NSA;
- [SI] Slovenia Control as the designated ANS provider;
- [SI] the Slovenian Environment Agency as the designated MET service provider.

1.1.5 The geographical scope of the FAB CE Performance Plan appears to be inconsistent with the SES airspace, as it mentions the ACC Sarajevo / Banja Luka. Moreover, while it lists several ACCs, no reference is made to the covered Flight Information Regions or Upper Information Regions (FIR/UIRs).

1.1.6 As far as terminal services are concerned, the FAB CE includes two lists of airports in its Performance Plan. One for the airports submitted to the Performance Regulation, which encompasses only the main airport for every country, and one for the airports submitted to the Charging Regulation, which includes 10 additional airports. This is in contradiction with the clarification provided by the European Commission on the correct application of Article 1(3) of the performance Regulation and Article 1(5) of the charging Regulation[2] concerning the consistent application of the performance and charging schemes to terminal air navigation services.

1.1.7 According to Article 14 of the Performance Regulation[1], the PRB has assessed the submitted FAB Performance Plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

AUSTRIA

1.2.1 Figure 1 shows that after a slowdown of the economic activity in 2013, this year shows clearer signs of recovery[3].

1.2.2 The FAB Performance Plan includes macro-economic data for Austria sourced from the IMF World Economic Outlook (April 2014).

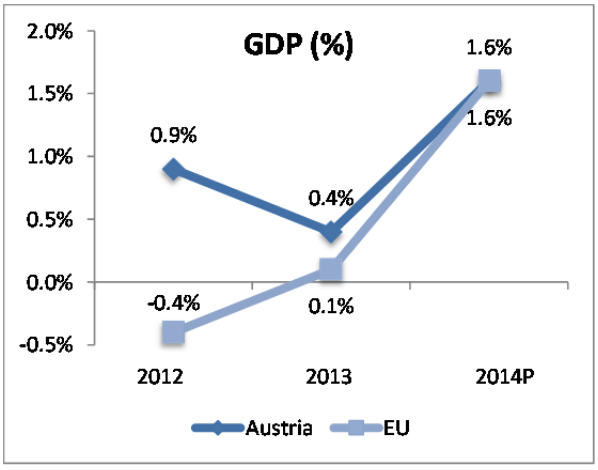


Figure 1: Gross domestic product for Austria, volume (percentage change on preceding year)[3]

1.2.3 Figure 2 shows that IFR traffic levels in Austrian airspace are back to those

recorded after the sharp decline of 2009. According to the February 2014 STATFOR baseline scenario, which is less positive than the one made in 2009, Austria should only resume in 2016 with the traffic levels experienced in 2008.

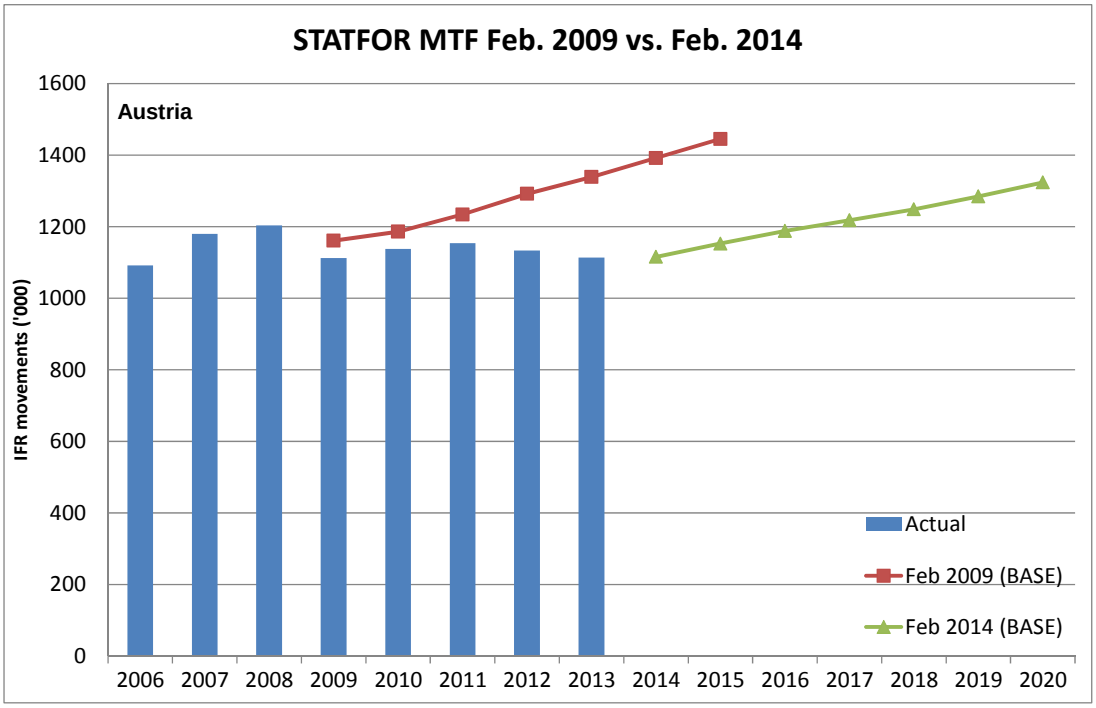


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Austria

1.2.4 While the FAB Performance Plan clearly mentions that Austria has chosen the Service Unit forecast according to STATFOR EUROCONTROL Seven-Year Forecast February 2014 base scenario, no clear reference is made as to the assumptions used regarding traffic forecast.

CROATIA

1.2.5 GDP in Croatia fell again in 2013 by 1%, bringing to five the number of years of recession. The contraction in economic activity is expected to continue in 2014, although to a lesser extent[3].

1.2.6 The FAB Performance Plan includes macro-economic data for Croatia sourced from the IMF World Economic Outlook (April 2014).

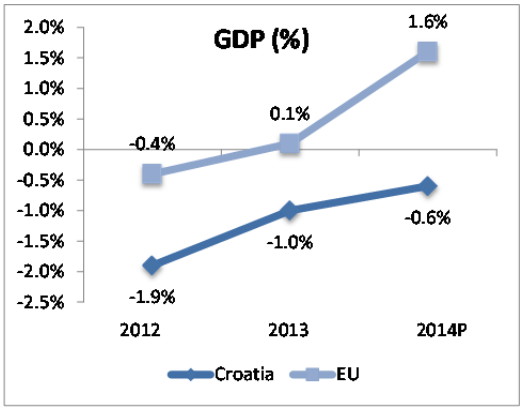


Figure 3: Gross domestic product for Croatia, volume (percentage change on preceding year)[3]

1.2.7 Although IFR traffic in Croatian airspace marginally decreased over the last two years, it reached in 2013 the level foreseen by STATFOR in its 2009 forecast. The February 2014 STATFOR baseline scenario foresees traffic demand in Croatia to increase by 18% over the 2014-2020 period, and is fairly in line with the 2009

forecast, roughly showing less than a year shift in traffic demand.

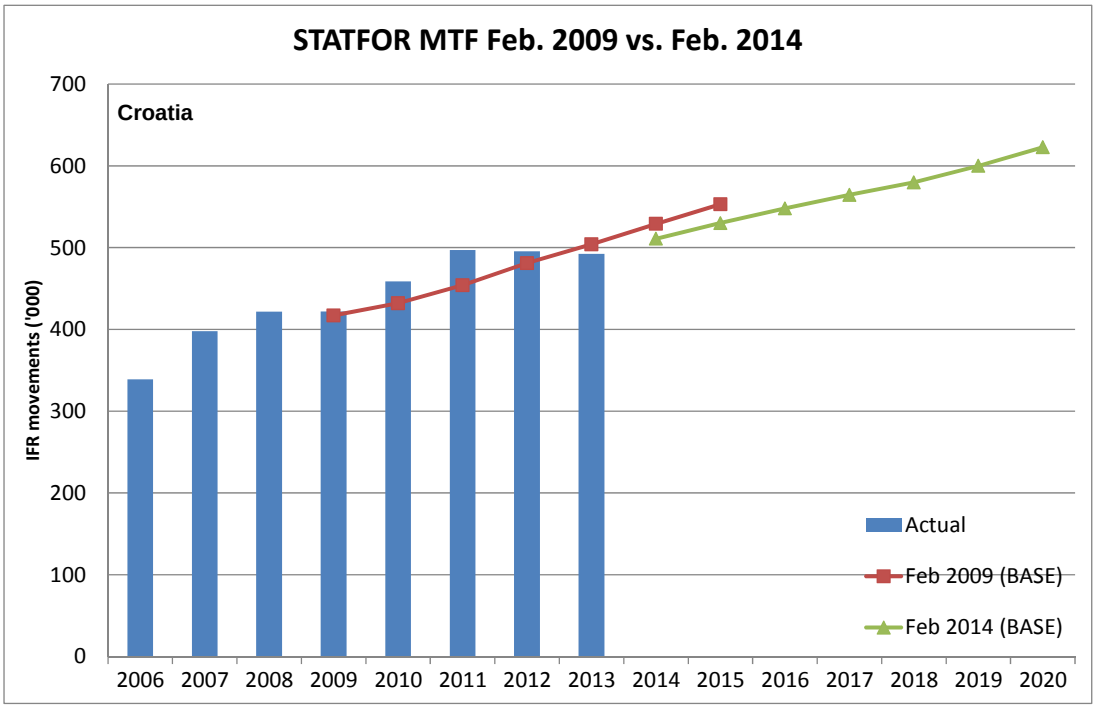


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Croatia

1.2.8 While the FAB Performance Plan clearly mentions that Croatia has chosen the Service Unit forecast according to STATFOR EUROCONTROL Seven-Year Forecast February 2014 low scenario, no clear reference is made as to the assumptions used regarding traffic forecast.

CZECH REPUBLIC

1.2.9 Czech Republic should enter a recovery phase in 2014 as GDP is expected to increase by 2%, after two years of recession at around −1%[3].

1.2.10 The FAB Performance Plan includes macro-economic data for Czech Republic sourced from the IMF World Economic Outlook (April 2014).

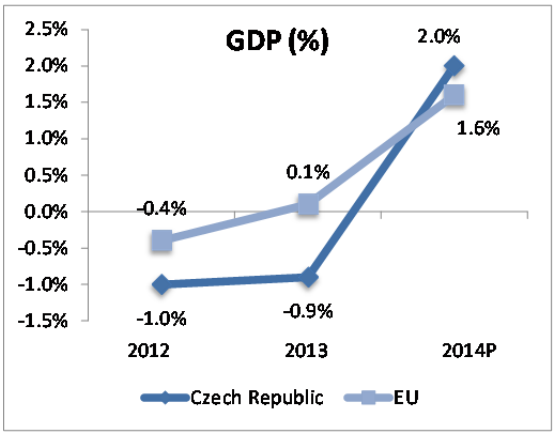


Figure 5: Gross domestic product for Czech Republic, volume (percentage change on preceding year)[3]

1.2.11 Figure 6 shows that IFR traffic in Czech airspace could not keep up with the trend initiated in 2009. Indeed, traffic declined in 2012 and the February 2014 STATFOR baseline scenario now foresees a 5-year shift in traffic as the traffic levels estimated in 2009 for 2015 should only be reached in 2020.

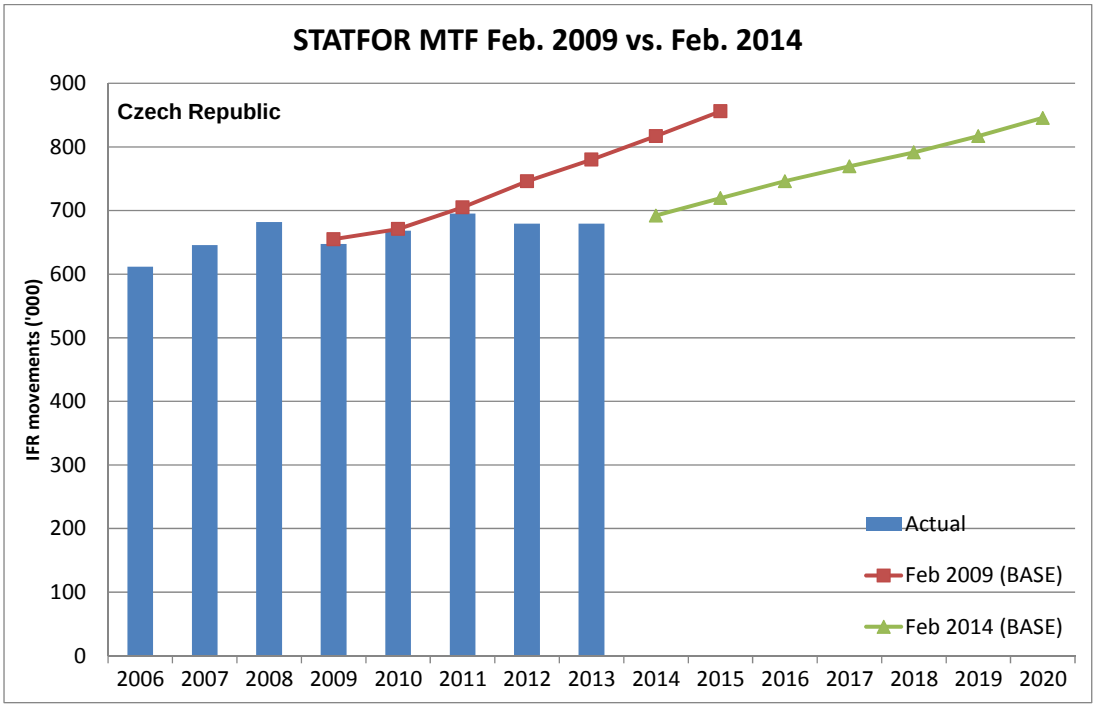


Figure 6: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Czech Republic

1.2.12 While the FAB Performance Plan clearly mentions that the Czech Republic has chosen the Service Unit forecast according to STATFOR EUROCONTROL Seven-Year Forecast February 2014 base scenario, no clear reference is made as to the assumptions used regarding traffic forecast.

HUNGARY

1.2.13 The last recorded year of recession for Hungary was 2012 where the GDP fell by -1.7%. After a transition year in 2013, GDP growth is projected to increase by 2.3% in 2014[3].

1.2.14 The FAB Performance Plan includes macro-economic data for Hungary sourced from the IMF World Economic Outlook (April 2014).

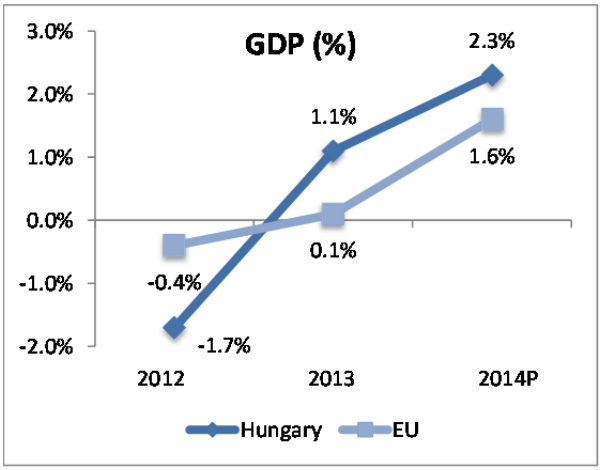


Figure 7: Gross domestic product for Hungary, volume (percentage change on preceding year)[3]

1.2.15 Figure 8 shows that IFR traffic in Hungarian airspace is stagnating as 2013 resumed with traffic levels experienced in 2006. When comparing the February 2009 and 2014 STATFOR baseline scenarios, although IFR movements are expected to grow again, a six-year shift in traffic demand can be observed.

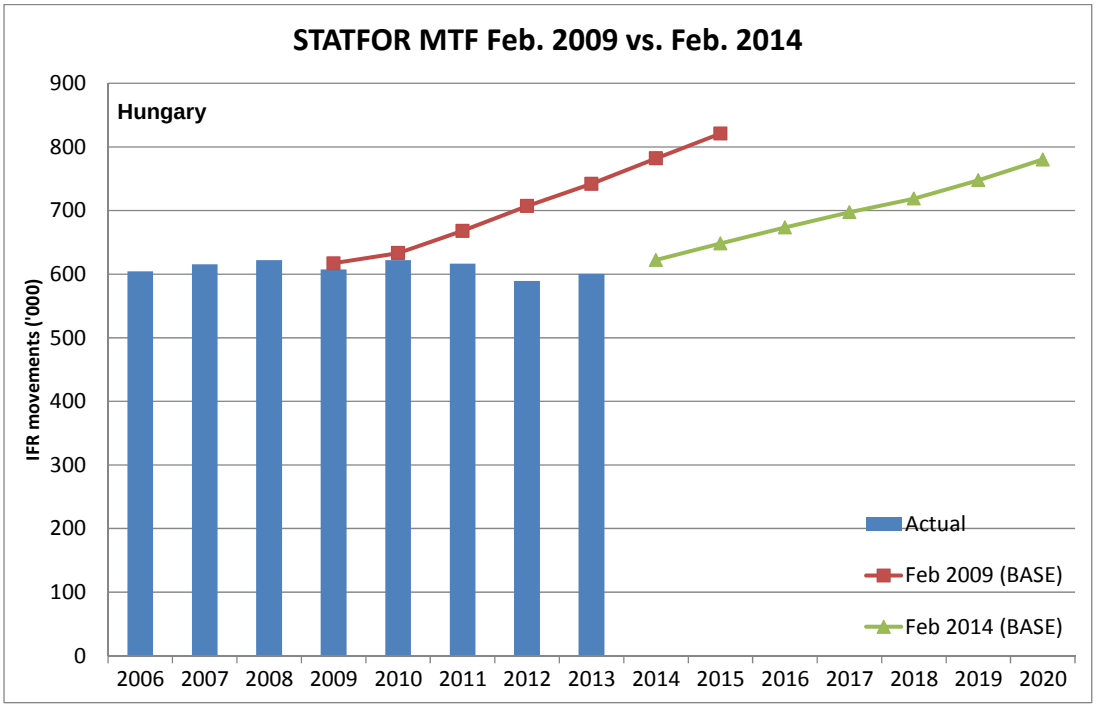


Figure 8: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Hungary

1.2.16 While the FAB Performance Plan clearly mentions that Hungary has chosen the Service Unit forecast according to STATFOR EUROCONTROL Seven-Year Forecast February 2014 low scenario, no clear reference is made as to the assumptions used regarding traffic forecast.

SLOVAKIA

1.2.17 In spite of a slowdown in 2013, the Slovak economy is expected to strengthen again in 2014 with a projected GDP of 2.2%[3].

1.2.18 The FAB Performance Plan includes macro-economic data for Slovakia sourced from the IMF World Economic Outlook (April 2014).

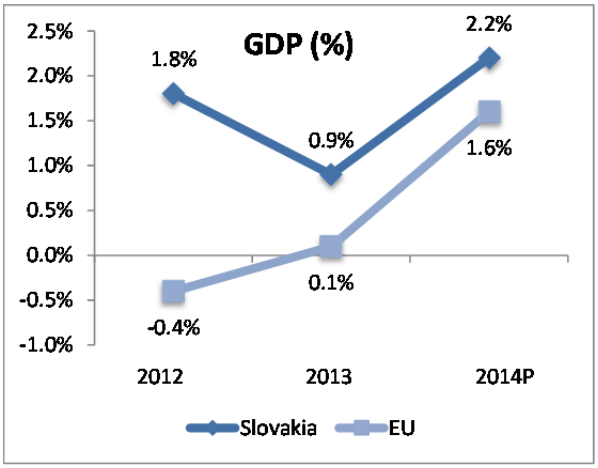


Figure 9: Gross domestic product for Slovakia, volume (percentage change on preceding year)[3]

1.2.19 As shown in Figure 10, IFR traffic in Slovak airspace is following the trend projected by STATFOR in 2009. The February 2014 STATFOR baseline scenario foresees a small correction which should translate in a shift in traffic demand of about one year.

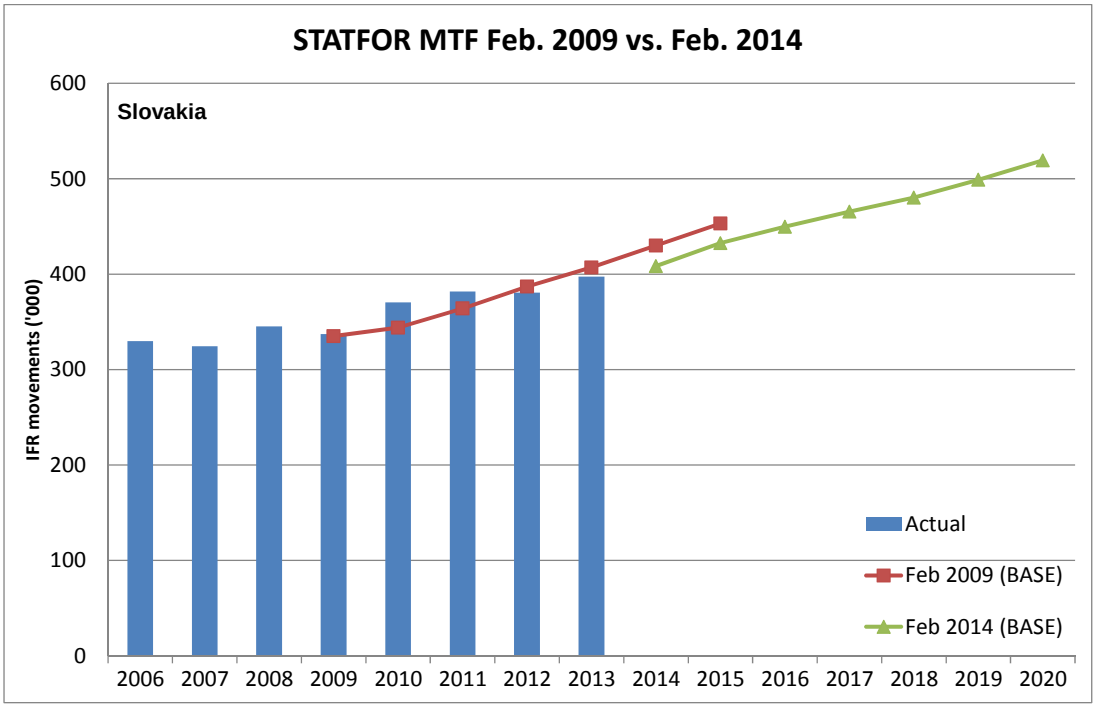


Figure 10: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Slovakia

1.2.20 Although Slovakia specifies that the traffic forecast is in line with STATFOR EUROCONTROL Seven-Year Forecast February 2014, no specific mention is made as to what scenario was used.

SLOVENIA

1.2.21 While the economic activity was still morose in 2012, Slovenia finally exited recession in 2013 and shows good prospects for recovery in 2014[3].

1.2.22 The FAB Performance Plan includes macro-economic data for Slovenia sourced from the IMF World Economic Outlook (April 2014).

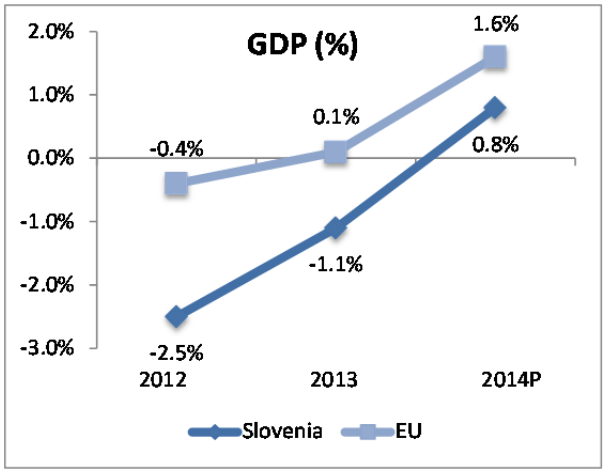


Figure 11: Gross domestic product for Slovenia, volume (percentage change on preceding year)[3]

1.2.23 Figure 12 shows that IFR traffic in Slovenian airspace has been in decline for the past two years. The February 2014 STATFOR baseline scenario expects a quick recovery but does not anticipate the same traffic levels estimated in 2009 for 2015 to be reached before 2020.

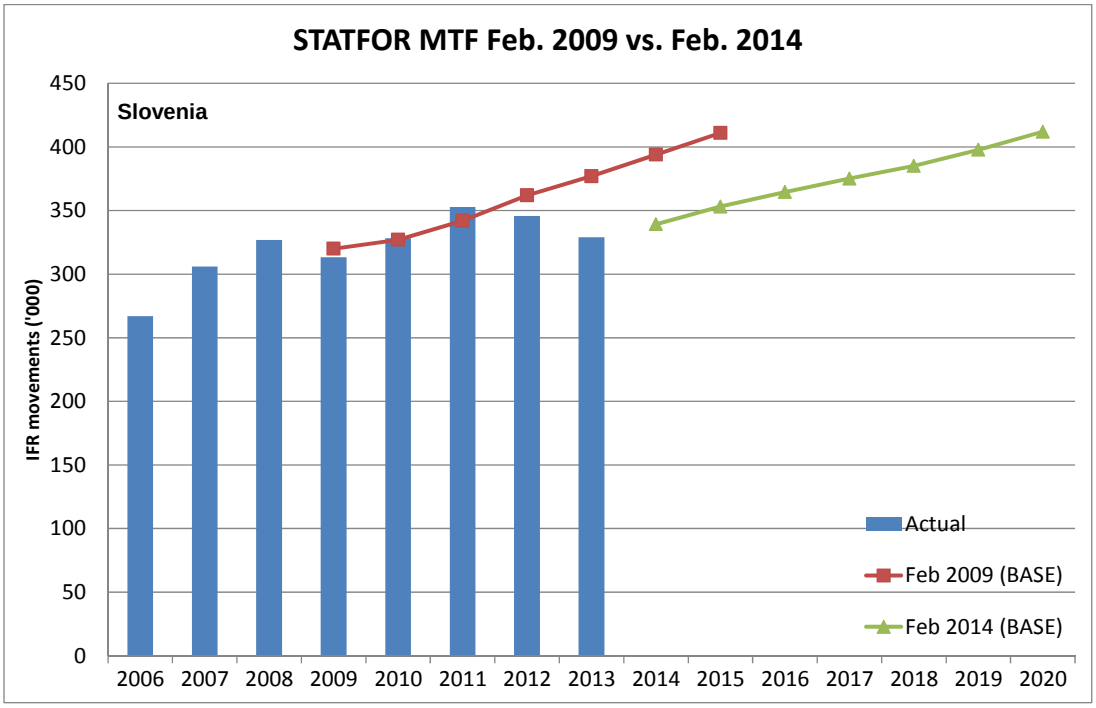


Figure 12: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Slovenia

1.2.24 Slovenia has chosen to use the traffic forecast according to the STATFOR EUROCONTROL Seven-Year Forecast February 2014 base scenario.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Austria	A
	Croatia	B
	Czech Republic	B
	Hungary	A
	Slovakia	A
	Slovenia	B
	FAB minimum level	*A*
ANSP level	Austria for Safety Culture MO	D
	Croatia for Safety Culture MO	C
	Czech Republic for Safety Culture MO	C

	Hungary for Safety Culture MO	D
	Slovakia for Safety Culture MO	D
	Slovenia for Safety Culture MO	C
	FAB minimum level	*C*
	Austria for all other MOs	C
	Croatia for all other MOs	C
	Czech Republic for all other MOs	B
	Hungary for all other MOs	C
	Slovakia for all other MOs	C
	Slovenia for all other MOs	C
	FAB minimum level	*B*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

1.3.3 'Not available' in the table below (N/A) refers to the fact that there were no reported occurrences of that type in the FAB CE in 2013. Hence, the current FAB level of the RAT methodology application could not have been directly computed (i.e. indicated by '?').

RAT application current performance (2013)		AT	HR	CZ	HU	SK	SI	FAB
Separation Minima Infringements (SMIs)	ATM Ground	97%	N/A	100%	100%	100%	100%	?
	ATM Overall	53%	N/A	100%	85%	100%	100%	?
Runway Incursions (RIs)	ATM Ground	100%	100%	100%	33%	100%	100%	89%
	ATM Overall	50%	0%	100%	0%	100%	100%	58%
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	100%	91%	100%	91%	100%	97%

Table 2: Severity classification using the RAT methodology

1.3.4 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[4].

ENVIRONMENT

1.3.5 Current performance shows a marked improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.27 percentage points (from 2.27% in the first half of 2013 to 2.00% in the first half of 2014).

1.3.6 It should be noted that performance is measured over the geographical scope of the FAB in the second Reference Period (i.e., including Croatia).

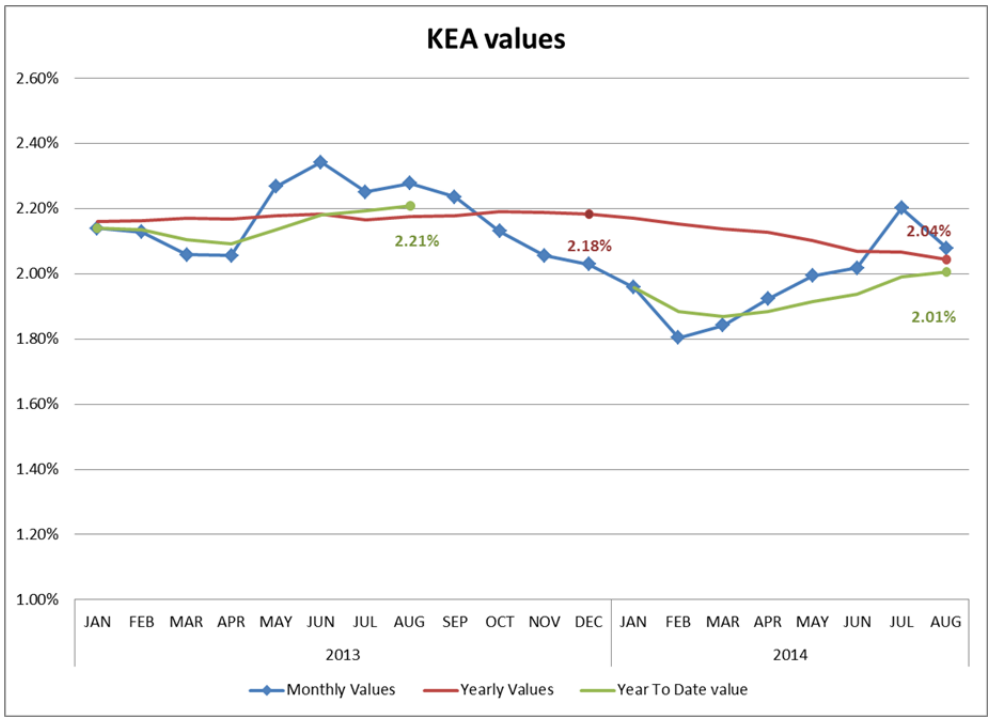


Figure 13: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.7 Current performance shows a marked improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of 0.20 percentage points (from 2.21% in the first eight months of 2013 to 2.01% in the corresponding period of 2014).

CAPACITY

1.3.8 So far, the FAB CE has produced levels of capacity performance that surpass the required contribution to be consistent with the Union-wide target for en-route capacity in RP1.

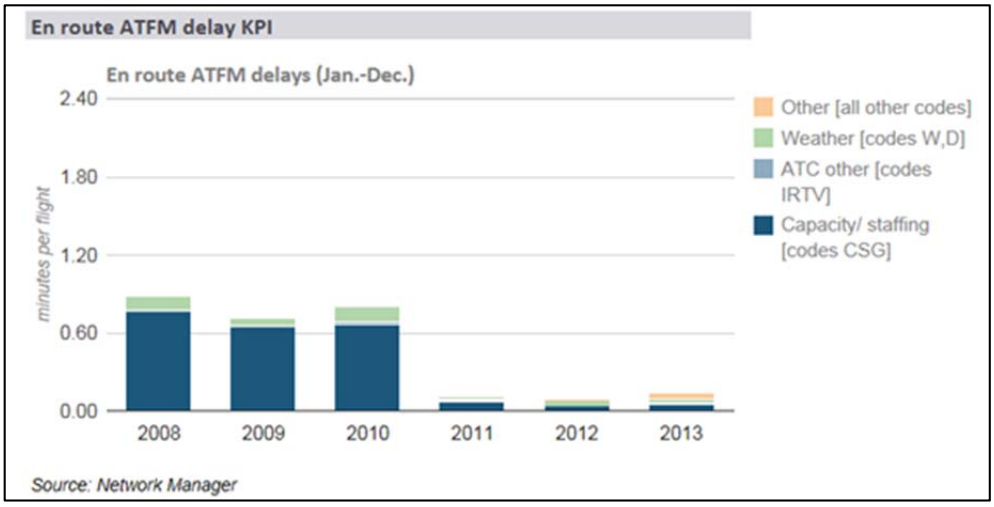


Figure 14: En-route ATFM delay

1.3.9 The performance of the FAB CE in terms of arrival ATFM delay improved over the last years and ranges now just under the European average. In particular, the share of capacity-related causes reduced significantly. Across all airports, Austria, i.e.

LOWW, encounters a significant share of reported weather-related arrival restrictions, which can also be seen in the aggregated FAB CE results. On the other hand, the share of CRSTMP causes for arrival ATFM delay is considerably low within the FAB CE.

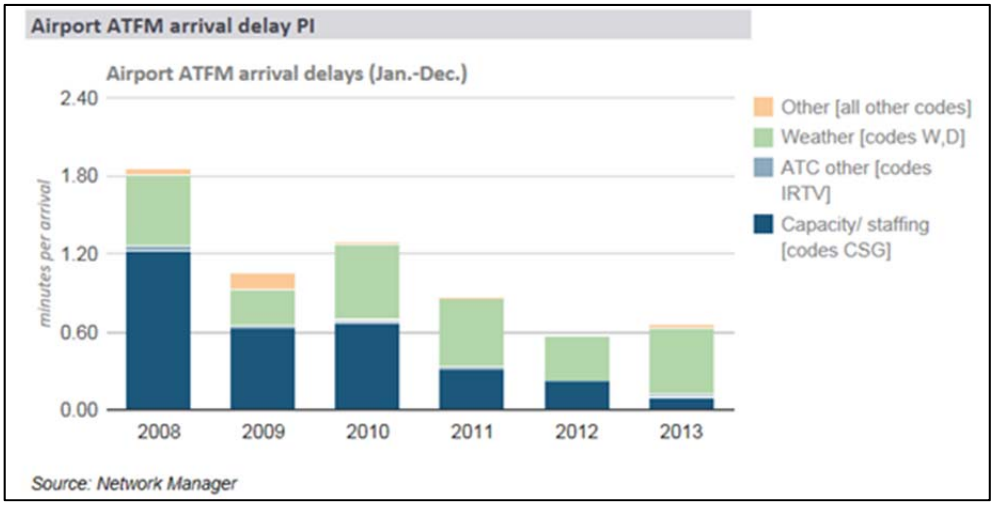


Figure 15: Arrival ATFM delay

COST EFFICIENCY

1.3.10 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the FAB CE to complement the missing and/or incomplete elements as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in section "1.3 - Stakeholder consultation" of the Performance Plan. The relevant papers are attached to the Performance Plan as "ANNEX A. PUBLIC CONSULTATION MATERIAL".

1.5.2 Eleven consultation meetings were held at FAB and national level, although the first three were actually orientation meetings with the PRB or other NSAs:

- Meeting #4, 21 November 2013: Initial user views on RP2 (Austria).
- Meeting #5, 29 April 2014: FAB CE RP2 Stakeholder Consultation.
- Meeting #6, 29 April 2014: Stakeholder Consultation - specific Austrian elements.
- Meeting #7, 29 April 2014: Stakeholder Consultation - specific Slovenian elements.

- Meeting #8, 28 April 2014: Czech National Stakeholders Consultations Meeting.
- Meeting #9, 23 April 2014: Hungarian National Stakeholders consultation.
- Meeting #10, 25 April 2014: Slovak National Stakeholders consultation.
- Meeting #11, 25 April 2014: Croatian National Stakeholders consultation.

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Some information on the outcome of the consultation (including points of disagreement and reasons) has been made available to the PRB.
- The list of invited stakeholders is not always attached to Annex A (with the exception of Czech Republic consultation (Meeting #8) and the section 1.3 only contains generic indications on the stakeholders categories.
- Only the list of actual attendees to the FAB consultation (Meeting #5) and for other national meetings (#8, #9 and #10) has been made available to the PRB. No list whatsoever has been provided for Austria, Croatia and Slovenia.
- It appears that not all the stakeholders have been consistently consulted in the various national meetings on cost-efficiency (e.g. social partners).
- There is no indication that the materials for the meeting were provided well in advance.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*B*	*B*	*B*	*B*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The FAB CE EoSM target is equal to the Union-wide target at State and ANSP level for all MOs except Safety Culture, and it is higher than the Union-wide target Safety Culture MO. Therefore, the FAB CE target is **consistent** with the Union-wide target.

2.1.2 The PRB notes that both Hungary and Slovakia had additional reporting entities in RP1, both airports reporting on a voluntary basis on EoSM and JC. However, since these two airports are not ATS providers, they are rightly excluded from target-setting in Safety KPA for RP2 as presented in Annex I Section 2 point 1.1 of the performance Regulation[1]. In addition, Budapest airport is not excluded from the Performance Plan, it is listed among the airports, and one of the capacity KPIs (ATFM arrival delay) is primarily their responsibility.

2.1.3 The declared current EoSM performance on the State level of three out of six FAB States (Austria, Hungary, and Slovakia) is at the minimum Level A (not only related to existence and implementation of Safety Culture, but due to missing some core element of the efficient Safety Oversight system). However, after the second EASA visit to Austria with a goal to verify the implementation of corrective actions (Austria has been inspected two times, in 2012 and 2013), significant progress has been noticed. As regard Croatia (also inspected twice), it has been noticed that some of the core elements were underestimated and should be at least Level 'C' and not 'B' as the corresponding non-conformities are already closed.

2.1.4 Hungary and Slovakia have been visited this year (2014). After the inspection and the corrective action plans submitted, there is a high possibility of reaching the target, at least for those aspects under CA/NSA's control. However, correction of the non-conformities which imply longer times (e.g. changes to the national rules or re-structuration/major changes of the CA/NSA) would be an obstacle depending on the national legal processes and/or political willingness.

2.1.5 Therefore, although the PRB is confident that effectiveness of safety management target (Level 'C') will be reached by 2019, it recommends the FAB CE to take these concerns seriously as only States which have mature safety oversight systems will

be able to realise the benefits associated with safety management principles, and achieve further improvements in safety performance overall.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*90,83%*	*92,50%*	*94,17%*	*98,33%*	*100%*	✓
	RIs	*91,67%*	*92,50%*	*93,33%*	*98,33%*	*100%*	✓
	ATM-S	*86,67%*	*89,17%*	*92,50%*	*96,67%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*0%*	*0%*	*80%*	*80%*	*80%*	✓
	RIs	*0%*	*0%*	*80%*	*80%*	*80%*	✓
	ATM-S	*0%*	*0%*	*80%*	*80%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The FAB CE severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 However, the FAB CE has reported different figures for the RAT methodology application for ATM-S for ATM Ground and ATM Overall. This should not be the case as these values should be the same (i.e. the ANSP target established for 'ATM Ground' severity should be identical to the NSAs/States target established for 'ATM Overall' severity). Therefore, the PRB and EASA have to express concern as it appears that some FAB CE States may not be aware of how classification of ATM-S occurrences should be performed. Furthermore, the PRB recommends that the FAB CE clarifies this information.

2.2.3 It is worth highlighting that, due to the fact there were no reported SMIs in Croatia in 2013, the information on the RAT methodology application at this State was, in addition, cross-checked via AST team (i.e. all occurrences have been ATM Ground severity assessed with the RAT methodology in 2013). However, as mentioned in

the FAB Performance Plan for ATM-S, Croatia Control still needs to develop to provide effective results.

2.2.4 Based on current and past performance, as well as information provided in the Performance Plan, the PRB believes that the FAB CE is on the right track to meet these targets. Nevertheless, the PRB suggests that improvements and progress in ATM Overall severity assessment should be closely monitored in the FAB CE.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The FAB CE indicates in its Performance Plan that a common FAB approach in certain areas for Just Culture improvements **has been established**. Specifically, FAB CE indicates that occurrence reporting and investigation information is mutually shared on the basis of provisions in the NSAs' Co-operation Agreement.

2.3.3 However, it is also mentioned in the Performance Plan that FAB-CE NSAs are not able to guarantee any positive outcome in Legal/Judiciary and Policy implementation areas as there is no legal requirement. Lastly, the Performance Plan cites that FAB CE States will share experience regarding Just Culture on both State and ANSP level.

2.3.4 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has been set** and in addition, information explaining the basis of the elements in place to promote the application of Just Culture is provided.

2.4 Key points

2.4.1 The PRB recommends that the FAB CE States who have not yet effectively implemented the eight critical elements of a safety oversight system to resolve these deficiencies as soon as possible in order to develop a sound foundation for their State Safety Programmes (SSPs).

2.4.2 The FAB CE has reported different targets for the RAT methodology application for ATM-S for ATM Ground and ATM Overall (while it should not be the case). The PRB recommends that this information is clarified.

2.4.3 In addition, the PRB suggests that improvements and progress in ATM Overall severity assessment should be closely monitored in the FAB CE.

2.4.4 The PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	1.99%	1.94%	1.90%	1.85%	1.81%
FAB Target	*1.99%*	*1.94%*	*1.90%*	*1.85%*	*1.81%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The FAB CE adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 No incentives have been assigned in the Environment KPA.

3.4 Key points

3.4.1 The FAB CE has adopted annual targets which are consistent with the reference values.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP June 2014)	0.30	0.29	0.29	0.29	0.29
FAB Target	*0.32*	*0.31*	*0.31*	*0.30*	*0.29*
Consistency check	✘	✘	✘	✘	✓
Shortfall	**0.02**	**0.02**	**0.02**	**0.01**	

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The FAB CE targets for en-route capacity are **not consistent** with the respective FAB reference values for the years 2015-2018. The FAB CE target for 2019 is consistent with the respective FAB reference value for 2019.

4.1.2 The associated cost to airspace users from the additional delay is estimated at over €3 million per year for the period 2015-2017 and €2 million for 2018: almost €12 million over RP2.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.3 No other FAB has adopted en-route capacity targets that would make up the shortfall in capacity promised by the FAB CE.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.4 The latest ANSP en-route capacity plans (from the NOP 2014-2019, June 2014 edition) indicate that the FAB CE capacity performance should meet the required level of performance to be consistent with the Union-wide target for each year in RP2.

4.1.5 Analysis of the existing individual ANSP capacity plans reveals that:

- ANS CR: Plan a capacity surplus each year in RP2;
- Austro Control: Plan a capacity surplus each year in RP2;
- Croatia Control: Plan sufficient capacity until 2017, then a capacity shortfall in 2018 & 2019;
- HungaroControl: Plan a capacity surplus each year in RP2;
- LPS: Plan a capacity surplus each year in RP2;
- Slovenia Control: Plan capacity broadly consistent with expected traffic for RP2.

Year	2015	2016	2017	2018	2019
Annual reference value	0.30	0.29	0.29	0.29	0.29
Delay forecast full year	0.19	0.20	0.21	0.20	0.21

Table 7: Extract from Network Operations Plan 2014-2019

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.6 When the individual ANSP contributions are aggregated using the expected traffic scenario, they foretell a capacity deficit for each year of RP2.

Year		2015	2016	2017	2018	2019
FAB reference value		0.30	0.29	0.29	0.29	0.29
ANSP contribution	Austro Control	0.23	0.23	0.23	0.22	0.21
	Croatia Control	0.23	0.22	0.21	0.21	0.19
	ANS CR	0.14	0.13	0.12	0.11	0.11
	HungaroControl	0.06	0.05	0.05	0.04	0.05
	LPS SR	0.10	0.10	0.10	0.11	0.10
	Slovenia Control	0.21	0.21	0.22	0.23	0.22
Aggregated ANSP contribution		**0.33**	**0.32**	**0.32**	**0.31**	**0.30**

Table 8: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.7 Although Section 5 of the FAB CE Performance Plan lists several projects involving civil military cooperation and coordination, it does not explain how the FUA legislation will be applied in order to increase capacity. This is particularly relevant since the FAB CE targets for capacity performance are not consistent with the effort required to meet the Union-wide targets for capacity during RP2.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.8 With the implementation of new sectorisation including the change of division flight level (DFL), capacity performance in Croatia has significantly improved in 2013.

4.1.9 Austria continue to provide capacity performance that are in line with the contribution required to be consistent with the Union-wide target for capacity and that greatly exceed the targets adopted in the national Performance Plan.

4.1.10 The Czech Republic continues to provide excellent capacity performance that provides a positive contribution to the Union-wide target.

4.1.11 Hungary, Slovakia and Slovenia consistently provide excellent capacity performance with zero delay for airspace users.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Austria	*1.88*	*1.29*	*1.28*	*1.27*	*1.27*
Croatia	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*
Czech republic	*0.25*	*0.3*	*0.35*	*0.4*	*0.4*
Hungary	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*
Slovakia	*0*	*0*	*0*	*0*	*0*
Slovenia	*0*	*0*	*0*	*0*	*0*

Table 9: National target on average arrival ATFM delays [minutes per arrival]

4.2.1 The scope of the FAB CE Performance Plan comprises the terminal air navigation services at the major airports of all Member States, i.e. Austria: LOWW, Czech Republic: LKPR, Croatia: LDZA, Hungary: LHBP, Slovakia: LZIB, and Slovenia: LJLJ.

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay with a breakdown for each of the major airports per FAB CE Member State.

4.2.3 In all cases, the description and explanation of the national target and the contribution to the improvement of performance is limited to a listing of anticipated improvements. No particular discussion how the targets and local monitoring values contribute to the performance is provided.

4.2.4 For Austria, a challenging target has been established entailing an improvement of 0.5 minutes per arrival as of 2016.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.5 For Austria, the target value for 2015 is consistent with the observed historical performance achieved in the last 5 years. The demanding performance target values for 2016-2019 are in line with the improved performance over the past two years.

4.2.6 The historical performance at LKPR is consistent with the moderate stepwise increase of the national target. Benefits from the capacity increase (construction of parallel runway) can only be expected post-RP2 and will pose a constraint in light of the anticipated traffic increase.

4.2.7 Considering the level of traffic and the available airport capacity, LDZA/Croatia, LHBP/Hungary, LZIB /Slovakia, and LJLJ/Slovenia have accrued negligible shares of arrival ATFM delay in the past. The associated target values are in line with the observed performance.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.8 For all FAB CE Member States the national target reflects the local target for the major national airport. In that respect the national target is consistent with the local target values.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.9 As regards arrival ATFM delay, the performance of the FAB CE shows no significant behaviour. Across Europe, similar values for arrival ATFM delay are recorded for airports with similar traffic volumes.

4.2.10 Within the group of FAB CE airports, LOWW ranges around the European averages for most operational ANS performance indicators at airports. As concerns arrival ATFM delay (all causes), LOWW ranges above the European average with a considerable share of reported weather causes.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.11 The presentation of operational benefits from planned initiatives is limited to a listing of activities. These include – dependent on the airport – collaborative decision-making at airports, continuous descent operations, and the introduction of PRNAV procedures. However, no particular discussion of the benefits and how these may impact performance in the individual cases is provided.

Primary check:

- *Other justifications provided*

4.2.12 The FAB CE Performance Plan provides no further specific airport capacity-related justifications.

4.3 Additional indicators

EN-ROUTE

4.3.1 The FAB CE Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The FAB CE Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 10 lists the Incentives for the en-route included in the Performance Plan which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

Incentive Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance
Capacity incentive scheme	No	No	Yes	No	No

Table 10: Incentives on en-route Capacity

4.4.2 The PRB has the following comments on the FAB CE en-route ATFM incentive scheme:

- FAB performance is merely a weighting, not a trigger;
- National ANSP targets listed in annex E are inconsistent with those published in the NOP;
- Explanatory documentation (annex E) does not explain the overly complicated incentive scheme;
- For the same local performance achievement, a specific ANSP could receive a greatly increased bonus if the FAB target is missed by 0.5 minutes instead of 0.01 minutes: clearly this is ineffective and disproportional;
- There is no clear evidence to show how the different weightings for local and FAB performance foster a high level of performance.

AIRPORT

4.4.3 The FAB CE Performance Plan presents no capacity incentive scheme for the national target on arrival ATFM delay.

4.5 Key points

EN-ROUTE

4.5.1 The FAB CE capacity targets are not consistent with the respective FAB reference values.

4.5.2 The existing ANSP capacity plans are consistent with the capacity performance required during RP2.

4.5.3 The expected ANSP contribution is inconsistent with the required FAB capacity performance.

4.5.4 There is no mention of how FUA legislation will be applied to improve capacity for general air traffic.

4.5.5 The en-route capacity incentive scheme is not consistent with Article 12 of the performance Regulation.

AIRPORT

4.5.6 The national targets on arrival ATFM delay for FAB CE Member States is realistic and consistent with the requirements under Article 14.2 of the Performance Regulation and therefore acceptable. It is worth noting the reduced bound for the national target in Austria as of 2016 which represent a challenging improvement of about 0.5 minutes per arrival.

4.5.7 The justification for the target is typically pointing to potential impacts from activities with little evidence to what extent performance benefits can be expected. The level of information should be enriched.

5 COST-EFFICIENCY

5.1 Austria: Setting the scene for the RP2 cost-efficiency assessment

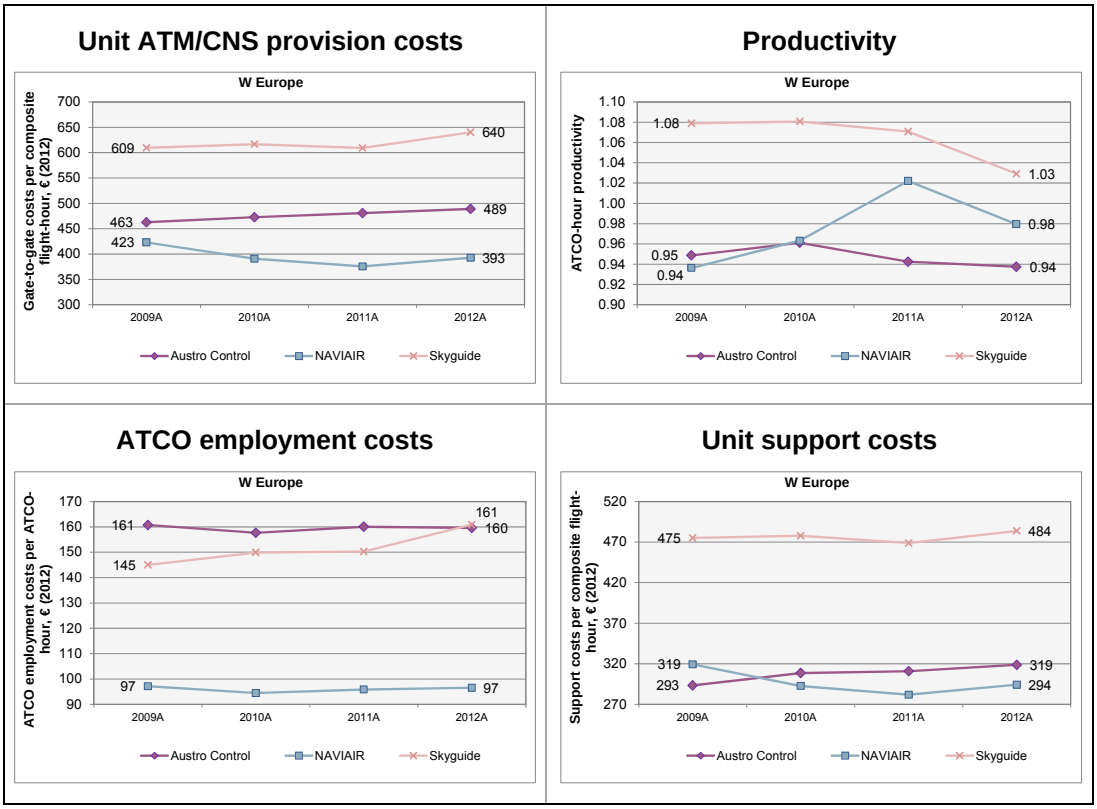
5.1.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on Austro Control, the main ATSP in Austria, which represented 2.5% of the European system ATM/CNS provision costs in 2012.

5.1.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Austro Control is part of the Western Europe comparator group, also including NAVIAIR (Denmark) and Skyguide (Switzerland).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- Austro Control productivity (0.94) is -6.7% lower than the comparator group average (1.00);
- Employment costs per ATCO-hour (160 €$_{2012}$) are +24.0% higher than the comparator group average (129 €$_{2012}$); and,
- Support costs per composite flight hour (319 €$_{2012}$) are -18.1% lower than the comparator group average (389 €$_{2012}$).

5.1.4 As a result, Austro Control unit ATM/CNS provision costs (489 €$_{2012}$) were -5.3% lower than the comparator group average in 2012 (516 €$_{2012}$) and +24.5% higher than the ANSP with the lowest unit costs in the comparator group (NAVIAIR).



5.1.5 The PRB 2013 monitoring analysis indicates that Austro Control actual en-route costs for 2013 were substantially lower than planned (-16.3 M€$_{2009}$). This was sufficient to compensate for the impact of the lower traffic than planned (-12.7%) on Austro Control revenues. Indeed, taking into account the amount of costs exempt

from the cost sharing and the traffic risk sharing arrangements, Austro Control generated a net gain of 9.7 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Austro Control economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 4.3 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 14.0 M€$_{2009}$, which implies an ex-post rate of return on equity of 14.7% (compared to 4.5% as initially planned in the NPP). This adds to the gains generated by Austro Control in 2012 (10.1 M€$_{2009}$ or 7.0% of en-route revenues leading to an ex-post rate of return on equity of 12.3%).

5.1.6 It should be noted that this analysis does not reflect the substantial costs exempt from risk sharing (88.4 M€ relating to pensions) that were reported by Austria for the year 2013. This amount will be considered eligible (or not eligible) only after the EC verification of the information provided in the Austrian NSA report on costs exempt from risk sharing. The outcome of this verification is expected to be available during the fall of 2014.

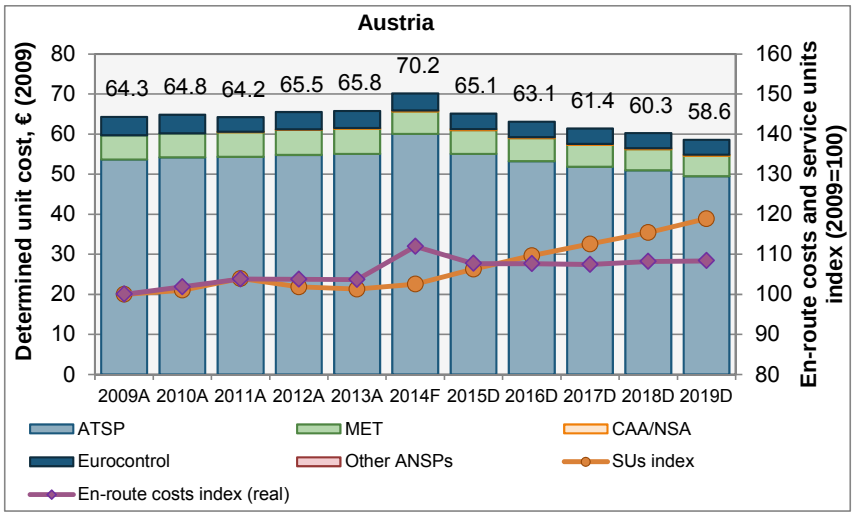
Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	149 402	152 893
Actual costs for the ATSP	136 946	136 616
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	12 456	16 277
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**12 456**	**16 277**
Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-9.22%	-12.72%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-6 054**	**-6 571**
Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**
Net ATSP gain(+)/loss(-) on en-route activity	**6 402**	**9 705**
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	3 699	4 286
Overall estimated surplus (+/-) for the en-route activity	10 101	13 991
Revenue/costs for the en-route activity	143 349	146 322
Estimated surplus (+/-) in percent of en-route revenue/costs	**7.0%**	**9.6%**
Estimated ex-post RoE pre-taxe rate (in %)	**12.3%**	**14.7%**

Table 11: ANSP estimated surplus 2012 & 2013

5.2 Austria: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	53.63	54.20	54.33	54.79	55.05	60.04	55.10	53.26	51.84	50.94	49.46	-1.2%	-3.8%
MET	EUR (2009)	6.06	6.02	6.11	6.25	6.28	5.62	5.90	5.74	5.45	5.27	5.15	-2.1%	-1.7%
CAA/NSA	EUR (2009)	-	-	0.16	0.17	0.20	0.26	0.27	0.28	0.28	0.28	0.28	7.6%	1.7%
Eurocontrol	EUR (2009)	4.62	4.62	3.63	4.29	4.26	4.27	3.85	3.83	3.81	3.77	3.72	0.3%	-2.7%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**64.30**	**64.84**	**64.22**	**65.49**	**65.79**	**70.19**	**65.12**	**63.12**	**61.39**	**60.27**	**58.60**	**-1.1%**	**-3.5%**

Figure 16: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	155.9	161.8	170.8	175.2	178.7	196.4	192.1	195.3	198.3	203.1	206.8
Inflation rate	annual % change		1.9%	3.6%	2.6%	2.1%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
Inflation index	2009=100	100.0	101.9	105.6	108.3	110.6	112.6	114.5	116.4	118.4	120.4	122.5
Determined costs	EUR m (2009)	155.9	158.8	161.8	161.7	161.6	174.5	167.8	167.8	167.5	168.6	168.9
Service units	'000s	2 424	2 449	2 519	2 469	2 456	2 486	2 577	2 658	2 728	2 798	2 882
Determined unit cost	EUR (2009)	64.30	64.84	64.22	65.49	65.79	70.19	65.12	63.12	61.39	60.27	58.60
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	64.30	64.84	64.22	65.49	65.79	70.19	65.12	63.12	61.39	60.27	58.60

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.9%	2.4%	1.0%	1.9%
Inflation	CAGR %	2.0%	1.9%	1.7%	1.7%
Determined costs	EUR m (2009)	0.8%	0.5%	-0.7%	0.2%
Service units	'000s	1.7%	1.7%	3.0%	2.8%
Determined unit cost	EUR (2009)	-0.9%	-1.1%	-3.5%	-2.6%
Exchange rate					
Determined unit cost	EUR (2009)	-0.9%	-1.1%	-3.5%	-2.6%

Table 12: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	No

The determined costs (DCs) reported for the year 2014 in the RP2 Performance Plan for Austria have not been updated and correspond to the figure provided in the adopted Performance Plan for RP1. This issue significantly affects the DCs and determined unit costs (DUC) trends when these are computed over the 2014-2019 period.

On the other hand, the number of total service units (TSUs) reported for the year 2014 has been updated and corresponds to STATFOR forecast (base case scenario – Feb. 2014). This revised number of en-route TSUs is -15.6% lower than the figure reported in the RP1 Performance Plan for RP1.

As a result, the 2014 DUC reported in the RP2 Performance Plan is substantially higher (+17.9%) than that provided in the RP1 Performance Plan. All else equal, this contributes to a higher starting point for RP2 en-route cost-efficiency targets.

Key points for Austria en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

Over RP2, the traffic growth forecast for Austria en-route charging zone is in line with STATFOR February 2014 baseline scenario.

2. Economic assumptions:	**Passed**

The inflation forecasts submitted for Austria en-route charging zone over RP2 are in line with the IMF average inflation forecasts.

3. En-route DUC trend:	**Not passed**

The profile of en-route DUC planned by Austria over the 2014-2019 period (-3.5% p.a.) is better than the Union-wide cost-efficiency target (i.e. -3.3% p.a.) since DCs are expected to reduce by -0.7% p.a. while the number of SUs is planned to rise by +3.0% p.a.

However, the DCs provided by Austria for the year 2014 were not updated to reflect the latest situation and correspond to the figure reported in the adopted Performance Plan for RP1. This issue significantly affects the trend in DUC when it is computed over the 2014-2019 period. When assessed over the 2011-2019 period which covers RP1 and RP2, Austria's en-route DUC planned reduction (-1.1% p.a.) is below the Union-wide target (i.e. -1.7% p.a.). Detailed analysis indicates that over the 2011-2019 period, the DUC reduction is planned to be entirely achieved through the traffic growth (+1.7% p.a.) while DCs are expected to slightly increase (+0.5 % p.a.).

The main driver for the DCs increase planned for 2011-2019 is a rise in the depreciation costs (+20.6% or +2.4% p.a.) of the ATSP operating in Austria (Austro Control). In 2015, Austro Control en-route depreciation costs are expected to be +10.7% higher than 2013 actuals. Actual depreciation costs in 2012 and 2013 were significantly lower than planned (-6.8% and -19.2%, respectively). It is understood that these deviations are partly due to the postponement of non-crucial investments to future years. It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-route DCs provided for RP2. This issue, which was also identified by

airspace users during the consultation of the draft RP2 Performance Plan, deserves a clarification from Austria.

The PRB 2013 monitoring analysis indicates that in 2013 the actual en-route costs of Austro Control were substantially lower than planned (-16.3 M€$_{2009}$). This was sufficient to compensate for the impact of the lower traffic than planned (-12.7%) on Austro Control revenues. As a result, Austro Control was in a position to achieve an economic surplus on the en-route activity in 2013 (14.0 M€$_{2009}$). This adds to the gains already generated by Austro Control in 2012 (10.1 M€$_{2009}$).

The starting point in terms of en-route DCs in 2014 is +8.0% higher than the actual en-route costs observed for the year 2013. Similarly, Austria's en-route DCs for 2015 are +3.9% higher than 2013 actuals. This factual evidence indicates that the cost-efficiency performance improvements achieved in the first years of RP1 were not fully taken into account when setting the profile of DCs over RP2.

4. En-route DUC level:	**Not passed**

In 2019, Austria's en-route DUC is planned to amount to 58.60 €$_{2009}$ per SU which is -2.2% lower than the average of the comparator group (59.89 €$_{2009}$).

However, when the DCs of the States part of this comparator group are adjusted for differences in cost of living (using PPPs) and exchange rates, the DUC planned by Austria is higher than the average of the group for each year of RP2 (a difference ranging from 25% in 2015 to 20% in 2019). Similarly, when the planned DUC levels and trends are normalised to account for the differences in traffic growth and inflation rates changes, Austria en-route DUC is expected to be higher than the average of the comparator group for each year of RP2.

5. En-route cost of capital:	**Passed**

The Weighted Average Cost of Capital (WACC) rate used to compute Austro Control en-route cost of capital (4.0%) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance.

The monetary value of the return on equity (RoE, between 3.9 and 4.1 M€$_{2009}$ p.a. over RP2) is lower than the maximum traffic risk exposure which will be borne by Austro Control over RP2 (around 6.2 M€$_{2009}$ p.a.).

Finally, Austro Control en-route asset base per service unit is expected to be substantially lower than the comparator group average for each year of RP2.

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for two pension schemes (defined contributions and defined benefits pension schemes) that were established by Austro Control.

No information is provided on the interest rates on loans since Austro Control has no borrowings.

The Performance Plan specifies that for Austria no adjustments were made beyond the provisions of IAS.

7. Costs exempt from risk sharing:	Passed

The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for RP1 (2012 and 2013). In particular, a substantial amount relating to pensions has been reported for the year 2013 (88.4 M€). This amount reflects "unrecognised" actuarial losses which had to be recorded in Austro Control 2013 financial statements following an amendment of IAS 19 in 2013.

The costs exempt from risk sharing reported in 2012 and 2013 will be considered eligible (or not eligible) only after the EC verification of the information provided in the Austrian NSA report on costs exempt from risk sharing. The outcome of this verification is expected to be available during the fall of 2014.

The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. As for RP1, these amounts will be considered eligible (or not eligible) only after the EC verification process.

Overall consistency assessment of Austria en-route cost-efficiency KPIs

Taking into account these key points, in particular 3 and 4 the FAB CE Performance Plan, and in particular Austria's en-route cost-efficiency target, is assessed as <u>not</u> being consistent with and <u>not</u> making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a recommendation to the FAB CE to adopt a revised Performance Plan and, in particular to Austria to revise its en-route cost-efficiency target, including, to:

a) revise the levels and trends of the en-route DCs planned over RP2; and,

b) ensure that the depreciation costs associated with the non-realised capex programmes over RP1 will not be charged again to airspace users over RP2.

5.3 Austria: Overview of terminal charging zone assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Austria which comprises six airports of which one is above 70,000 movements per year (i.e. Vienna airport LOWW). The TCZ is the same as for RP1 in terms of airports scope.

Total TNSUs for the TCZ accounted for 99.6% of the TNSUs in Austria in 2013.

On average, the total costs for the TCZ account for 17.7% of Austria's "gate-to-gate" activity subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) already applies in the Austrian TCZ.

All the airports in the TCZ will be subject to traffic risk sharing over RP2.

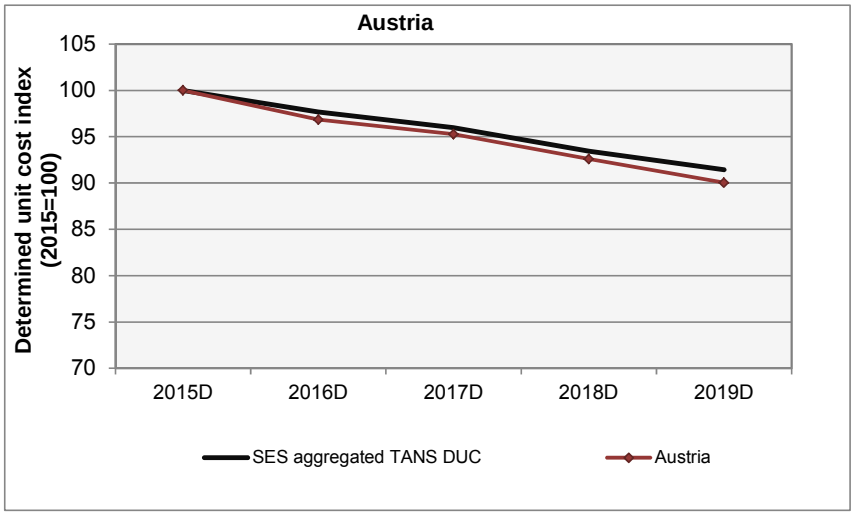


Figure 17: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	41.0	41.9	43.1	44.0	44.8	2.3%
Inflation rate *	annual % change	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Inflation index *	2009=100	114.5	116.4	118.4	120.4	122.5	
Determined costs	EUR m (2009)	35.8	36.0	36.4	36.5	36.6	0.5%
Terminal SUs	'000s	181.0	187.9	193.1	199.4	205.5	3.2%
Determined unit cost	EUR (2009)	197.79	191.53	188.42	183.14	178.07	-2.6%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	197.79	191.53	188.42	183.14	178.07	-2.6%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 13: Terminal DUC breakdown

Key points for Austria terminal charging zone	
1. Traffic forecast assumptions:	**Passed**
Over RP2, the traffic growth forecast in the Plan for the Austrian TCZ is in line with STATFOR February 2014 baseline scenario.	
2. Economic assumptions:	**Passed**
Over RP2 a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.	
3. Terminal ANS DUC trend:	**Passed**
Over the 2015-2019 period, the profile of terminal ANS DUC for the Austrian charging zone (-2.6% p.a.) is better than the SES aggregated DUC trend (-2.2% p.a.). The year 2013 is the latest for which actual terminal cost data is available. The determined cost base used by Austria to compute the terminal DUC for the year 2015 (35.8 M€$_{2009}$) is in the same order of magnitude as 2013 actual terminal costs (35.3 M€$_{2009}$). When assessed over the 2013-2019 period, Austria's terminal DUC is also expected to reduce (-2.0% p.a.) since SUs are planned to increase faster (+2.6% p.a.) than the DCs (+0.6% p.a.).	
4. Terminal cost of capital:	**Passed**
The RoE and WACC rates used to compute the cost of capital for Austria's TCZ over the 2017-2019 period are in line with those used to compute the cost of capital for the en-route charging zone. The WACC rates for 2015 and 2016 have been capped at 2.0%.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
As for en-route ANS, the Performance Plan comprises information on the economic assumptions where relevant.	
6. Costs exempt from risk sharing:	**Passed**
The information provided for the description of costs exempt from risk sharing is the same as for en-route ANS (except for EUROCONTROL costs).	

Overall consistency assessment of Austria terminal ANS cost-efficiency KPIs
Taking into account the above key points, in particular 1, 2, 3 and 4, the FAB CE Performance Plan, and in particular Austria terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

5.4 Croatia: Setting the scene for the RP2 cost-efficiency assessment

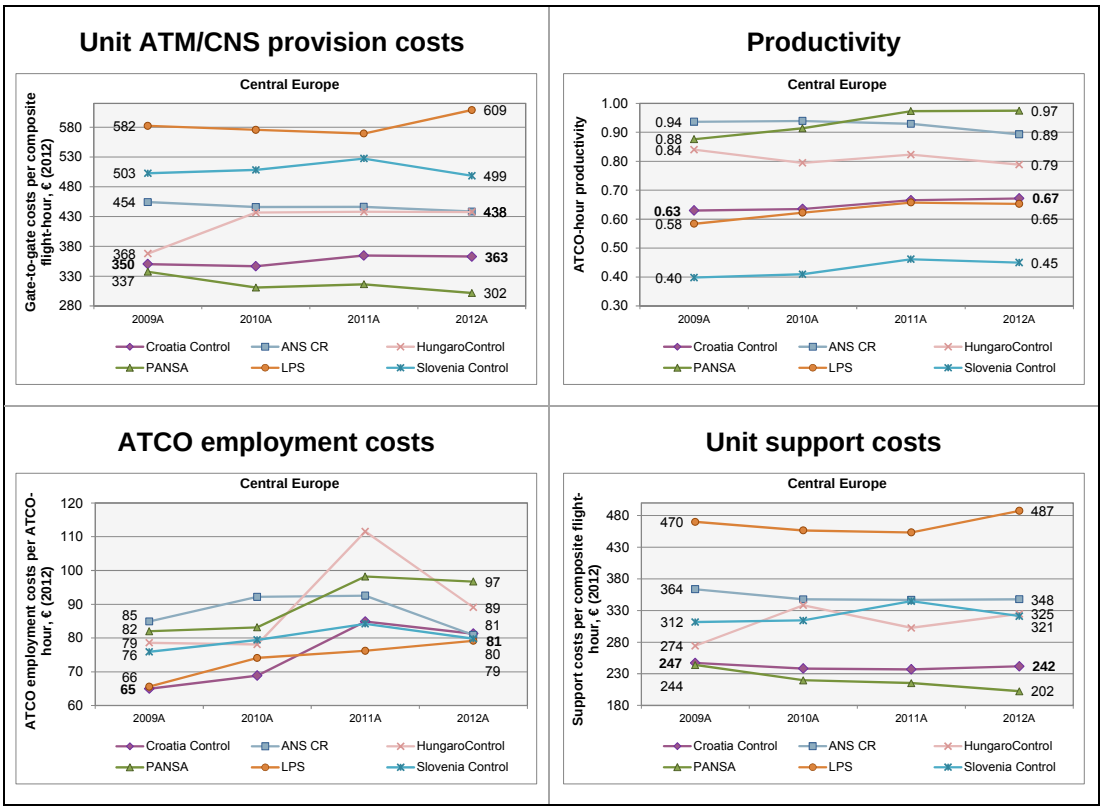
5.4.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report. It focuses on Croatia Control, the main ATSP in Croatia, which represented 1.1% of the European system ATM/CNS provision costs in 2012.

5.4.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Croatia Control is part of the "Central Europe" ANSPs comparator group, also including ANS CR (Czech Republic), HungaroControl (Hungary), LPS (Slovakia), PANSA (Poland) and Slovenia Control (Slovenia).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- Croatia Control's productivity (0.67) is -10.6% lower than the average of the comparators (0.75);
- Employment costs per ATCO-hour (81 €$_{2012}$) are -4.5% lower than the average of the comparators (85 €$_{2012}$); and,
- Support costs per composite flight-hour (242 €$_{2012}$) are -28.2% lower than the average of the comparators (337 €$_{2012}$).

5.4.4 As a result, Croatia Control's unit ATM/CNS provision costs (363 €$_{2012}$) were -20.6% lower than the average of the comparators in 2012 (457 €$_{2012}$).



5.4.5 Croatia is not bound by the SES Performance Scheme in RP1 and is therefore not included in the PRB RP1 monitoring analyses. In addition, as Croatia Control was not subject to traffic risk sharing and cost-sharing in 2012 and 2013, no economic surplus analysis is included in this assessment report.

5.4.6 Croatia is applying the "Full cost-recovery" method in RP1, whereby unit rates (UR) are set in November (year N-1) for the following year (N), based on the latest

forecast costs and service units and the differences between actual and forecast costs and service units are passed on to airspace users as over- or under-recoveries in subsequent unit rates (N+2, etc).

5.4.7 In 2012, Croatia's en-route actual unit cost was higher than the UR basis by +2.5% (as costs were lower by -4.2% than planned and service units were lower by -6.6%). In 2013, it was higher than UR basis by +4.4%, as actual en-route costs remained at the same level as planned (+0.4%), while traffic turned out to be -3.8% lower. This led to significant under-recoveries in 2012 and 2013 (1.5 M€$_{2009}$ and 2.7 M€$_{2009}$, respectively) to be recovered from airspace users and indicates that actual 2013 costs showed little adjustments to the lower traffic than planned.

Croatia en-route ANS costs	2012	2013
Forecast costs (UR basis) '000€2009	67 050	68 473
Actual costs '000€2009	64 248	68 759
Actual vs. forecast	-4.2%	0.4%

Croatia en-route TSUs	2012	2013
Forecast TSUs (UR basis) '000	1 796	1 762
Actual TSUs '000	1 679	1 695
Actual vs. forecast	-6.6%	-3.8%

Croatia en-route unit costs	2012	2013
Forecast unit cost €2009	37.33	38.86
Actual unit cost €2009	38.27	40.58
Actual vs. forecast	2.5%	4.4%

Table 14: Croatia en-route unit costs 2012 & 2013

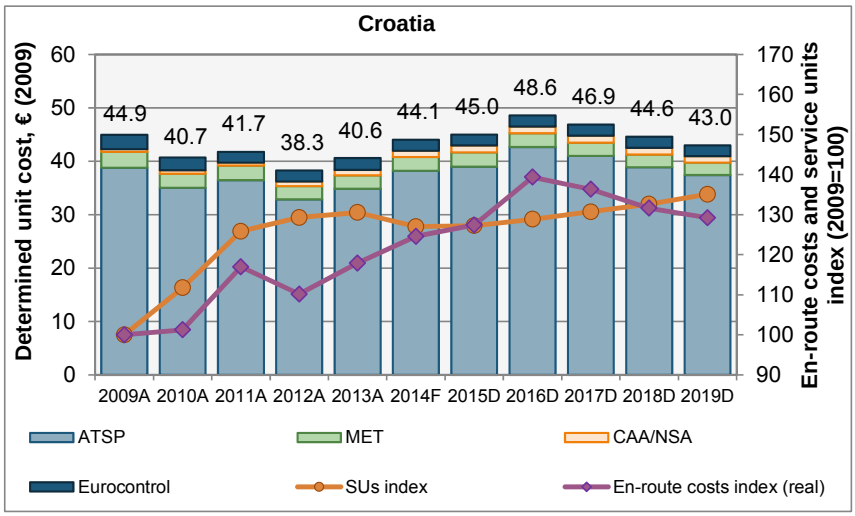
5.5 Croatia: Overview of en-route KPI assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Important note: Croatia en-route KPI for RP2 and historical data presented in the FAB CE RP2 Performance Plan include the costs for services provided by its en-route ATSP (Croatia Control) in Sarajevo FIR (Bosnia and Herzegovina), i.e. outside the Croatia en-route charging zone. This is not compliant with the SES performance and charging regulations (Art. 6.1 of the charging Regulation) and does not allow the PRB to assess the Croatia en-route cost-efficiency KPI.

Nevertheless, with a view to provide an indication of what the assessment results would be, the PRB has recalculated the costs data by excluding services provided to Bosnia and Herzegovina. As a result, the present assessment is based on the costs recalculated by the PRB.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	38.79	35.03	36.44	32.88	34.84	38.22	39.00	42.68	40.99	38.87	37.43	0.3%	-0.4%
MET	EUR (2009)	2.99	2.65	2.74	2.45	2.51	2.60	2.66	2.59	2.49	2.40	2.29	-2.2%	-2.5%
CAA/NSA	EUR (2009)	0.51	0.65	0.58	0.90	1.03	1.15	1.29	1.26	1.32	1.27	1.22	9.8%	1.2%
Eurocontrol	EUR (2009)	2.63	2.38	1.98	2.05	2.19	2.08	2.02	2.05	2.05	2.04	2.02	0.2%	-0.7%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**44.92**	**40.70**	**41.74**	**38.27**	**40.58**	**44.06**	**44.97**	**48.58**	**46.85**	**44.57**	**42.96**	**0.4%**	**-0.5%**

Figure 18: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	HRK m (nom)	427.9	438.1	517.7	504.2	552.0	586.1	606.0	675.5	674.8	666.3	670.6
Inflation rate	annual % change		1.1%	2.3%	3.4%	2.3%	0.5%	1.1%	1.9%	2.1%	2.3%	2.5%
Inflation index	2009=100	100.0	101.1	103.4	106.9	109.4	109.9	111.2	113.3	115.6	118.3	121.3
Determined costs	HRK m (2009)	427.9	433.3	500.6	471.5	504.6	533.1	545.2	596.4	583.5	563.2	553.0
Service units	'000s	1 298	1 451	1 634	1 679	1 695	1 649	1 652	1 673	1 697	1 722	1 754
Determined unit cost	HRK (2009)	329.62	298.69	306.32	280.86	297.75	323.28	330.03	356.46	343.82	327.07	315.28
Exchange rate	HRK:EUR	7.34										
Determined unit cost	EUR (2009)	44.92	40.70	41.74	38.27	40.58	44.06	44.97	48.58	46.85	44.57	42.96

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	HRK m (nom)	4.6%	3.3%	2.7%	2.6%
Inflation	CAGR %	1.9%	2.0%	2.0%	2.2%
Determined costs	HRK m (2009)	2.6%	1.3%	0.7%	0.4%
Service units	'000s	3.1%	0.9%	1.2%	1.5%
Determined unit cost	HRK (2009)	-0.4%	0.4%	-0.5%	-1.1%
Exchange rate					
Determined unit cost	EUR (2009)	-0.4%	0.4%	-0.5%	-1.1%

Table 15: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Not applicable
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Not applicable

Croatia is not subject to the SES Performance Scheme in RP1 and therefore does not apply the determined costs (DCs) method and the related traffic risk sharing and cost-sharing.

The 2014 forecast en-route costs in the RP2 Performance Plan have not been updated from the figures provided in November 2012 (after deduction of the costs for services to Bosnia and Herzegovina). However, the 2014 forecast en-route Total Service Units (TSUs) have significantly been revised downwards (-9.0%) compared to the November 2012 figure. As a result, the 2014 forecast unit cost is +9.8% higher than was forecasted in November 2012 and constitutes a high starting point for RP2.

The PRB also notes that the forecast 2014 en-route costs are +13.1% higher than 2012 actuals and +5.7% than 2013 actuals, whereas TSUs 2014 are lower than 2012 and 2013 actuals (by -1.8% and -2.7%, respectively). This leads to a 2014 unit cost higher by +15.1% than the actual unit cost for 2012 and higher by +8.6% than the actual unit cost for 2013. It is noted that this significant increase in costs planned for 2014 compared to previous years is mainly due to depreciation costs linked to the entry into operation of the CroATM Upgrade Project – COOPANS in 2014 (capex amounting to circa 35 M€).

Key points for Croatia en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

The forecast total en-route TSUs for Croatia en-route charging zone is equivalent to the STATFOR low case forecast published in February 2014 for every year 2015-2019.

This choice seems very conservative in the light of the growth observed for 2014 to date (+2.1% for the period January to August), which exceeds both the STATFOR low case forecast (-2.7%) and the STATFOR base case forecast for 2014 (-0.7% vs 2013).

2. Economic assumptions:	**Passed**

The inflation forecasts for Croatia en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

3. En-route DUC trend:	**Not passed**

Croatia en-route KPI for RP2 and historical data presented in the FAB CE RP2 Performance Plan include the costs for services provided by Croatia Control in Sarajevo FIR (Bosnia and Herzegovina - BiH). Costs for BiH are presented up to 2015 included, as the complete take-over of service provision over BiH's airspace by BHANSA (the BiH ATSP) is expected for 2016, based on the "Transition Plan for BH Phase 2".

The inclusion of costs for services provided outside the Zagreb FIR in the en-route DCs and DUC is not compliant with the SES regulations and does not allow the PRB to assess the en-route KPI (see "Important Note" above). Nevertheless, with a view to provide an indication of what the assessment results would be, the PRB has recalculated the costs data by excluding services provided to BiH.

The en-route DUC trend for Croatia (after removal of the costs for services provided to BiH) is much worse than the Union-wide targets, whether considered over the period 2014-2019 (-0.5% p.a. vs. -3.3% p.a.) or over the period 2011-2019 (+0.4% p.a. vs. -1.7% p.a.). In addition, all RP2 annual values for the DUCs are much higher than the starting and end points used to compute annual averages and show significant peaks in 2016 and 2017. The PRB notes that the trend is also worse than the Union-wide targets if considered before removal of the costs for services provided to BiH (-2.6% p.a. for 2014-2019 and -1.0% for 2011-2019). This arises in spite of a high DC (and resulting DUC) starting point for 2014 (see above).

The en-route DC trend for Croatia (after removal of the costs for services provided to BiH) is also much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the period 2014-2019 (+0.7% p.a. vs. -2.1% p.a.) or over the period 2011-2019 (+1.3% p.a. vs. -0.8% p.a.). Moreover, all annual values for the DCs are much higher than the starting and end points used to compute annual averages and show significant peaks in 2016 and 2017. This is mainly due to the fact that, although Croatia Control will cease to provide services to Bosnia and Herzegovina, its total costs for each year of RP2 will remain at a similar level or be even higher than when such services were provided.

The PRB notes that the DCs trend is also worse than the Union-wide targets if considered before removal of the costs for services provided to BiH (-1.3% p.a. for 2014-2019 and -0.1% for 2011-2019).

Overall, there are no indications in the FAB Performance Plan for significant structural and organisational changes within Croatia Control following the termination of services provided to BiH or between FAB CE ATSPs that lead to rationalisation of services and infrastructure and costs reductions in RP2.

Croatia should clarify whether some services are planned to be provided to BiH beyond 2015 and how these (if any) will be reflected in the BiH en-route charging zone and the Croatia en-route charging zone so as to ensure that airspace users are not paying twice for the same service.

4. En-route DUC level:	**Not passed**
The DUC level of Croatia en-route charging zone in 2019 (42.96 €$_{2009}$) is significantly higher (+9.6%) than the average of the DUC of the comparators (39.20 €$_{2009}$). It is also significantly higher if adjusted for exchange rates and/or cost of living (PPP). The PRB notes however, that it is close to the average of the comparators if normalised for traffic (STATFOR baseline scenario). The PRB notes that the unit cost level for Croatia en-route charging zone is also close to the average of the comparators until 2015, corresponding to the last year of provision of services by Croatia Control to BiH. The DUC level of Croatia en-route charging zone in 2019 is lower (-16.2%) than the Union-wide average (51.26 €$_{2009}$).	
5. En-route cost of capital:	**Passed**
The Weighted Average Cost of Capital (WACC) rate used to calculate the en-route cost of capital for Croatia Control is well below the notional "efficient" WACC, as Croatia Control does not include the total “eligible” WACC in the RP2 DCs. As a result, although Croatia Control’s en-route asset base per service unit is comparable with that of the comparators, the overall monetary value of the Return on Equity (RoE) is below the monetary value of the maximum revenue risk borne by Croatia Control for the en-route activity over RP2 (by -35.9%). It should nevertheless be noted that the downside risk is significantly reduced by choosing the low STATFOR traffic forecast scenario.	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.	
7. Costs exempt from risk sharing:	**Passed**
The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 6. above).	

Overall consistency assessment of Croatia en-route cost-efficiency KPIs

Taking into account these key points, in particular 1, 3 and 4, Croatia en-route cost-efficiency target is assessed as not being consistent with and not making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2.

Therefore, the PRB advises the Commission to recommend the FAB CE to revise its Performance Plan, and specifically for Croatia to:

a) remove the costs for services provided outside the Croatia en-route charging zone (costs for services provided in Sarajevo FIR and charged through the unit rate for Bosnia and Herzegovina charging zone) and revise downwards the DCs in RP2 accordingly,

b) clarify whether some services are planned to be provided to BiH beyond 2015 and how these (if any) will be reflected in the BiH en-route charging zone and the Croatia en-route charging zone so as to ensure that airspace users are not paying twice for the same service.

c) reconsider the traffic forecast in the light of the latest available year-to-date actual situation; and,

d) complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template (based on key point 6).

5.6 Croatia: Overview of the terminal KPI assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Croatia for RP2, covering the main airport controlled by Croatia Control, LDZA (Zagreb/Pleso).

Traffic risk-sharing is applicable to the RP2 TCZ.

The proportion of regulated TNSUs covered by the RP2 TCZ is around 40% of the total TNSUs for the State.

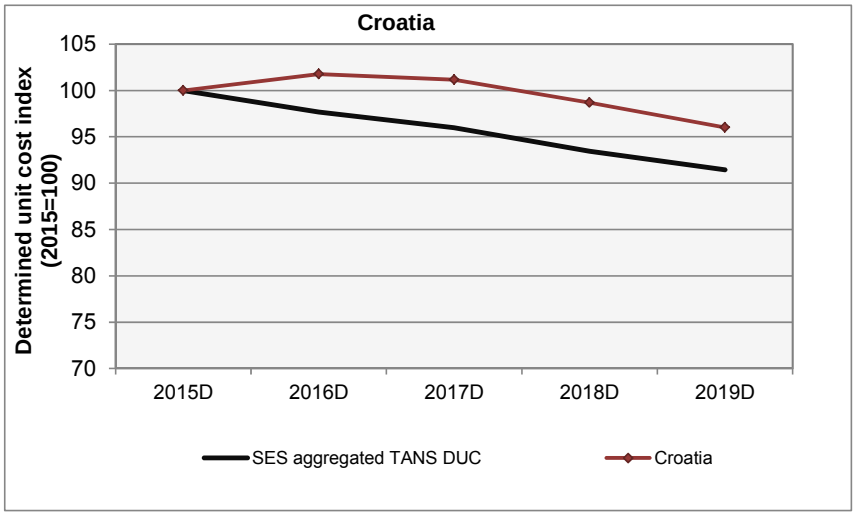


Figure 19: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	HRK m (nom)	27.6	28.9	30.2	31.0	32.6	4.2%
Inflation rate *	annual % change		1.9%	2.1%	2.3%	2.5%	2.2%
Inflation index *	2009=100	111.2	113.3	115.6	118.3	121.3	
Determined costs	HRK m (2009)	24.8	25.5	26.1	26.2	26.8	2.0%
Terminal SUs	'000s	15.9	16.0	16.5	17.0	17.9	3.0%
Determined unit cost	HRK (2009)	1 561.40	1 588.98	1 579.39	1 540.91	1 498.97	-1.0%
Exchange rate	HRK:EUR (2009)	7.34					
Determined unit cost	EUR (2009)	212.78	216.54	215.23	209.99	204.27	-1.0%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 16: Terminal DUC breakdown

Key points for Croatia terminal charging zone

1. Traffic forecast assumptions:	**Passed**
The forecast total Terminal Navigation Service Units (TNSUs) for Croatia TCZ are broadly in line with the STATFOR base case published in February 2014 for all years of RP2.	
2. Economic assumptions:	**Passed**

Forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route KPI.	
3. Terminal ANS DUC trend:	**Not passed**
The trend in Croatia TANS DUC in RP2 (-1.0% p.a. on average) is significantly worse than the profile corresponding to the SES aggregated terminal ANS DUC taken from RP2 FAB Performance Plans submissions (-2.2% p.a. on average) when computed over the period 2015-2019. Terminal DCs for Croatia are increasing by +2.0% p.a. over RP2 (2015-2019) and are set from a high starting point (+27.6% higher than the 2013 actual costs and +18.7% higher than the 2014 forecasts, although the TCZ included an additional airport in RP1).	
4. Terminal cost of capital:	**Passed**
The WACC and return on equity rates used to calculate the cost of capital of Croatia Control for the TCZ are similar as for the en-route charging zone (in general slightly lower).	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
Same as en-route. The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.	
6. Costs exempt from risk sharing:	**Passed**
Same as en-route. The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 5. above).	

Overall consistency assessment of Croatia terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 3, Croatia terminal ANS cost-efficiency targets are assessed as <u>not</u> being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore, the PRB advises the Commission to recommend the FAB CE to revise its Performance Plan, and specifically for Croatia to:

a) revise downwards the TANS DCs in RP2; and,

b) complete the information provided on the underlying pension costs assumptions and interest on loans in line with the requirements of the FAB Performance Plan template (based on key point 5).

5.7 Czech Republic: Setting the scene for the RP2 cost-efficiency assessment

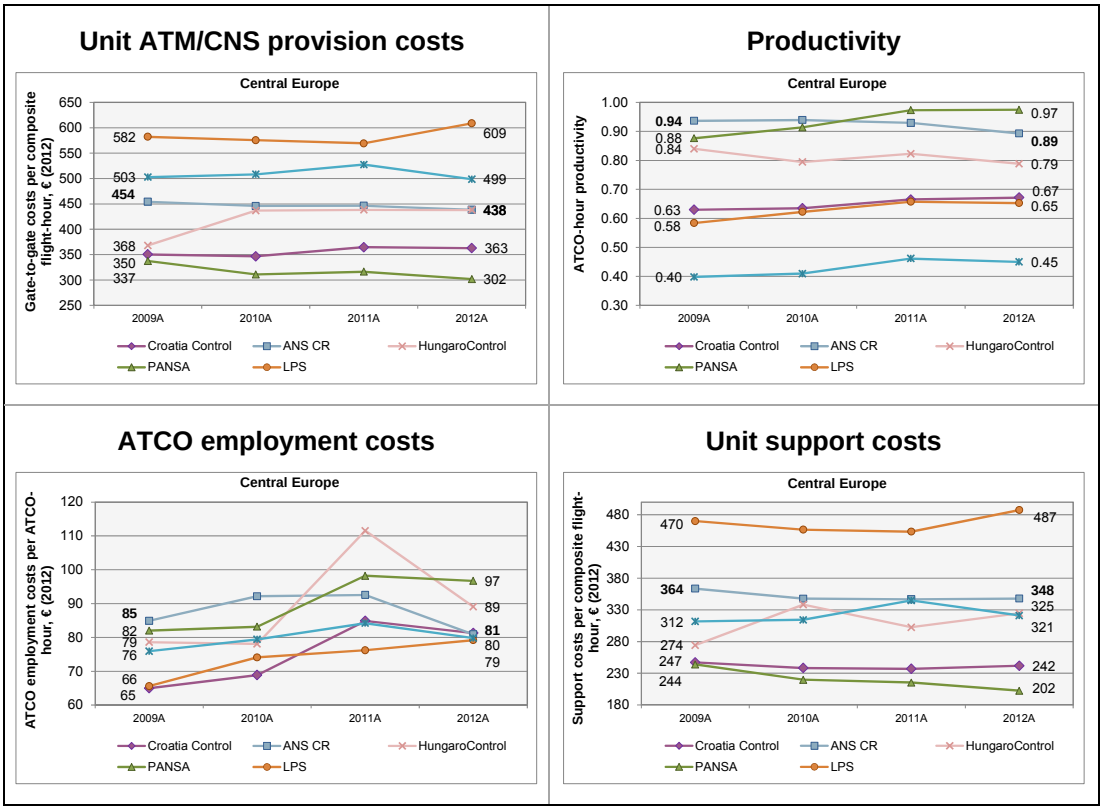
5.7.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on ANS CR, the main ATSP in the Czech Republic, which represented 1.6% of the European system ATM/CNS provision costs in 2012.

5.7.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. ANS CR is part of the "Central Europe" ANSPs comparator group, also including Croatia Control (Croatia), HungaroControl (Hungary), LPS (Slovakia), PANSA (Poland) and Slovenia Control (Slovenia).

5.7.3 The ACE 2012 benchmarking analysis shows that:

- ANS CR's productivity (0.89) is +26.2% higher than the average of the comparators (0.71);
- Employment costs per ATCO-hour (81 €$_{2012}$) are -5.1% lower than the average of the comparators (85 €$_{2012}$); and,
- Support costs per composite flight-hour (348 €$_{2012}$) are +10.2% higher than the average of the comparators (316 €$_{2012}$).

5.7.4 As a result, ANS CR's unit ATM/CNS provision costs (438 €$_{2012}$) were -0.8% lower than the average of the comparators in 2012 (442 €$_{2012}$).



5.7.5 The PRB 2013 monitoring analysis indicates that ANS CR actual en-route costs for 2013 were lower than planned, constituting a gain of +4.7 M€$_{2009}$ to be retained by ANS CR in respect of cost sharing. This gain is sufficient to compensate for the impact of the lower traffic than planned (-1.9%) on ANS CR revenues in 2013 (constituting a loss of -1.7 M€$_{2009}$ for ANS CR in respect of traffic risk sharing). The

resulting net gain for ANS CR on the 2013 en-route activity is +3.0 M€$_{2009}$. Moreover, when estimating ANS CR economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (+7.8 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 10.8 M€$_{2009}$, which implies an ex-post rate of return on equity of 9.7% (compared to 7.0% as initially planned in the RP1 Performance Plan). This adds to the surplus generated by ANS CR in 2012 (+12.1 M€$_{2009}$ or 14.0% of en-route revenues leading to an ex-post rate of return on equity of 10.0%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	87 734	89 488
Actual costs for the ATSP	82 427	84 826
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	5 307	4 662
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**5 307**	**4 662**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-2.00%	-1.90%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-1 741**	**-1 695**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	3 566	**2 967**

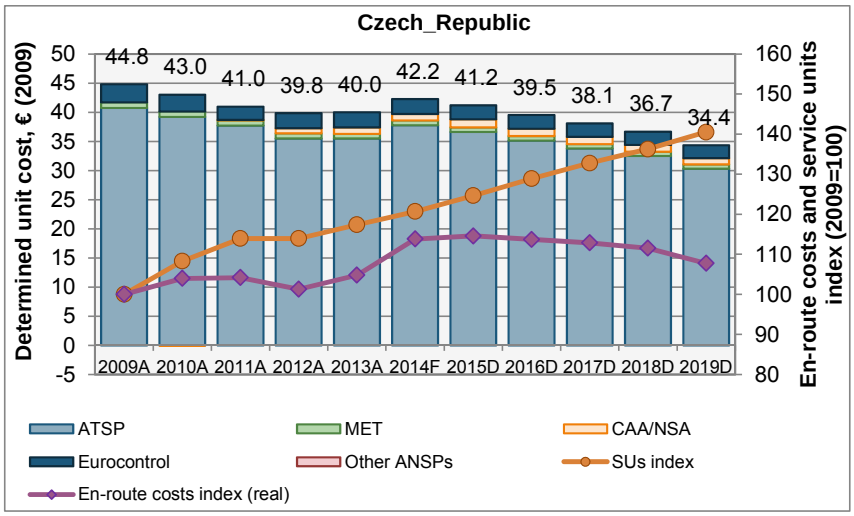
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	8 496	7 837
Overall estimated surplus (+/-) for the en-route activity	12 062	10 804
Revenue/costs for the en-route activity	85 993	87 793
Estimated surplus (+/-) in percent of en-route revenue/costs	**14.0%**	**12.3%**
Estimated ex-post RoE pre-taxe rate (in %)	**10.0%**	**9.7%**

Table 17: ANSP estimated surplus 2012 & 2013

5.8 Czech Republic: Overview of en-route KPI assessment

5.8.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	40.75	39.18	37.71	35.52	35.51	37.78	36.62	35.14	33.78	32.49	30.30	-2.7%	-4.3%
MET	EUR (2009)	0.97	0.96	0.88	0.85	0.78	0.82	0.78	0.76	0.74	0.74	0.73	-2.3%	-2.3%
CAA/NSA	EUR (2009)	-	0.00	0.12	0.90	1.10	1.11	1.41	1.27	1.25	1.15	1.07	31.1%	-0.7%
Eurocontrol	EUR (2009)	3.08	2.88	2.24	2.57	2.60	2.54	2.37	2.35	2.32	2.29	2.25	0.0%	-2.4%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**44.80**	**43.02**	**40.96**	**39.83**	**39.99**	**42.25**	**41.18**	**39.53**	**38.09**	**36.67**	**34.35**	**-2.2%**	**-4.1%**

Figure 20: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	CZK m (nom)	2 393.6	2 526.2	2 584.1	2 600.7	2 727.6	2 992.4	3 069.8	3 107.6	3 146.0	3 170.7	3 124.6
Inflation rate	annual % change		1.5%	2.1%	3.5%	1.4%	1.0%	1.9%	2.0%	2.0%	2.0%	2.0%
Inflation index	2009=100	100.0	101.5	103.6	107.3	108.8	109.8	111.9	114.2	116.5	118.8	121.2
Determined costs	CZK m (2009)	2 393.6	2 488.9	2 493.6	2 424.7	2 507.9	2 724.1	2 742.4	2 721.8	2 701.4	2 669.2	2 578.9
Service units	'000s	2 023	2 190	2 305	2 305	2 374	2 441	2 521	2 607	2 685	2 756	2 842
Determined unit cost	CZK (2009)	1 183.46	1 136.44	1 081.95	1 052.11	1 056.39	1 115.98	1 087.84	1 044.05	1 006.12	968.51	907.42
Exchange rate	CZK:EUR	26.41										
Determined unit cost	EUR (2009)	44.80	43.02	40.96	39.83	39.99	42.25	41.18	39.53	38.09	36.67	34.35

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	CZK m (nom)	2.7%	2.4%	0.9%	0.4%
Inflation	CAGR %	1.9%	2.0%	2.0%	2.0%
Determined costs	CZK m (2009)	0.7%	0.4%	-1.1%	-1.5%
Service units	'000s	3.5%	2.7%	3.1%	3.0%
Determined unit cost	CZK (2009)	-2.6%	-2.2%	-4.1%	-4.4%
Exchange rate					
Determined unit cost	EUR (2009)	-2.6%	-2.2%	-4.1%	-4.4%

Table 18: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	No

The total en-route determined costs (DCs) reported for the year 2014 in the RP2 Performance Plan have not been updated from those planned for 2014 in the RP1 Performance Plan in nominal terms, with the exception of EUROCONTROL costs. As a result of the update of EUROCONTROL costs, the 2014 in the RP2 Performance Plan are slightly higher (+0.3%) than those in the RP1 Performance Plan. However, when converted in real terms, the 2014 costs in the RP2 Performance Plan are slightly higher (by +1.6%) than those in the RP1 Performance Plan due to a lower forecast inflation index than in RP1 Performance Plan.

On the other hand, the en-route Total Service Units (TSUs) for 2014 have been updated and are -2.4% lower in the RP2 Performance Plan than in RP1 Performance Plan.

As a result, the 2014 forecast unit cost is +4.0% higher than foreseen in the RP1 Performance Plan. It is also higher by +6.1% than the actual 2012 unit cost and by +5.6% than the actual 2013 unit cost, two years with an estimated economic surplus of over +10% for the main en-route ATSP (ANS CR).

This issue affects the en-route TSUs, en-route DCs and Determined Unit Costs (DUC) trends when calculated over the 2014-2019 period, as it results in a higher starting point for RP2. For the purposes of en-route DUC trend assessments, more attention will therefore be given to the 2011-2019 period (covering both RP1 and RP2).

Key points for the Czech Republic en-route charging zone	
1. Traffic forecast assumptions:	**Passed**
The forecast en-route TSUs for RP2 are in line with STATFOR base case forecast published in February 2014.	
2. Economic assumptions:	**Passed**
The forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014.	
3. En-route DUC trend:	**Not passed**
At face value, the en-route DUC trend is better than for the Union-wide targets. However, the profile is distorted by a high starting point 2014, which contributes to mechanically raising the level of the DCs at the beginning of RP2 (2015 DCs up by +13.1% vs. 2012 actuals and by 9.4% vs. 2013 actuals). Moreover, ANS CR was able to generate large economic surpluses in 2012 (+14.0% of the en-route activity) and 2013 (+12.3% of the en-route activity). As a result, the cost-efficiency improvements achieved in RP1 are not reflected in RP2. Moreover, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within the ANS CR or with other ATSPs in the FAB. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1. The en-route DUC trend is also benefiting from a higher TSU growth than on average at Union-wide level.	

Indeed, the en-route DC trend is much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the periods 2014-2019 (-1.1% p.a. vs. -2.1% p.a. for the Union-wide targets) or 2011-2019 (+0.4% p.a. vs. -0.8% p.a.).	
4. En-route DUC level:	**Passed**
The DUC level in 2019 is much lower (by -16.1%) than the average DUC for the comparator group. However, as noted above in the trend assessment, the level of RP2 DC is not in line with the developments shown in the level of actual costs for 2012 and 2013. The use of a high starting point for 2014 and 2015 mechanically increases the level of the DCs and the DUCs in the first years of RP2. The DUC level in 2019 (34.35 €$_{2009}$) is also much lower (by -33.0%) than the Union-wide average (51.26 €$_{2009}$).	
5. En-route cost of capital:	**Not passed**
The return on equity (RoE) rate of 7.04%, combined with an asset base which is slightly higher than the comparators and the fact that ANS CR is entirely financed through equity, leads to a planned economic surplus that is not commensurate with the financial risk incurred by ANS CR for the provision of en-route services. Indeed, the monetary value of the RoE is on average twice the monetary value of the maximum revenue risk borne by ANS CR through the traffic risk sharing arrangements.	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.	
7. Costs exempt from risk sharing:	**Passed**
The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 6. above) and on how costs exempt from cost sharing in RP1 are taken into account in the RP2 DCs.	

Overall consistency assessment of the Czech Republic en-route cost-efficiency KPIs

Taking into account these key points, in particular 3 and 5, the Czech Republic en-route cost-efficiency target is assessed as not being consistent with and not making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2.

Therefore, the PRB advises the Commission to recommend FAB CE to revise its Performance Plan, and specifically for the Czech Republic to:

a) revise downwards the DCs for RP2 to be consistent with the levels achieved in 2012 and 2013;

b) revise the RoE rate downwards in light of the financial risk incurred for the provision of en-route services;

c) ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. Provide detailed information in the Performance Plan on how this is ensured; and,

d) provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template (based on key point 6).

5.9 Czech Republic: Overview of terminal KPI assessment

5.9.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in the Czech Republic for RP2, covering the 4 airports controlled by ANS CR (Praha-Ruzyně, Brno-Tuřany, Ostrava-Mošnov and Karlovy Vary). Traffic risk-sharing is applicable to terminal ANS in RP2.

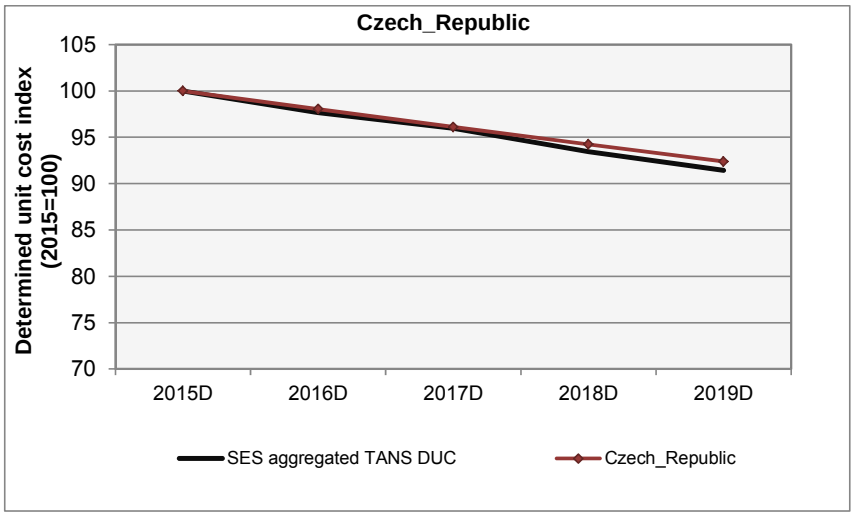


Figure 21: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	CZK m (nom)	550.8	576.0	606.6	641.2	684.1	5.6%
Inflation rate *	annual % change	1.9%	2.0%	2.0%	2.0%	2.0%	2.0%
Inflation index *	2009=100	111.9	114.2	116.5	118.8	121.2	
Determined costs	CZK m (2009)	492.1	504.5	520.8	539.8	564.6	3.5%
Terminal SUs	'000s	81.0	84.7	89.2	94.3	100.6	5.6%
Determined unit cost	CZK (2009)	6 074.96	5 955.84	5 839.05	5 724.56	5 612.32	-2.0%
Exchange rate	CZK:EUR (2009)	26.41					
Determined unit cost	EUR (2009)	229.98	225.47	221.05	216.72	212.47	-2.0%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 19: Terminal DUC breakdown

Key points for the Czech Republic terminal charging zone

1. Traffic forecast assumptions:	Not passed

The forecast total TNSUs is based on the Czech Republic's own forecasts. They are higher than the STATFOR base case published in February 2014 for all years of RP2 and above STATFOR high case for 2015. No justification of the figures used is provided in the FAB Performance Plan.

2. Economic assumptions:	**Passed**
Forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route KPI.	
3. Terminal ANS DUC trend:	**Passed with reservations**
The trend in the terminal ANS DUC in RP2 (-2.0% p.a.) is slightly worse than the profile corresponding to the SES aggregated terminal ANS DUC taken from RP2 Performance Plans (-2.2% p.a.) when computed over the period 2015-2019, due to the high TNSU forecast used for 2015 (see above). Terminal ANS DCs are increasing by +3.5% p.a. over RP2. However, it should be noted that the level of 2015 DCs is consistent with actual costs for 2012 and 2013. It should also be noted that the DUC seems to have been set in such a way so as to maintain the chargeable unit rate constant and at the same level as in RP1 (6800 CZK).	
4. Terminal cost of capital:	**Passed**
In order to be able to maintain the chargeable unit rate at the same level as in RP1, no cost of capital has been included in the determined costs of ANS CR for RP2. However, the PRB notes that traffic risk sharing applies in the Czech Republic TCZ in RP2. In this context, it is not clear how the financial risk of ANS CR relating to differences in traffic in respect of terminal services is covered. There is a need to ensure that the risk associated to the terminal activity is not financed by the en-route activity. The PRB notes in this respect that, in reply to a question raised by IATA in the consultation process, the Czech Republic confirmed that there is no “revenue compensation” between en-route and terminal services.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
As for en-route, the assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.	
6. Costs exempt from risk sharing:	**Passed**
No specific items were reported against each of the following items: new costs items required by law; unforeseen changes in taxation law; and international agreement.	

Overall consistency assessment of the Czech Republic terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1, the Czech Republic terminal ANS cost-efficiency targets are assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore, the PRB advises the Commission to Recommend the FAB CE to revise its Performance Plan, and specifically for the Czech Republic to:

a) revise the TNSU forecast, in particular for 2015, in view of the significant difference to the STATFOR February 2014 forecast and revise the determined costs accordingly;

b) provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template (based on key point 5).

5.10 Hungary: Setting the scene for RP2 cost-efficiency target assessment

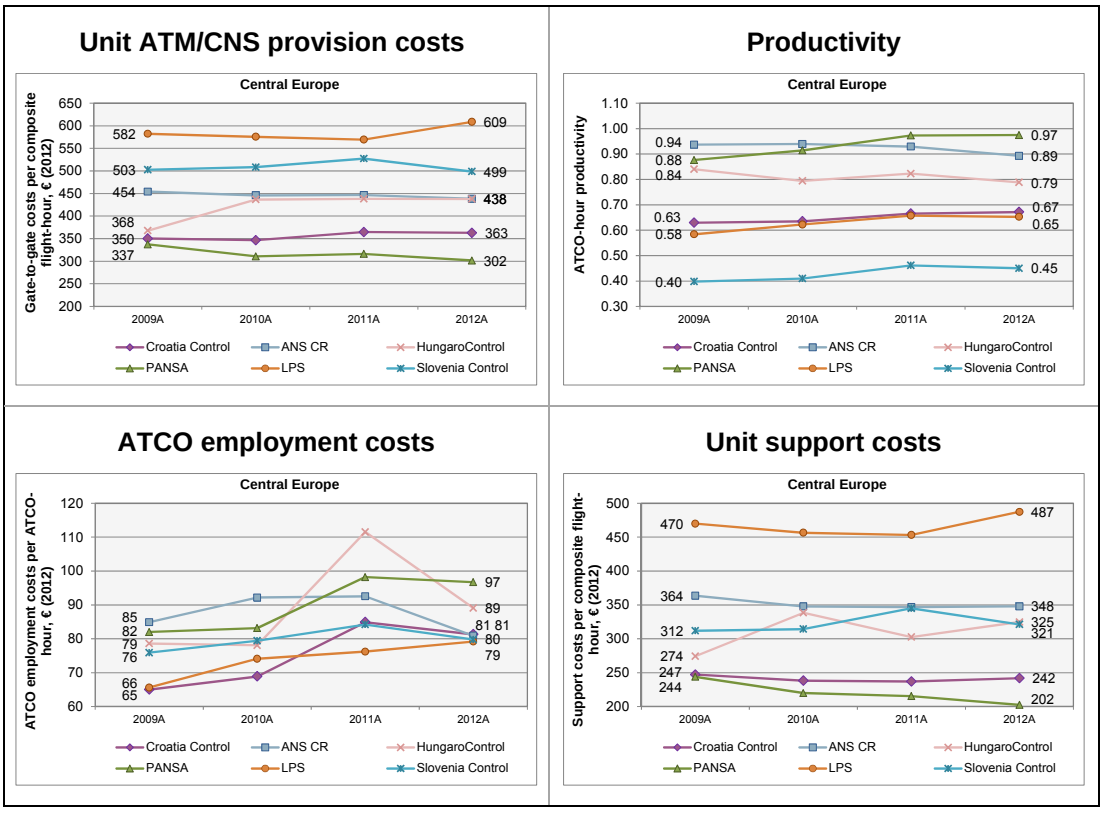
5.10.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report and from the PRB 2012 and 2013 monitoring analysis. It focuses on HungaroControl, the main ATSP in Hungary, which represented 1.2% of the European system ATM/CNS provision costs in 2012.

5.10.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. HungaroControl is part of the Central Europe ANSPs comparator group, also including Croatia Control (Croatia), ANS CR (Czech Republic), PANSA (Poland), LPS (Latvia) and Slovenia Control (Slovenia).

5.10.3 The ACE 2012 benchmarking analysis shows that:

- HungaroControl's productivity (0.79) is +8.2% higher than the comparator group average (0.73);
- Employment costs per ATCO-hour (89.07 €$_{2012}$) are +6.6% higher than the comparator group average (83.58 €$_{2012}$); and,
- Support costs per composite flight hour (325 €$_{2012}$) are +1.4% higher than the comparator group average (320 €$_{2012}$).

5.10.4 As a result, HungaroControl's unit ATM/CNS provision costs (438 €$_{2012}$) were -1.0% lower than the comparator group average in 2012 (442 €$_{2012}$).



5.10.5 The PRB 2013 monitoring analysis indicates that HungaroControl actual en-route costs for 2013 were substantially lower than planned (-7.0 M€$_{2009}$). This was sufficient to compensate for the impact of the lower traffic than planned (-2.5%) on HungaroControl revenues. Indeed, taking into account the amount of costs exempt from the cost sharing, the reimbursement to users of an amount of -2.2 M€$_{2009}$ related to the "asset management fee of 2013 and the traffic risk sharing

arrangements, HungaroControl generated a net gain of +4.3 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating HungaroControl economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 3.3 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +7.7 M€$_{2009}$, which implies an ex-post rate of return on equity of 24.2% (compared to 10.5% as initially planned in the NPP). This adds to the gains generated by HungaroControl in 2012 (+5.3 M€$_{2009}$ or 7.4% of en-route revenues leading to an ex-post rate of return on equity of 23.2%).

Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	74 314	77 151
Actual costs for the ATSP	69 012	70 130
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	5 302	7 022
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-394	1 124
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**4 909**	**8 146**

Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-4.67%	-2.48%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-2 009**	**-1 618**

Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-2 182
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-2 182**

Net ATSP gain(+)/loss(-) on en-route activity	**2 900**	**4 346**

ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	2 403	3 323
Overall estimated surplus (+/-) for the en-route activity	5 303	7 669
Revenue/costs for the en-route activity	71 911	74 476
Estimated surplus (+/-) in percent of en-route revenue/costs	**7.4%**	**10.3%**
Estimated ex-post RoE pre-taxe rate (in %)	**23.2%**	**24.2%**

Table 20: ANSP estimated surplus 2012 & 2013

5.11 Hungary: Overview of en-route charging zone assessment

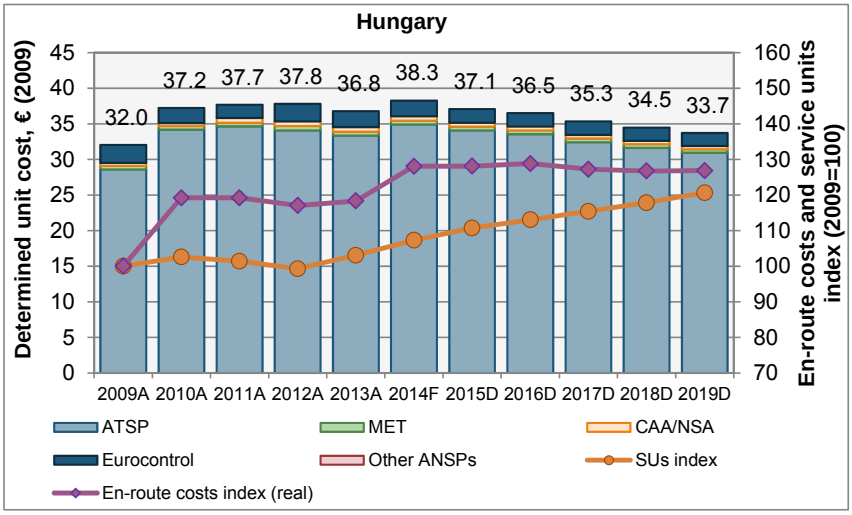
5.11.1 The summary results of each of the checks are provided below, along with the key points for this en-route charging zone. The full assessment details are provided in Annex 1.

Important note: As indicated in FAB CE RP2 PP on page 14, "*From April 2014 HungaroControl will provide air navigation services in the upper airspace over Kosovo. Based on the mandate of HungaroControl the service provision will last until the first quarter of 2019".*

The PRB understands that Hungary en-route determined costs and KPI for RP2 include costs for services provided by HungaroControl in Kosovo airspace (KFOR sector), i.e. outside the Hungary en-route charging zone (the KFOR sector will be part of the Serbia-Montenegro-KFOR charging zone).

Hungary has clarified this issue with the European Commission. In agreement with the European Commission, Hungary committed to deduct the income received for the services provided to the KFOR sector as 'other revenues' in the Hungarian cost base to avoid double charging.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	28.60	34.21	34.67	34.10	33.38	34.90	34.07	33.55	32.43	31.63	30.93	-1.4%	-2.4%
MET	EUR (2009)	0.47	0.47	0.50	0.59	0.54	0.55	0.53	0.53	0.52	0.51	0.49	-0.2%	-2.1%
CAA/NSA	EUR (2009)	0.43	0.41	0.67	0.66	0.62	0.59	0.56	0.53	0.51	0.48	0.46	-4.8%	-5.2%
Eurocontrol	EUR (2009)	2.54	2.14	1.83	2.43	2.25	2.21	1.92	1.91	1.88	1.85	1.81	-0.2%	-3.9%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**32.04**	**37.23**	**37.67**	**37.78**	**36.78**	**38.25**	**37.08**	**36.52**	**35.33**	**34.47**	**33.69**	**-1.4%**	**-2.5%**

Figure 22: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	HUF m (nom)	18,270	22,847	23,737	24,637	25,328	27,659	28,501	29,517	30,032	30,811	31,762
Inflation rate	annual % change		4.9%	3.9%	5.7%	1.7%	0.9%	3.0%	3.0%	3.0%	3.0%	3.0%
Inflation index	2009=100	100.0	104.9	109.0	115.2	117.2	118.2	121.8	125.4	129.2	133.1	137.0
Determined costs	HUF m (2009)	18,270	21,780	21,778	21,385	21,618	23,397	23,407	23,536	23,249	23,157	23,176
Service units	'000s	2,038	2,091	2,067	2,024	2,101	2,187	2,257	2,304	2,353	2,402	2,460
Determined unit cost	HUF (2009)	8,962.77	10,414.59	10,536.12	10,567.69	10,288.47	10,698.89	10,371.67	10,214.15	9,882.11	9,640.52	9,422.57
Exchange rate	HUF:EUR	279.70										
Determined unit cost	EUR (2009)	32.04	37.23	37.67	37.78	36.78	38.25	37.08	36.52	35.33	34.47	33.69

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	HUF m (nom)	5.7%	3.7%	2.8%	2.7%
Inflation	CAGR %	3.2%	2.9%	3.0%	3.0%
Determined costs	HUF m (2009)	2.4%	0.8%	-0.2%	-0.2%
Service units	'000s	1.9%	2.2%	2.4%	2.2%
Determined unit cost	HUF (2009)	0.5%	-1.4%	-2.5%	-2.4%
Exchange rate					
Determined unit cost	EUR (2009)	0.5%	-1.4%	-2.5%	-2.4%

Table 21: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	No
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The forecast costs for 2014 in the RP2 Performance Plan have been updated from the determined costs (DCs) in the RP1 NPP and are slightly lower (-1.8%) than the RP1 NPP value (83.7 M€$_{2009}$ versus 85.2 M€$_{2009}$), although significantly higher than the 2013 actual value (+8.2%) (83.7 M€$_{2009}$ versus 77.3 M€$_{2009}$). It is not clear whether the 2014 revised costs include costs incurred by HungaroControl for services provided in Kosovo airspace (see important note above).

The planned TSU reported for the year 2014 in the RP2 Performance Plan have not been updated. Traffic in 2012 and 2013 has been -4.7% and -2.5% below that planned, respectively. Traffic in 2014 is then forecast to be +4.1% higher than it was in 2013.

The PRB notes costs provided for 2014 are marginally lower than those planned for RP1 and are +8.2% higher than the 2013 actual. The 2014 TSUs have not been revised from the RP1 Performance Plan and are +4.1% higher than 2013 actual. This results in a DUC for 2014 that is +4.0% higher than in 2013.

The starting point for RP2 then appears high considering the actual DCs for 2012 and 2013. This issue affects the en-route Total Service Units (TSUs) and Determined Unit Costs (DUC) trends when calculated over the 2014-2019 period. Costs and traffic from 2015 onwards remain in line with the high 2014 starting point. For the purposes of en-route DUC trend assessments, more attention will therefore be given to the 2009-2019 and 2011-2019.

Key points for Hungary's en-route charging zone

1. Traffic forecast assumptions:	**Passed with reservations**

Over the RP2 period the forecast total en-route TSUs in the Performance Plan is within the STATFOR February 2014 base and low case range for each year of RP2.

For the first 8 months of 2014 Hungary's en-route SUs are +11.5% greater than for the same

period in 2013, above the STATFOR high forecast trend for 2014.	
2. Economic assumptions:	**Passed**
The inflation assumptions submitted in Hungary's Performance Plan over the RP2 period for en-route cost efficiency are in line with the IMF average inflation forecasts.	
3. En-route DUC trend:	**Not passed**
Hungary plans for -2.5% decrease in the DUC over the period 2014-2019 which is worse than the Union-wide target (-3.3%). The DC trend over the period (-0.2%) is also lower than the assumptions underpinning the Union-wide targets (-2.1%). The trends reflect the relatively low traffic forecast used in the Performance Plan. If the STATFOR February 2014 base case traffic was used then the 2014-2019 trend would be -4.1%: better than the Union-wide target. The DUC trends over the 2011-2019 (-1.4% vs. -1.7% p.a.) is also worse than Union-wide targets. The forecast DUC for 2014 is +4.0% higher than achieved in 2013.	
4. En-route DUC level:	**Passed**
Hungary's en-route DUC in 2019 is planned to be 33.69 €$_{2009}$ which is -17.9% lower than the average of the comparator group (excluding Hungary) (41.06 €$_{2009}$). The PRB notes that over the 2014-2019 period Hungary's DUC is expected to be materially below the comparator group average. The DUC is well below the weighted Union-wide average of 51.26 €$_{2009}$. The planned reduction in Hungary's DUC over the 2009-2019 period is however significantly worse (+0.5%) than the other States in the comparator group (-2.0%).	
5. En-route cost of capital:	**Not passed**
The pre-tax WACC used to calculate HungaroControl's cost of capital in the reporting tables is 8.5%, this is towards the top of the range of the notional efficient pre-tax WACC values using the methodology provided in Annex C of the Additional Information tables. The capital structure assumed by Hungarocontrol includes no debt. The PRB notes that a relatively prudent traffic forecast is applied for en-route in RP2. The monetary value of the RoE ranges from 4.4 to 5.2 M€$_{2009}$ in each year of RP2. This is much higher than the maximum risk exposure which will be borne by HungaroControl over RP2 (3.3-3.4 M€$_{2009}$ per annum). On average over RP2, Hungarocontrol's en-route asset base per service unit 24 €$_{2009}$ is materially lower than the comparator group average 42 €$_{2009}$. The share of fixed to total assets ratio for HungaroControl is much higher than its comparators.	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The information is in the form and content required.	

7. Costs exempt from risk sharing:	Passed
The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2.	

Overall consistency assessment of Hungary's en-route cost-efficiency KPIs

Taking into account these key points, in particular 3, 4, and 5, Hungary's en-route cost-efficiency target is assessed as not being consistent with, and not making an adequate contribution to, the achievement of the en-route Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a recommendation to the FAB CE to adopt a revised Performance Plan and, in particular to Hungary to revise its en-route cost-efficiency target, including, to;

a) Revise downwards, and improve the trend in, DCs over RP2;

b) Revise downwards the monetary value of the Return on Equity requested for RP2.

5.12 Hungary: Overview of terminal charging zones assessment

5.12.1 The summary results of each of the checks are provided below, along with the key points for this terminal charging zone. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the Performance Plan, there is one terminal charging zone for Hungary, covering one airport: Budapest. This is the only airport with more than 70,000 IFR movements. The number of airports in the TCZ has not changed between 2014 and 2015. Hungary has decided not to apply traffic risk-sharing in the TCZ in RP2.

The TCZ represents 95.3% of Terminal SUs in Hungary.

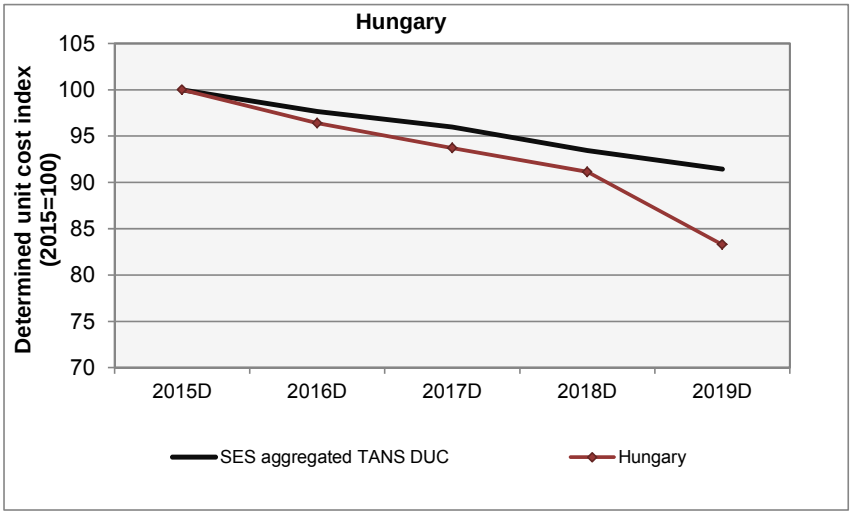


Figure 23: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	HUF m (nom)	5,646	5,903	6,171	6,422	6,324	2.9%
Inflation rate *	annual % change	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Inflation index *	2009=100	121.8	125.4	129.2	133.1	137.0	
Determined costs	HUF m (2009)	4,637	4,707	4,777	4,827	4,614	-0.1%
Terminal SUs	'000s	51.6	54.3	56.7	58.9	61.6	4.5%
Determined unit cost	HUF (2009)	89,884.46	86,650.50	84,232.32	81,910.58	74,863.48	-4.5%
Exchange rate	HUF:EUR (2009)	279.70					
Determined unit cost	EUR (2009)	321.36	309.80	301.15	292.85	267.66	-4.5%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 22: Terminal DUC breakdown

Key points for Hungary terminal charging zone

1. Traffic forecast assumptions:	Passed

Hungary is broadly in line with the STATFOR February 2014 base case forecast for Terminal Navigation Service Units (TNSUs) for every year of RP2.

2. Economic assumptions:	**Passed**
Over RP2 Hungary's inflation is identical to the en-route and the IMF forecast.	
3. Terminal ANS DUC trend:	**Passed with reservations**
Over the 2015-2019 period, the profile of terminal ANS DUC for Hungary is -4.5% p.a., significantly better than the SES aggregated DUC profile of -2.2% p.a. The Terminal DUC level of 267.66 €$_{2009}$ in 2019 is significantly higher than the SES average of 159.92 €$_{2009}$. Hungary's annual average % change in local terminal ANS DCs is similar to the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (TANS -0.1%, en-route -0.2%) but well below the SES average of -2.3%. The PRB has reservations about the trend in Terminal ANS DCs.	
4. Terminal cost of capital:	**Passed**
The Return on Equity and WACC used for Hungary's terminal charging zone is 6.5% which is lower than the 8.5% used for en-route. The capital structure is fully equity funded.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The information provided in the Performance Plan for the description economic assumptions is the same as for en-route. Please refer to section on economic assumptions in the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to section on costs exempt from risk sharing for RP2 in the en-route detailed assessment.	

Overall consistency of Hungary's terminal ANS cost-efficiency KPI
Taking into account these key points, in particular 1, 3 and 4, Hungary's terminal charging zone's cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

5.13 Slovakia: Setting the scene for the RP2 cost-efficiency assessment

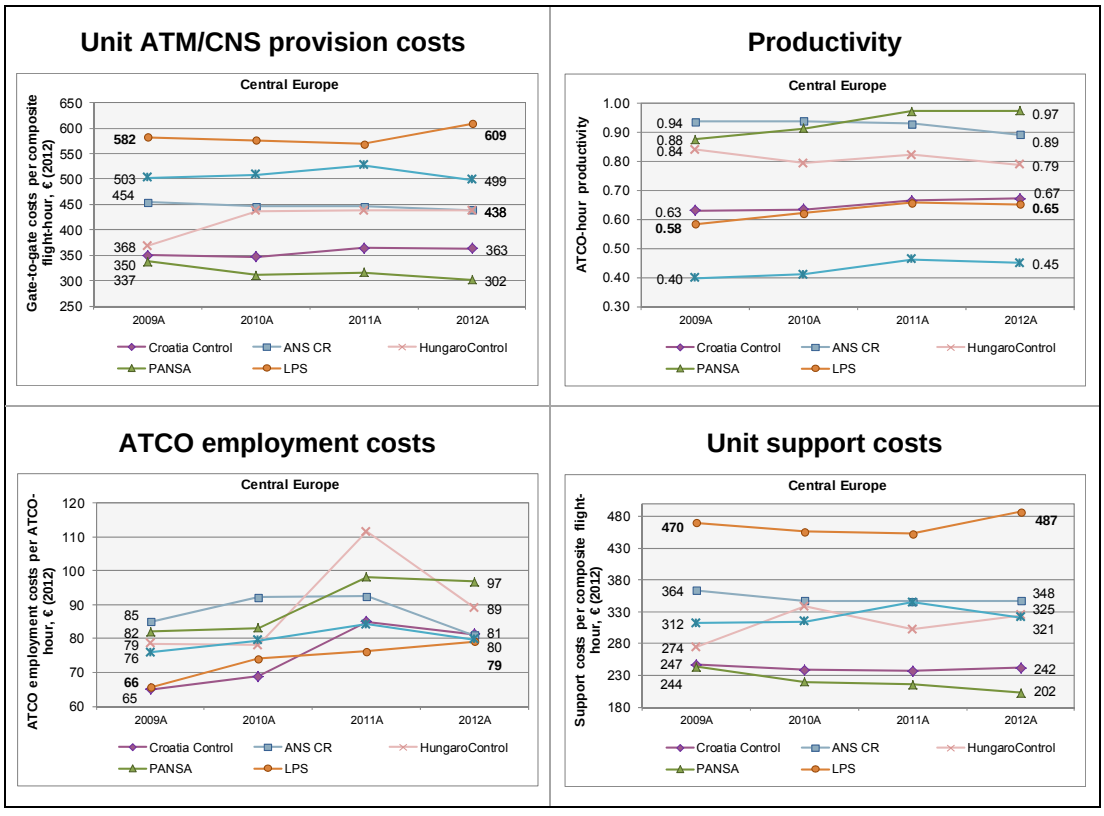
5.13.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on LPS, the main ATSP in Slovakia, which represented 0.8% of the European system ATM/CNS provision costs in 2012.

5.13.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. LPS is part of the "Central Europe" ANSPs comparator group, also including ANS CR (Czech Republic), Croatia Control (Croatia), HungaroControl (Hungary), PANSA (Poland) and Slovenia Control (Slovenia).

5.13.3 The ACE 2012 benchmarking analysis shows that:

- LPS's productivity (0.65) is -13.6% lower than the average of the comparators (0.76);
- Employment costs per ATCO-hour (79 €$_{2012}$) are -7.4% lower than the average of the comparators (86 €$_{2012}$); and,
- Support costs per composite flight-hour (487 €$_{2012}$) are +69.5% higher than the average of the comparators (288 €$_{2012}$).

5.13.4 As a result, LPS's unit ATM/CNS provision costs (609 €$_{2012}$) were +49.2% higher than the average of the comparators in 2012 (408 €$_{2012}$).



5.13.5 The PRB 2013 monitoring analysis indicates that LPS actual en-route costs for 2013 were lower than planned, constituting a gain of +0.8 M€$_{2009}$ to be retained by LPS in respect of cost sharing. In addition, traffic was slightly higher than planned (+0.8%), constituting an additional gain of +0.4 M€$_{2009}$ for LPS in respect of traffic risk sharing. The resulting net gain for LPS on the 2013 en-route activity is +1.2 M€$_{2009}$. Moreover, when estimating LPS economic surplus, it is important to account

for the profit embedded in the cost of capital through the return on equity (+3.0 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +4.2 M€$_{2009}$ (or 8.8% of en-route revenues), which implies an ex-post rate of return on equity of 10.7% (compared to 7.6% as initially planned in the RP1 Performance Plan). This adds to the surplus generated by LPS in 2012 (+2.6 M€$_{2009}$ or 5.7% of en-route revenues leading to an ex-post rate of return on equity of 6.8%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	47 690	48 555
Actual costs for the ATSP	46 465	46 901
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	1 224	1 654
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-441	-817
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**784**	**837**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-2.04%	0.76%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-943**	**368**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	-159	1 205

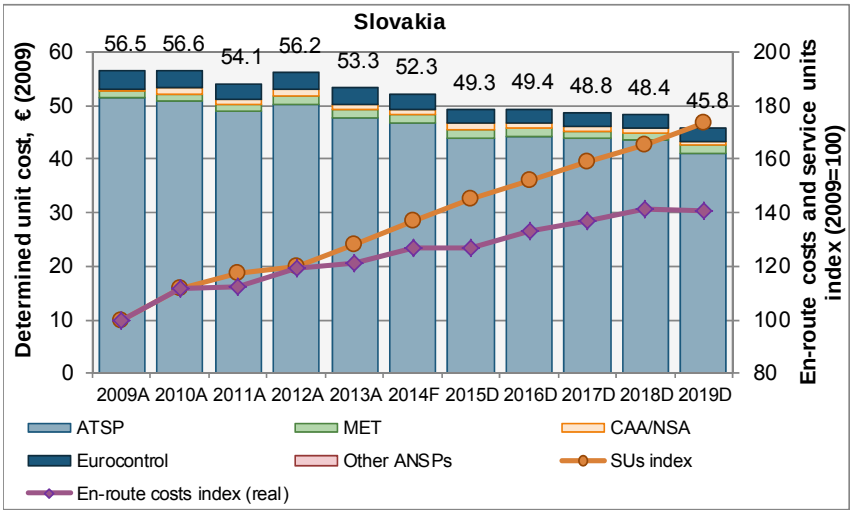
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	2 800	3 043
Overall estimated surplus (+/-) for the en-route activity	2 641	4 248
Revenue/costs for the en-route activity	46 306	48 106
Estimated surplus (+/-) in percent of en-route revenue/costs	**5.7%**	**8.8%**
Estimated ex-post RoE pre-taxe rate (in %)	**6.8%**	**10.7%**

Table 23: ANSP estimated surplus 2012 & 2013

5.14 Slovakia: Overview of en-route KPI assessment

5.14.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	51.39	50.92	48.88	50.39	47.59	46.88	43.88	44.16	43.80	43.48	41.10	-2.1%	-2.6%
MET	EUR (2009)	1.40	1.29	1.28	1.55	1.69	1.59	1.75	1.65	1.45	1.46	1.45	1.5%	-1.8%
CAA/NSA	EUR (2009)	0.45	1.06	1.01	1.08	1.07	0.94	1.06	1.03	0.98	0.96	0.90	-1.4%	-0.8%
Eurocontrol	EUR (2009)	3.27	3.32	2.93	3.21	2.97	2.87	2.65	2.60	2.53	2.46	2.37	-2.7%	-3.8%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**56.51**	**56.60**	**54.10**	**56.22**	**53.32**	**52.27**	**49.34**	**49.44**	**48.76**	**48.36**	**45.82**	**-2.1%**	**-2.6%**

Figure 24: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	43.4	48.8	51.0	56.3	57.9	61.1	62.1	66.4	69.7	73.4	74.6
Inflation rate	annual % change		0.7%	4.1%	3.7%	1.5%	0.7%	1.6%	1.8%	2.0%	2.1%	2.2%
Inflation index	2009=100	100.0	100.7	104.8	108.7	110.3	111.2	112.9	115.0	117.3	119.7	122.3
Determined costs	EUR m (2009)	43.4	48.4	48.7	51.8	52.5	54.9	55.0	57.7	59.4	61.3	61.0
Service units	'000s	768	856	900	922	985	1 051	1 114	1 168	1 219	1 268	1 331
Determined unit cost	EUR (2009)	56.51	56.60	54.10	56.22	53.32	52.27	49.34	49.44	48.76	48.36	45.82
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	56.51	56.60	54.10	56.22	53.32	52.27	49.34	49.44	48.76	48.36	45.82

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	5.6%	4.9%	4.1%	4.7%
Inflation	CAGR %	2.0%	1.9%	1.9%	2.0%
Determined costs	EUR m (2009)	3.5%	2.9%	2.1%	2.6%
Service units	'000s	5.7%	5.0%	4.8%	4.5%
Determined unit cost	EUR (2009)	-2.1%	-2.1%	-2.6%	-1.8%
Exchange rate					
Determined unit cost	EUR (2009)	-2.1%	-2.1%	-2.6%	-1.8%

Table 24: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	No

The total en-route determined costs (DCs) reported for the year 2014 in the RP2 Performance Plan have not been updated from those planned for 2014 in the RP1 Performance Plan in nominal terms. However, when converted in real terms, the 2014 costs in the RP2 Performance Plan are slightly higher (by +1.7%) than those in the RP1 Performance Plan due to a lower forecast inflation index than in RP1 Performance Plan.

On the other hand, the en-route Total Service Units (TSUs) for 2014 have been updated and are +3.3% higher in the RP2 Performance Plan than in the RP1 Performance Plan.

The PRB notes that Slovakia indicated that actual costs for 2014 are expected to be in line with the DCs of the RP1 Performance Plan.

The PRB also notes that the starting point considered for RP2 is consistent with the actual unit costs for the two first years of RP1. Indeed, the resulting 2014 forecast unit cost is -1.5% lower than foreseen in the RP1 Performance Plan. It is also lower by -7.0% than the actual 2012 unit cost and by -2.0% than the actual 2013 unit cost.

Slovakia was able to contain costs in the context of significant traffic growth (+2.4% in 2012; 6.9% in 2013 and +6.7% forecasted for 2014), and the main en-route ATSP (LPS) was in a position to generate an estimated economic surplus in 2013 for the second consecutive year.

Key points for Slovakia en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

The forecast total en-route TSUs for Slovakia en-route charging zone is equivalent to the STATFOR base case forecast published in February 2014 for every year 2015-2018. It is slightly higher than STATFOR base case forecast for 2019 (by +0.1%).

2. Economic assumptions:	**Passed**

The forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014.

3. En-route DUC trend:	**Not passed**

The en-route DUC trend for Slovakia (-2.6% p.a.) is worse than the Union-wide targets (-3.3% p.a.) for the period 2014-2019, but better (-2.1% p.a.) than the Union-wide targets (-1.7% p.a.) for the period 2011-2019, covering both RP1 and RP2.

The PRB notes that the trend is benefitting from a much higher TSUs growth than that considered for the Union-wide targets in RP2 (+4.8% p.a. vs. +0.7% p.a.). TSUs growth was also much higher in RP1 (+5.3% p.a. vs. +0.6% p.a.).

The PRB also notes that the DUC in 2019 is significant lower than for the other years of RP2, which influences the trends downwards.

The en-route DCs trend is much worse than that for the DCs profile underlying the Union-wide targets for the periods 2014-2019 (+2.1% p.a. vs. -2.1% p.a. for the Union-wide targets)

and 2011-2019 (+2.9% p.a. vs. -0.8% p.a. for the Union-wide targets).

Large increases in DCs are observed in particular in LPS staff costs and depreciation costs. The increase in depreciation costs are due to very short amortisation periods (e.g. 4 years for all the main capex planned for RP2), which do not seem to be reflecting the actual lifecycles of such investments. The PRB also notes that the NBV of fixed assets does not seem to reflect such accelerated depreciation. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

On the profitability side, the PRB notes that LPS managed to generate economic surpluses in the first two years of RP1 (+2.6 M€$_{2009}$ in 2012 and +4.3 M€$_{2009}$ in 2013). LPS en-route DCs for 2015 are higher than 2012 (+5.3%) and 2013 (+4.3%) actuals. This factual evidence indicates that the cost-efficiency performance improvements achieved in the first years of RP1 were not fully taken into account when setting the profile of DCs over RP2.

Finally, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within the LPS or with other ATSPs in the FAB.

4. En-route DUC level:	**Not passed**

The DUC level of Slovakia en-route charging zone in 2019 is substantially higher (+18.61%) than the average of the DUC of the comparators. It remains significantly higher if calculated using normalised traffic and inflation rates, or adjusted for exchange rates and/or cost of living (PPP).

5. En-route cost of capital:	**Not passed**

The weighted average cost of capital (WACC) rate used to calculate the cost of capital of LPS is different for every year of RP2 and shows a gradual increase from 6.2% in 2015 to 6.7% in 2019. This level of WACC, combined with a value of the asset base per SU higher than the average for the comparators and the fact that LPS is primarily financed through equity, leads to a Return on Equity (RoE) that is not commensurate with the financial risk incurred by LPS for the provision of en-route services (the monetary value of the RoE is on average +47.9% higher than the monetary value of the maximum revenue risk borne by LPS through the traffic risk sharing arrangements).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.

7. Costs exempt from risk sharing:	**Passed**

The Performance Plan includes detailed information on the assumptions for costs exempt from risk sharing relating to RP2 and on how costs exempt from cost sharing in RP1 are (or not) taken into account in the RP2 DCs.

Overall consistency assessment of Slovakia en-route cost-efficiency KPIs

Taking into account these key points, in particular 3, 4 and 5, Slovakia en-route cost-efficiency target is assessed as not being consistent with and not making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2.

Therefore, the PRB advises the Commission to recommend the FAB CE to revise its Performance Plan, and specifically for Slovakia to:

a) revise downwards the DCs in RP2,

b) address the issue of depreciation costs to align with the genuine lifecycles of the investments;

c) ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. Provide detailed information in the Performance Plan on how this is ensured;

d) revise downwards the RoE rate in the light of the financial risk incurred for the provision of en-route services and provide further clarifications on the net current assets used for the calculation of the cost of capital; and,

e) complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template (based on key point 6).

5.15 Slovakia: Overview of terminal KPI assessment

5.15.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Slovakia for RP2, covering the main airport (Bratislava/M. R. Stefanik). This differs from RP1, when the TCZ covered 6 airports.

Slovakia has decided not to apply traffic risk-sharing in the TCZ in RP2.

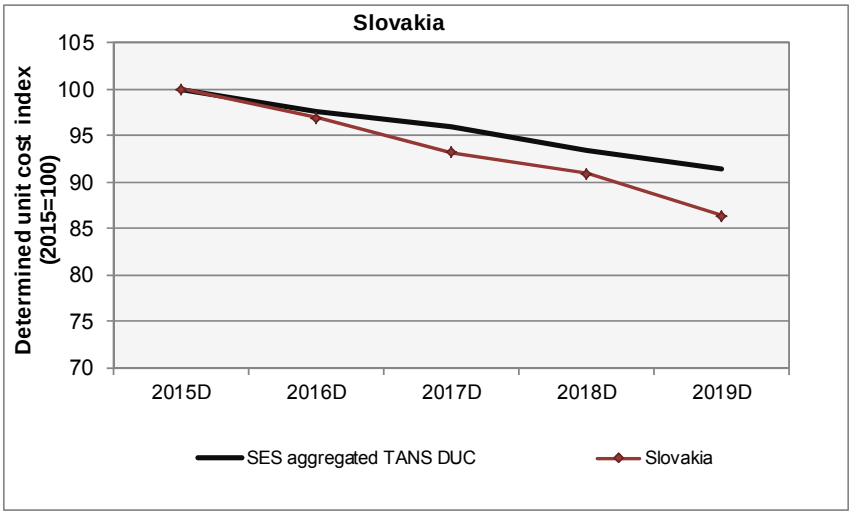


Figure 25: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	3.1	3.3	3.4	3.6	3.7	4.3%
Inflation rate *	annual % change	1.6%	1.8%	2.0%	2.1%	2.2%	2.0%
Inflation index *	2009=100	112.9	115.0	117.3	119.7	122.3	
Determined costs	EUR m (2009)	2.8	2.9	2.9	3.0	3.0	2.2%
Terminal SUs	'000s	9.5	10.2	10.8	11.4	12.0	6.0%
Determined unit cost	EUR (2009)	289.53	280.58	269.80	263.28	250.17	-3.6%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	289.53	280.58	269.80	263.28	250.17	-3.6%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 25: Terminal DUC breakdown

Key points for Slovakia terminal charging zone

1. Traffic forecast assumptions:	Passed

The forecast total TNSUs is based on STATFOR base case published in February 2014 for all years of RP2, with different roundings.

2. Economic assumptions:	**Passed**
Forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route KPI.	
3. Terminal ANS DUC trend:	**Passed**
The terminal DUC trend for Slovakia over the period 2015-2019 (-3.6% p.a.) is better than the profile corresponding to the SES aggregated Terminal ANS DUC taken from RP2 Performance Plans (-2.2% p.a.). The PRB notes that DCs for 2015 are significantly higher than the latest available actual costs for the Bratislava airport in 2012 (+39.5%) and slightly higher compared to 2013 actuals (+2.7%).	
4. Terminal cost of capital:	**Not passed**
The return on equity used to calculate the cost of capital of LPS for the TCZ is the same as for the en-route charging zone, which is assessed as being too high and not commensurate with the financial risk incurred by LPS for the provision of en-route services. Moreover, as traffic risk sharing does not apply in the TCZ, the risk incurred by LPS for the provision of terminal ANS is lower than for the en-route services.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
As for en-route, the assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan includes detailed information on the assumptions for costs exempt from risk sharing relating to RP2.	

Overall consistency assessment of Slovakia terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 4, Slovakia terminal ANS cost-efficiency targets are assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore, the PRB advises the Commission to Recommend the FAB CE to revise its Performance Plan, and specifically for Slovakia to:

a) revise downwards the RoE rate in the light of the financial risk incurred for the provision of terminal services for the calculation of the cost of capital; and,

b) complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template (based on key point 5).

5.16 Slovenia: Setting the scene for the RP2 cost-efficiency assessment

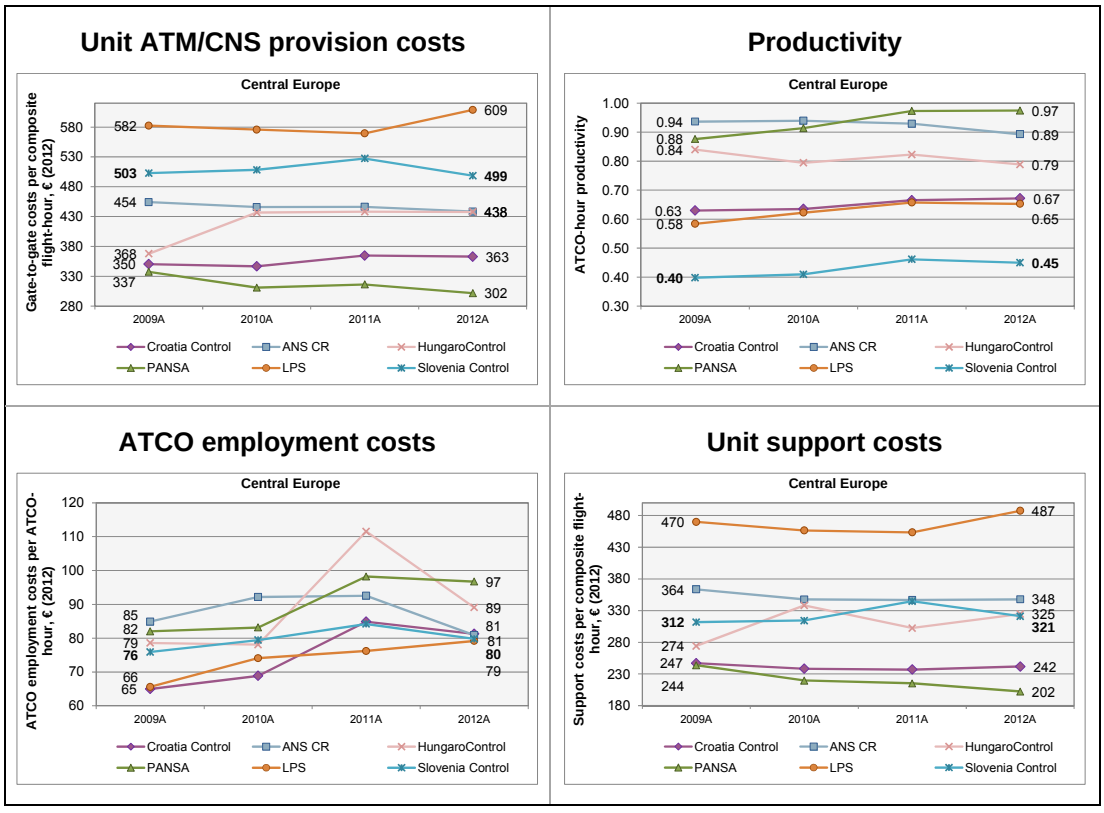
5.16.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on Slovenia Control, the main ATSP in Slovenia, which represented 0.4% of the European system ATM/CNS provision costs in 2012.

5.16.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Slovenia Control is part of the "Central Europe" ANSPs comparator group, also including ANS CR (Czech Republic), Croatia Control (Croatia), HungaroControl (Hungary), LPS (Slovakia) and PANSA (Poland).

5.16.3 The ACE 2012 benchmarking analysis shows that:

- Slovenia Control's productivity (0.45) is -43.5% lower than the average for the comparators (0.80);
- Employment costs per ATCO-hour (80€$_{2012}$) are -6.6% lower than the average for the comparators (85 €$_{2012}$); and,
- Support costs per composite flight-hour (321 €$_{2012}$) are in line with the average for the comparators (321 €$_{2012}$).

5.16.4 As a result, Slovenia Control's unit ATM/CNS provision costs (499 €$_{2012}$) were +16.0% higher than the average for the comparators in 2012 (430 €$_{2012}$).



5.16.5 The PRB 2013 monitoring analysis indicates that Slovenia Control actual en-route costs for 2013 were lower than planned, constituting a gain of +1.6 M€$_{2009}$ to be retained by Slovenia Control in respect of cost sharing. This gain was sufficient to compensate for the impact of the lower traffic than planned (-6.9%) on Slovenia Control revenues in 2013 (constituting a loss of -0.9 M€$_{2009}$ for Slovenia Control in respect of traffic risk sharing). The resulting net gain for Slovenia Control for the

2013 en-route activity was +0.7 M€$_{2009}$. Moreover, when estimating Slovenia Control economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (+1.1 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounted to +1.9 M€$_{2009}$ (or 7.5% of en-route revenues), which implies an ex-post rate of return on equity of 11.6% (compared to 6.9% as initially planned in the RP1 Performance Plan). This adds to the surplus generated by Slovenia Control in 2012 (+3.6 M€$_{2009}$ or 14.3% of en-route revenues leading to an ex-post rate of return on equity of 21.7%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	25 328	25 484
Actual costs for the ATSP	22 776	23 846
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	2 552	1 639
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**2 552**	**1 639**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-0.37%	-6.93%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-95**	**-894**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	2 457	**745**

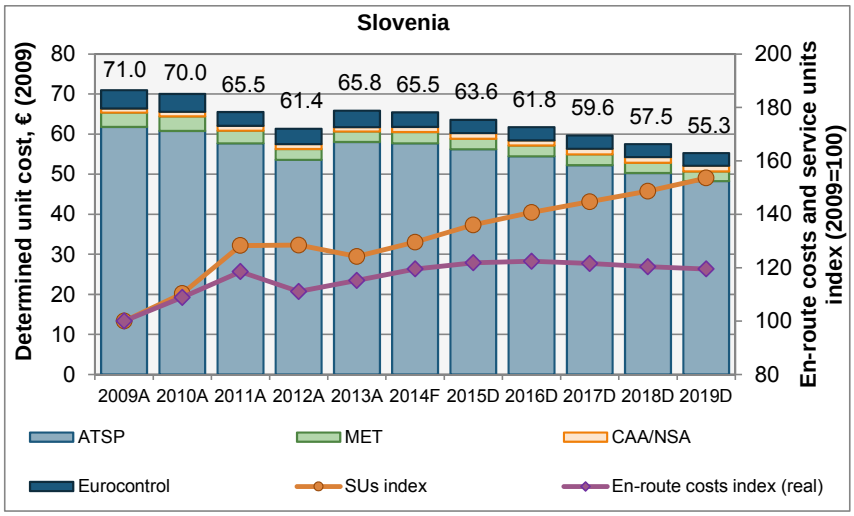
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	1 151	1 108
Overall estimated surplus (+/-) for the en-route activity	3 608	1 852
Revenue/costs for the en-route activity	25 233	24 590
Estimated surplus (+/-) in percent of en-route revenue/costs	**14.3%**	**7.5%**
Estimated ex-post RoE pre-taxe rate (in %)	**21.7%**	**11.6%**

Table 26: ANSP estimated surplus 2012 & 2013

5.17 Slovenia: Overview of en-route KPI assessment

5.17.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	61.79	60.81	57.70	53.57	58.00	57.72	56.23	54.44	52.26	50.29	48.26	-2.2%	-3.5%
MET	EUR (2009)	3.60	3.60	3.17	2.73	2.65	2.83	2.64	2.70	2.65	2.54	2.44	-3.2%	-3.0%
CAA/NSA	EUR (2009)	1.02	1.18	1.24	1.23	1.09	1.28	1.37	1.32	1.43	1.42	1.39	1.4%	1.6%
Eurocontrol	EUR (2009)	4.57	4.44	3.43	3.83	4.08	3.63	3.35	3.32	3.28	3.24	3.17	-1.0%	-2.7%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**70.98**	**70.02**	**65.54**	**61.36**	**65.83**	**65.47**	**63.59**	**61.77**	**59.63**	**57.48**	**55.26**	**-2.1%**	**-3.3%**

Figure 26: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	23.5	26.0	28.9	27.9	29.5	30.9	32.0	32.9	33.3	33.6	34.0
Inflation rate	annual % change		1.8%	2.1%	2.8%	1.9%	1.2%	1.6%	2.1%	1.9%	2.0%	2.0%
Inflation index	2009=100	100.0	101.8	103.9	106.8	108.9	110.1	111.9	114.3	116.5	118.8	121.2
Determined costs	EUR m (2009)	23.5	25.6	27.8	26.1	27.1	28.1	28.6	28.8	28.6	28.3	28.1
Service units	'000s	331	365	425	425	411	429	450	466	479	492	508
Determined unit cost	EUR (2009)	70.98	70.02	65.54	61.36	65.83	65.47	63.59	61.77	59.63	57.48	55.26
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	70.98	70.02	65.54	61.36	65.83	65.47	63.59	61.77	59.63	57.48	55.26

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	3.8%	2.1%	1.9%	1.5%
Inflation	CAGR %	1.9%	1.9%	1.9%	2.0%
Determined costs	EUR m (2009)	1.8%	0.1%	0.0%	-0.5%
Service units	'000s	4.4%	2.3%	3.5%	3.1%
Determined unit cost	EUR (2009)	-2.5%	-2.1%	-3.3%	-3.4%
Exchange rate					
Determined unit cost	EUR (2009)	-2.5%	-2.1%	-3.3%	-3.4%

Table 27: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The total forecast en-route costs reported for the year 2014 in the RP2 Performance Plan have been updated from the determined costs (DCs) planned for 2014 in the RP1 Performance Plan. The revised figure is -1.8% lower in real terms than the DCs in the RP1 Performance Plan.

The en-route Total Service Units (TSUs) for 2014 have also been updated (in line with the STATFOR base case forecast published in February 2014) and are -9.5% lower in the RP2 Performance Plan than in the RP1 Performance Plan.

As a result, the 2014 forecast unit cost is +8.6% higher than foreseen in the RP1 Performance Plan.

Compared to the 2012 actual figures, the revised 2014 forecast costs are higher than the actual 2012 costs by +7.6%, whereas TSUs are at a similar level (+0.8%). As a result, the 2014 forecast unit cost is +6.7% higher than the actual 2012 unit cost. The PRB understands that the difference in costs is mainly due to the entry into operations of the new ATC Centre at Ljubljana Jože Pučnik Airport in March 2013 and notes that actual depreciation costs were particularly low in 2012 compared to the level observed since 2009, as the majority of assets had reached the end of their depreciation period in 2012 and the new ATC Centre was not yet in operation.

Compared to the 2013 actual figures, the revised 2014 forecast costs are higher than the actual 2012 costs by +3.7% and TSUs are +4.3% higher. As a result, the 2014 forecast unit cost is -0.6% lower than the actual 2013 unit cost.

The 2014 DUC forecast therefore constitutes a starting point for RP2 which is in the same order of magnitude as the latest available actual unit cost. On the other hand, the PRB notes that the forecast for 2014 is very similar to the actual situation in 2011, just before the beginning of RP1, both in respect of traffic and costs, which reflects that no genuine improvements in performance have taken place in Slovenia in RP1.

Key points for Slovenia en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

The forecast total en-route TSUs for Slovenia en-route charging zone is equivalent to the STATFOR base case forecast published in February 2014 for every year 2015-2019.

2. Economic assumptions:	**Passed**

The inflation forecasts for Slovenia en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

3. En-route DUC trend:	**Passed with reservations**

The en-route DUC trend for Slovenia is the same as for the Union-wide targets for the period 2014-2019 (-3.3% p.a.) and is better than the trend for the Union-wide targets for the period 2011-2019 (-2.1% vs. -1.7%).

The PRB notes that the trend is benefitting from a much higher TSUs growth than that considered for the Union-wide targets in RP2 (+3.5% p.a. vs. +0.7% p.a.).

Indeed, the en-route DC trend is much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the periods 2014-2019 (+0.0% p.a. vs. -2.1% p.a. for the Union-wide targets) or 2011-2019 (+0.1% p.a. vs. -0.8% p.a.). The PRB notes however that, despite a substantial forecast traffic increase, DCs are planned to remain fairly constant over 2011-19 and 2014-19. This indicates that Slovenia plans to absorb the significant future traffic growth with the same costs level over RP2.

On the profitability side, the PRB notes that Slovenia Control managed to generate economic surpluses in the first two years of RP1 (+3.6 M€$_{2009}$ in 2012 and +1.85 M€$_{2009}$ in 2013) in the context of lower traffic than planned. Slovenia's 2015 DCs (28.6 M€$_{2009}$) are substantially higher than 2012 (+9.7%) and 2013 (+5.8%) actuals. This tends to indicate that the economic surpluses achieved in the first years of RP1 were not taken into account when setting the profile of determined costs for RP2.

The PRB also notes that investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

In addition, the PRB notes that the cost item showing the most significant variation in RP2 compared to RP1 is the cost of capital. The peak in 2015 is due to an increase in the asset base (by +16.4% compared to 2013 and by +31.3% compared to 2014), corresponding primarily to a significant reduction in the net current liabilities deducted from the asset base (by -65.4% compared to 2013 and -67.5% compared to 2014). Explanations and justifications for these variations are not provided in the RP2 Performance Plan.

Finally, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within Slovenia Control or with other ATSPs in the FAB.

4. En-route DUC level:	**Not passed**

The DUC level of Slovenia en-route charging zone in 2019 is substantially higher (+50.4%) than the average of the DUC of the comparators. It is also significantly higher if calculated using normalised traffic and inflation rates, or adjusted for exchange rates and/or cost of living (PPP).

The DUC level of Slovenia en-route charging zone in 2019 (55.26 €$_{2009}$) is also higher (by +7.8%) than the Union-wide average (51.26 €$_{2009}$).

5. En-route cost of capital:	**Passed**

The Weighted Average Cost of Capital (WACC) rate used to calculate the en-route cost of capital for Slovenia Control is in line with the notional "efficient" WACC computed by Slovenia and that calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

Although Slovenia Control's en-route asset base per service unit is significantly higher than the comparators (by over +30%), the overall monetary value of the Return on Equity (RoE) is below the monetary value of the maximum revenue risk borne by Slovenia Control for the en-route activity over RP2.

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.	
7. Costs exempt from risk sharing:	**Passed**
The Performance Plan includes detailed information on the assumptions for costs exempt from risk sharing relating to RP2 and on how costs exempt from cost sharing in RP1 are (or not) taken into account in the RP2 DCs.	

Overall consistency assessment of Slovenia en-route cost-efficiency KPIs

Taking into account these key points, in particular 4, Slovenia en-route cost-efficiency target is assessed as not being consistent with and not making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2.

Therefore, the PRB advises the Commission to recommend the FAB CE to revise its Performance Plan, and specifically for Slovenia to:

a) revise downwards the level of DCs in RP2,

b) ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. Provide detailed information in the Performance Plan on how this is ensured;

c) provide explanations and justifications on the significant decrease in the net current liabilities deducted from the asset base compared to RP1; and,

d) complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template (based on key point 6).

5.18 Slovenia: Overview of terminal KPI assessment

5.18.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Slovenia for RP2, covering the 3 airports controlled by Slovenia Control (Ljubljana, Maribor and Portoroz). The TCZ is the same as for RP1.

Slovenia has decided not to apply traffic risk-sharing in the TCZ in RP2.

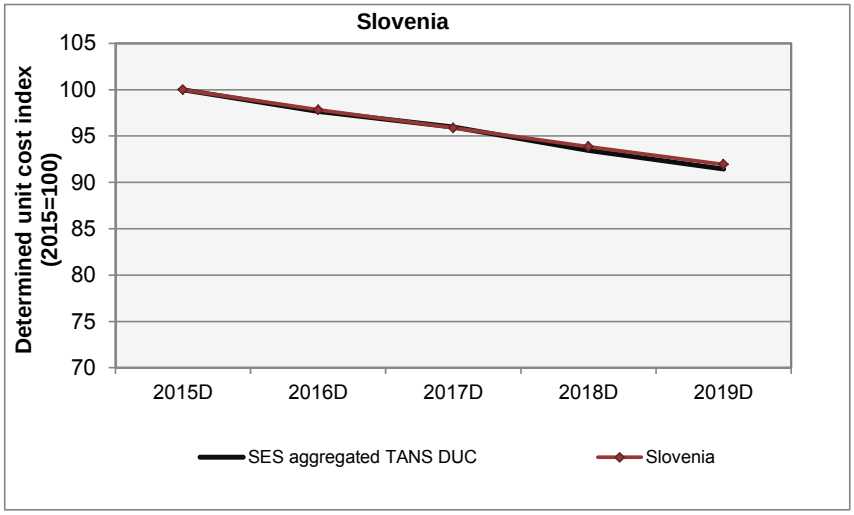


Figure 27: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	3.9	3.9	3.9	3.9	3.9	0.5%
Inflation rate *	annual % change	1.6%	2.1%	1.9%	2.0%	2.0%	2.0%
Inflation index *	2009=100	111.9	114.3	116.5	118.8	121.2	
Determined costs	EUR m (2009)	3.5	3.4	3.4	3.3	3.3	-1.5%
Terminal SUs	'000s	12.5	12.6	12.7	12.8	12.8	0.6%
Determined unit cost	EUR (2009)	275.71	269.71	264.33	258.78	253.46	-2.1%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	275.71	269.71	264.33	258.78	253.46	-2.1%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 28: Terminal DUC breakdown

Key points for Slovenia terminal charging zone

1. Traffic forecast assumptions:	Not passed

The forecast total Terminal Navigation Service Units (TNSUs) for Slovenia TCZ are completely different from the STATFOR base case published in February 2014 for all years of RP2. It starts at a much higher level than STATFOR base case in 2015 (by +10.9% above the STATFOR base case and +6.2% above STATFOR high case) and ends at a lower level than STATFOR base case in 2019 (by -3.8%). No justification for such differences is presented in the RP2 Performance Plan.

2. Economic assumptions:	**Passed**
Forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route KPI.	
3. Terminal ANS DUC trend:	**Passed with reservations**
The trend in Slovenia terminal ANS DUC in RP2 (-2.1% p.a. on average) is slightly worse than the profile corresponding to the SES aggregated terminal ANS DUC taken from RP2 FAB Performance Plans (-2.2% p.a. on average) when computed over the period 2015-2019. However, it should be noted that this trend is impacted by the high TNSU forecast for 2015 (see above). If the STATFOR base forecast was used to compute the DUC, the trend for Slovenia terminal ANS DUC would be -5.5% p.a. on average for the period, i.e. better than the trend of the SES aggregated terminal ANS DUC.	
4. Terminal cost of capital:	**Passed**
Although the WACC, the return on equity and interest on debt used to calculate the cost of capital of Slovenia Control for the TCZ is the same as for the en-route charging zone, the monetary value of the Return on Equity (RoE) is much lower than for en-route and is below 1.0% of the terminal revenues on average for RP2. This is consistent with the fact that the risk incurred by Slovenia Control for the provision of terminal ANS is lower than for the en-route services as traffic risk sharing does not apply in the TCZ.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.Information on interest rates on loans is not provided.	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan reports that no changes are foreseen on the assumptions for costs exempt from risk sharing relating to RP2.	

Assessment: overall consistency of Slovenia terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1, Slovenia terminal ANS cost-efficiency targets are assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

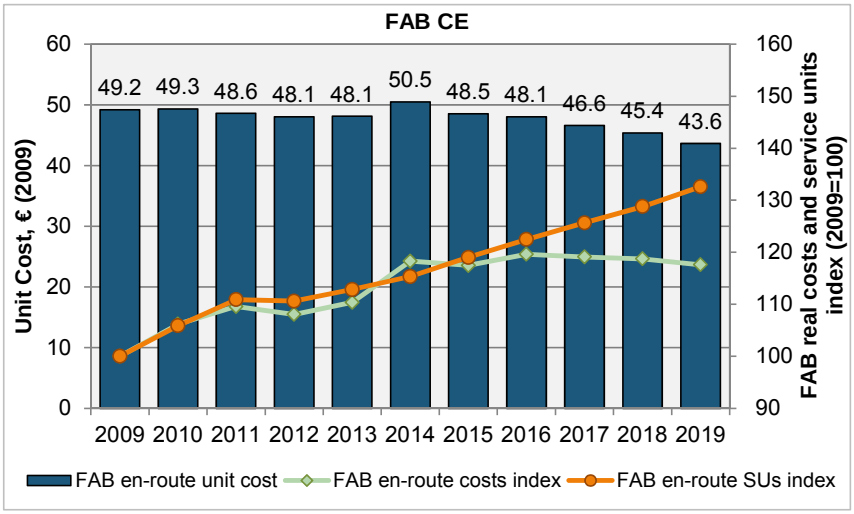
Therefore, the PRB advises the Commission to Recommend the FAB CE to revise its Performance Plan, and specifically for Slovenia to:

a) revise the TNSUs forecast for RP2 or provide detailed justification for the significant deviation against STATFOR forecast; and,

b) complete the information provided on the underlying pension costs assumptions and interest on loans in line with the requirements of the FAB Performance Plan template (based on key point 5).

5.19 FAB CE: Aggregated en-route trend at FAB level

Overview



Key figures: FAB CE		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	437.0	463.9	478.8	472.1	482.2	516.9	513.2	522.7	520.4	518.8	513.8
FAB en-route service units	'000s	8 882	9 402	9 850	9 823	10 022	10 242	10 571	10 876	11 161	11 438	11 776
FAB en-route unit cost	EUR (2009)	49.20	49.34	48.61	48.06	48.11	50.47	48.55	48.06	46.63	45.36	43.63

Key figures: FAB CE CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	1.6%	0.9%	-0.1%	0.0%
FAB en-route service units	'000s	2.9%	2.3%	2.8%	2.7%
FAB en-route unit cost	EUR (2009)	-1.2%	-1.3%	-2.9%	-2.6%

Figure 28: FAB en-route unit cost trend overview

Key points for FAB CE

Notes:

1) The following comments on the aggregated FAB en-route cost trend should not be interpreted as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level, and for RP2 there are no FABs with a common charging zone and a single unit rate.

2) Croatia en-route cost-efficiency KPI for RP2 and historical data presented in the FAB CE Performance Plan include the costs for services provided by Croatia Control in Sarajevo FIR (Bosnia and Herzegovina) up to 2015 included. This is not compliant with the SES performance and charging regulations (Art. 6.1 of the charging Regulation and does not allow the PRB to assess the Croatia en-route cost-efficiency KPI. Nevertheless, with a view to provide an indication of what the assessment results would be, the PRB has recalculated the costs data by excluding services provided to Bosnia and Herzegovina. As a result, the present assessment is based on the costs recalculated by the PRB.

The en-route DUC trend for the FAB CE is worse than the Union-wide targets, whether considered over the period 2014-2019 (-2.9% p.a. vs. -3.3% p.a.) or over the period 2011-2019 (-1.3% p.a. vs. -1.7% p.a.). Nevertheless, the level of the FAB CE unit cost planned for 2019 (43.63 €$_{2009}$) is -14.9% lower than the Union-wide aggregated DUC (51.26 €$_{2009}$).

The en-route DC trend for the FAB CE is also much worse than that for the DCs profile

underlying the Union-wide targets, whether considered over the period 2014-2019 (+0.9% p.a. vs. -2.1% p.a.) or over the period 2011-2019 (-0.1% p.a. vs. -0.8% p.a.).

The PRB notes that all en-route charging zones constituting the FAB CE have DCs trends that are worse than the DCs profile underlying the Union-wide targets. Moreover, high starting points have been considered for RP2 (aggregated 2014 forecast costs being higher than 2012 actual costs by +9.5%, and higher than 2013 actual costs by +7.2%, whereas 2014 forecast TSUs are higher by +4.8% compared to 2012 actuals and by +2.7% compared to 2013 actuals). This indicates that the cost-efficiency improvements achieved in the first two years of RP1 do not seem to be genuinely reflected in RP2.

In 2013, the FAB en-route costs (482.2 M€$_{2009}$) represented 8.0% of the total SES en-route costs. By 2019, these are planned (513.8 M€$_{2009}$) to be 8.3%.

The main contributors in respect of costs (Austria and the Czech Republic) account for more than half of the DCs in RP2. The rest is shared among the remaining 4 States (Hungary, Croatia, Slovakia and Slovenia, by decreasing order of DCs).

The PRB notes that FAB CE ATSPs have undertaken significant local investments relating to the construction of new ACCs buildings, new ATM systems and/or major overhauls of existing ATM systems in RP1. In this respect, there are no indications in the FAB CE Performance Plan for significant structural and organisational changes in the delivery of services within the ATSPs in the FAB leading to rationalisation or cost reductions in RP2 or beyond.

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

AUSTRIA

6.1.1 8 CAPEX projects were described in the RP2 Performance Plan for Austro Control. Descriptions of the CAPEX projects are robust and provide details for the assessment of the relevance and coherence with the ATM Master Plan. Links to the ATM Master Plan Operational Packages, Sub-Packages and Operational Focus Areas, as well as to the ESSIP Objectives were provided. In majority of the cases the links are correct. However, the following ESSIP Objectives are no longer active in the ESSIP Plan Edition 2013: COM02, COM06 for CAPEX 1 (COM Services), INF01 for CAPEX 5 (DPS AIM Services), AOP02 for CAPEX 6 (DPS MET Services) and COM06 for CAPEX 7 (Building & Facility Management). Additionally Austria provided links to ESSIP Objectives already completed by. The detailed projects show foresight of the PCP IR as they are linked to the appropriate ESSIP Objectives which constitute the prerequisites for the ATM Functionalities. CAPEX 4 (DPS ATM Services) in common projects field mentions COOPANS and Airport Vienna CDM which are part of the developments for the implementation of PCP. There is however no clear indication that the need to deploy relevant PCP functionalities within RP2 has been anticipated.

6.1.2 The provided dates of the planned entry into operation for all CAPEX projects are in compliance with the reported dates of implementation in the ATM Master Plan reporting process. However, they cover the period of 2015/2020 for CAPEX 1-3 (COM, NAV and SUR Services) and 2016-2020 for CAPEX 4-7 (DPS ATM, AIM, MET Services and Building & Facility Management) and therefore do not allow establishing the exact date of entry into operation.

CROATIA

6.1.3 7 CAPEX projects were described in the RP2 Performance Plan for Croatia Control. Descriptions of the CAPEX projects included in both Section 2 of the RP2 Performance Plan and Annex D are detailed enough to allow for assessment of the coherence with the ATM Master Plan. It has to be noted that for the description part of CAPEX 3 (NAV Systems Modernization and Replacement Project) a link to Regulation (EC) 206/2008 was provided, whereas such regulation does not cover ATM matters[5] .

6.1.4 For the following CAPEX projects no link to IOP IRs, ATM Master Plan elements or the NSP were provided:

- CAPEX 2 (VOICE-COM Systems Modernization and Replacement Project) – whereas from the description provided it could have been assumed that it is linked to at least COM11, ITY-AGDL and ITY-AGVCS2 Objectives,
- CAPEX 3 (NAV Systems Modernization and Replacement Project) - whereas from the description provided it could have been assumed that it is linked to at least NAV03 Objective.

6.1.5 For CAPEX 1 (DATA-COM Systems Modernization Project) and CAPEX6 (ATM System Upgrade) the correct links to Strategic Objectives of the NSP were provided.

6.1.6 For CAPEX 6 no harmonisation with the COOPANS project partners was performed with regards to the provided links for the ATM system modernisation and no harmonisation with the information provided in the ATM Master Plan reporting process, where links to appropriate ESSIP Objectives are listed for the modernisation of ATM system to COOPANS baseline.

6.1.7 From the descriptions of the projects it can be assumed that the ATM functionalities of the PCP were taken into consideration in case of some of the projects, however this is not enough to provide a proper and thorough assessment and clarification should be sought.

6.1.8 The provided dates of the planned entry into operation or all CAPEX projects are in compliance with the reported dates of implementation in the ATM Master Plan reporting process and the planning of the NSP. However, they all cover very broad periods of time (2015-2024) and therefore do not allow establishing the exact date of entry into operation.

CZECH REPUBLIC

6.1.9 11 CAPEX projects were described in the RP2 Performance Plan for ANS CR. Descriptions of all of the CAPEX projects are robust and provide enough detail for the assessment of the relevance and coherence with the ATM Master Plan. Appropriate links to the EU legislation and ATM Master Plan essentials (ESSIP Objectives and/or Enablers) were provided. The detailed projects show foresight of the PCP as they are linked to the appropriate ESSIP Objectives which constitute the prerequisites for the ATM Functionalities. There is however no clear indication that the need to deploy relevant PCP functionalities within RP2 has been anticipated.

6.1.10 For CAPEX 5 (RCOM Radio communication systems), the provided dates of the planned entry into operation (2015-2017) are not in compliance with the reported dates of implementation in the ATM Master Plan reporting process. In the latter case the date of implementation of both COM11 and ITY-AGVCS2, which are applicable for this CAPEX project, is 2020. Additionally for all other CAPEX projects the provided dates cover the whole RP2 period (2015-2019).

HUNGARY

6.1.11 10 CAPEX projects were described in the RP2 Performance Plan for HungaroControl. The descriptions of the CAPEX projects included in both Section 2 of the RP2 Performance Plan and Annex D are detailed enough to allow for the assessment of coherence with the ATM Master Plan, however Hungary linked CAPEX 1 (MATIAS Build 12), CAPEX 2 (CPDLC), CAPEX 3 and 4 (MATIAS Build 11.2 and 11.1) and CAPEX 6 (A-SMGCS) only to the Strategic Objectives of the NSP and did not provide any links to IOP IRs, ATM Master Plan or NSP in the rest of the CAPEX projects, which is not satisfactory. Hungary should review the links of each CAPEX investment and link them to at least appropriate ATM Master Plan essentials.

6.1.12 CAPEX 1, 2, 3, 4 and 6 are reported as contributing to PCP and they show foresight of the PCP IR with the links provided to the following ATM functionalities: CAPEX 1 to AF5 and AF6, CAPEX 3 to AF2 and AF3, CAPEX 4 for AF1 and AF3, CAPEX 6

to AF2 and AF3. It should be noted that for CAPEX 2 Hungary provided the following explanation "*The project will contribute to the FAB CE common activity in relation to the Common data link transfer procedure in FAB CE and common approach of CPDLC safety cases (WP16) and planning of common network infrastructure establishment (P5)*". Additionally Hungary's investment in CAPEX 4 is reported to contribute to PCP AF1 – AMAN implementation for the neighbouring APP of Vienna.

6.1.13 The provided dates of the planned entry into operation for the CAPEX projects are in compliance with the reported dates of implementation in the ATM Master Plan reporting process and the planning of the NSP.

SLOVAKIA

6.1.14 11 CAPEX projects were described in the RP2 Performance Plan for LPS. Not all of the descriptions of the planned CAPEX projects are detailed enough to allow for robust assessment of coherence with the ATM Master Plan. The descriptions of the CAPEX 1 (Software Upgrade of the Main ATM System - AGDL and COTR), CAPEX 2 and 3 (Hardware and Software Upgrade of the Main ATM System) and CAPEX 4 and 9 (Surveillance and Navigation Systems Upgrade) should be provided with more details concerning the planned overhauls. For all of the CAPEX projects, except for CAPEX 10 (Central Monitoring System), Slovakia provided in general appropriate links to the elements of the ATM Master Plan (ESSIP Objectives, OI steps and enablers) and to NSP where appropriate. However the following issues should be noted:

- for CAPEX 1 OI step AOM-0403 is provided which is focused on the implementation of FRA, however no appropriate ESSIP Objective was provided for this change in the ATM system as well as the description provided does not mention this important aspect.
- for CAPEX 2 and CAPEX 3 OI step CM-0801 is provided which is directly linked in the ATM Master Plan to the ESSIP Objectives ATC02.2, ATC02.5, ATC02.6 and ATC02.7, however those ESSIP Objectives were not enumerated by Slovakia. Additionally the description of this CAPEX project does not show that the upgrade of the ATM system will be linked to implementation of ground based safety nets.
- for CAPEX 11 (ATS Operation Information System) OI step DC-0103-A was provided which does not exist in the ATM Master Plan Portal DataSet 8 available at the time of the elaboration of the RP2 Performance Plan.

6.1.15 CAPEX 1, 3, 8 (SACON Network Upgrade), 9 and 11 were marked as common projects. From the descriptions and links to the ATM Master Plan of the projects it can be assumed that the ATM functionalities of the PCP IR were taken into consideration in case of some of the projects (links visible for AF3), however this is not enough to provide a proper assessment. Slovakia should provide proper reference to the ATM functionalities for the common projects.

6.1.16 The provided dates of the planned entry into operation for the CAPEX projects are not always compatible with the reported dates of implementation in the ATM Master Plan reporting process. This is noted with the reference to the following projects:

- for CAPEX 1 the planned date of entry into operation is 2015, whereas for the ITY-COTR and ITY-AGDL which are directly linked to the project the planned date of implementation from the 2013 ATM Master Plan reporting process is 2016 and both Objectives are already reported as Late.

- for CAPEX 4 the planned date of entry into operation is 2018, whereas for the ITY-SPI which is directly linked to the project the planned date of implementation from the 2013 ATM Master Plan reporting process is 2019.
- for CAPEX 5 (Radio communication Equipment Upgrade) the planned dates of entry into operation are 2015, 2016, 2017, whereas for the ITY-AGVCS2 which is directly linked to the project the planned date of implementation from the 2013 ATM Master Plan reporting process is 2018.
- for CAPEX 6 and 7 (Voice Communication and Recording System - Implementation of VoIP), and CAPEX 8 the planned dates of entry into operation are 2018, 2019, whereas for the COM11 which is directly linked to the project the planned date of implementation from the 2013 ATM Master Plan reporting process is 2020.

6.1.17 Therefore, Slovakia should cross-check the planned dates of implementation between different sources of information, including ATM Master Plan reporting process.

SLOVENIA

6.1.18 6 CAPEX projects were described in the RP2 Performance Plan for Slovenia Control. The planned main investments are compatible and coherent with the SESAR deployment requirements. In addition, links to the ATM Master Plan and NSP are provided. However, the names/titles of the CAPEXs are too generic for which it refers more to a programme rather than a project.

6.1.19 Slovenia Control has detailed projects showing foresight of the PCP IR as they are linked to the appropriate ESSIP Objectives which constitute the prerequisites for the ATM Functionalities. There is however no clear indication that the need to deploy relevant PCP functionalities within RP2 has been anticipated.

6.2 FAB and/or Regional dimension

FAB LEVEL

6.2.1 Annexes D of the RP2 Performance Plans provide more information with regards to the synergies out of the FAB-wide harmonisation. It is noted that "activities of future alignment and harmonization of FAB-wide investments are monitored and steered by the TEC Subcommittee, but will be effective not before RP2, and with rather slight slope of synergies at the beginning. They are mainly based on the requirements as derived by the then approved FAB Operational Concept CONOPS".

6.2.2 A study was performed in 2013 where possible synergies in the technical domain were presented. However, it shall be noted that not all of the synergies may be gained in RP2 and some may occur as long-term effects in RP3. It was identified that the benefits related to the cooperation activities (like smart procurement, common specifications, harmonized approach to maintenance, sharing spare parts etc.) will reach 3%-6% of the planned investment costs. However certain (mainly legal) conditions need to be fulfilled in advance, which is not the case yet. It results in the lack of joint investments projects for all of the FAB CE States and differences in the plans of each State of the FAB CE.

6.2.3 In the ATM Master Plan reporting process, the FAB CE provided a list projects relevant from the point of view of FAB. This list contains different kinds of projects, amongst them those that may have influence on the investment plans of the States, e.g. Regional Communications Infrastructure Development and Air Ground Data Link. Those projects can be traced back in the RP2 Performance Plan of all of the FAB CE States (see details below).

6.2.4 With respect to the synergies achieved at FAB level it was noted that the replies provided by the States are not harmonised and it is difficult to draw conclusions out of differing views (see details below). It seems that the States are working together on the establishment of at least common requirements for some of the projects. Additionally synergies are noted for the States participating in COOPANS project.

6.2.5 CPDLC is a common project for AT, CZ, HR, HU, SK included in the CAPEX investments of all of them with support of a FAB CE common activity.

AUSTRIA

6.2.6 With respect to the synergies achieved at FAB level it was noted that common specifications and common requirements are reported to be under preparation for all of the CAPEX projects (including for COOPANS).

CROATIA

6.2.7 With respect to the synergies achieved at FAB level for CAPEX1 (DATA-COM Systems Modernization Project) Croatia provided the following links "FAB CE P5, FAB CE P10, FAB CE P16" without any other explanation. More details regarding at least the name of specific FAB CE project should be provided. The synergies at FAB level will be also achieved through CAPEX 6 (ATM System Upgrade) with regards to the cooperation within COOPANS.

6.2.8 In the ATM Master Plan reporting process, the FAB CE provided a list projects relevant from the point of view of FAB. This list contains different kinds of projects, amongst them those that may have influence on the investment plans of the States, e.g. Regional Communications Infrastructure Development and Air Ground Data

Link. Those projects can be traced back in the RP2 Performance Plan of Croatia, namely in the COM-related CAPEX projects.

CZECH REPUBLIC

6.2.9 With respect to the synergies achieved at FAB level it was noted that common specifications and common requirements are reported to be under preparation for some of the projects (CAPEX 1, Surveillance, CAPEX 2, Data Processing and presentation and CAPEX 4, Communication) and for the remaining ones (except for CAPEX 11, Buildings) it might be considered to develop them.

6.2.10 In the ATM Master Plan reporting process, the FAB CE provided a list projects relevant from the point of view of FAB. This list contains different kinds of projects, amongst them those that may have influence on the investment plans of the States, e.g. Regional Communications Infrastructure Development and Air Ground Data Link. Those projects can be traced back in the RP2 Performance Plan of Czech Republic, namely in the DPS and COM-related CAPEX projects.

HUNGARY

6.2.11 With respect to the synergies achieved at FAB level only CAPEX 4 (MATIAS Build 11.1) is reported to contribute to the FAB CE static scenario and the Free Route projects as the technical enabler. It has to be noted that in case of all the other FAB CE States only SK and SI have mentioned a planned investment with regards to the Free Route Concept which is part of the PCP IR (AF3). Additionally CAPEX 2 (CPDLC) is reported in the common project field to contribute to the FAB CE common activity in relation to CPDLC implementation; however it seems that no synergies could be achieved at FAB or MS level. The FAB CE States shall reassess the possible synergies to be achieved by common implementation projects.

6.2.12 In the ATM Master Plan reporting process, the FAB CE provided a list projects relevant from the point of view of FAB. This list contains different kinds of projects, amongst them those that may have influence on the investment plans of the States, e.g. Regional Communications Infrastructure Development and Air Ground Data Link. Those projects can be traced back in the RP2 Performance Plan of Hungary, namely in the CAPEX 2 and CAPEX 7 (Replacement of Voice Communication System) projects.

SLOVAKIA

6.2.13 With respect to the synergies achieved at FAB level Slovakia reported that the synergies will be achieved for almost all of the CAPEX projects (with exception of CAPEX 2, Hardware Upgrade of the Main ATM System) with the following explanation: “Common approach in preparation of the harmonised requirements specifications is consulted”.

6.2.14 In the ATM Master Plan reporting process, the FAB CE provided a list projects relevant from the point of view of FAB. This list contains different kinds of projects, amongst them those that may have influence on the investment plans of the States, e.g. Regional Communications Infrastructure Development and Air Ground Data Link. Those projects can be traced back in the RP2 Performance Plan of Slovakia, namely in the CAPEX 1, 5, 6 and 7 projects.

SLOVENIA

6.2.15 With respect to the synergies achieved at FAB level Slovenia reported that the synergies might be achieved for all of the CAPEX projects (at the level of common procurement, training, sharing of infrastructure, common documentation, generic safety case, etc.).

6.2.16 The main investments of Slovenia are part of the FAB CE Investment Plan, such as the implementation of Datalink/CPDLC.

6.2.17 At Regional level project

REGIONAL PROJECTS AUSTRIA - AUSTRO CONTROL

6.2.18 FDP-COOPANS is a joint project (with LVF Sweden, Naviair Denmark, IAA Ireland and Croatia Control Croatia), with shared costs for a common infrastructure. Airspace Development project is not listed as a joint project though it clearly has FAB dimensions.

REGIONAL PROJECTS CROATIA - CROATIA CONTROL

6.2.19 CAPEX 6 (ATM system upgrade) is part of COOPANS. This is a joint project (with LVF Sweden, Naviair Denmark, Austro Control Austria and Croatia Control Croatia), with shared costs for a common infrastructure.

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 As shown in the table below the planned investment average per year for RP2 is foreseen to be 12% lower than the average for the previous five years (updated for 2010-14[6]) (82.2M€$_{2009}$ RP2 planned annual average vs. 93.9M€$_{2009}$ updated annual average for 2010-14).

FAB CE CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	95.6	89.7	75.0	83.7	66.7	410.8	82.2

Table 29: RP2 FAB CE CAPEX

FAB CE CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	98.1	136.9	160.8	100.0	88.1	583.8	116.8
Total Updated Planned	92.9	93.2	135.5	76.8	70.9	469.4	93.9
U-P (M€2009, real terms)	-5.2	-43.7	-25.2	-23.2	-17.1	-114.4	-22.9
U/P (%)	-5.3%	-31.9%	-15.7%	-23.2%	-19.5%	-18.8%	-19.6%

Table 30: 2010-14 FAB CE CAPEX

6.3.2 During the consultation with stakeholders[7] the following issues were raised:

- "*IATA stressed appreciation for the overall FAB CE plan to implement Free Route airspace (FRA) in particular at lower levels, envisaged by the SESAR PCP*";
- *"significant expenditure on Surveillance Communication and Navigation*

Infrastructure, but it is not clear if the common approach includes a full review of the FAB CE to see if fewer radar/ADS-B/WAM systems are needed and if the surveillance network will be rationalised. " In this respect FAB CE representatives mentioned that "harmonisation and optimisation of NAV infrastructure is included in the FAB CE CONOPS which will be prioritised according to RP2 requirements;

- Investments in ATCO training facilities are envisaged for Austria, Czech and Hungary ANSP, "*yet no synergy is identified*";
- Stakeholders demanded the returning of the unused RP1 CAPEX amounts to the users. The FAB CE replied that "*there is not a mandatory rule to give the difference back and this would mean a step back from the performance scheme to full cost recovery*".

6.3.3 This FAB level assessment does not reflect different situations at National level, as described below:

AUSTRIA ANSP

6.3.4 Austria's ANSP investments are planned to be on average 9% lower in RP2 than for the period 2010-14[8] (27.9M€$_{2009}$, RP2 yearly average vs. 30.6M€$_{2009}$, updated average over the past five years). Austria mentioned that "*the cooperation with COOPANS partners for the ATC System has brought synergies for the establishment and evolution of the ATC System, since development and integration cost is shared amongst 5 ANSPs."*[9]

6.3.5 The planned total CAPEX are lower for the first two years of RP2 (23.6M€$_{2009}$ planned for 2015 and 23.9M€$_{2009}$ for 2016) but will increase on average by 6.9% over the reference period, opposed to the sharp decline in CAPEX (-16.5%) foreseen for the previous five years (2010-14). In this respect Austria stated that *"continuous analysis of potentials for CAPEX reduction in any kind of project in combination with new negotiation techniques with our main equipment suppliers is leading to the reported CAPEX figures."*

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	23.6	23.9	29.9	31.6	30.3	139.3	27.9
MAIN	Planned	20.3	17.8	25.7	27.6	27.0	118.4	23.7
MAIN versus TOTAL		85.9%	74.5%	85.9%	87.4%	89.2%	85.0%	85.0%

Table 31: RP2 Austria ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	42.3	45.2	33.0	27.7	21.1	169.2	33.8
	Updated Plan	41.2	27.4	37.8	26.6	20.1	153.1	30.6
	U-P (M€2009, real terms)	-1.1	-17.8	4.8	-1.1	-1.0	-16.1	-3.2
	U/P (%)	-2.6%	-39.4%	14.6%	-3.9%	-4.7%	-9.5%	-7.2%
MAIN	Planned	27.9	29.8	17.4	27.7	21.1	123.9	24.8
	Updated Plan	14.0	15.8	18.7	26.6	20.1	95.2	19.0
	U-P (M€2009, real terms)	-13.9	-14.0	1.3	-1.1	-1.0	-28.7	-5.7
	U/P (%)	-49.8%	-47.1%	7.7%	-3.9%	-4.7%	-23.1%	-19.6%
MAIN versus TOTAL (Planned)		66.0%	65.9%	52.8%	100.0%	100.0%	73.2%	76.9%
MAIN versus TOTAL (Update Plan)		34.0%	57.6%	49.6%	100.0%	100.0%	62.2%	68.2%

Table 32: 2010-14 Austria ANSP CAPEX (Actual vs. Planned)

6.3.6 The breakdown per project for RP2 was provided per domain (i.e.COM, NAV, SUR etc.) and the descriptions provided in the Performance Plan for both reference periods or in Annex D (FAB CE Investment Plan) do not show any link to the RP1 projects.

6.3.7 "DPS Services" (for ATM, AIM and MET), Austro Control's main project in RP2, has a SESAR deployment documented CBA for each domain. It is a common FAB CE project (legal constraints currently to be solved), it has a PCP dimension (COOPANS, see details in section 6.1.1) and amounts to 57M€$_{2009}$ over RP2 (48% from the main investments) without being broken-down per domain. It is foreseen to be commissioned in RP3 and 75% will be attributed to the en-route activity, having an impact on the en-route charges for the future reference periods. This project is described as generating 30% cost savings "*by implementation of shared technical platform, compared to individual platform*"[10]).

6.3.8 It is noted that Austro Control's main project for RP1 linked to ATM Systems (COOPANS), namely "NG AATMS" was planned for 33.7M€$_{2009}$ but only 12.4M€$_{2009}$ was spent due to "delays in COOPANS implementation". Since this project is not included in RP2 list it is not clear if the unspent amount for RP1 is included in the total planned for DPS Services, being charged twice.

6.3.9 Investments were discussed at national and FAB CE consultations with the stakeholders (see above in 6.3.2).

6.3.10 For all projects the planned commissioned dates are over RP2 except for DPS Services and the "Building & Facility Management" project, planned to be commissioned after 2016. However, depreciation costs are foreseen to remain constant over RP2, after the forecasted increase for 2010-14 (+4.7%) generated by the deployment of the new ATC system and the replacement of the weather radars.

CROATIA ANSP

6.3.11 Croatia's ANSP investments are planned to be on average 45% lower in RP2 than for the period 2010-14[8] (9.7M€$_{2009}$, RP2 yearly average vs. 17.4M€$_{2009}$, updated average over the past five years).

6.3.12 16M€$_{2009}$ (41%) from the main CAPEX in RP2 are planned for ATM System upgrade, i.e. COOPANS, a system shared with LFV Sweden, Naviair Denmark, IAA

Ireland and ACG Austria.

6.3.13 It is also noted that CroATM Upgrade Project – COOPANS will be commissioned in 2014[11] whilst VCCS and the reconstruction for the ACC building are planned for 2015. Other important projects, started before RP2, are VCCS modernisation, NAV system modernisation and the reconstruction of the old ACC building.

6.3.14 Main CAPEX accounts for 81% on average in RP2; (9.1M€$_{2009}$, 19% from total RP2 CAPEX) are being planned for "other" investments. No details were provided in Annex D (FAB CE Investment Plan). As a result, the percentage of main versus total investments is significantly higher for each year in RP2 than it was for 2010-14 (81.2% on average in RP2 vs. 49.7% in 2010-14).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	11.7	10.3	9.9	8.8	7.7	48.3	9.7
MAIN	Planned	9.3	8.3	8.0	7.3	6.4	39.2	7.8
MAIN versus TOTAL		79.4%	81.0%	80.6%	83.2%	82.8%	81.2%	81.2%

Table 33: RP2 Croatia ANSP Planned CAPEX

6.3.15 Though Croatia was not part of the performance scheme for RP1, from other performance reporting,[12] as observed in the table below, the annual average for 2010-14 is expected to be 20% higher than planned (17.41M€$_{2009}$ the updated plan vs. 14.51M€$_{2009}$ the planned CAPEX, see details in 6.3.12).

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	2.8	15.4	20.2	19.3	14.5	72.3	14.5
	Updated Plan	8.8	21.2	23.1	19.3[13]	14.5	87.0	17.4
	U-P (M€2009, real terms)	6.0	5.9	2.9	0.0	0.0	14.8	3.0
	U/P (%)	210.7%	38.2%	14.4%	0.0%	0.0%	20.4%	52.7%
MAIN	Planned	2.1	14.0	10.0	9.5	5.0	40.6	8.1
	Updated Plan	8.1	3.1	13.6	9.5	5.0	39.3	7.9
	U-P (M€2009, real terms)	6.0	-10.9	3.6	0.0	0.0	-1.3	-0.3
	U/P (%)	284.3%	-78.0%	36.1%	0.0%	0.0%	-3.2%	48.5%
MAIN versus TOTAL (Planned)		74.2%	91.0%	49.5%	49.0%	34.4%	56.1%	59.6%
MAIN versus TOTAL (Updated Plan)		91.7%	14.5%	58.9%	49.0%	34.4%	45.1%	49.7%

Table 34: 2010-14 Croatia ANSP CAPEX (Actual vs. Planned)

6.3.16 The expected entry into operation for COOPANS is reflected into depreciation costs, which are foreseen to increase on average by 17% over 2010-14. This trend will continue over RP2 when depreciation is foreseen to be 23% higher than for 2010-14. Croatia mentioned that depreciation costs during RP2 are determined by the "*recently operational CroATM/COOPANS strategic investment and by expected RP2 CAPEX cycle of some €10.8M annually.*"[14]

CZECH REPUBLIC ANSP

6.3.17 Czech's ANSP investments are planned to be on average 63% higher in RP2 than for the period 2010-14[8] (21.3M€$_{2009}$, RP2 yearly average vs. 13.1M€$_{2009}$, updated

average over the past five years).

6.3.18 It is noted that 36.9M€$_{2009}$ (38%) from the main RP2 CAPEX are planned for new ATM System (DPS), a project not shared at FAB CE level or with other partners. It is also noted that for this project important amounts were foreseen for 2010-14 (31.1M€$_{2009}$) but due to tender delays only 100k€$_{2009}$ was spent over RP1. Therefore it is assumed that the planned amount for RP2 is a catch-up from RP1.This new system is planned to be commissioned between 2015 and 2019. However this is not reflected into depreciation costs (see in 6.3.22).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	29.6	30.1	16.5	19.9	10.6	106.7	21.3
MAIN	Planned	27.7	28.1	14.6	17.7	9.0	97.1	19.4
MAIN versus TOTAL		93.5%	93.2%	89.0%	88.9%	84.6%	91.0%	91.0%

Table 35: RP2 Czech Republic ANSP Planned CAPEX

6.3.19 Other important main projects are “Data processing and presentation for DPS”, a new project, in reference to the upgrades for OLDI, FRA, ASTI etc. and amounts to 13.7M€$_{2009}$ over RP2; and “Communication” for the VCS replacements and to provide the infrastructure for Air-Ground Data-Link which amounts to 11.8M€$_{2009}$ (on top of 9.4M€$_{2009}$ planned for RP1). It is noted that 3.7M€$_{2009}$ are foreseen to be spent in 2014 for “VCS Replacements” so it can be assumed that the unspent amount is carried-over to RP2.

6.3.20 For ANS CR the percentage of main versus total investments is significantly higher for each year in RP2 than it was for 2010-14 (i.e. 91% on average in RP2 vs 42.5% over 2010-14).

6.3.21 Investments were discussed at national and FAB CE consultations with the stakeholders (see above in 6.3.2).

6.3.22 For all projects the planned commissioned dates are over RP2. This is not reflected into depreciation costs which are foreseen to decrease by 4.3% over RP2, in continuation of the expected trend for 2010-14 (-2.7%).

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	21.0	21.0	34.3	22.4	31.8	130.5	26.1
	Updated Plan	17.1	15.5	14.9	13.9	4.1	65.5	13.1
	U-P (M€2009, real terms)	-3.9	-5.5	-19.5	-8.5	-27.7	-65.0	-13.0
	U/P (%)	-18.5%	-26.1%	-56.7%	-37.8%	-87.1%	-49.8%	-45.2%
MAIN	Planned	6.2	6.6	21.7	11.4	21.5	67.6	13.5
	Updated Plan	5.6	4.3	4.6	2.9	4.1	21.5	4.3
	U-P (M€2009, real terms)	-0.6	-2.3	-17.1	-8.6	-17.5	-46.1	-9.2
	U/P (%)	-10.3%	-34.4%	-78.8%	-74.9%	-81.0%	-68.2%	-55.9%
MAIN versus TOTAL (Planned)		29.7%	31.5%	63.4%	51.0%	67.7%	51.8%	48.7%
MAIN versus TOTAL (Updated Plan)		32.7%	28.0%	31.0%	20.5%	100.0%	32.8%	42.5%

Table 36: 2010-14 Czech Republic ANSP CAPEX (Actual vs. Planned)

HUNGARY ANSP

6.3.23 Hungary's ANSP investments are planned to be on average 17% lower in RP2 than for the period 2010-14[8] (12.7M€$_{2009}$, RP2 yearly average vs. 15.3M€$_{2009}$, updated average over the past five years).

6.3.24 In RP2 HungaroControl's main investments are linked to the ATM system, MATIAS (9M€$_{2009}$ for Build 11.1 - AMAN OLDI and 6.6 M€$_{2009}$ for Build 11.2 - upgraded STCA, TCT and advanced PBN) in order to fulfil especially the requirements of the Network Strategy Plan.

6.3.25 It is noted that important amounts were foreseen for MATIAS project for 2010-14 (25.5M€$_{2009}$ or 52% from main CAPEX for the period) but only 14.1M€$_{2009}$ were spent over RP1, so the planned amount for RP2 is assumed as a catch-up from the previous reference period. This new system is planned to be commissioned by the end of 2019 and is expected "to be a major step towards fulfilling the European ATM MP"[15] (i.e. full 4D operation and extended SWIM functionality). However depreciation costs are foreseen to be affected by these costs only in RP3.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	16.5	14.6	5.4	14.2	12.8	63.5	12.7
MAIN	Planned	8.3	10.3	2.4	11.9	10.8	43.8	8.8
MAIN versus TOTAL		50.4%	70.6%	45.4%	83.7%	84.4%	68.9%	68.9%

Table 37: RP2 Hungary ANSP Planned CAPEX

6.3.26 It is also noted that HungaroControl part of investment costs were financed by EU community funds and are properly deducted from the asset base for depreciation calculation purposes, for 2010-2014 (10M€$_{2009}$, real terms) and this is continued in RP2 (4.9M€$_{2009}$, real terms).[16]

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	18.6	28.7	30.5	18.8	12.8	109.4	21.9
	Updated Plan	13.1	12.4	17.9	8.6	24.7	76.7	15.3
	U-P (M€2009, real terms)	-5.4	-16.3	-12.6	-10.3	11.9	-32.7	-6.5
	U/P (%)	-29.4%	-56.7%	-41.4%	-54.5%	93.0%	-29.9%	-17.8%
MAIN	Planned	9.5	20.9	22.1	11.1	5.2	68.7	13.7
	Updated Plan	3.2	12.2	17.9	3.3	5.8	42.5	8.5
	U-P (M€2009, real terms)	-6.3	-8.6	-4.2	-7.8	0.7	-26.2	-5.2
	U/P (%)	-66.0%	-41.3%	-19.0%	-70.5%	13.2%	-38.2%	-36.7%
MAIN versus TOTAL (Planned)		51.3%	72.8%	72.3%	58.9%	40.2%	62.8%	59.1%
MAIN versus TOTAL (Updated Plan)		24.7%	98.7%	100.0%	38.2%	23.6%	55.4%	57.0%

Table 38: 2010-14 Hungary ANSP CAPEX (Actual vs. Planned)

6.3.27 During the consultation with stakeholders[17], the following issues were discussed:

- Details as regards the "other" investments planned for RP2 (19.7M€$_{2009}$ total plan for RP2, 31% from the total CAPEX) were provided (mainly COM projects and ADQ);
- Details on depreciation for existing and new assets in order to assess the effect

of the new investments;

- CBAs performed for the investments that are not regulated and binding';
- The postponement of MATIAS project was tackled but this project is in line with the Thales roadmap;
- The extension of the depreciation period was investigated;
- Handling of postponed investment-related costs.

6.3.28 Several projects are foreseen to be commissioned over RP2, impacting depreciation costs which are foreseen to increase by 5.9%. In this respect Hungary has mentioned that "*the depreciation of currently existing assets is continuously decreasing over RP2, while naturally depreciation of new projects (some of them under development) is increasing in RP2. The most significant depreciation costs are related to MATIAS ATM system upgrade"*[18].

6.3.29 An increase in depreciation is foreseen over the past five years (+1.6%). This increase is the result of "*modified accounting policy applied for two headquarter buildings (ANS I and II)*."[19]

SLOVAKIA ANSP

6.3.30 Slovakia's ANSP investments are planned to be on average 21.5% lower in RP2 than for the period 2010-14[8] (8.6M€$_{2009}$, RP2 yearly average vs. 11M€$_{2009}$, updated average over the past five years).

6.3.31 There will be a higher level of investments in the beginning of the RP2 and lower levels at the end (12.7M€$_{2009}$ in 2015 to 2.4M€$_{2009}$ in 2019). It was stated that "*uneven distribution of investment costs in RP2 is caused by different reasons: implementation of European legislation for data link, hardware upgrade of main system due to its obsolescence and upgrade of VCS, Voice Recording System and radio communication equipment to VoIP environment."*[20]

6.3.32 It is observed that important amounts are accrued for "Hardware Upgrade of the Main ATM System" (12.5M€$_{2009}$ in total foreseen for RP2) and for "Software Upgrade of Main ATM System - AGDL & COTR" (3.7M€$_{2009}$ in total foreseen for RP2). The last one was launched in RP1, only 200k€$_{2009}$ was spent so far, and is planned to be commissioned in 2015. The hardware upgrade is foreseen to have a phased commissioning over RP2 (2015 to 2017).

6.3.33 LPS SR other main projects are launched in RP2 and have no links to RP1 projects. However it is mentioned that *"improvement of quality of services is an aim of the investment projects planned on the second reference period (2015-2019). Majority of them is related to implementation of the ATM Master Plan and requirements laid down by the SES legislation."*

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	12.7	9.5	12.4	6.2	2.4	43.1	8.6
MAIN	Planned	7.9	7.4	10.6	3.7	1.3	30.9	6.2
MAIN versus TOTAL		62.7%	78.3%	85.4%	59.9%	54.8%	71.8%	71.8%

Table 39: RP2 Slovakia ANSP Planned CAPEX

6.3.34 It is noted that depreciation is planned to increase by +9.7% over RP2, mostly for the terminal activity. IATA has questioned the reasons for the increase in

depreciation over RP2 "*as asset base projection does not justify an increase in depreciation of that magnitude*." The explanation provided was that "*the constant increase in depreciation over RP2 (until 2018) is due to major investments put into operation before RP2 or at the beginning of RP2 (new premises, technologic equipment for the new building etc.)*"[20].

6.3.35 Important amounts were not spent for 2010-2013 (14M€$_{2009}$). Depreciation costs have decreased only in 2012 (-46% actual vs. planned) due to "procurement process delays" and have increased in 2013 (+4%). No explanation was provided in this respect.

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	7.4	10.1	37.2	8.0	6.2	68.9	13.8
	Updated Plan	5.6	5.8	31.0	6.2	6.2	54.9	11.0
	U-P (M€2009, real terms)	-1.8	-4.3	-6.2	-1.8	0.0	-14.0	-2.8
	U/P (%)	-24.0%	-42.3%	-16.6%	-22.2%	0.0%	-20.3%	-21.0%
MAIN	Planned	6.0	7.5	31.9	5.1	2.7	53.2	10.6
	Updated Plan	4.9	5.0	30.0	2.2	2.7	44.7	8.9
	U-P (M€2009, real terms)	-1.1	-2.5	-1.9	-2.9	0.0	-8.4	-1.7
	U/P (%)	-18.0%	-34.0%	-6.0%	-56.7%	0.0%	-15.8%	-22.9%
MAIN versus TOTAL (Planned)		81.1%	74.3%	85.7%	64.1%	42.8%	77.1%	69.6%
MAIN versus TOTAL (Updated Plan)		87.5%	85.0%	96.6%	35.7%	42.8%	81.5%	69.5%

Table 40: 2010-14 Slovakia ANSP CAPEX (Actual vs. Planned)

SLOVENIA ANSP

6.3.36 Slovenia ANSP investments are planned to be on average 69% lower in RP2 than for the period 2010-14[8] (2M€$_{2009}$, RP2 yearly average vs. 6.4M€$_{2009}$, updated average over the past five years).

6.3.37 There will be a higher level of investments for the last two years of RP2 (3M€$_{2009}$ each year vs 1.5M€$_{2009}$ for 2015 and 1.4M€$_{2009}$ for 2016).

6.3.38 Important amounts are foreseen for "ATM System upgrade" (4.6M€$_{2009}$ in total for RP2), the main upgrades are envisaged to implement *"MODE-S Processing, AFP Messages, Free Route Concept, STAM tools and complementary OLDI Messages*".[21] No amount was planned for this project in RP1.

6.3.39 Several main projects planned for RP2 are linked with RP1 projects: Datalink / CPDLC, FDPS upgrade and ACC Hardware renewal. For these projects 1.9M€$_{2009}$ were planned over the previous period and no amounts were spent. Therefore the planned amounts for RP2 (4.2M€$_{2009}$) are assumed to be a catch-up from the previous timeframe.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	**Planned**	1.5	1.4	1.0	3.0	3.0	9.9	2.0
MAIN	**Planned**	1.2	1.1	0.8	2.4	2.4	8.0	1.6
MAIN versus TOTAL		82.9%	75.3%	83.3%	81.1%	78.9%	80.1%	80.1%

Table 41: RP2 Slovenia ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	6.0	16.6	5.5	3.8	1.6	33.5	6.7
	Updated Plan	7.0	10.9	10.8	2.1	1.3	32.1	6.4
	U-P (M€2009, real terms)	1.0	-5.7	5.3	-1.6	-0.4	-1.4	-0.3
	U/P (%)	16.6%	-34.5%	96.7%	-43.4%	-21.6%	-4.2%	2.8%
MAIN	Planned	1.4	8.8	5.0	2.9	1.3	19.3	3.9
	Updated Plan	1.4	5.9	8.0	2.1	1.3	18.7	3.7
	U-P (M€2009, real terms)	0.0	-2.9	3.0	-0.7	0.0	-0.6	-0.1
	U/P (%)	0.0%	-32.7%	60.8%	-26.0%	-3.2%	-3.3%	-0.2%
MAIN versus TOTAL (Planned)		22.7%	53.0%	90.7%	76.4%	81.1%	57.8%	64.8%
MAIN versus TOTAL (Updated Plan)		19.5%	54.5%	74.1%	100.0%	100.0%	58.3%	69.6%

Table 42: 2010-14 Slovenia ANSP CAPEX (Actual vs. Planned)

6.3.40 At the consultation with IATA it was noted that there was a "*significant expenditure on Surveillance and Navigation, but it is not clear if the common approach includes a full review of the FAB CE to see if fewer radar/ADS-B WAM/ WAM systems are needed. It is important to understand if the assessment has/will rationalize the surveillance network."* Slovenia has answered that *"there is a common approach within FAB CE and a complete radar sharing architecture is required. This should be incorporated in the FAB CE surveillance strategy developed in RP2 in order to enable synergies and savings in RP3. On the other hand, harmonisation and optimisation of NAV infrastructure should be done when the FAB CE CONOPS and detailed operational requirements are available."*[22]

6.3.41 It is noted that most of the projects are foreseen to be commissioned in 2016, 2017 and 2019 and a decrease in asset base is expected (-19%) but depreciation costs are planned to remain relatively constant over RP2.

6.3.42 Actual depreciation cost vs. the planned one over the past five years has an irregular trend, i.e. after a significant increase recorded in 2011 (+66%), depreciation has decreased every year after (-51% in 2012, -17% in 2013). It is understood that this is due to the delayed entry into operation for Slovenia Control new ATCC.

6.4 Total investments vs Total ANS costs

AUSTRIA

6.4.1 Over RP2, total CAPEX is foreseen to represent on average 14.9% of gate-to-gate costs, with a peak in 2018 when the percentage is planned to be 16.9%.

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	12.6%	12.8%	16.0%	16.8%	16.1%	14.9%

Table 43: % RP2 Austria ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.2 For 2010-2014, the percentage of CAPEX into total gate-to-gate costs is expected to be very close to the planned one (18% updated annual average vs. 18.8%

planned) but this is as a result of -7.2% for the "CAPEX Effect"[23] and -5.5% due to the "Costs effect"[24].

CROATIA

6.4.3 Over RP2, total CAPEX is foreseen to represent on average 13.7% of gate-to-gate costs, with a peak in 2015 (15.9%). For this year (2015) total CAPEX accounts for 24.2% from the total CAPEX planned for RP2, an important amount being planned for the ATM Systems Upgrade (4.9M€$_{2009}$).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	15.9%	14.2%	14.0%	13.0%	11.4%	13.7%

Table 44: % RP2 Croatia ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For 2010-2014, it is observed that the percentage of CAPEX into total gate-to-gate costs was planned to be 21.3% on average, but it is expected to record higher actual levels (23.6%), due to +52.7% "CAPEX Effect" and +9.6% due to "Costs effect".

CZECH REPUBLIC

6.4.5 Over RP2, total CAPEX is foreseen to represent on average 19.4% of gate-to-gate costs for ANS CR, with a peak in 2015 and 2016 due to higher level of planned investments (see also comment in 6.3.18) whilst gate-to-gate costs are foreseen to slightly decrease during the timeframe (-0.8% on average).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	26.7%	27.3%	14.9%	18.2%	9.9%	19.4%

Table 45: % RP2 Czech Republic ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.6 For the previous five years, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 12.4% on average (vs. 23.9% planned), due to -45.2% "CAPEX Effect" and -1.9% due to "Costs effect".

HUNGARY

6.4.7 Over RP2, total CAPEX is foreseen to represent on average 13.6% of gate-to-gate costs for HungaroControl, with a fall in 2017 (5.8%) when the CAPEX level will be very low compared to the other RP2 years (5.4M€$_{2009}$ in 2017 vs. 16.5M€$_{2009}$ in 2015).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	17.7%	15.5%	5.8%	15.3%	13.8%	13.6%

Table 46: % RP2 Hungary ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.8 For the previous five years, the percentage of CAPEX into total costs is foreseen to be 17.1% on average (vs. 23.3% planned), -17.8% due to "CAPEX Effect" and -4.7% due to "Costs effect".

SLOVAKIA

6.4.9 The percentage of total CAPEX into gate-to-gate costs for LPS SR is foreseen to be 16% on average over RP2, but only 4% in 2019 when the CAPEX level will be very low compared to the other RP2 years.

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	24.7%	17.6%	22.3%	10.9%	4.3%	16.0%

Table 47: % RP2 Slovakia ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.10 For the previous five years, the percentage of CAPEX into total costs is foreseen to be 21.4% on average (vs. 26.4% planned), -21% due to "CAPEX Effect" and -1.6% due to "Costs effect".

SLOVENIA

6.4.11 The percentage of total CAPEX into gate-to-gate costs for Slovenia Control is foreseen to be 7.2% in average over RP2, with a peak in 2018 and 2019 when CAPEX are foreseen to record higher levels compared to the previous years (see details in item 6.3.36).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	5.4%	5.0%	3.6%	11.0%	11.2%	7.2%

Table 48: % RP2 Slovenia ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.12 For the previous five years, it is observed that the percentage of CAPEX into total gate-to-gate costs is foreseen to be 23.2% on average (vs. 25% planned) due to +2.8% "CAPEX Effect" and +2.4% due to "Costs effect".

6.5 Ancillary assessments

6.5.1 In accordance to the performance regulation, additional reporting requirements were included in the RP2 Performance Plans by the States/ANSPs. This information ensures the transparency of the investment policy at ANSP level, it details the impact of expected benefits per KPA and it details also the synergies achieved at FAB level.

6.5.2 The information provided by FAB CE is detailed in the tables below.

Ancillary assessments	Austria ANSP (Austro Control)	Croatia ANSP (Croatia Control)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	The breakdown for RP2 was provided per domain (i.e.COM, NAV, SUR etc.) and the descriptions provided in the Performance Plans for both RPs or in Annex D for the RP2 Performance Plan do not show any link to the RP1 projects.	Though Croatia was not part of the performance scheme in RP1, from other reporting it is noted that CroATMS system upgrade is a project that is continued in RP2. Other important projects in continuation of RP1 are VCCS modernisation, NAV system modernisation and the reconstruction of the old ACC building.

Overview, impact and date of expected benefits per KPA	Information provided for most of the projects. Expected benefits are foreseen starting with RP2. Benefits per area disclosed in Annex D (operational, environmental, capacity, cost-efficiency) for certain projects (Airport/TMA operations, FRA Airspace and Terminal Area etc.).	Information provided for most of the projects. Expected benefits are foreseen starting with RP2. Some information on the expected benefits per KPAs provided for main projects.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Individual investments are approved by the ACG System Development Mid Term Plan 2015-2019. For several projects, documented CBAs are in place (DPS Services). In regard to the consultation process on investments see details above in 6.3.2.	Investments are approved by the Project Committee in compliance with EU Regulation or Investment Plan for Croatia Control 2011-2015. Cost Benefit only for "Ground-based Surveillance System Upgrade" for TMA Pula and Dubrovnik. In regard to the consultation process on investments see details above in 6.3.2
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Investment Plan provided in Annex D (FAB CE Investment Plan). The same structure, per domain, is provided, no additional information per project.	Investment Plan provided in Annex D (FAB CE Investment Plan). Total CAPEX per project provided and additional qualitative information on the investment strategy for Croatia.

Table 49: Ancillary assessments for the FAB CE – Austria and Croatia

Ancillary assessments	Czech ANSP (ANS CR)	Hungary ANSP (HungaroControl)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Main projects are broken down per domains for both RP. However it is noted that different projects were planned for RP1 for surveillance, communication (IPv6, VCS replacement, radio communication replacement & AMHS) and AIM and building (Aviation Academy and Ostrava airport building).	HungaroControl' main investments for RP2 are linked to the ATM system, MATIAS. Important amounts were foreseen for this project in RP1 but delayed for future years. Other projects linked for both RP are CPDLC and A-SMGCS.
Overview, impact and date of expected benefits per KPA	Information provided for most of the projects. Expected benefits are foreseen starting with RP2. Benefits per domains (COM, SUR, NAV) are detailed in Annex D.	Information provided for all projects. The most important project (MATIAS) is expected to bring benefits to all KPAs starting with 2018/20. Additional qualitative details provided in Annex D.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Individual investments are approved by the ACG System Development Mid Term Plan 2015-2019. Investments over 10M are approved by Investment Committee. No information on CBA. In regard to the consultation process on investments see details above in 6.3.2	No information provided on decision-making process for any of the projects. Consultation with stakeholders Summary provided. (see item 6.3.27).
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Investment Plan provided in Annex D (FAB CE Investment Plan). Totals per project detailed per domain together with additional qualitative information.	Investment Plan provided in Annex D (FAB CE Investment Plan). Totals per project (not broken-down) per year.

Table 50: Ancillary assessments for the FAB CE – Czech Republic and Hungary

Ancillary assessments	Slovak ANSP (LPS SR)	Slovenia ANSP (Slovenia Control)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	There are two main projects, i.e. "Hardware Upgrade of the Main ATM System" which is not linked to RP1, "Software Upgrade of Main ATM System - AGDL & COTR" was launched in RP1 and planned to be commissioned in 2015. No link to previous period for the other projects.	Several main projects planned for RP2 are linked with the RP1 projects, i.e. Datalink / CPDLC, FDPS upgrade and ACC Hardware renewal. "ATM System upgrade" the main upgrades for MODE-S Processing, AFP Messages, Free Route Concept, STAM tools and complementary OLDI Messages were not included in the project list for RP1.
Overview, impact and date of expected benefits per KPA	Information provided for most of the projects. Expected benefits are foreseen starting with RP2. Capacity is foreseen to increase by 3% due to the hardware and software upgrade for the new system.	Some information provided for most of the projects. Expected benefits are foreseen starting with RP2.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	The plan of investments is subject to approval by the Investment Committee and Supervisory Board. No information on CBAs. In regard to the consultation process on investments see details above in 6.3.2	Investments are approved through 5-years Strategic Business Plans. CBA only for Datalink. In regard to the consultation process on investments see details above in 6.3.2
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Investment Plan provided in Annex D (FAB CE Investment Plan). Totals per project (not broken-down) per year and additional qualitative information.	Investment Plan provided in Annex D (FAB CE Investment Plan). Totals per project (not broken-down) per year and additional qualitative information

Table 51: Ancillary assessments for the FAB CE – Slovakia and Slovenia

6.6 PCP Prerequisites view

PCP	ESSIP	Austria	Czech Republic	Hungary	Croatia	Slovenia	Slovakia
AF1	ATC15		2016	2016			
	ATC07.1	2015	2016				
	NAV03				2015		
AF2	AOP05	2014	2014	2015			
	AOP04.1						
	AOP04.2			2014			
AF3	AOM19	2015	2015	2015	2015	2015	2015
	AOM21	2017	2017	2014	2017	2017	2017
	ATC12		2016				2016
AF4	FCM04						
	FCM05	2016	2016	2016		2016	2016
AF5	COM09	2014	2014	2014		2014	2014
AF6	ITY-AGDL	2014	2015	2015		2015	2016

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 52: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: The planned investment average per year for RP2 is foreseen to be 12% lower than the average for the previous five years (updated for 2010-146) (82.2M€$_{2009}$ RP2 planned annual average vs. 93.9M€$_{2009}$ updated annual average for 2010-14).

6.7.2 **FAB / Regional approach**: The FAB CE Member States have made efforts to promote a FAB approach and find synergies for some projects under the steering of a TEC Subcommittee, even if the effects may be materialised by RP3 only. With respect to the synergies achieved at FAB level in RP2, the replies provided by the States are not harmonised. It seems that the States are working together on the establishment of at least common requirements for some of the projects.

6.7.3 The FAB CE plan to implement Free Route airspace is praised by airspace users. Additionally synergies are noted for the States participating in COOPANS.

6.7.4 Austria reported "DPS Services", amounting to 57M€$_{2009}$ over RP2 as a FAB CE project (see details in section 6.3.7).

6.7.5 **Consultation:** Elements are provided showing that there was a genuine consultation process, even if for Hungary more information on the decision-making process would have been desirable. For all FAB CE States except Hungary, there is a general lack of information concerning CBAs.

6.7.6 **Link with Master Plan:** Overall, the FAB CE Member States have provided sufficient information with respect to the links to the ATM Master Plan.

6.7.7 The investments of the FAB CE Member States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

6.7.8 However, even if all FAB CE Member States have in general detailed projects showing foresight of the PCP prerequisites, only Hungary actually earmarked projects for the implementation of PCP functionalities. The ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk for Austria, Czech Republic, Slovakia and Slovenia.

AUSTRIA

6.7.9 Austria's ANSP investments are planned to be on average 9% lower in RP2 than for the period 2010-14.

6.7.10 The breakdown per project for RP2 was provided per domain (i.e.COM, NAV, SUR etc.) and the descriptions provided in the Performance Plan for both reference periods or in Annex D (FAB CE Investment Plan) do not show any link to the RP1 projects. "DPS Services", Austro Control's main project in RP2, has a SESAR deployment documented CBA. It is a common FAB CE project and amounts to 48% of the main investments. It is partly assumed to be a catch-up for the "NG AATMS" RP1 main project (see details in 6.3.8).

6.7.11 Depreciation costs are foreseen to remain constant over RP2, after the forecasted increase for 2010-14 generated by the deployment of the new ATC system and the

replacement of the weather radars.

6.7.12 Over RP2, the percentage of total CAPEX into gate-to-gate costs is foreseen to be on average 14.9%, with a peak in 2018, whilst for 2010-2014, the percentage of CAPEX into total gate-to-gate costs is expected to be very close to plans (i.e. 18%).

CROATIA

6.7.13 Croatia's ANSP investments are planned to be on average 45% lower in RP2 than for the period 2010-14.

6.7.14 Total CAPEX are foreseen to decrease (i.e. -10%) on average over RP2. It is noted that 41% from the main CAPEX in RP2 are planned for ATM System upgrade, i.e. COOPANS. For this project substantial amounts were already spent over the previous five years (see details in 6.3.13)

6.7.15 The expected entry into operation for COOPANS is reflected into depreciation costs which are foreseen to increase over 2010-14 in average by 17%. This trend will continue over RP2 when depreciation is foreseen to be 23% higher than for 2010-14.

6.7.16 The percentage of total CAPEX into gate-to-gate costs for Croatia Control is foreseen to be 13.7% on average over RP2 with a peak in 2015 (15.9%), whilst for 2010-2014, the percentage of CAPEX into total gate-to-gate costs is expected to record higher actual levels than planned (i.e. 23.6% vs. 21.3% planned).

CZECH REPUBLIC

6.7.17 Czech's ANSP investments are planned to be on average 63% higher in RP2 than for the period 2010-14.

6.7.18 It is noted that 38% from the main RP2 CAPEX are planned for new ATM System (DPS), a project not shared at FAB CE level or with other partners. The planned amount for RP2 is a catch-up from RP1.

6.7.19 For all projects the planned commissioned dates are over RP2. This is not reflected into depreciation costs which are foreseen to decrease by 4.3% over RP2, in continuation of the expected trend for 2010-14 (-2.7%).

6.7.20 The percentage of total CAPEX into gate-to-gate costs for ANS CR is foreseen to be 19.4% on average over RP2.

HUNGARY

6.7.21 Hungary's ANSP investments are planned to be on average 17% lower in RP2 than for the period 2010-14.

6.7.22 During the second reference period HungaroControl' main investments are linked to the ATM system, MATIAS in order to fulfil especially the requirements of the Network Strategy Plan. This project is a catch-up from RP1. However, this new system is planned to be commissioned by the end of 2019 and is expected "to be a major step towards fulfilling the European ATM MP" (i.e. full 4D operation and extended SWIM functionality).

6.7.23 Several projects are foreseen to be commissioned over RP2, impacting depreciation costs which are foreseen to increase by 5.9%, in continuation of the trend foreseen for the previous five years (+1.6%).

6.7.24 Over RP2, total CAPEX is foreseen to represent on average 13.6% of gate-to-gate costs, whilst for the previous five years, the percentage is foreseen to be 17.1% on average (vs. 23.3% planned).

SLOVAKIA

6.7.25 Slovakia's ANSP investments are planned to be on average 21% lower in RP2 than for the period 2010-14.

6.7.26 Substantial amounts are accrued for "Hardware Upgrade of the Main ATM System" and for "Software Upgrade of Main ATM System - AGDL & COTR". LPS SR other main projects are launched in RP2 and have no links to RP1 projects.

6.7.27 It is noted that depreciation is planned to increase by +9.7% over RP2, mostly for the terminal activity, whilst for the previous timeframe it was fluctuant.

6.7.28 The percentage of total CAPEX into gate-to-gate costs for LPS SR is foreseen to be 16% on average over RP2, whilst for the previous five years is foreseen to be 21.4% on average.

SLOVENIA

6.7.29 Slovenia ANSP investments are planned to be on average 69% lower in RP2 than for the period 2010-14.

6.7.30 Important amounts are foreseen for "ATM System upgrade", a project not linked to RP1. Several main projects planned for RP2 are linked with the RP1 projects, i.e. Datalink / CPDLC, FDPS upgrade and ACC Hardware renewal. The planned amounts for RP2 are a catch-up from the previous timeframe.

6.7.31 It is noted that most of the projects are foreseen to be commissioned over the period and a decrease in asset base is expected but depreciation costs are planned to remain relatively constant over RP2, whilst it had a fluctuant trend over the past five years;

The percentage of total CAPEX into gate-to-gate costs is foreseen to be 7.2% on average over RP2, whilst for the previous five years is foreseen to be 23.2% on average.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Performance Plan describes which entities are responsible for the monitoring and reporting in “Section 7 - Implementation of the performance plan”, although the role and responsibility of the NSA CC (the FAB CE body responsible for monitoring the performance at FAB level) is not clear.

7.1.2 The NSA CC is indicated as being in charge of the implementation of the measures to monitor and report.

7.1.3 No clear description could be found on how the situation would be addressed, in practical terms, if targets were not met during the reference period. It seems there is no consolidated FAB mechanism, as the responsibility is described to be assigned to the individual NSAs, which have to inform the European Commission and the NSA CC.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 Although Section 5 of the FAB CE lists several projects involving civil military cooperation and coordination, it does not explain how the FUA concept will be applied in order to increase capacity. This is particularly relevant since the FAB CE targets for capacity performance are not consistent with the effort required to meet the Union-wide targets for capacity during RP2.

8.2 Additional indicators

8.2.1 Several additional indicators relating to the military are listed in Section 5, and in Annex F:

- Effectiveness of booking procedures for FUA: already documented in the performance Regulation and not required in Performance Plan.
- Optimum SUA dimension vs allocated SUA structure: This indicator is not consistent with the indicators and targets of the performance scheme.
- Average transit time allocated: This indicator is not consistent with the indicators and targets of the performance scheme.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the FAB CE performance plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the FAB CE performance plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 The FAB CE targets for en-route capacity are not consistent with the respective FAB reference values for each year in RP2.

9.1.4 The PRB is of the opinion that the FAB CE is in a position to adopt a more stringent capacity target, as a minimum the FAB reference values, and thus provide a positive contribution to network capacity performance. The PRB has formed this view after considering the ANSP capacity plans, historical performance and expected traffic development.

COST-EFFICIENCY

9.1.5 The cost-efficiency targets for the en-route charging zones of Austria, Croatia, Czech Republic, Hungary, Slovakia and Slovenia are not consistent with and/or do not adequately contribute to the achievement of the en-route Union-wide target.

9.1.6 The cost-efficiency targets for the terminal charging zones of Croatia, Czech Republic, Slovakia and Slovenia are not consistent with the criteria laid down in Annex IV of the performance Regulation.

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the FAB CE in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The FAB CE should revise the en-route capacity FAB targets to be consistent with the FAB reference values from the Network Operations Plan of the Network Manager (2014-2018/2019).

RECOMMENDATIONS FOR THE COST-EFFICIENCY KPA

9.2.2 Austria should:

- revise downwards the en-route determined costs planned for RP2.

9.2.3 Croatia should:

- revise downwards the en-route determined costs planned for RP2;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the terminal ANS determined costs planned for RP2.

9.2.4 The Czech Republic should:

- revise downwards the en-route determined costs planned for RP2;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise downwards the terminal ANS determined costs planned for RP2;
- revise the TNSU forecast in the light of the latest available information.

9.2.5 Hungary should:

- revise downwards the en-route determined costs planned for RP2;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred.

9.2.6 Slovakia should:

- revise downwards the en-route determined costs planned for RP2;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise downwards the terminal Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred.

9.2.7 Slovenia should:

- revise downwards the en-route determined costs planned for RP2;
- revise the TNSU forecast in the light of the latest available information.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB performance plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The FAB CE Performance Plan includes the Sarajevo / Banja Luka ACC. This is inconsistent with the SES geographical area of application.

9.3.2 The FAB CE Performance Plan should list the Flight Information Regions or Upper Information Regions (FIR/UIRs) included in the plan.

9.3.3 The FAB CE should harmonise the list of airports submitted to, and exempted from, the performance and charging schemes, as their current application to terminal air navigation services are not in compliance with the clarification provided by the European Commission.

9.3.4 The FAB CE should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, in particular:

- The FAB CE should provide the list of invited stakeholders and the list of actual participants to all its consultation meetings.
- The FAB CE should provide the dates on which the material for each of the consultation meetings were sent to stakeholders.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.3.5 The FAB CE should clarify whether the information about the application of severity classification based on RAT methodology for 2015 and 2016 is a zero percent value target or an input error.

9.3.6 The FAB CE should revise the RAT methodology application target for ATM-S, as the values for ATM Ground and ATM Overall scores should be the same.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.7 The FAB CE should ensure that the individual ANSP contributions for en-route capacity are revised so that, when aggregated, they are consistent with the required level of performance, as determined by the FAB CE reference values from the Network Operations Plan (2014-2018/2019).

9.3.8 The FAB CE should revise its incentive scheme for en-route capacity in accordance with Article 12 of the performance Regulation and Article 15 of the charging Regulation. In particular the following items should be addressed:

- The documentation contained in the FAB Performance Plan does not sufficiently explain the overly-complicated incentive scheme, under which it would appear possible that a local bonus could increase as the overall FAB performance deteriorates;
- The national ANSP targets are not consistent with the FAB reference value;
- There is no clear evidence to show how the different weightings for local performance and FAB performance foster a high level of performance.

9.3.9 The FAB CE should establish an incentive scheme for the national targets on arrival ATFM delay.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.10 Croatia should:

- remove the costs for services provided outside the Croatia en-route charging zone (costs for services provided in Sarajevo FIR and charged through the unit rate for Bosnia and Herzegovina charging zone) from Croatia en-route determined costs planned for RP2;
- clarify whether services will be provided to Bosnia and Herzegovina beyond 2015 and how these (if any) will be reflected in the Bosnia and Herzegovina en-route charging zone and the Croatia en-route charging zone so as to ensure that airspace users are not paying twice for the same service;
- complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance (for both en-route and terminal);
- complete the information provided on interest on loans in line with the requirements of the FAB Performance Plan template (for terminal).

9.3.11 The Czech Republic should:

- provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance (for both en-route and terminal).

9.3.12 Slovakia should:

- align depreciation costs with the lifecycles of the investments;
- complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance (for both en-route and terminal).

9.3.13 Slovenia should:

- complete the information provided on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and guidance (for both en-route and terminal);
- complete the information provided on interest on loans in line with the requirements of the FAB Performance Plan template (for terminal).

9.3.14 The FAB CE should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

COMPLIANCE ISSUES FOR THE MILITARY DIMENSION OF THE PLAN

9.3.15 The FAB CE should remove the additional indicators “Optimum SUA dimension vs allocated SUA structure” and “Average transit time allocated” from its Performance Plan, as they are not consistent with the indicators and targets of the performance scheme.

9.3.16 The FAB CE should provide information describing the performance of FUA application in order to increase capacity, as per section 5 of Annex II of the performance Regulation.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.4.1 The FAB CE has provided details of the measures put in place to monitor and report on the implementation of the Performance Plans. It should however include a description of how the situation would be addressed if targets are not reached during the reference period.

9.4.2 The FAB CE should specify, in the FAB Performance Plan, which traffic assumptions were used by Austria, Croatia, the Czech Republic, Hungary and Slovakia, and establish a clear distinction between traffic and Service Unit forecasts.

OBSERVATIONS FOR THE SAFETY KPA

9.4.3 The FAB CE should closely monitor improvements and progress in ATM Overall severity classification.

9.4.4 The FAB CE should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.4.5 Slovakia should give details of the net current assets used for the calculation of the Cost of Capital.

9.4.6 Slovenia should provide explanations and justifications on the significant decrease in the net current liabilities deducted from the en-route asset base compared to RP1.

OBSERVATIONS FOR THE INVESTMENTS

9.4.7 Austria, the Czech Republic, Slovakia and Slovenia should update the field "Common Project" with adequate reference to the proper PCP ATM functionalities.

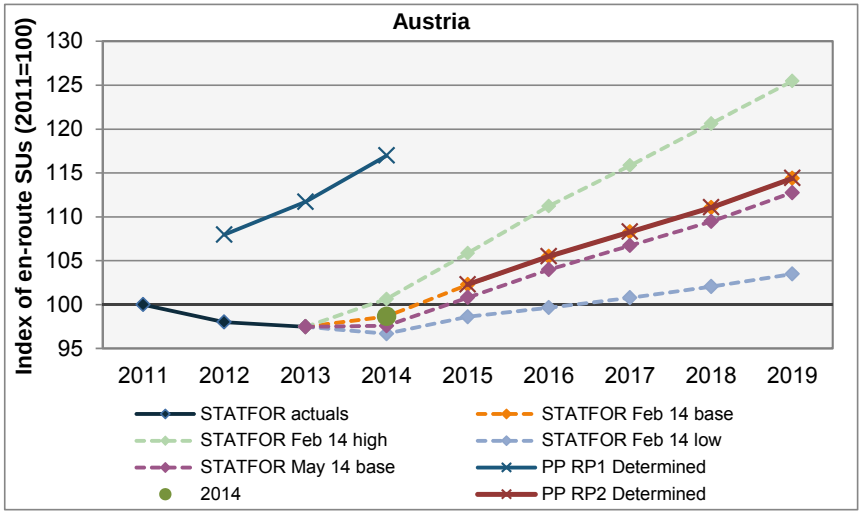
9.4.8 Slovenia should describe and/or justify the cost, nature and contribution of its investments in a more detailed, less generic way, allowing proper understanding of the importance and need for such investments

9.4.9 Slovakia should provide more details on the planned overhauls of its hardware, software, surveillance and navigation systems. It should also confirm the dates of the planned entry into operation of its CAPEX projects.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Austria: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		2 720	2 814	2 947							
Actuals, 2014, PP RP2 Determined	2 519	2 469	2 456	2 486	**2 577**	**2 658**	**2 728**	**2 798**	**2 882**	**1.7%**	**2.8%**
STATFOR Feb 14 base				**2 486**	**2 577**	**2 658**	**2 728**	**2 798**	**2 882**	**1.7%**	**2.8%**
STATFOR Feb 14 high				2 536	2 667	2 802	2 919	3 039	3 161	2.9%	4.3%
STATFOR Feb 14 low				2 436	2 485	2 511	2 539	2 571	2 607	0.4%	1.2%
STATFOR May 14 base				2 459	2 540	2 620	2 689	2 758	2 841	1.5%	2.8%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	0.0%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 29: En-route TSU forecasts

Comments:

Over the 2011-2019 period, the traffic growth forecast for Austria en-route charging zone (+1.7% p.a.) is in line with STATFOR February 2014 baseline scenario (+1.7% p.a.).

It should be noted that in 2012 and 2013, actual SUs are much lower than the figures reported in the Performance Plan for RP1 (i.e. -9.2% and -12.7%, respectively).

Information from the CRCO's monthly monitoring of traffic indicates that for Austria, actual traffic in the first seven months of 2012 is +3.5% higher compared to the same period in 2013. This is higher than the planned increase in SUs reported in the Performance Plan for 2014 (+1.2%).

Based on this analysis, Austria en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Austria		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.6%	2.1%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
Eurostat/IMF avg	annual % change		2.1%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	108.3	110.6	112.6	114.5	116.4	118.4	120.4	122.5
Eurostat/IMF avg	2009=100	108.3	110.6	112.6	114.5	116.4	118.4	120.4	122.5
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 30: Economic assumptions

Comments:

The inflation forecasts submitted for Austria en-route charging zone over the 2014-2019 period are in line with the IMF average inflation forecasts.

Based on this analysis, Austria en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	155.9	161.8	170.8	175.2	178.7	196.4	192.1	195.3	198.3	203.1	206.8
Inflation rate	annual % change		1.9%	3.6%	2.6%	2.1%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
Inflation index	2009=100	100.0	101.9	105.6	108.3	110.6	112.6	114.5	116.4	118.4	120.4	122.5
Determined costs	EUR m (2009)	155.9	158.8	161.8	161.7	161.6	174.5	167.8	167.8	167.5	168.6	168.9
Service units	'000s	2 424	2 449	2 519	2 469	2 456	2 486	2 577	2 658	2 728	2 798	2 882
Determined unit cost	EUR (2009)	64.30	64.84	64.22	65.49	65.79	70.19	65.12	63.12	61.39	60.27	58.60
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	64.30	64.84	64.22	65.49	65.79	70.19	65.12	63.12	61.39	60.27	58.60

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.9%	2.4%	1.0%	1.9%
Inflation	CAGR %	2.0%	1.9%	1.7%	1.7%
Determined costs	EUR m (2009)	0.8%	0.5%	-0.7%	0.2%
Service units	'000s	1.7%	1.7%	3.0%	2.8%
Determined unit cost	EUR (2009)	-0.9%	-1.1%	-3.5%	-2.6%
Exchange rate					
Determined unit cost	EUR (2009)	-0.9%	-1.1%	-3.5%	-2.6%

Table 53: Determined unit cost trend

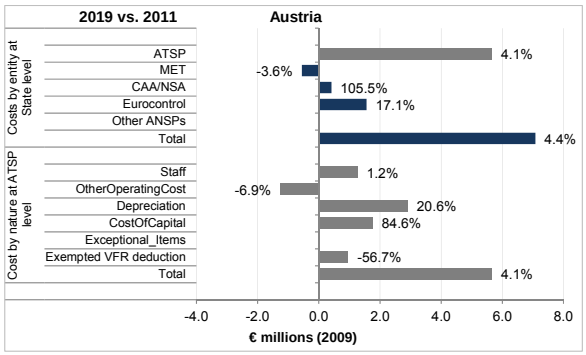


Figure 31: Planned cost category changes over RP1 and RP2

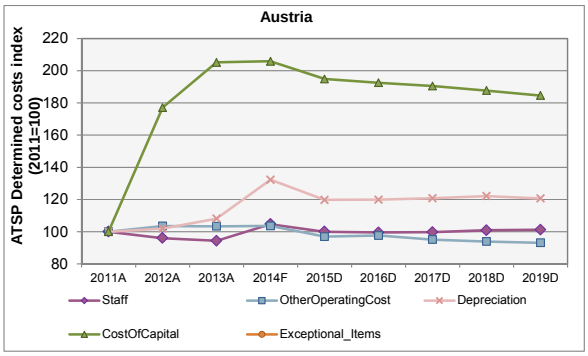


Figure 32: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Note: *The actual en-route costs provided for Austria en-route charging zone over the 2009-2014 period include costs relating to exempted VFR and IFR flights (around 1.6 - 1.8 M€ per year). On the other hand, these costs were not included in the DCs provided for RP2 (in line with Article 10 of the common charging Regulation. Therefore, in order to ensure consistency in the trend analysis of Austria en-route DCs and DUC, the costs relating to exempted VFR and IFR flights have been deducted from the actual costs reported for the years 2009-2014.*

Austria forecasts a -3.5% annual en-route DUC decrease over the 2014-2019 period which is slightly better than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). However as highlighted above, the DCs provided by Austria for the year 2014 were not updated and correspond to the figure provided in the adopted Performance Plan for RP1 which is +8.0% higher than the actual en-route costs observed for the year 2013. This issue significantly affects the trend in DUC when it is computed over the 2014-2019 period. It is therefore useful to consider a different time period when analysing the planned changes in Austria en-route cost-efficiency performance until 2019. When assessed over the 2011-2019 period which covers RP1 and RP2, Austria's en-route DUC planned reduction (-1.1% p.a.) is below the Union-wide target (i.e. -1.7% p.a.).

Amongst the different accountable entities, the larger decreases in DUC between 2011 and 2019 are observed for the Austrian en-route ATSP (Austro Control, -1.2% p.a.) and for the MET component of the en-route cost-base (-2.1% p.a.). It should be noted that in Austria, MET services are provided by Austro Control. The DUC reported for the EUROCONTROL Agency is expected to remain fairly constant (+0.3% p.a.) over the 2011-2019 period. In the meantime, the Austrian NSA DUC is planned to substantially increase by +7.6% p.a. (i.e. from €0.16 in 2011 to €0.28 per TSU in 2019). This mainly reflects a sharp rise in the NSA staff costs which is planned for 2015 (+26%). Over RP2, the Austrian NSA staff costs are expected to represent some 0.5% of the total staff costs for the en-route charging zone. This is in line with the information provided in the Performance Plan where Austria indicates that the objective is to stabilise the NSA staff costs at around 0.4% of the overall staff costs for the en-route charging zone.

For Austro Control, the decrease in the en-route DUC planned over 2011-2019 (-1.2% p.a.) is due to the fact that DCs are planned to rise by +0.5% p.a. while SUs are forecast to increase by +1.7% p.a. The higher en-route DCs mainly reflects substantial increases in depreciation costs (+20.6% or +2.4% p.a.) and in the cost of capital (+84.6% or +8.0% p.a.).

In 2015, Austro Control en-route depreciation costs are expected to be +10.7% higher than 2013 actuals. Actual depreciation costs in 2012 and 2013 were significantly lower than planned (-6.8% and -19.2%, respectively). It is understood that these deviations are partly

due to the postponement of non-crucial investments to future years. It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-route DCs provided for RP2. This issue, which was also identified by airspace users during the consultation of the draft RP2 Performance Plan, deserves a clarification from Austria.

The cost of capital reported for Austro Control in 2015 is +95% higher than in 2011 but -5.0% lower than in 2013. The larger increase observed in Austro Control cost of capital occurred in 2012 (+77%) following the use of a higher weighted average cost of capital rate (WACC, 4.5% in 2012 compared to 2.6% in 2011). Over the 2015-2019 period, Austro Control cost of capital is expected to decrease by -1.3% p.a.

In 2015, Austro Control staff costs are expected to be +6.0% higher than 2013 actuals. The Performance Plan does not include detailed information on the main drivers underlying this increase. Austro Control staff costs are then expected to remain fairly constant (+0.3% p.a.) until 2019. Austria indicates in the Performance Plan that Austro Control technical and administrative support staff will be reduced over RP2. In addition, following the implementation of the new ATM system the number of ATCO staff to be replaced will also be reduced.

Other operating costs are planned to decrease by -6.9% (i.e. -0.9% p.a.) over the 2011-2019 period. This mainly reflects a reduction of travel and training expenses, as well as a reduction in external technical support services following the implementation of the new ATM system.

The PRB 2013 monitoring analysis indicates that Austro Control actual en-route costs for 2013 were substantially lower than planned (-16.3 M€$_{2009}$). This was sufficient to compensate for the impact of the lower traffic than planned (-12.7%) on Austro Control revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, Austro Control generated a net gain of 9.7 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Austro Control economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 4.3 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 14.0 M€$_{2009}$, which implies an ex-post rate of return on equity of 14.7% (compared to 4.5% as initially planned in RP1 NPP). This adds to the gains generated by Austro Control in 2012 (10.1 M€$_{2009}$ or 7.0% of en-route revenues leading to an ex-post rate of return on equity of 12.3%).

Austria's en-route DCs for 2015 are higher than 2012 and 2013 actuals (+3.8% and +3.9%, respectively). In addition, the starting point in terms of DCs in 2014 corresponds to the figure provided in the adopted Performance Plan for RP1 which is +8.0% higher than 2013 actual en-route costs. This factual evidence indicates that the cost-efficiency performance improvements achieved in the first years of RP1 were not fully taken into account when setting the profile of DCs over RP2.

Based on this analysis, Austria en-route charging zone is assessed as not passing this check.

En-route Determined Unit Cost level

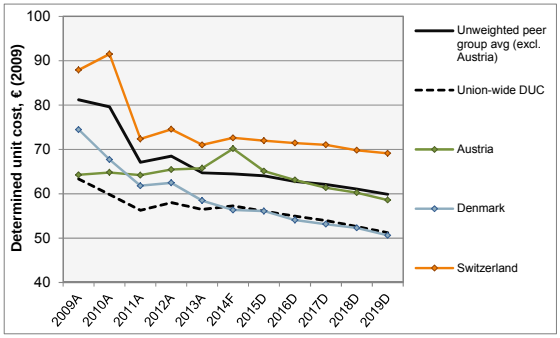


Figure 33: Determined unit cost level

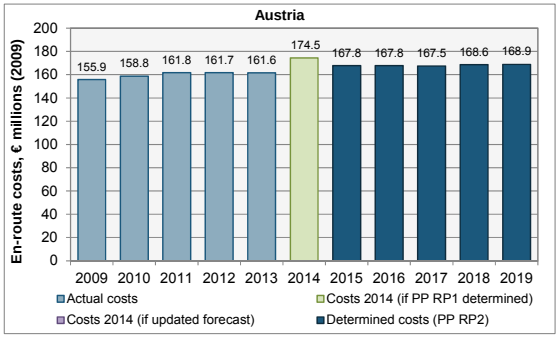


Figure 34: Determined costs 2009-2019

Comments:

In 2019, Austria's en-route DUC is planned to amount to 58.60 €$_{2009}$ per SU which is -2.2% lower than the average of the comparator group (59.89 €$_{2009}$).

It should be noted that the reduction in the en-route DUC forecast by Austria over 2011-2019 (-1.1% p.a.) is lower than the decrease planned by Denmark (-2.5% p.a.) but higher than that planned by Switzerland (-0.6% p.a.).

The results of this analysis change if alternative exchange rates assumptions (than the 2009 values which were affected by some volatility) are used for the comparator group. This is particularly relevant for Switzerland where the Swiss Franc appreciated by some 25% between 2009 and 2012, and where the cost of living tends to be substantially higher than in Austria. When combining these different factors and adjusting for differences in cost of living (PPPs) and exchange rates, the DUC planned by Austria is higher than the average of the comparator group for each year of RP2 (a difference ranging from 25% in 2015 to 20% in 2019).

Similarly, when the planned DUC levels and trends are normalised to account for the differences in traffic growth and inflation rates changes, Austria en-route DUC is expected to be higher than the average of the comparator group for each year of RP2 (a difference ranging from 5.4% in 2015 to 7.4% in 2019).

As highlighted above, the determined cost base used by Austria to compute the DUC for the year 2015 (167.8 M€$_{2009}$) is +3.9% higher than 2013 actual en-route costs (161.6 M€$_{2009}$). Austria en-route DCs are expected to remain fairly constant between 2015 and 2019 (+0.2% p.a.). As a result, at the end of RP2, Austria en-route DCs are expected to amount to 168.9 M€$_{2009}$ which is +4.5% higher than 2013 actuals.

Based on this analysis, Austria en-route charging zone is assessed as not passing this check.

Cost of Capital

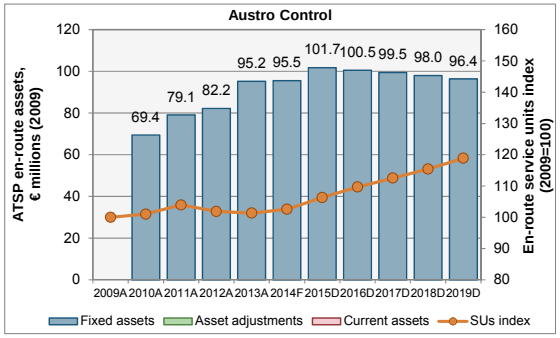


Figure 35: Breakdown of ATSP en-route asset base (2009-2019)

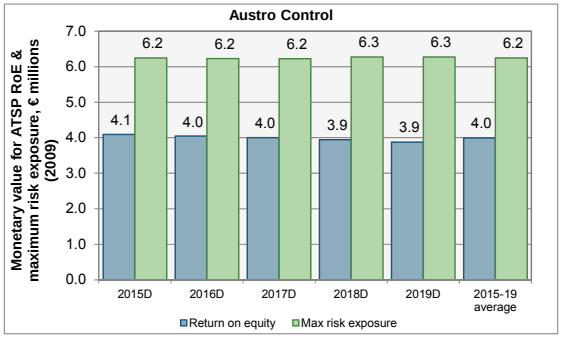


Figure 36: ATSP RoE vs maximum traffic risk exposure

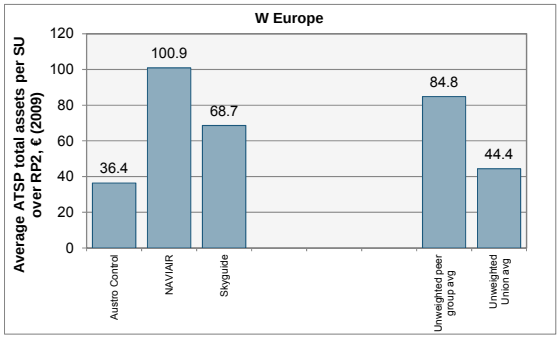


Figure 37: Average en-route asset base per SU over RP2

Comments:

It should be noted that Austria WACC rate was not computed using the Capital Asset Pricing Model (CAPM). In addition, Austria indicates in the annexes of the Performance Plan that according to the Austrian tax law, the WACC is computed after tax and not pre-tax.

The WACC reported for Austro Control in the Performance Plan amounts to 4.0% after tax for each year of RP2. This is towards the lower bound of the range of values (after tax) calculated with the methodology laid down in Annex C guidance.

Taking into account Austro Control capital structure and the amount of total assets used to compute the cost of capital allows to compute the monetary value of the RoE which ranges between 3.9 and 4.1 M€$_{2009}$ p.a. over RP2. This is significantly lower than the maximum traffic risk exposure which will be borne by Austro Control over RP2 (around 6.2 M€$_{2009}$ p.a.).

In 2015, Austro Control en-route asset base per service unit (39 €$_{2009}$) is substantially lower than the comparator group average of ATSPs (87 €$_{2009}$). In addition, Austro Control asset base per SU is expected to reduce over RP2 (-4.1% p.a.) and to amount to 33 €$_{2009}$ per SU in 2019 which is -60% lower than the group average (83 €$_{2009}$).

Based on this analysis, Austria en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for two pension schemes (defined contributions and defined benefits pension schemes) that were established by Austro Control. No information is provided on the interest rates on loans since Austro Control has no borrowings. The Performance Plan specifies that for Austria no adjustments were made beyond the provisions of IAS. **Based on this analysis, Austria en-route charging zone is assessed as passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. In particular, the following amounts are considered as costs exempt from risk sharing for the year 2013: • €157,149 relating to EUROCONTROL costs; and, • €88,395,000 reported as pension costs. Following an amendment of IAS 19 in 2013, any gains/losses arising from a change in actuarial assumptions has to be directly reflected in the financial statements of Austro Control. This contrasts with the methodology that was used by Austro Control until 2012 (i.e. corridor approach) according to which actuarial gains/losses are not recognised in the financial statements if their amount represents less than 10% of the present value of pension obligations. As a result, “unrecognised” actuarial losses amounting to 126 M€ had to be recorded in Austro Control 2013 financial statements. Out of this amount, 88.4 M€ were allocated to en-route ANS. Austria proposes to spread this amount over a 15 years period (5.9 M€) and to charge it to the airspace users from RP2 onwards as a cost exempt from risk sharing. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the Austrian NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. Three cost categories among the five reported in Article 14.2(a) of the common charging regulation have been identified for Austria in the Performance Plan. As for RP1, these amounts will be considered eligible (or not eligible) only after the EC verification process. **Based on this analysis, Austria en-route charging zone is assessed as passing this check.**

Austria: Assessment of terminal charging zone

Overview of terminal charging zone in Austria:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Austria.

This charging zone comprises six airports of which one is above 70,000 movements per year (i.e. Vienna airport LOWW). The TCZ is the same as for RP1 in terms of airports scope.

Total TNSUs for the TCZ accounted for 99.6% of the TNSUs in Austria in 2013.

On average, the total costs for the TCZ account for 17.7% of Austria's "gate-to-gate" activity subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) already applies in the Austrian TCZ.

All the airports in the TCZ will be subject to traffic risk sharing over RP2.

Traffic forecast assumptions

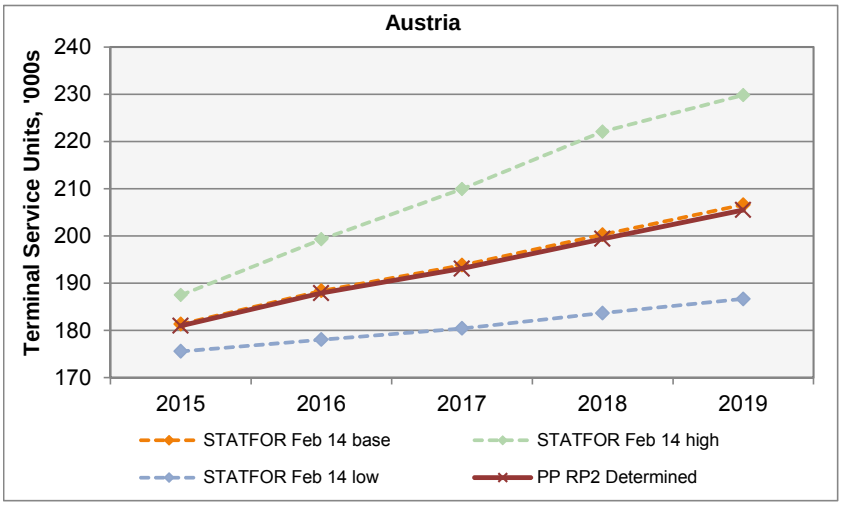


Figure 38: TNSU forecast 2015-2019

Over the 2015-2019 period, the traffic growth forecast in the Plan for the Austrian TCZ (+3.2% p.a.) is in line with STATFOR February 2014 baseline scenario (+3.3% p.a.).

The marginal difference between the two growth rates (i.e. 0.1 percentage points) is due rounding issues.

Based on this analysis, Austria terminal charging zone is assessed as passing this check.

Economic assumptions

Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.

Based on this analysis, Austria terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

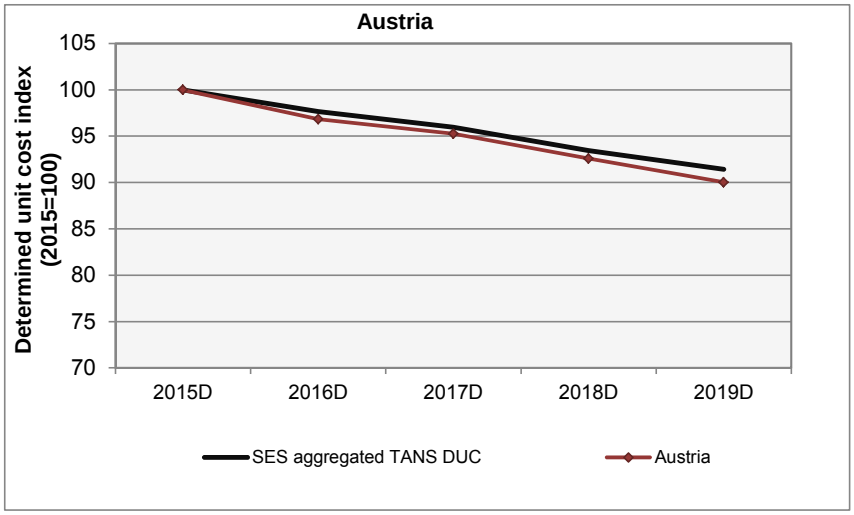


Figure 39: Terminal DUC index, 2015-2019

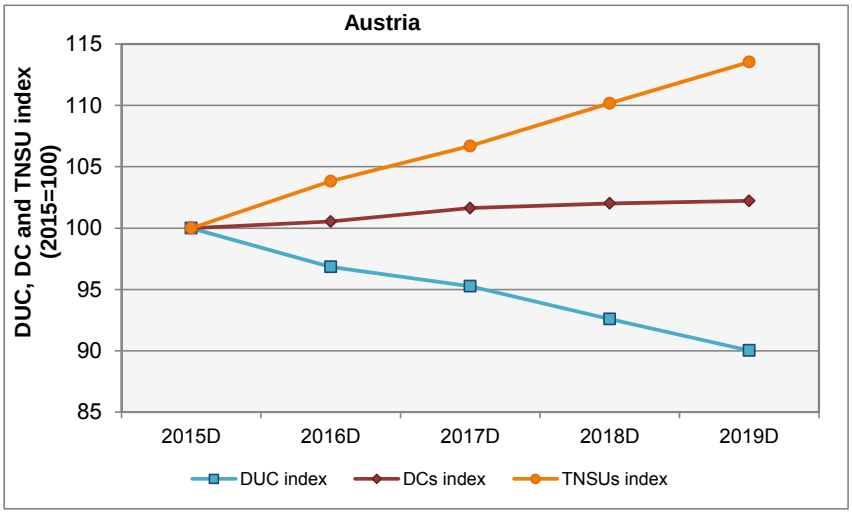


Figure 40: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Austria		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	41.0	41.9	43.1	44.0	44.8	2.3%
Inflation rate	annual % change	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Inflation index	2009=100	114.5	116.4	118.4	120.4	122.5	
Determined costs	EUR m (2009)	35.8	36.0	36.4	36.5	36.6	0.5%
Terminal service units	'000s	181	188	193	199	206	3.2%
Determined unit cost	EUR (2009)	197.79	191.53	188.42	183.14	178.07	-2.6%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	197.79	191.53	188.42	183.14	178.07	-2.6%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 54: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for the Austrian charging zone (-2.6% p.a.) is better than the SES aggregated DUC trend (-2.2% p.a.). The decrease in the Austrian terminal DUC mainly reflects the fact that terminal DCs are expected to slightly rise (+0.5% p.a.) while the number of terminal SUs is planned to increase by +3.2% per year on average over the 2015-2019 period.

The year 2013 is the latest for which actual terminal cost data is available. The determined cost base used by Austria to compute the terminal DUC for the year 2015 (35.8 M€$_{2009}$) is in the same order of magnitude as 2013 actual terminal costs (35.3 M€$_{2009}$). When assessed over the 2013-2019 period, Austria's terminal DUC is also expected to reduce (-2.0% p.a.) since SUs are planned to increase faster (+2.6% p.a.) than the DCs (+0.6% p.a.).

Over the 2015-2019 period, the planned profile in terminal DUC (-2.6% p.a.) is in line with that of the en-route DUC (-2.6% p.a.). Similarly, over the 2013-2019 period, Austria's terminal DUC planned profile (-2.0% p.a.) is in the same order of magnitude as the en-route DUC trend (-1.9% p.a.).

Based on this analysis, Austria terminal charging zone is assessed as passing this check.

Cost of Capital

The RoE and WACC rates used to compute the cost of capital for Austria's TCZ over the 2017-2019 period are in line with those used to compute the cost of capital for the en-route charging zone. The WACC rate for 2015 and 2016 has been capped at 2.0%.

Based on this analysis, Austria terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for two pension schemes (defined contributions and defined benefits pension schemes) that were established by Austro Control.

No information is provided on the interest rates on loans since Austro Control has no borrowings.

The Performance Plan specifies that for Austria no adjustments were made the provisions of IAS.

Based on this analysis, Austria terminal charging zone is assessed as passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan comprises information relating to the composition of costs exempt from risk sharing for RP2. Two cost categories among the five reported in Article 14.2(a) of the common charging regulation have been identified for Austria in the Performance Plan:

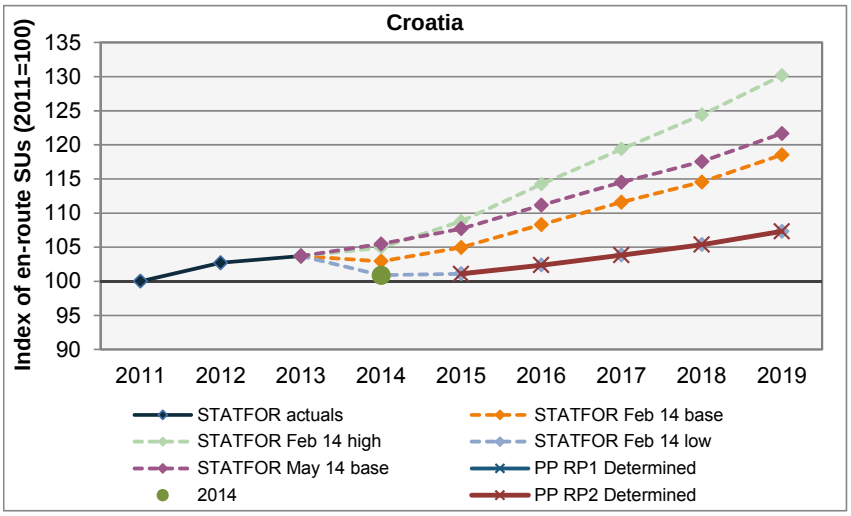
- Unforeseen changes in national pension laws, pension accounting law or pension costs resulting from unforeseen financial market condition; and,
- Significant changes in interest rates on loans, which finance costs are arising from the provision of air navigation services.

These amounts will be considered eligible (or not eligible) only after the EC verification process.

Based on this analysis, Austria terminal charging zone is assessed as passing this check.

Croatia: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined											
Actuals, 2014, PP RP2 Determined	1 634	1 679	1 695	1 649	**1 652**	**1 673**	**1 697**	**1 722**	**1 754**	**0.9%**	**1.5%**
STATFOR Feb 14 base				**1 682**	**1 715**	**1 770**	**1 824**	**1 872**	**1 937**	**2.1%**	**3.1%**
STATFOR Feb 14 high				1 715	1 778	1 867	1 951	2 033	2 127	3.4%	4.6%
STATFOR Feb 14 low				1 649	1 652	1 673	1 697	1 722	1 754	0.9%	1.5%
STATFOR May 14 base				1 724	1 760	1 817	1 871	1 921	1 988	2.5%	3.1%
PP RP2 vs STATFOR Feb 14 base (%)					-3.7%	-5.5%	-6.9%	-8.0%	-9.5%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 41: En-route TSU forecasts

Comments:

The forecast total en-route TSUs for Croatia en-route charging zone is equivalent to the STATFOR low case forecast published in February 2014 for every year 2015-2019.

For 2014, the STATFOR low case forecast considered in the RP2 Performance Plan shows a decrease in TSUs of -2.7% compared to 2013 actuals. The PRB notes that the actual 2014 TSUs to date (covering the period January to August) show an increase of +2.1%, which is also higher than the STATFOR base case for 2014 (-0.7%). In fact, the PRB notes that the latest traffic data suggests that traffic over the Croatia FIR has picked up since the opening of the Kosovo airspace beginning of April 2014.

In this context, the choice of the STATFOR low case forecast seems very conservative. It also means that, if the STATFOR base case forecast materialises for RP2, the State/ANSP would entirely retain the additional revenues generated by the difference in traffic in the 0%-2% dead-band for the costs subject to traffic risk sharing and would share a part of the additional revenues generated by the difference in traffic above +2% with the airspace users. Overall, the State/ANSP would retain +3.6% of the total costs subject to traffic risk sharing for RP2 (+12.1 M€$_{2009}$) as additional revenues, and airspace users would retain +3.7% (+12.4 M€$_{2009}$).

It should also be noted that Croatia has chosen a forecast broadly in line with the STATFOR baseline forecast for its TCZ (which is also subject to traffic risk sharing). There is no specific justification provided for considering the very prudent traffic forecast for en-route.

Based on this analysis, Croatia en-route charging zone is assessed as passing this check with reservations.

Economic assumptions

Inflation: Croatia		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.4%	2.3%	0.5%	1.1%	1.9%	2.1%	2.3%	2.5%
Eurostat/IMF avg	annual % change		2.3%	0.5%	1.1%	1.9%	2.1%	2.3%	2.5%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	106.9	109.4	109.9	111.2	113.3	115.6	118.3	121.3
Eurostat/IMF avg	2009=100	106.9	109.4	109.9	111.2	113.3	115.6	118.3	121.3
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 42: Economic assumptions

Comments:

The inflation forecasts for Croatia en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

The actual inflation for 2013 is in line with the EUROSTAT HICP published in April 2014.

Based on this analysis, Croatia en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	HRK m (nom)	427.9	438.1	517.7	504.2	552.0	586.1	606.0	675.5	674.8	666.3	670.6
Inflation rate	annual % change		1.1%	2.3%	3.4%	2.3%	0.5%	1.1%	1.9%	2.1%	2.3%	2.5%
Inflation index	2009=100	100.0	101.1	103.4	106.9	109.4	109.9	111.2	113.3	115.6	118.3	121.3
Determined costs	HRK m (2009)	427.9	433.3	500.6	471.5	504.6	533.1	545.2	596.4	583.5	563.2	553.0
Service units	'000s	1 298	1 451	1 634	1 679	1 695	1 649	1 652	1 673	1 697	1 722	1 754
Determined unit cost	HRK (2009)	329.62	298.69	306.32	280.86	297.75	323.28	330.03	356.46	343.82	327.07	315.28
Exchange rate	HRK:EUR	7.34										
Determined unit cost	EUR (2009)	44.92	40.70	41.74	38.27	40.58	44.06	44.97	48.58	46.85	44.57	42.96

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	HRK m (nom)	4.6%	3.3%	2.7%	2.6%
Inflation	CAGR %	1.9%	2.0%	2.0%	2.2%
Determined costs	HRK m (2009)	2.6%	1.3%	0.7%	0.4%
Service units	'000s	3.1%	0.9%	1.2%	1.5%
Determined unit cost	HRK (2009)	-0.4%	0.4%	-0.5%	-1.1%
Exchange rate					
Determined unit cost	EUR (2009)	-0.4%	0.4%	-0.5%	-1.1%

Table 55: Determined unit cost trend

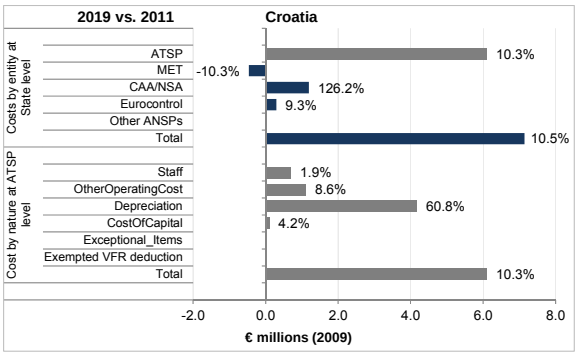


Figure 43: Planned cost category changes over RP1 and RP2

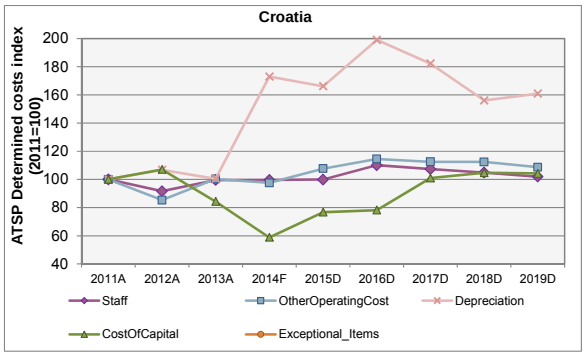


Figure 44: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Croatia en-route KPI for RP2 and historical data presented in the FAB CE RP2 Performance Plan include the costs for services provided by Croatia Control in Sarajevo FIR (Bosnia and Herzegovina - BiH). Costs are presented up to 2015 included, as the complete take-over of the BiH airspace by BHANSA (the BiH ANSP) is expected for 2016, based on the "Transition Plan for BH Phase 2".

The inclusion of costs for services provided outside the Zagreb FIR in the Croatia en-route DCs and DUCs is not compliant with the SES performance and charging regulations and does not allow the PRB to assess the Croatia en-route cost-efficiency KPI. Nevertheless, with a view to provide an indication of what the assessment results would be, the PRB has recalculated the costs data by excluding the costs for services provided to Bosnia and Herzegovina (on the basis of the amounts reported in Bosnia and Herzegovina reporting tables in June 2014). The present assessment is based on the costs recalculated by the PRB.

The en-route DUC trend for Croatia (after removal of the costs for services provided to BiH) is much worse than the Union-wide targets, whether considered over the period 2014-2019 (-0.5% p.a. vs. -3.3% p.a.) or over the period 2011-2019 (+0.4% p.a. vs. -1.7% p.a.). In addition, all RP2 annual values for the DUCs are much higher than the starting and end points used to compute annual averages and show significant peaks in 2016 and 2017.

The PRB notes that the en-route DUC trend for Croatia is also worse than the Union-wide targets if considered before removal of the costs for services provided to BiH, as presented in the RP2 Performance Plan (-2.6% p.a. for 2014-2019 and -1.0% for 2011-2019). This arises in spite of a high DC and DUC starting point for 2014.

When normalised for the STATFOR base case traffic forecast, the en-route DUC trend for Croatia over the period 2014-2019 is still worse than the Union-wide targets after removal of the costs for services provided to Bosnia and Herzegovina (-2.1%).

The en-route DC trend for Croatia (after removal of the costs for services provided to BiH) is also much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the period 2014-2019 (+0.7% p.a. vs. -2.1% p.a.) or over the period 2011-2019 (+1.3% p.a. vs. -0.8% p.a.). Moreover, all annual values for the DCs are much higher than the starting and end points used to compute annual averages and show significant peaks in 2016 and 2017. This is mainly due to the fact that, although Croatia Control will cease to provide services to Bosnia and Herzegovina, its total costs for each year of RP2 will remain at a similar level or be even higher than when such services were provided.

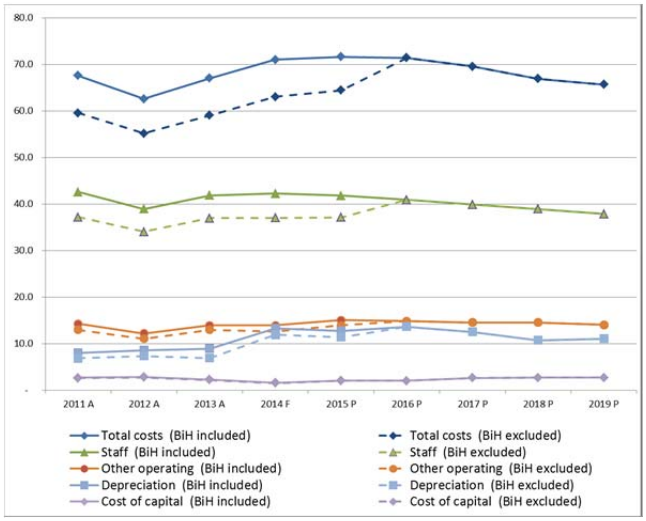
The PRB notes that the DC trend is also worse than the Union-wide targets if considered before removal of the costs for services provided to BiH, as presented in the RP2

Performance Plan (-1.3% p.a. for 2014-2019 and -0.1% for 2011-2019).

Finally, the PRB notes that the forecast 2014 en-route costs for Zagreb FIR are +13.1% higher than 2012 actuals and +5.7% than 2013 actuals, although TSUs 2014 are lower than 2012 and 2013 actuals (by -1.8% and -2.7%, respectively). The increase in costs seems to be mainly due to depreciation costs linked to the entry into operations of the CroATM Upgrade Project – COOPANS in 2014 (capex of circa 35 M€). The PRB notes that further significant upgrades are already foreseen for RP2.

When looking at the contribution of each entity over the period 2011-2019, the PRB notes that, overall total costs for the Croatia en-route charging zone (after removal of the costs for services provided to BiH) show a significant increase of +10.5% over the period 2011-2019 (+7.1 M€$_{2009}$), with significant peaks in 2016 and 2017:

- The costs for the METSP are the only ones showing a decrease over the period (by -0.5 M€$_{2009}$ or -10.3%). The PRB notes however that the proportion of MET costs in 2019 in the en-route DCs is significantly higher in the Croatia en-route charging zone than for the comparators. The PRB also notes that, although presented as a separate provider, the METSP is a department of Croatia Control.
- The increase in NSA costs (+1.2 M€$_{2009}$) is mainly due to the inclusion from 2012 of SAR costs provided by the National Protection and Rescue Directorate (representing 0.8 M€$_{2009}$ in 2019). NSA/CAA supervision costs show an increase of 0.4 M€$_{2009}$ (or +41.7%).
- The increase in EUROCONTROL costs (+0.3 M€$_{2009}$) is driven by the one-off reduction ""IFRS Budgeting" accounted for in 2011.
- The costs of Croatia Control (accounting for 87% of the total DCs for the Croatia en-route charging zone for RP2) for 2019 are planned to be +10.3% higher than in 2011 (an increase of +6.1 M€$_{2009}$). This increase is mainly due to the fact that the en-route costs for Croatia Control are not planned to reduce as a result of the termination of services provided to BIH as of 2016 onwards. The en-route costs for services provided to BiH amounted to some 8.0 M€$_{2009}$ in 2011. The graph and the table below show the 2011-2019 costs by nature for Croatia Control with and without the costs for services provided to BiH and their variation over the period.



Croatia Control en-route costs

2011-2019 variations in en-route costs for Croatia Control	Including costs for BiH		Excluding costs for BiH	
	Difference in value (M€2009)	Difference in %	Difference in value (M€2009)	Difference in %
Staff	-4.7	-11.1%	0.7	1.9%
Other operating costs	-0.2	-1.6%	1.1	8.6%
Depreciation	3.0	37.7%	4.2	60.8%
Cost of capital	0.0	0.2%	0.1	4.2%
Total	**-1.9**	**-2.9%**	**6.1**	**10.3%**

- Looking at the individual en-route costs by nature for Croatia Control and their evolution in RP1 and RP2, the PRB notes that:
    - Staff costs plus other operating costs decreased overall for the en-route activity of Croatia Control (by -4.9 M€$_{2009}$). However, due to the fact that part of these costs were linked to services provided to BiH until 2015, they show an increase of +1.8 M€$_{2009}$ when considered for Zagreb FIR. In addition, the FAB CE RP2 Performance Plan indicates that, "*eventually, unexpected incremental activities associated with the BiH ATM transition which could not be assumed at the time of developing this RP2 PP could have a significant influence over staff costs and other operating costs development."*
    - Depreciation costs show the largest increase and are expected to grow significantly over the period, mainly due to the "*recently operational CroATM / COOPANS strategic investment"* and to *"expected RP2 CAPEX cycle of some EUR 10.8 million annually throughout the RP2. Given the planned economic useful life of currently operational as well as new assets, and given the assumed CAPEX dynamics (mostly in ATM system, DATA-COM as well as in Ground based surveillance system upgrade), depreciation costs are expected to peak in 2016 followed by a period of lower depreciation charge."* The PRB notes in this respect, that, in spite of the replacement of the ATM system in 2014, significant amounts are planned for upgrades in RP2.
    - Overall, there are no indications in the FAB Performance Plan for significant structural and organisational changes within Croatia Control following the termination of services provided to BiH or between FAB CE ATSPs that lead to rationalisation of services and infrastructure and costs reductions in RP2.
    - Croatia should clarify whether some services are planned to be provided to BiH beyond 2015 and how these (if any) will be reflected in the BiH en-route charging zone and the Croatia en-route charging zone so as to ensure that airspace users are not paying twice for the same service.

Based on this analysis, Croatia en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

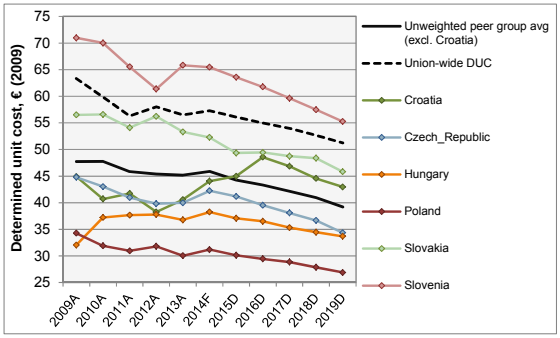


Figure 45: Determined unit cost level

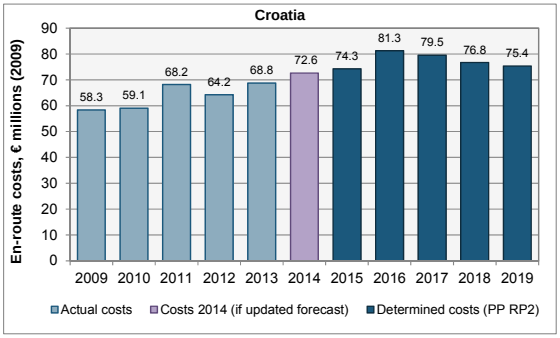


Figure 46: Determined costs 2009-2019

Comments:

The DUC level of Croatia en-route charging zone in 2019 (42.96 €$_{2009}$) is significantly higher (+9.6%) than the average of the DUC of the comparators (39.20 €$_{2009}$). It is also significantly higher if adjusted for exchange rates and/or cost of living (PPP).

The PRB notes however, that it is close to the average of the comparators if normalised for traffic (STATFOR baseline scenario).

As shown in the trend analysis above, the total en-route costs planned for 2016-2019 remain at a similar level (or higher) as when they included both the services provided in the Croatia en-route charging zone and the services provided in the BiH charging zone, although they related only to the Croatia en-route charging zone beyond 2015. As a result, the en-route DCs for the Croatia en-route charging zone are lifted up by some +9.3% in 2016. The PRB notes that the unit cost level for Croatia en-route charging zone is close to the average of the comparators until 2015, corresponding to the last year of provision of services by Croatia Control to BiH.

The DUC level of Croatia en-route charging zone in 2019 is significantly lower (-16.2%) than the Union-wide average (51.26 €$_{2009}$).

Based on this analysis, Croatia en-route charging zone is assessed as <u>not</u> passing this check.

Cost of Capital

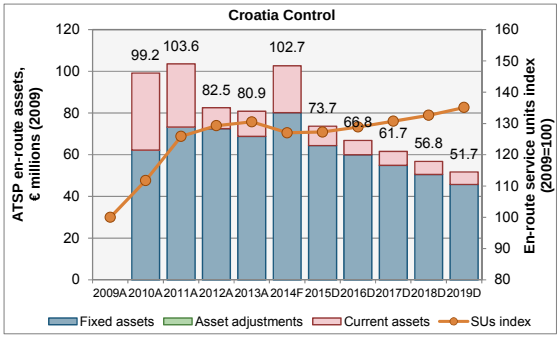


Figure 47: Breakdown of ATSP en-route asset base (2009-2019)

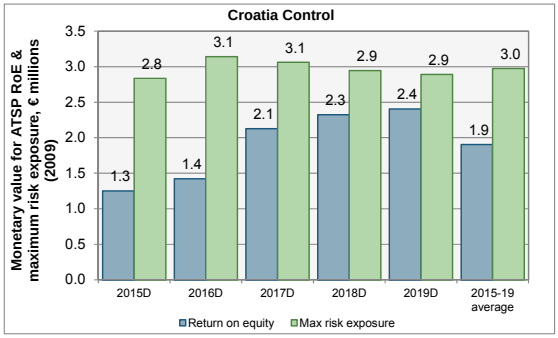


Figure 48: ATSP RoE vs maximum traffic risk exposure

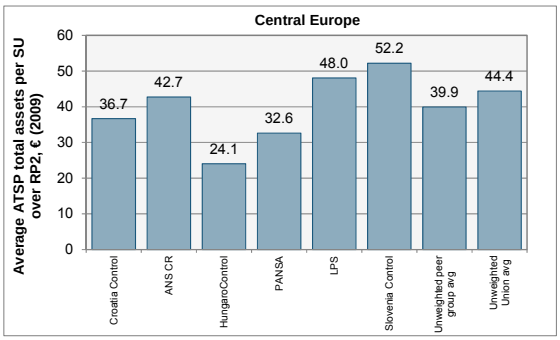


Figure 49: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate used to calculate the en-route cost of capital for Croatia Control is well below the notional "efficient" WACC computed by Croatia and that calculated with the methodology laid down in Annex C guidance, as Croatia Control does not include the total “eligible” WACC in the RP2 DCs.

As a result, although Croatia Control’s en-route asset base per service unit is comparable with that of the comparators, the overall monetary value of the Return on Equity (RoE) is below the monetary value of the maximum revenue risk borne by Croatia Control for the en-route activity over RP2 (by -35.9%). It should nevertheless be noted in this respect that the choice of the low STATFOR traffic forecast scenario reduces the probability of reaching the maximum loss.

Based on this analysis, Croatia en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient. The information on interest rates on loans is consistent with the average cost of debt used in the WACC calculation. The RP2 Performance Plan reports that no adjustments are made beyond the provisions of the International Accounting Standards. **Based on this analysis, Croatia en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see above). **Based on this analysis, Croatia en-route charging zone is assessed as passing this check.**

Croatia: Assessment of the terminal charging zone

Overview of the terminal charging zone in Croatia:

There is one terminal charging zone (TCZ) in Croatia for RP2, covering the main airport controlled by Croatia Control, LDZA (Zagreb/Pleso).

Traffic risk-sharing is applicable to the RP2 TCZ.

The proportion of regulated TNSUs covered by the RP2 TCZ is around 40% of the total TNSUs for the State.

There were two TCZs in RP1, the first including LDZA, as well as LDZL (Zagreb-Lucko), and the second including 8 airports.

Traffic forecast assumptions

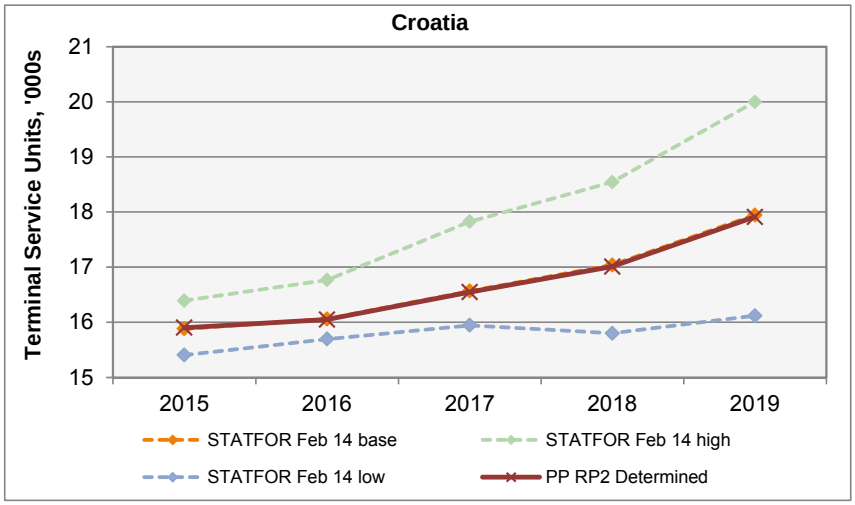


Figure 50: TNSU forecast 2015-2019

The forecast total Terminal Navigation Service Units (TNSUs) for Croatia TCZ are broadly in line with the STATFOR base case published in February 2014 for all years of RP2.

Based on this analysis, Croatia terminal charging zone is assessed as passing this check.

Economic assumptions

Forecast inflation 2014-2019 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route charging zone.

Based on this analysis, Croatia terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

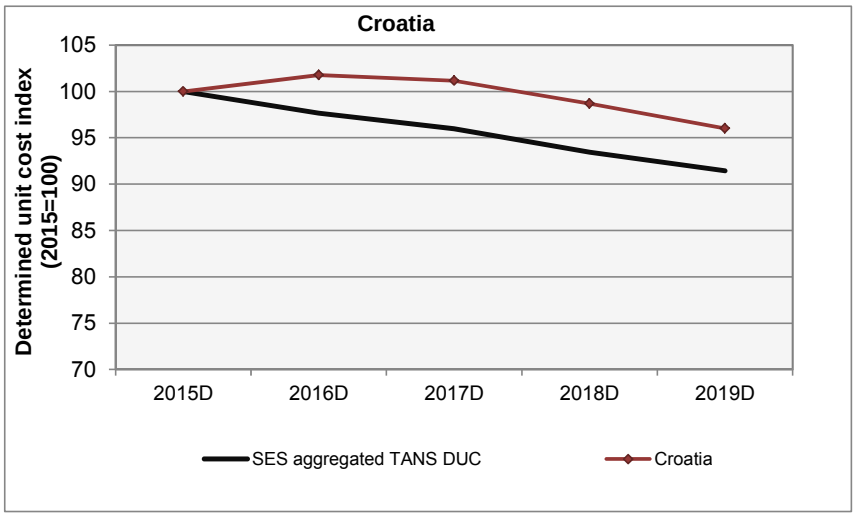


Figure 51: Terminal DUC index, 2015-2019

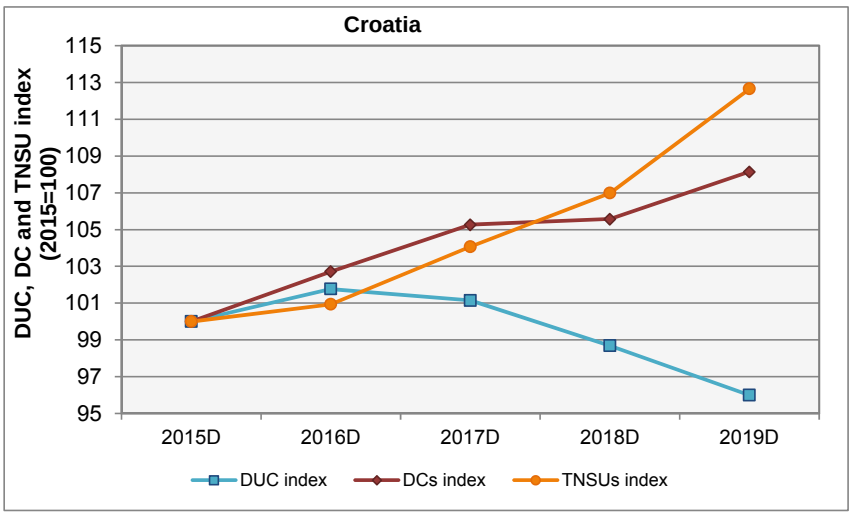


Figure 52: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Croatia		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	HRK m (nom)	27.6	28.9	30.2	31.0	32.6	4.2%
Inflation rate	annual % change	1.1%	1.9%	2.1%	2.3%	2.5%	2.2%
Inflation index	2009=100	111.2	113.3	115.6	118.3	121.3	
Determined costs	HRK m (2009)	24.8	25.5	26.1	26.2	26.8	2.0%
Terminal service units	'000s	16	16	17	17	18	3.0%
Determined unit cost	HRK (2009)	1 561.40	1 588.98	1 579.39	1 540.91	1 498.97	-1.0%
Exchange rate	HRK:EUR (2009)	7.34					
Determined unit cost	EUR (2009)	212.78	216.54	215.23	209.99	204.27	-1.0%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 56: Terminal DUC, DC and TNSU trends, 2015-2019

The trend in Croatia terminal ANS DUC in RP2 (-1.0% p.a. on average) is significantly worse than the profile corresponding to the SES aggregated terminal ANS DUC taken from RP2 FAB Performance Plans (-2.2% p.a. on average) when computed over the period 2015-2019.

Terminal DCs for Croatia are increasing by +2.0% p.a. over RP2 (2015-2019).

Moreover, the PRB notes that the level of determined costs 2015 are +27.6% higher than the 2013 actual costs and +18.7% higher than the 2014 forecasts, although the TCZ included an additional airport. The PRB understands from the RP2 Performance Plan that this is due to "reviewed and further refined assumptions applied within the terminal cost allocation model" and to the inclusion of NSA costs in RP2 DCs.

Based on this analysis, Croatia terminal charging zone is assessed as <u>not</u> passing this check.

Cost of Capital

The return on equity used to calculate the cost of capital of Croatia Control for the TCZ is similar as for the en-route charging zone (in general slightly lower).

Based on this analysis, Croatia terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the FAB Performance Plan for the description economic assumptions is the same as for en-route.

The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.

The information on interest rates on loans is consistent with the average cost of debt used in the WACC calculation.

The RP2 Performance Plan reports that no adjustments are made beyond the provisions of the International Accounting Standards.

Based on this analysis, Croatia terminal charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing

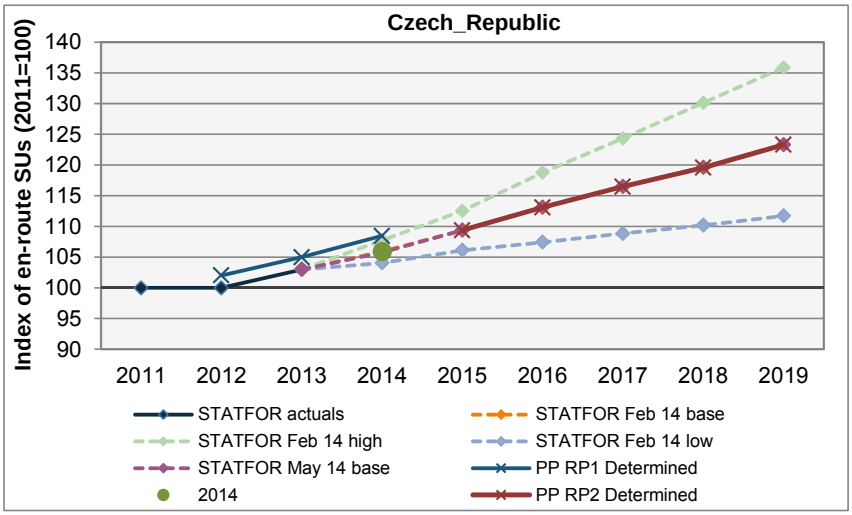
The information provided in the FAB Performance Plan for the description economic assumptions is the same as for en-route.

The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions and loans – see 6. above).

Based on this analysis, Croatia terminal charging zone is assessed as passing this check.

Czech Republic: Assessment of the en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		2 352	2 420	2 500							
Actuals, 2014, PP RP2 Determined	2 305	2 305	2 374	2 441	**2 521**	**2 607**	**2 685**	**2 756**	**2 842**	**2.7%**	**3.0%**
STATFOR Feb 14 base				**2 441**	**2 521**	**2 607**	**2 685**	**2 756**	**2 842**	**2.7%**	**3.0%**
STATFOR Feb 14 high				2 483	2 594	2 737	2 866	2 999	3 132	3.9%	4.8%
STATFOR Feb 14 low				2 398	2 446	2 476	2 509	2 540	2 575	1.4%	1.3%
STATFOR May 14 base				2 438	2 522	2 608	2 686	2 757	2 843	2.7%	3.0%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	0.0%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 53: En-route TSU forecasts

Comments:

The forecast total en-route TSUs for the Czech Republic en-route charging zone is equivalent to the STATFOR base case forecast published in February 2014 for every year 2015-2019.

Based on this analysis, the Czech Republic en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Czech_Republic		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.5%	1.4%	1.0%	1.9%	2.0%	2.0%	2.0%	2.0%
Eurostat/IMF avg	annual % change		1.4%	1.0%	1.9%	2.0%	2.0%	2.0%	2.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	107.3	108.8	109.8	111.9	114.2	116.5	118.8	121.2
Eurostat/IMF avg	2009=100	107.3	108.8	109.8	111.9	114.2	116.5	118.8	121.2
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 54: Economic assumptions

Comments:

The inflation forecasts for the Czech Republic en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

The actual inflation for 2013 is in line with the EUROSTAT HICP published in April 2014.

Based on this analysis, the Czech Republic en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	CZK m (nom)	2 393.6	2 526.2	2 584.1	2 600.7	2 727.6	2 992.4	3 069.8	3 107.6	3 146.0	3 170.7	3 124.6
Inflation rate	annual % change		1.5%	2.1%	3.5%	1.4%	1.0%	1.9%	2.0%	2.0%	2.0%	2.0%
Inflation index	2009=100	100.0	101.5	103.6	107.3	108.8	109.8	111.9	114.2	116.5	118.8	121.2
Determined costs	CZK m (2009)	2 393.6	2 488.9	2 493.6	2 424.7	2 507.9	2 724.1	2 742.4	2 721.8	2 701.4	2 669.2	2 578.9
Service units	'000s	2 023	2 190	2 305	2 305	2 374	2 441	2 521	2 607	2 685	2 756	2 842
Determined unit cost	CZK (2009)	1 183.46	1 136.44	1 081.95	1 052.11	1 056.39	1 115.98	1 087.84	1 044.05	1 006.12	968.51	907.42
Exchange rate	CZK:EUR	26.41										
Determined unit cost	EUR (2009)	44.80	43.02	40.96	39.83	39.99	42.25	41.18	39.53	38.09	36.67	34.35

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	CZK m (nom)	2.7%	2.4%	0.9%	0.4%
Inflation	CAGR %	1.9%	2.0%	2.0%	2.0%
Determined costs	CZK m (2009)	0.7%	0.4%	-1.1%	-1.5%
Service units	'000s	3.5%	2.7%	3.1%	3.0%
Determined unit cost	CZK (2009)	-2.6%	-2.2%	-4.1%	-4.4%
Exchange rate					
Determined unit cost	EUR (2009)	-2.6%	-2.2%	-4.1%	-4.4%

Table 57: Determined unit cost trend

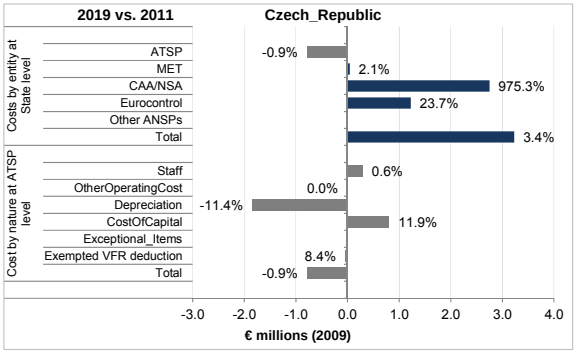


Figure 55: Planned cost category changes over RP1 and RP2

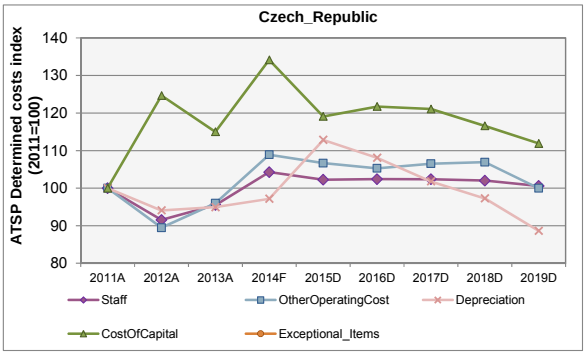


Figure 56: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Face value, the en-route DUC trend is better than for the Union-wide targets, whether considered over the period 2014-2019 (-4.1% p.a. vs. -3.3% p.a. for the Union-wide targets) or 2011-2019 (-2.2% p.a. vs. -1.7% p.a.).

However, this is due to:

- A higher TSUs growth than that considered for the Union-wide targets.
- Indeed, a much higher TSU actual growth is forecasted in the Czech Republic in RP2 than that considered for the Union-wide targets in RP2 (+3.1% p.a. vs. +0.7% p.a.).
- A high starting point 2014 (see Overview above).
- The 2014 starting point considered by the Czech Republic for its DUC is +6.1% higher than the actual unit cost for 2012 and +5.6% higher than the actual unit cost for 2013.

The en-route DC trend is much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the period 2014-2019 (-1.1% p.a. vs. -2.1% p.a. for the Union-wide targets) or 2011-2019 (+0.4% p.a. vs. -0.8% p.a.).

Moreover, the 2014 starting point considered by the Czech Republic for the DCs is +12.3% higher than the actual costs for 2012 and +8.6% higher than the actual costs for 2013. As a consequence, the DCs at the beginning of RP2 are significantly higher than the latest actual costs known to date. The DCs for 2015 are higher than the 2012 actual costs by +13.1% and higher than the 2013 actual costs by +9.4%). As a result, the cost-efficiency improvements achieved in RP1 are not reflected in RP2.

When looking at the contribution of each entity over the period 2011-2019 (i.e. covering both RP1 and RP2), the PRB notes that:

- Overall total costs for the Czech Republic en-route charging zone show an increase of +3.4% over the period 2011-2019;
- This increase (+3.2 M€$_{2009}$) is entirely due to increases in NSA costs (+2.8 M€$_{2009}$) and in EUROCONTROL costs (+1.2 M€$_{2009}$). MET costs are at the same level and ANS CR costs show a decrease of -0.8 M€$_{2009}$.
- The increase in NSA costs (+2.8 M€$_{2009}$) is mainly due to the inclusion from 1.1.2012 of costs for calibration services in the NSA cost-base (representing around 2 M€$_{2009}$ per year), although these costs are part of ANS CR costs and are reported in the company's profit and loss statements and to "*additional costs induced by the new regulation and administration system application on national and European level (improvement on the state policy of administration system, necessary training, organisational system changes etc.) in RP2*".
- The increase in EUROCONTROL costs (+1.2 M€$_{2009}$) is mainly driven by the one-off reduction ""IFRS Budgeting" accounted for in 2011 (-0.7 M€$_{2009}$ for the Czech Republic).
- The costs of ANS CR (accounting for 89% of the total DCs for the Czech Republic en-route charging zone for RP2) show a decrease of -0.9% between 2011 and 2019 (-0.8 M€$_{2009}$). Looking at the individual costs by nature and their evolution in RP1 and RP2, the PRB notes that:
    - 2019 determined staff costs and other operating costs are at nearly the same level as 2011 actuals. However, actual costs observed in 2012 and 2013 have decreased over 2011 and are much lower than the planned amounts for RP2 (RP2 average yearly staff costs are higher than actual 2012 by +11.3% and higher than actual 2013 by +6.7%; RP2 average yearly operating costs are higher by +17.0% than actual 2012 and higher by +9.5% than actual 2013). Both staff costs and other operating costs are lower at the end of RP2 than at the beginning of RP2, when they were computed on the basis of the high 2014 starting point (costs not revised from RP1 2014 DC).

- 2019 determined depreciation is lower by -1.8 M€$_{2009}$ compared to 2011 actuals (-11.4%). However, there is a peak in depreciation foreseen for 2015 which also seems to be due to the computation of RP2 planned depreciation based on 2014 RP1 2014 DC data as a starting point. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.
- 2019 determined cost of capital shows an increase of +0.8 M€$_{2009}$ compared to the situation prior to RP1, mainly as a result of the increase in RoE from 5.0% in 2011 to 7.0% in RP1 and RP2.

On the profitability side, the PRB notes that ANS CR managed to generate economic surpluses in the first two years of RP1 (+12.1 M€$_{2009}$ in 2012 and +10.8 M€$_{2009}$ in 2013) in the context of lower traffic than planned.

Finally, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within the ANS CR or with other ATSPs in the FAB.

Based on this analysis, the Czech Republic en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

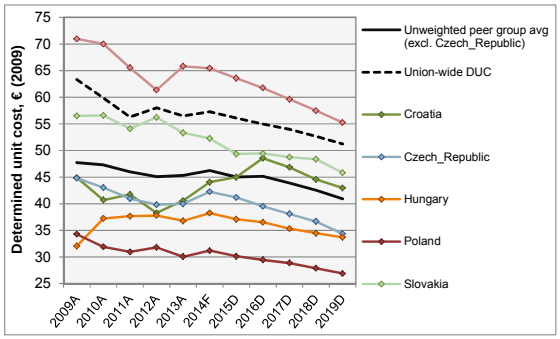


Figure 57: Determined unit cost level

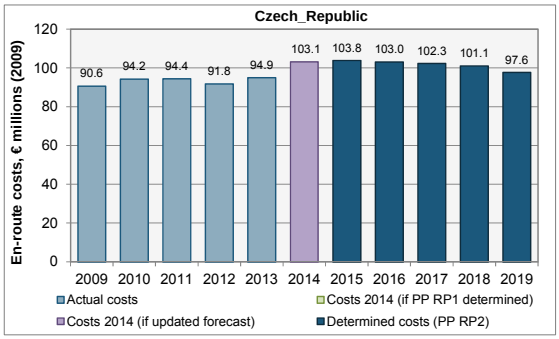


Figure 58: Determined costs 2009-2019

Comments:

The DUC level of the Czech Republic en-route charging zone in 2019 is lower by -16.1% than the average of the DUC of the comparator group en-route charging zones.

However, as noted above in the trend assessment, the level of RP2 DC is not in line with the developments shown in the level of actual costs for 2012 and 2013. The use of a high starting point for 2014 and 2015 artificially increases the level of the DC in the first years of RP2.

The DUC level in 2019 (34.35 €$_{2009}$) is also much lower (by -33.0%) than the Union-wide average (51.26 €$_{2009}$).

Based on this analysis, the Czech Republic en-route charging zone is assessed as passing this check.

Cost of Capital

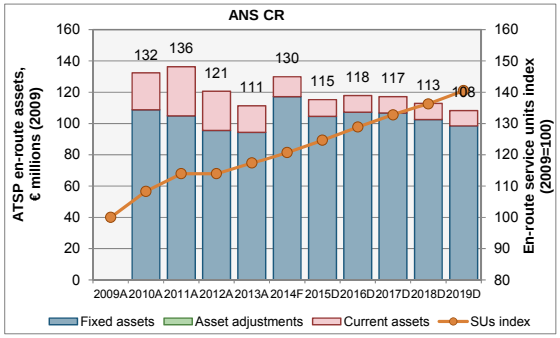


Figure 59: Breakdown of ATSP en-route asset base (2009-2019)

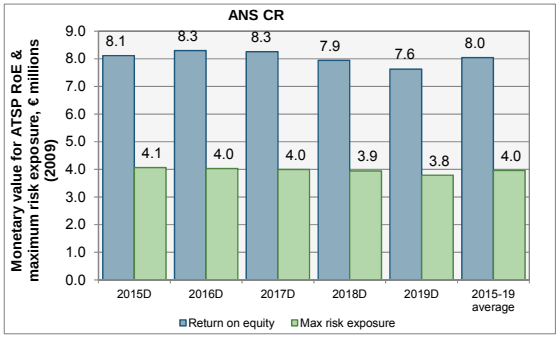


Figure 60: ATSP RoE vs maximum traffic risk exposure

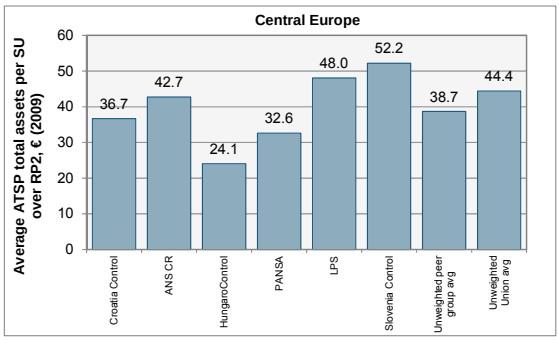


Figure 61: Average en-route asset base per SU over RP2

Comments:

The weighted average cost of capital (WACC) used to calculate the cost of capital of ANS CR (7.04%) is close to the maximum notional "efficient" WACC computed by the PRB on the basis of the parameters provided in the “Explanations on how to fill Annex C”.

This level of WACC, combined with a value of the asset base per SU higher than the average for the comparators and the fact that ANS CR is entirely financed through equity, leads to a Return on Equity (RoE) that is not commensurate with the financial risk incurred by ANS CR for the provision of en-route services. As shown in Figure 11 above, the monetary value of the RoE is on average twice the monetary value of the maximum revenue risk borne by ANS CR through the traffic risk sharing arrangements.

Based on this analysis, the Czech Republic en-route charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with FAB Performance Plan template and guidance.

No figure has been provided and explanations are insufficient.

The Czech Republic reports that “there were no adjustments made beyond the provisions of the International Accounting Standards. The assets have not been revaluated, all assets are booked with regard to historical cost accounting.”

Based on this analysis, the Czech Republic en-route charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing for 2012 and 2013. These are the subject of a separate assessment by the European Commission. The costs exempt from cost-sharing filed for RP1 (EUROCONTROL costs) do not affect the planned determined costs in RP2. The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2. **Based on this analysis, the Czech Republic en-route charging zone is assessed as passing this check.**

Czech Republic: Assessment of the terminal charging zone

Overview of the terminal charging zone in the Czech Republic:

There is one terminal charging zone (TCZ) in the Czech Republic for RP2, covering the 4 airports controlled by ANS CR (Praha-Ruzyně, Brno-Tuřany, Ostrava-Mošnov and Karlovy Vary). Traffic risk-sharing is applicable to terminal ANS.

Total TNSUs for the TCZ accounted for 97% of the TNSUs in the Czech Republic in 2013.

Total costs for the TCZ account for less than 20% of the Czech Republic "gate-to-gate" activity subject to SES regulations in RP2.

Traffic forecast assumptions

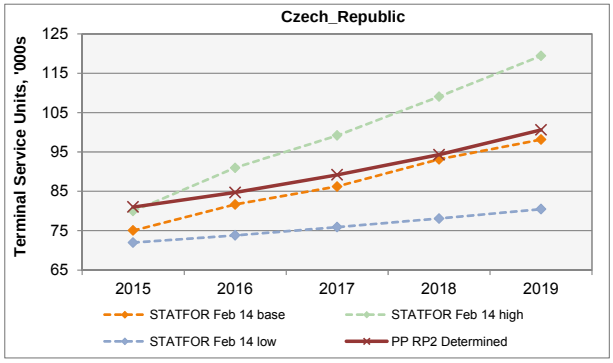


Figure 62: TNSU actual /forecast 2012-2019

The forecast total Terminal Navigation Service Units (TNSUs) for the Czech Republic TCZ are higher than the STATFOR base case published in February 2014 for all years of RP2. For 2015, TNSUs presented in the FAB Performance Plan are +1.4 % above high and +8.1% above base.

This may result in a significant loss of revenue for 2015 to be shared between the State/ANSP and airspace users as a result of the traffic risk sharing arrangements.

Based on this analysis, the Czech Republic terminal charging zone is assessed as <u>not</u> passing this check.

Economic assumptions

Forecast inflation 2014-2019 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route charging zone.

Based on this analysis, the Czech Republic terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

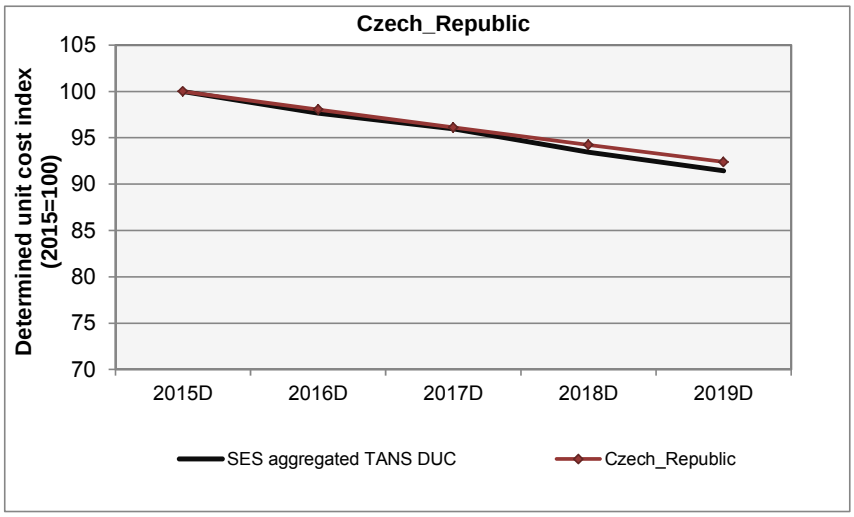


Figure 63: Terminal DUC index, 2015-2019

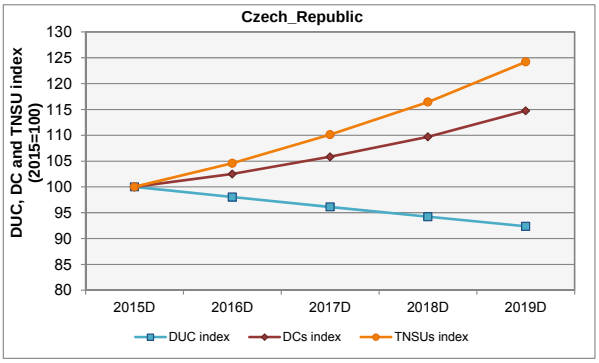


Figure 64: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Czech_Republic		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	CZK m (nom)	550.8	576.0	606.6	641.2	684.1	5.6%
Inflation rate	annual % change	1.9%	2.0%	2.0%	2.0%	2.0%	2.0%
Inflation index	2009=100	111.9	114.2	116.5	118.8	121.2	
Determined costs	CZK m (2009)	492.1	504.5	520.8	539.8	564.6	3.5%
Terminal service units	'000s	81	85	89	94	101	5.6%
Determined unit cost	CZK (2009)	6 074.96	5 955.84	5 839.05	5 724.56	5 612.32	-2.0%
Exchange rate	CZK:EUR (2009)	26.41					
Determined unit cost	EUR (2009)	229.98	225.47	221.05	216.72	212.47	-2.0%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 58: Terminal DUC, DC and TNSU trends, 2015-2019

The trend in the Czech Republic terminal ANS DUC in RP2 (-2.0% p.a. on average) is slightly worse than the profile corresponding to the SES aggregated terminal ANS DUC taken from RP2 FAB Performance Plans (-2.2% p.a. on average) when computed over the period 2015-2019. However, it should be noted that this trend is impacted by the high TNSU forecast for 2015 (see above). If the STATFOR base forecast was used to compute the DUC, the trend for the Czech Republic terminal ANS DUC would be -3.2% p.a. on average for the period, i.e. better than the trend of the SES aggregated terminal ANS DUC.

Terminal DCs for the Czech Republic are increasing by +3.5% p.a. over RP2 (2015-2019).

All cost items show gradual increases over the period. However, it should be noted that the 2015 DCs do not seem to have been determined on a high starting point, as the level of determined costs 2015 is consistent with the latest reported actual costs (lower by -0.5% vs. 2012 and higher by +1.5% v. 2013).

It should also be noted that the DUC seems to have been set in such a way so as to maintain the chargeable unit rate constant and at the same level as in RP1 (6800 CZK).

Based on this analysis, the Czech Republic terminal charging zone is assessed as passing this check with reservations due to the traffic forecast.

Cost of Capital

In order to be able to maintain the chargeable unit rate at the same level as in RP1, no cost of capital has been included in the determined costs of ANS CR for RP2.

However, the PRB notes that traffic risk sharing applies in the Czech Republic TCZ in RP2. In this context, it is not clear how the financial risk of ANS CR relating to differences in traffic in respect of terminal services is covered. There is a need to ensure that the risk associated to the terminal activity is not financed by the en-route activity. The PRB notes in this respect that, in reply to a question raised by IATA in the consultation process, the Czech Republic confirmed that there is no “revenue compensation” between en-route and terminal services.

Based on this analysis, the Czech Republic terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the FAB Performance Plan for the description economic assumptions is the same as for en-route.

The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with FAB Performance Plan template and guidance. No figure has been provided and explanations are insufficient.

The Czech Republic reports that “there were no adjustments made beyond the provisions of the International Accounting Standards. The assets have not been revaluated, all assets are booked with regard to historical cost accounting.”

Based on this analysis, the Czech Republic terminal charging zone is assessed as <u>not</u> passing this check.

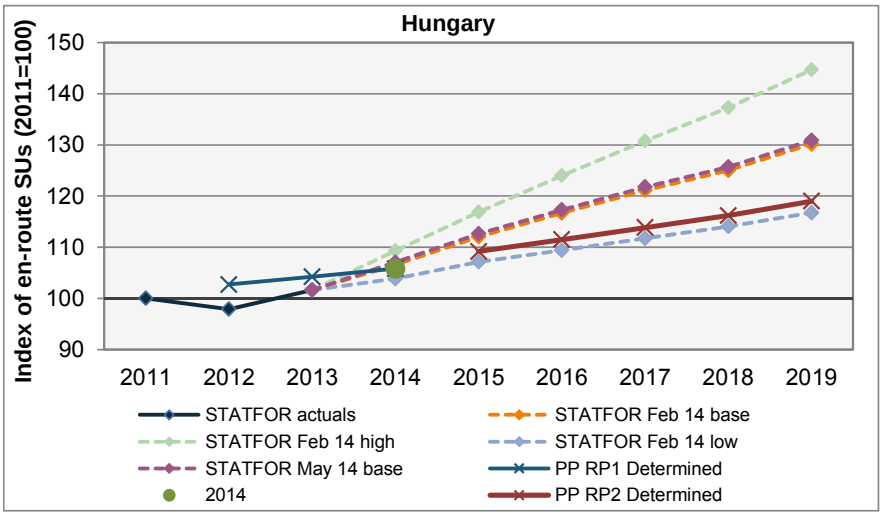
Description, level, composition and justification of costs exempt from risk sharing

No specific items were reported against each of the following items: new costs items required by law; unforeseen changes in taxation law; and international agreement.

Based on this analysis, the Czech Republic terminal charging zone is assessed as passing this check.

Hungary: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		2,123	2,155	2,187							
Actuals, 2014, PP RP2 Determined	2,067	2,023	2,101	2,187	**2,257**	**2,304**	**2,353**	**2,402**	**2,460**	**2.2%**	**2.2%**
STATFOR Feb 14 base				**2,203**	**2,316**	**2,412**	**2,504**	**2,584**	**2,691**	**3.4%**	**3.8%**
STATFOR Feb 14 high				2,260	2,416	2,563	2,703	2,837	2,990	4.7%	5.5%
STATFOR Feb 14 low				2,146	2,215	2,261	2,310	2,357	2,413	2.0%	2.2%
STATFOR May 14 base				2,213	2,328	2,425	2,517	2,598	2,705	3.4%	3.8%
PP RP2 vs STATFOR Feb 14 base (%)					-2.5%	-4.5%	-6.0%	-7.0%	-8.6%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 65: En-route TSU forecasts

Comments:

The forecast total en-route TSUs per en-route charging zone is within the STATFOR February 2014 base-low case range for each year of RP2.

Hungary has used the STATFOR February 2014 low case growth forecast for 2015-2019, however it has not updated its TSUs for 2014 which are higher (+1.9%) than that given by STATFOR. As a result Hungary's forecast is +1.9% higher than the STATFOR low case in each year of RP2.

For the first 8 months of 2014 Hungary's en-route SUs are +11.5% greater than for the same period in 2013, above the STATFOR high forecast trend for 2014.

Based on this analysis, Hungary's en-route charging zone is assessed as passing this check with reservations.

Economic assumptions

Inflation: Hungary		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	5.7%	1.7%	0.9%	3.0%	3.0%	3.0%	3.0%	3.0%
Eurostat/IMF avg	annual % change		1.7%	0.9%	3.0%	3.0%	3.0%	3.0%	3.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	115.2	117.2	118.2	121.8	125.4	129.2	133.1	137.0
Eurostat/IMF avg	2009=100	115.2	117.2	118.2	121.8	125.4	129.2	133.1	137.0
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 66: Economic assumptions

Comments:

The inflation forecasts used are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

Based on this analysis, the Hungary's en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	HUF m (nom)	18,270	22,847	23,737	24,637	25,328	27,659	28,501	29,517	30,032	30,811	31,762
Inflation rate	annual % change		4.9%	3.9%	5.7%	1.7%	0.9%	3.0%	3.0%	3.0%	3.0%	3.0%
Inflation index	2009=100	100.0	104.9	109.0	115.2	117.2	118.2	121.8	125.4	129.2	133.1	137.0
Determined costs	HUF m (2009)	18,270	21,780	21,778	21,385	21,618	23,397	23,407	23,536	23,249	23,157	23,176
Service units	'000s	2,038	2,091	2,067	2,024	2,101	2,187	2,257	2,304	2,353	2,402	2,460
Determined unit cost	HUF (2009)	8,962.77	10,414.59	10,536.12	10,567.69	10,288.47	10,698.89	10,371.67	10,214.15	9,882.11	9,640.52	9,422.57
Exchange rate	HUF:EUR	279.70										
Determined unit cost	EUR (2009)	32.04	37.23	37.67	37.78	36.78	38.25	37.08	36.52	35.33	34.47	33.69

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	HUF m (nom)	5.7%	3.7%	2.8%	2.7%
Inflation	CAGR %	3.2%	2.9%	3.0%	3.0%
Determined costs	HUF m (2009)	2.4%	0.8%	-0.2%	-0.2%
Service units	'000s	1.9%	2.2%	2.4%	2.2%
Determined unit cost	HUF (2009)	0.5%	-1.4%	-2.5%	-2.4%
Exchange rate					
Determined unit cost	EUR (2009)	0.5%	-1.4%	-2.5%	-2.4%

Table 59: Determined unit cost trend

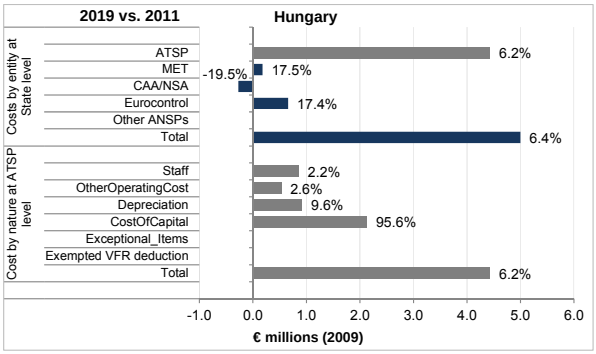


Figure 67: Planned cost category changes over RP1 and RP2

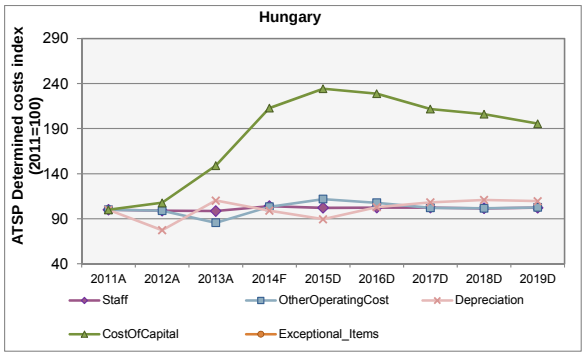


Figure 68: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Annual average % changes in DUCs are worse than the Union-wide target for the period 2014-2019 (-2.5% compared to -3.3% p.a.). The DUC trends over the 2011-2019 (-1.4% vs. -1.7% p.a.) and 2009-2019 (+0.5 vs. -2.5% p.a.) periods are also worse than Union-wide targets.

If the STATFOR February 2014 base case traffic was used then the 2014-2019 trend would be -4.1%: better than the Union-wide target.

Annual average percentage changes in DCs are worse than the Union-wide targets for all periods analysed:

- 2014-2019: Hungary plans DC reductions of -0.2% p.a. compared to Union-wide target of -2.1%;
- 2011-2019: Hungary plans increases +0.8% p.a. compared to -0.8%; and
- 2009-2019: Hungary plans +2.4% p.a. compared to -1.1%.

If Hungary would meet the DC trend underlying the Union-wide DCs target, costs over RP2 would be -5.2% or -21.5 M€$_{2009}$ lower than are currently planned.

The PRB notes costs provided for 2014 are marginally lower than those planned for RP1 and are +8.2% higher than the 2013 actual. The 2014 TSUs have not been revised from the RP1 Performance Plan and are +4.1% higher than 2013 actual. This results in a DUC for 2014 that is +4.0% higher than in 2013.

Looking at the contribution of each accountable entity over the 2011-2019 period, the PRB notes that all entities (other than the CAA/NSA) plan increases in DCs:

- HungaroControl's (the ATSP) costs increase at +0.5% p.a.;
- EUROCONTROL costs and MET costs are planned to increase at +2.0% p.a.; while
- CAA/NSA costs are planned to decrease at -2.7% p.a.

The increase in EUROCONTROL costs is mainly driven by the one-off reduction "IFRS Budgeting", which accounted for -0.5 M€$_{2009}$ in the 2011 starting point. Without this one-off reduction, the EUROCONTROL costs for Hungary would show a small increase over RP1 and RP2.

Given the planned growth in traffic, all entities contribute towards a reduction in the DUC over 2011-2019. The changes in the proportion of costs allocated to en-route/ terminal do not significantly influence the trend in en-route DUC planned for Hungary's en-route charging

zone over RP2.

Airspace users have identified the following issues with Hungary's cost efficiency target: Longer-term DC/DUC unsustainable: other operating costs increase over RP2; depreciation review for asset life; asset beta review for cost of capital calculation and RP1 Capex underspend roll-over RP2.

For RP2 there are no indications in the FAB Performance Plan that significant structural or organisational changes in the delivery of services amongst the ATSPs of the FAB. In addition, the investments that were cancelled or delayed compared to the RP1 PP do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

Based on this analysis, Hungary's charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

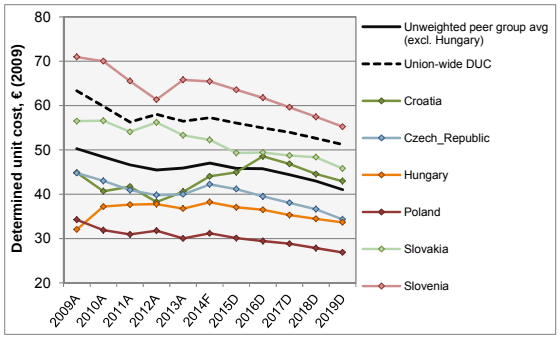


Figure 69: Determined unit cost level

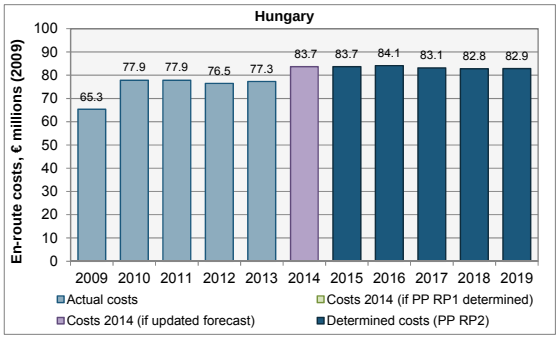


Figure 70: Determined costs 2009-2019

Comments:

Hungary's en-route DUC in 2019 is planned to be 33.69 €$_{2009}$ which is -17.9% lower than the average of the comparator group (excluding Hungary) (41.06 €$_{2009}$). The PRB notes that over the 2014-2019 period Hungary's DUC is expected to be materially below the comparator group average. The DUC is well below the weighted Union-wide average of 51.26 €$_{2009}$.

The planned reduction in Hungary's DUC over the 2009-2019 period is significantly worse (+0.5%) than the other States in the comparator group (-2.0%). This profile is partly explained by Figure 9, which shows DCs increasing in 2014 (+8.2%) and then staying at that level.

Based on this analysis, Hungary's en-route charging zone is assessed as passing this check.

Cost of Capital

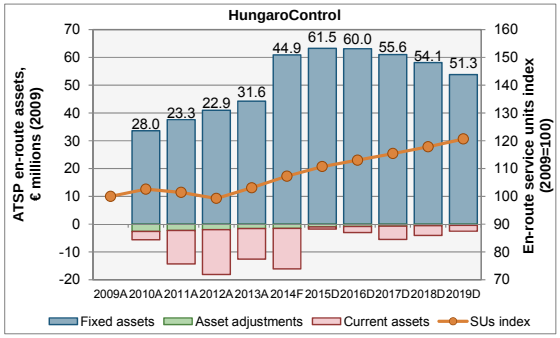


Figure 71: Breakdown of ATSP en-route asset base (2009-2019)

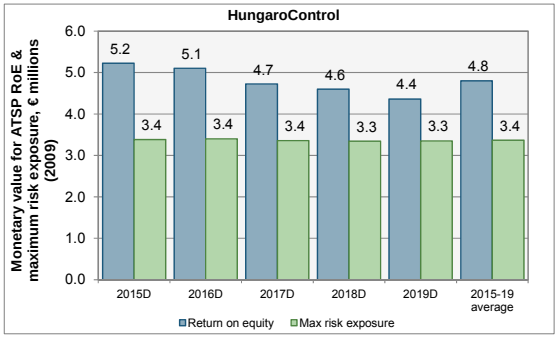


Figure 72: ATSP RoE vs maximum traffic risk exposure

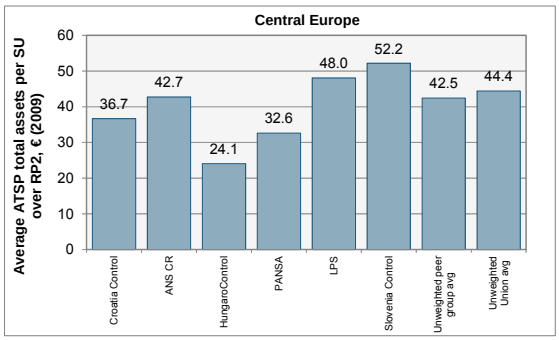


Figure 73: Average en-route asset base per SU over RP2

Comments:

The pre-tax WACC used to calculate HungaroControl's cost of capital is 8.5%, this is towards the top of the range of the notional efficient pre-tax WACC values using the methodology provided in Annex C of the Additional Information tables. The capital structure assumed by HungaroControl includes no debt. The PRB notes that a relatively prudent traffic forecast is applied for en-route in RP2.

Taking into account the pre-tax Return of Equity (RoE) of 8.5% over RP2, the capital structure of HungaroControl, discussed above, and the amount of total assets used to calculate the cost of capital, the calculation of the monetary value of the RoE ranges from 4.4 to 5.2 M€$_{2009}$ in each year of RP2. This is significantly higher than the maximum risk exposure which will be borne by HungaroControl over RP2 (3.3-3.4 M€$_{2009}$ per annum).

On average over RP2, HungaroControl's en-route asset base per service unit 24 €$_{2009}$ is materially lower than the comparator group average 42 €$_{2009}$.

The share of fixed to total assets ratio for HungaroControl is much higher than its comparator.

Based on this analysis, Hungary's en-route charging zone is assessed as <u>not passing</u> this check due to the high return on equity relative to the maximum traffic risk exposure.

Verification of the description and if applicable, the justification, of economic

assumptions provided in the Performance Plan
Comments:
The Performance Plan AI 4b provides information about HungaroControl's defined contributions pensions scheme using the tables provided: costs, contribution rate, number of staff and pensionable salary. In AI 1(e) and 4(c) as Hungary does not hold any debt then it does not provide any information on the cost of debt and interest rates on loans. The Performance Plan reports (AI 1d) that HungaroControl will introduce IFRS as of 1 January 2015 for cost base calculation, but it will not have significant impact on the level of costs. **Based on this analysis, Hungary's en-route charging zone is assessed as passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Hungary describes in AI 4(g) that during the performance planning for RP2 the uncontrollable cost factors from RP1: rate of local tax and the extension of the early retirement contribution have been reflected in the Performance Plan over the second reference period. The information in the Performance Plan (AI 4(h)) is presented in the format of the FAB template. It identified assumptions on: the continuation of the early retirement scheme throughout RP2, current tax rates remaining the same, and the exchange rates assumed for EUROCONTROL costs as the main issues for costs exempt for cost sharing in RP2. The Performance Plan indicates that Hungary will be seeking to return 0.4 M€$_{2009}$ to users in RP2 related to uncontrollable costs in 2012 and 2013. Hungary provided an NSA report on costs exempt from cost sharing to the Commission. The Commission will assess the eligibility of the claim. **Based on this analysis, Hungary's en-route charging zone is assessed as passing this check.**

Hungary: Assessment of terminal charging zones

Overview of the terminal charging zone in Hungary:

Based on the information provided in the Performance Plan, there is one terminal charging zone (TCZ) for Hungary, covering one airport: Budapest.

This is the only airport with more than 70,000 IFR movements. The number of airports in the TCZ has not changed between 2014 and 2015.

Hungary has decided not to apply traffic risk-sharing in the TCZ in RP2.

The TCZ represents 95.3% of Terminal Navigation SUs in Hungary.

Traffic forecast assumptions

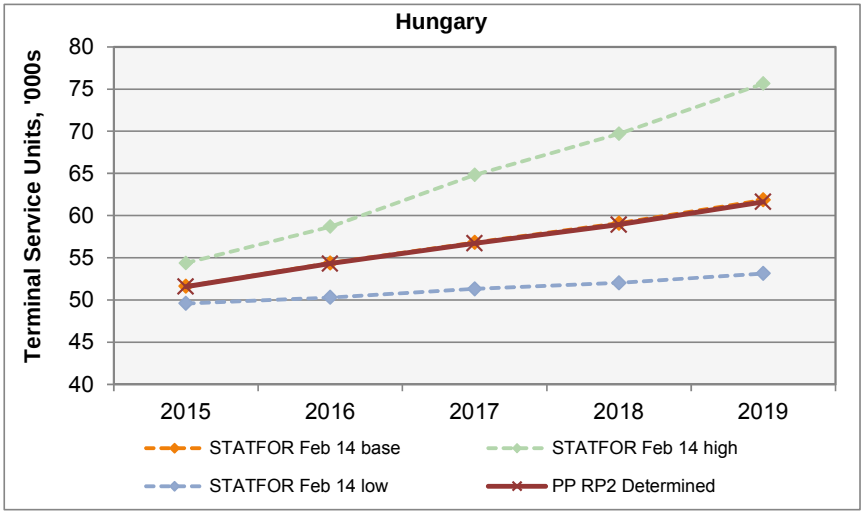


Figure 74: TNSU forecast 2015-2019

Hungary is broadly in line with the STATFOR February 2014 base case forecast Terminal Navigation Service Units for every year of RP2.

Based on this analysis, Hungary's terminal charging zone is assessed as passing this check.

Economic assumptions

Over RP2 Hungary's inflation is identical to the en-route and the IMF forecast.

Based on this analysis, Hungary's terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

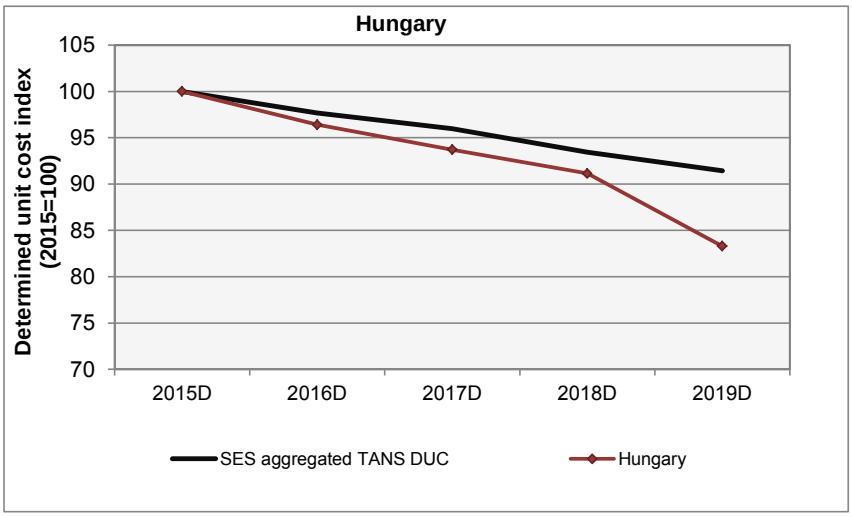


Figure 75: Terminal DUC index, 2015-2019

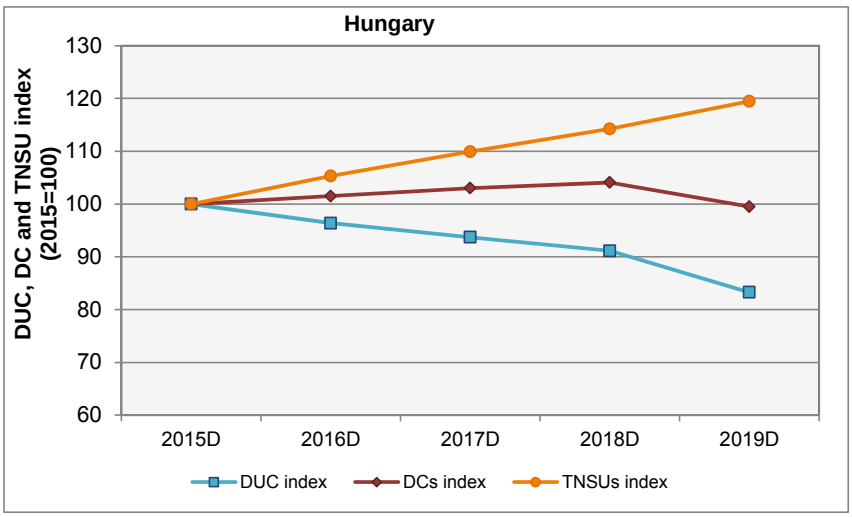


Figure 76: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Hungary		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	HUF m (nom)	5,646	5,903	6,171	6,422	6,324	2.9%
Inflation rate	annual % change	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Inflation index	2009=100	121.8	125.4	129.2	133.1	137.0	
Determined costs	HUF m (2009)	4,637	4,707	4,777	4,827	4,614	-0.1%
Terminal service units	'000s	52	54	57	59	62	4.5%
Determined unit cost	HUF (2009)	89,884.46	86,650.50	84,232.32	81,910.58	74,863.48	-4.5%
Exchange rate	HUF:EUR (2009)	279.70					
Determined unit cost	EUR (2009)	321.36	309.80	301.15	292.85	267.66	-4.5%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 60: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for Hungary is -4.5% p.a. significantly better than the SES aggregated DUC profile of -2.2% p.a. The Terminal DUC level of 267.66 €$_{2009}$ in 2019 is significantly higher than the SES average of 159.92 €$_{2009}$.

Hungary's annual average % change in local terminal ANS DCs is similar to the profile

corresponding to the local en-route ANS DCs for the 2015-2019 period (TANS -0.1%, en-route -0.2%). This shows that the vast majority of the improvement in TANS DUC comes from traffic growth forecast for RP2.

The 2015 terminal ANS DUC is +20% higher than the 2013 actuals.

The annual average % change in "gate to gate" ANS DCs is materially worse than the profile corresponding to the SES en-route ANS DCs for 2015-2019 (Hungary -0.1%, SES -2.3%).

Based on this analysis, Hungary's charging zone is assessed as passing this check with reservations about the profile of DCs.

Cost of Capital

The Return on Equity and WACC used for Hungary's TCZ is 6.5% which is lower than the 8.5% used for en-route. The capital structure is fully equity funded.

Based on this analysis, Hungary's terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description economic assumptions is the same as for en-route. Please refer to section on economic assumptions in the en-route detailed assessment

Hungary's terminal charging zone is assessed as passing this check.

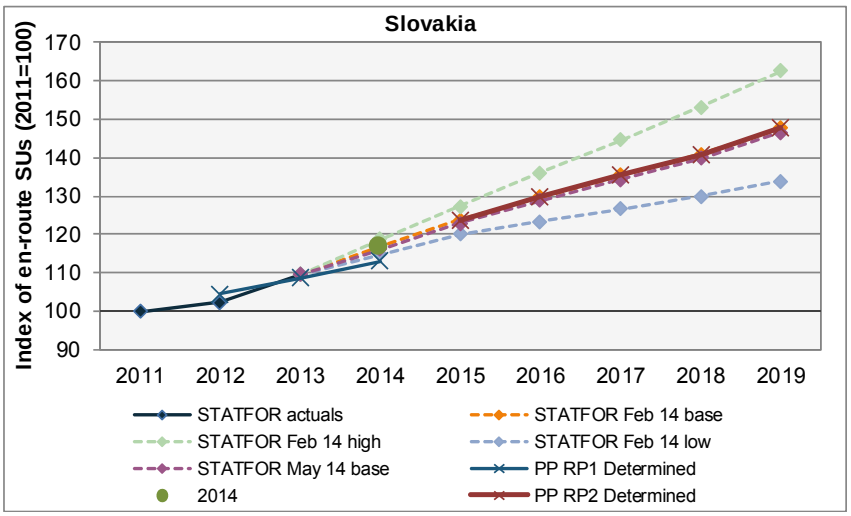
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to section on costs exempt from risk sharing for RP2 in the en-route detailed assessment

Hungary's terminal charging zone is assessed as passing this check.

Slovakia: Assessment of the en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		941	978	1 018							
Actuals, 2014, PP RP2 Determined	900	922	985	1 051	**1 114**	**1 168**	**1 219**	**1 268**	**1 331**	**5.0%**	**4.5%**
STATFOR Feb 14 base				**1 051**	**1 114**	**1 168**	**1 219**	**1 268**	**1 329**	**5.0%**	**4.5%**
STATFOR Feb 14 high				1 068	1 146	1 225	1 301	1 378	1 464	6.3%	6.3%
STATFOR Feb 14 low				1 033	1 082	1 110	1 140	1 170	1 204	3.7%	2.7%
STATFOR May 14 base				1 046	1 105	1 159	1 210	1 258	1 318	4.9%	4.5%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	0.0%	0.0%	0.0%	0.1%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 77: En-route TSU forecasts

Comments:

The forecast total en-route TSUs for Slovakia en-route charging zone is equivalent to the STATFOR base case forecast published in February 2014 for every year 2015-2018. It is slightly higher than STATFOR base case forecast for 2019 (by +0.1%).

Based on this analysis, Slovakia en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Slovakia		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.7%	1.5%	0.7%	1.6%	1.8%	2.0%	2.1%	2.2%
Eurostat/IMF avg	annual % change		1.5%	0.7%	1.6%	1.8%	2.0%	2.1%	2.2%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	108.7	110.3	111.2	112.9	115.0	117.3	119.7	122.3
Eurostat/IMF avg	2009=100	108.7	110.3	111.1	112.9	115.0	117.3	119.7	122.3
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 78: Economic assumptions

Comments:

The inflation forecasts for Slovakia en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

The actual inflation for 2013 is in line with the EUROSTAT HICP published in April 2014.

Based on this analysis, Slovakia en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	43.4	48.8	51.0	56.3	57.9	61.1	62.1	66.4	69.7	73.4	74.6
Inflation rate	annual % change		0.7%	4.1%	3.7%	1.5%	0.7%	1.6%	1.8%	2.0%	2.1%	2.2%
Inflation index	2009=100	100.0	100.7	104.8	108.7	110.3	111.2	112.9	115.0	117.3	119.7	122.3
Determined costs	EUR m (2009)	43.4	48.4	48.7	51.8	52.5	54.9	55.0	57.7	59.4	61.3	61.0
Service units	'000s	768	856	900	922	985	1 051	1 114	1 168	1 219	1 268	1 331
Determined unit cost	EUR (2009)	56.51	56.60	54.10	56.22	53.32	52.27	49.34	49.44	48.76	48.36	45.82
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	56.51	56.60	54.10	56.22	53.32	52.27	49.34	49.44	48.76	48.36	45.82

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	5.6%	4.9%	4.1%	4.7%
Inflation	CAGR %	2.0%	1.9%	1.9%	2.0%
Determined costs	EUR m (2009)	3.5%	2.9%	2.1%	2.6%
Service units	'000s	5.7%	5.0%	4.8%	4.5%
Determined unit cost	EUR (2009)	-2.1%	-2.1%	-2.6%	-1.8%
Exchange rate					
Determined unit cost	EUR (2009)	-2.1%	-2.1%	-2.6%	-1.8%

Table 61: Determined unit cost trend

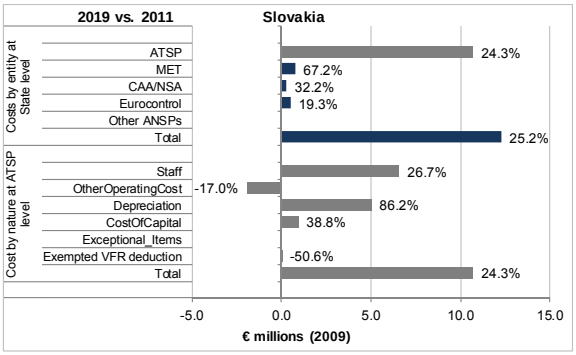


Figure 79: Planned cost category changes over RP1 and RP2

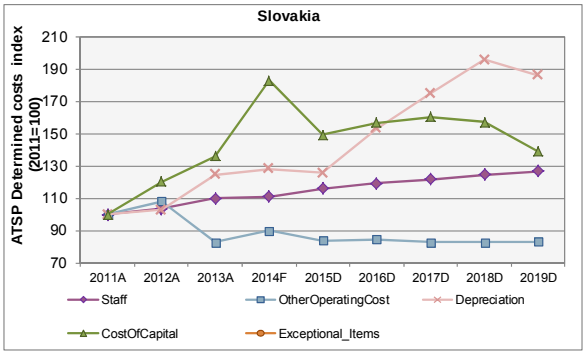


Figure 80: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

The en-route DUC trend for Slovakia (-2.6% p.a.) is worse than the Union-wide targets (-3.3% p.a.) for the period 2014-2019, but better (-2.1% p.a.) than the Union-wide targets (-1.7% p.a.) for the period 2011-2019, covering both RP1 and RP2.

The PRB notes that the trend is benefitting from a much higher TSUs growth than that

considered for the Union-wide targets in RP2 (+4.8% p.a. vs. +0.7% p.a.). TSUs growth was also much higher in RP1 (+5.3% p.a. vs. +0.6% p.a.).

The PRB also notes that the DUC in 2019 is significant lower than for the other years of RP2, which influences the trends downwards.

The en-route DCs trend is much worse than that for the DCs profile underlying the Union-wide targets for the periods 2014-2019 (+2.1% p.a. vs. -2.1% p.a. for the Union-wide targets) and 2011-2019 (+2.9% p.a. vs. -0.8% p.a. for the Union-wide targets).

When looking at the contribution of each entity over the period 2011-2019 (i.e. covering both RP1 and RP2), the PRB notes that:

- MET costs and NSA/CAA costs both show increases between 2011 and 2019 (by +0.8 M€$_{2009}$ and +0.3 M€$_{2009}$, respectively).
- The increase in EUROCONTROL costs (+0.5 M€$_{2009}$) is mainly driven by the one-off reduction ""IFRS Budgeting" accounted for in 2011 (-0.4 M€$_{2009}$ for Slovakia). Without this one-off reduction.
- The costs of LPS (accounting for 90% of the total DCs for Slovakia en-route charging zone for RP2) show an increase of +24.3% between 2011 and 2019 (+10.7 M€$_{2009}$). Looking at the individual costs by nature and their evolution in RP1 and RP2, the PRB notes that:
    - 2019 determined staff costs are +6.6 M€$_{2009}$ (+26.7%) higher than the actual costs prior to RP1. Staff costs increased by +3.5% in 2012, followed by a larger increase of +6.3% due "*to legislative changes introduced in 2013 (increase contribution cap in health and social insurance and progressive taxation of wages)*". Then, they are planned to increase by +2.4% p.a. on average until 2019, based on "*Slovak macroeconomic prognoses prepared by Ministry of Finance" and due to "progressive taxation of wages which lead to decreasing in the net wage of the staff; consequently there is a pressure to compensate these losses through an increase of wages*". The PRB also understands that total staff complement of LPS in planned to increase".
    - 2019 other operating costs show a decrease of -1.9 M€$_{2009}$ (-17.0%) between 2011 and 2019. They show a sharp decrease in 2013 due to a new insurance contract and are planned to remain rather stable at 2013 level until 2019.
    - 2019 determined depreciation is higher by +5.0 M€$_{2009}$ compared to 2011 actuals (+86.2%), with a peak in 2018 (where the depreciation is nearly twice the amount of 2011 actuals). Slovakia reports that this is due to "*major investments put into operation before RP2 or at the beginning of RP2 (new premises, technologic equipment of the new building...). In 2018, the technologic equipment of the new building will be written off. At the same time there are no major investments planned to be commissioned in RP2".* The PRB notes that such an increase in depreciation is therefore due to very short amortisation periods applied for the calculation of depreciation. The capex summary table on page 78 of the FAB CE RP2 Performance Plan indicates indeed an amortisation period of 4 years for all the main capex planned for RP2. The PRB also notes that the NBV of fixed assets does not seem to reflect such accelerated depreciation. In addition, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.
    - 2019 determined cost of capital shows an increase of +1.0 M€$_{2009}$ compared to

the situation prior to RP1 (+38.8%), mainly due to a higher asset base used to calculated the cost of capital (+35% higher in 2019 and +62% higher in 2017). The PRB notes that net current assets account for 18.0% of the total asset base in RP2. No detailed information about the nature of the net current assets is provided in the RP2 Performance Plan.

On the profitability side, the PRB notes that LPS managed to generate economic surpluses in the first two years of RP1 (+2.6 M€$_{2009}$ in 2012 and +4.3 M€$_{2009}$ in 2013). LPS en-route DCs for 2015 are higher than 2012 (+5.3%) and 2013 (+4.3%) actuals. This factual evidence indicates that the cost-efficiency performance improvements achieved in the first years of RP1 were not fully taken into account when setting the profile of DCs over RP2.

Finally, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within the LPS or with other ATSPs in the FAB.

Based on this analysis, Slovakia en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

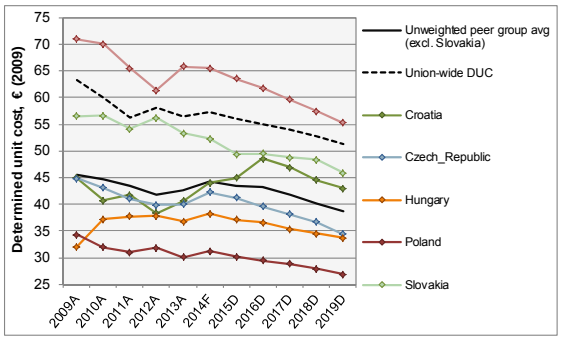


Figure 81: Determined unit cost level

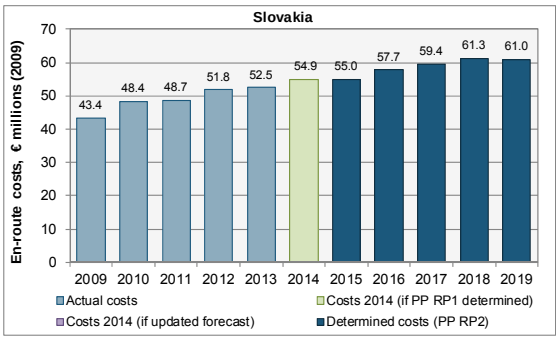


Figure 82: Determined costs 2009-2019

Comments:

The DUC level of Slovakia en-route charging zone in 2019 is higher by +18.6% than the average of the DUC of the comparators. It is also significantly higher if calculated using normalised traffic and inflation rates, or adjusted for exchange rates and/or cost of living (PPP).

Based on this analysis, Slovakia en-route charging zone is assessed as <u>not</u> passing this check.

Cost of Capital

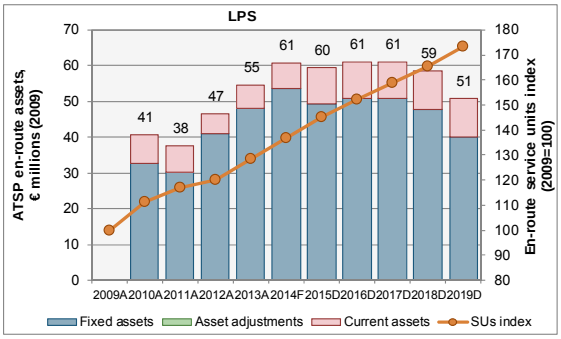


Figure 83: Breakdown of ATSP en-route asset base (2009-2019)

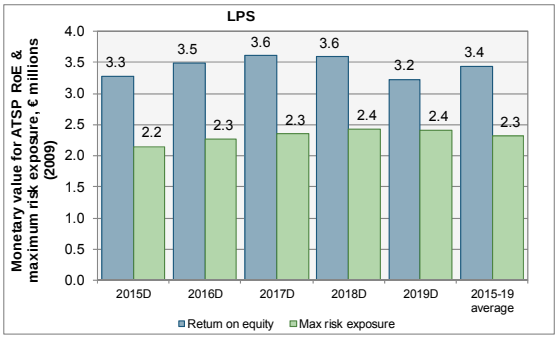


Figure 84: ATSP RoE vs maximum traffic risk exposure

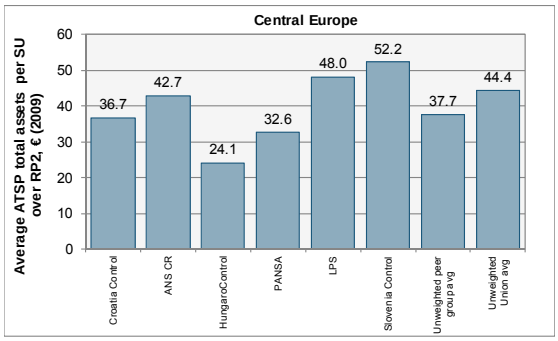


Figure 85: Average en-route asset base per SU over RP2

Comments:

The weighted average cost of capital (WACC) rate used to calculate the cost of capital of LPS is different for every year of RP2 and shows a gradual increase from 6.2% in 2015 to 6.7% in 2019. It is higher than the notional "efficient" WACC computed by Slovakia (5.3%) but remains below the maximum notional "efficient" WACC computed by the PRB on the basis of the parameters provided in the “Explanations on how to fill Annex C”.

This level of WACC, combined with a value of the asset base per SU higher than the average for the comparators and the fact that LPS is primarily financed through equity, leads to a Return on Equity (RoE) that is not commensurate with the financial risk incurred by LPS for the provision of en-route services. As shown in Figure 11 above, the monetary value of the RoE is on average +47.9% higher than the monetary value of the maximum revenue risk borne by LPS through the traffic risk sharing arrangements.

Based on this analysis, Slovakia en-route charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The assumptions, description and justification of pensions costs and description of national

pensions regulations are not consistent with the FAB Performance Plan template and guidance.The information on interest rates on loans is consistent with the average cost of debt used in the WACC calculation. The PRB notes that no adjustments beyond IAS are proposed for LPS.

Based on this analysis, Slovakia en-route charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing for 2012 and 2013. These are the subject of a separate assessment by the European Commission. Slovakia reports that "*So far uncontrollable costs from RP1 are not considered in RP2 for RP1 total results are not known, at least for 2014.*" The Performance Plan includes detailed information on the assumptions for costs exempt from risk sharing relating to RP2. **Based on this analysis, Slovakia en-route charging zone is assessed as passing this check.**

Slovakia: Assessment of the terminal charging zone

Overview of the terminal charging zone in Slovakia:

There is one terminal charging zone (TCZ) in Slovakia for RP2, covering the main airport (Bratislava/M. R. Stefanik). This differs from RP1, when the TCZ covered 6 airports.

Slovakia has decided not to apply traffic risk-sharing in the TCZ in RP2.

Total TNSUs for the Bratislava airport accounted for 79% of the TNSUs in Slovakia in 2013.

Total costs for the TCZ account for less than 5% of Slovakia "gate-to-gate" activity subject to SES regulations in RP2.

Traffic forecast assumptions

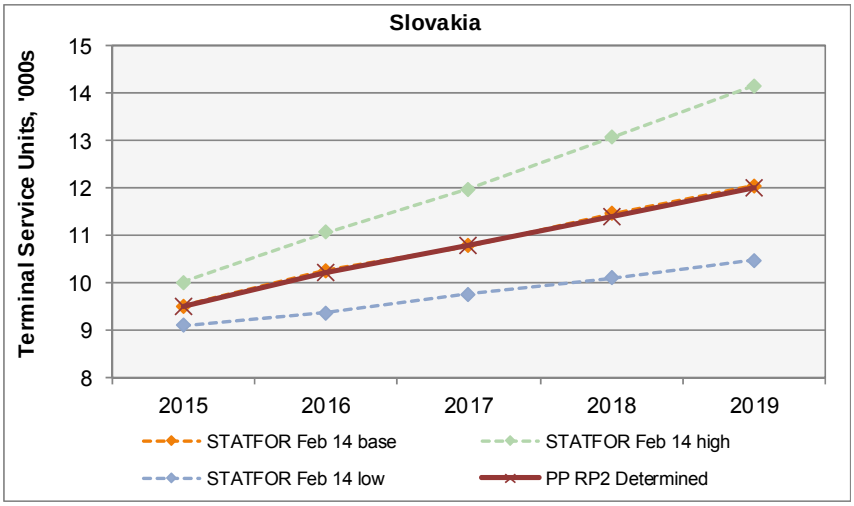


Figure 86: TNSU forecast 2015-2019

The forecast total TNSUs is based on STATFOR base case published in February 2014 for all years of RP2. However, as the figures in the RP2 Performance Plan are presented with a different rounding, they differ slightly from the STATFOR figures.

The PRB notes that a significant increase in TNSUs is foreseen for RP2 (+6.0 % p.a.). This growth occurs after important decreases since 2008 due to the bankruptcies of SkyEurope and Air Slovakia.

Based on this analysis, Slovakia terminal charging zone is assessed as passing this check.

Economic assumptions

Forecast inflation 2014-2019 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route charging zone.

Based on this analysis, Slovakia terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

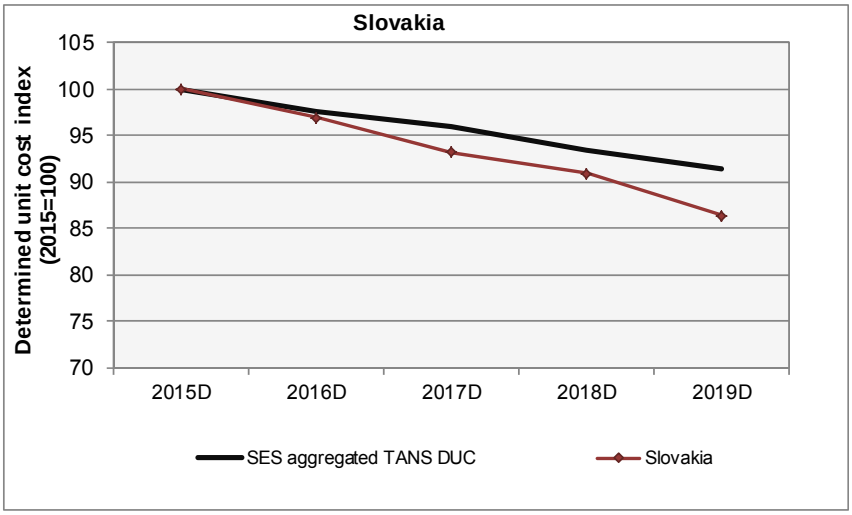


Figure 87: Terminal DUC index, 2015-2019

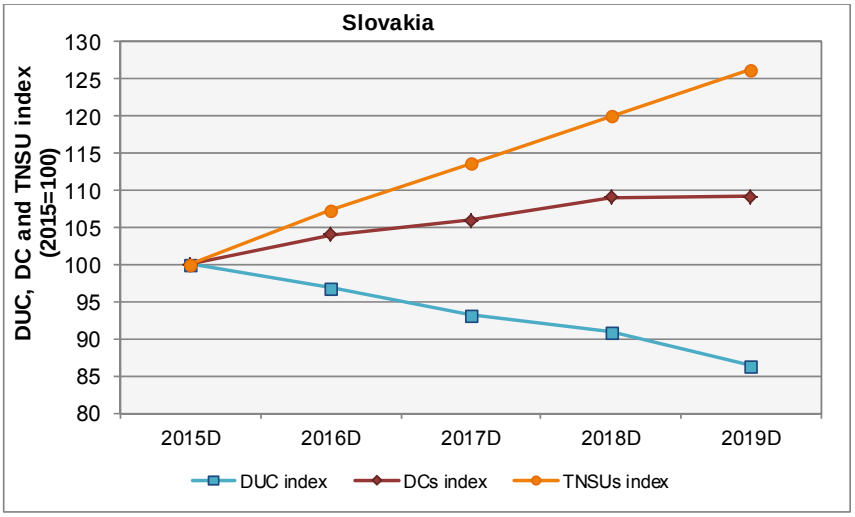


Figure 88: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Slovakia		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	3.1	3.3	3.4	3.6	3.7	4.3%
Inflation rate	annual % change	1.6%	1.8%	2.0%	2.1%	2.2%	2.0%
Inflation index	2009=100	112.9	115.0	117.3	119.7	122.3	
Determined costs	EUR m (2009)	2.8	2.9	2.9	3.0	3.0	2.2%
Terminal service units	'000s	10	10	11	11	12	6.0%
Determined unit cost	EUR (2009)	289.53	280.58	269.80	263.28	250.17	-3.6%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	289.53	280.58	269.80	263.28	250.17	-3.6%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 62: Terminal DUC, DC and TNSU trends, 2015-2019

The terminal DUC trend for Slovakia over the period 2015-2019 (-3.6% p.a.) is better than the profile corresponding to the SES aggregated Terminal ANS DUC taken from RP2 Performance Plans (-2.2% p.a.).

The terminal DCs trend (+2.2% p.a.) is broadly consistent with the profile corresponding to

the local en-route ANS DCs for the 2015-2019 period (+2.6% p.a.).

The PRB notes that DCs for 2015 are significantly higher than the latest available actual costs for the Bratislava airport in 2012 (+39.5%) and slightly higher compared to 2013 actuals (+2.7%).

Based on this analysis, Slovakia terminal charging zone is assessed as passing this check.

Cost of Capital

The return on equity used to calculate the cost of capital of LPS for the TCZ is the same as for the en-route charging zone, which is assessed as being too high and not commensurate with the financial risk incurred by LPS for the provision of en-route services.

Moreover, as traffic risk sharing does not apply in the TCZ, the risk incurred by LPS for the provision of terminal ANS is lower than for the en-route services.

Based on this analysis, Slovakia terminal charging zone is assessed as not passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the FAB Performance Plan for the description economic assumptions is the same as for en-route.

The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.The information on interest rates on loans is consistent with the average cost of debt used in the WACC calculation. The PRB notes that no adjustments beyond IAS are proposed for LPS.

Based on this analysis, Slovakia terminal charging zone is assessed as not passing this check.

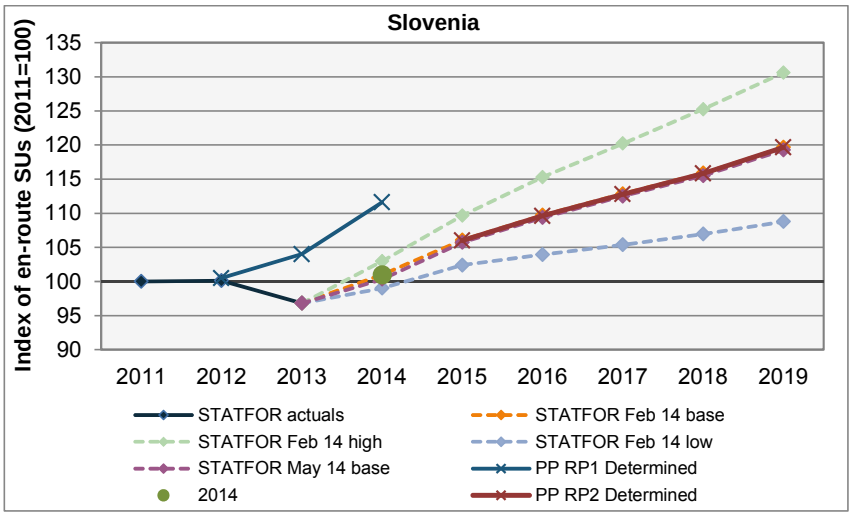
Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan includes detailed information on the assumptions for costs exempt from risk sharing relating to RP2.

Based on this analysis, Slovakia terminal charging zone is assessed as passing this check.

Slovenia: Assessment of the en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		427	442	474							
Actuals, 2014, PP RP2 Determined	425	425	411	429	**450**	**466**	**479**	**492**	**508**	**2.3%**	**3.1%**
STATFOR Feb 14 base				**429**	**450**	**466**	**479**	**492**	**508**	**2.3%**	**3.1%**
STATFOR Feb 14 high				437	466	490	511	532	555	3.4%	4.5%
STATFOR Feb 14 low				420	435	441	447	454	462	1.1%	1.5%
STATFOR May 14 base				426	449	464	478	490	507	2.2%	3.1%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	-0.1%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 89: En-route TSU forecasts

Comments:

The forecast total en-route TSUs for Slovenia en-route charging zone is equivalent to the STATFOR base case forecast published in February 2014 for every year 2015-2019.

Based on this analysis, Slovenia en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Slovenia		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.8%	1.9%	1.2%	1.6%	2.1%	1.9%	2.0%	2.0%
Eurostat/IMF avg	annual % change		1.9%	1.2%	1.6%	2.1%	1.9%	2.0%	2.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	106.8	108.9	110.1	111.9	114.3	116.5	118.8	121.2
Eurostat/IMF avg	2009=100	106.8	108.9	110.1	111.9	114.3	116.5	118.8	121.2
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 90: Economic assumptions

Comments:

The inflation forecasts for Slovenia en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

The actual inflation for 2013 is in line with the EUROSTAT HICP published in April 2014.

Based on this analysis, Slovenia en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	23.5	26.0	28.9	27.9	29.5	30.9	32.0	32.9	33.3	33.6	34.0
Inflation rate	annual % change		1.8%	2.1%	2.8%	1.9%	1.2%	1.6%	2.1%	1.9%	2.0%	2.0%
Inflation index	2009=100	100.0	101.8	103.9	106.8	108.9	110.1	111.9	114.3	116.5	118.8	121.2
Determined costs	EUR m (2009)	23.5	25.6	27.8	26.1	27.1	28.1	28.6	28.8	28.6	28.3	28.1
Service units	'000s	331	365	425	425	411	429	450	466	479	492	508
Determined unit cost	EUR (2009)	70.98	70.02	65.54	61.36	65.83	65.47	63.59	61.77	59.63	57.48	55.26
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	70.98	70.02	65.54	61.36	65.83	65.47	63.59	61.77	59.63	57.48	55.26

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	3.8%	2.1%	1.9%	1.5%
Inflation	CAGR %	1.9%	1.9%	1.9%	2.0%
Determined costs	EUR m (2009)	1.8%	0.1%	0.0%	-0.5%
Service units	'000s	4.4%	2.3%	3.5%	3.1%
Determined unit cost	EUR (2009)	-2.5%	-2.1%	-3.3%	-3.4%
Exchange rate					
Determined unit cost	EUR (2009)	-2.5%	-2.1%	-3.3%	-3.4%

Table 63: Determined unit cost trend

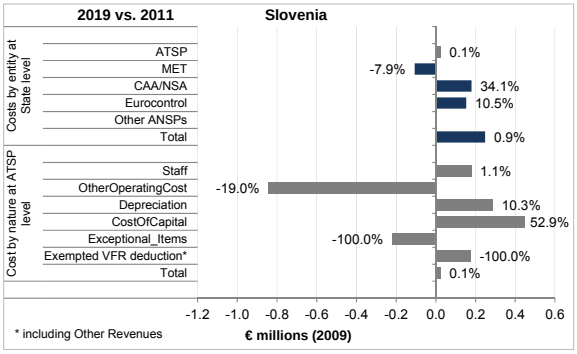


Figure 91: Planned cost category changes over RP1 and RP2

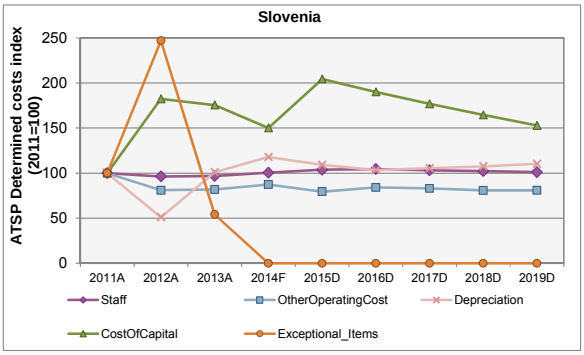


Figure 92: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

The en-route DUC trend for Slovenia is the same as for the Union-wide targets for the period 2014-2019 (-3.3% p.a.) and is better than the trend for the Union-wide targets for the period 2011-2019 (-2.1% vs. -1.7%).

The PRB notes that the trend is benefitting from a much higher TSUs growth than that

considered for the Union-wide targets in RP2 (+3.5% p.a. vs. +0.7% p.a.).

Indeed, the en-route DC trend is much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the periods 2014-2019 (+0.0% p.a. vs. -2.1% p.a. for the Union-wide targets) or 2011-2019 (+0.1% p.a. vs. -0.8% p.a.). The PRB notes however that, despite a substantial forecast traffic increase, DCs are planned to remain fairly constant over 2011-19 and 2014-19. This indicates that Slovenia plans to absorb the significant future traffic growth with the same costs level over RP2.

When looking at the contribution of each entity over the period 2011-2019 (i.e. covering both RP1 and RP2), the PRB notes that:

- Overall total costs for Slovenia en-route charging zone (after deduction of revenues from other sources) show a small increase of +0.9% over the period 2011-2019 (+0.25 M€$_{2009}$);
- The costs for the METSP are the only ones showing a decrease over the period (by -0.11 M€$_{2009}$ or -7.9%).
- NSA/CAA costs show an increase of +0.18 M€$_{2009}$ (+34.1%), mainly due to significant increases in staff costs in 2014 (+30.7%) and 2017 (+23.7%). The reasons for these increases seem to be related to the hiring of "*ATM/ANS experts personnel necessary for providing all NSA tasks"* which are currently in shortage.
- The increase in EUROCONTROL costs (+0.15 M€$_{2009}$) is driven by the one-off reduction ""IFRS Budgeting" accounted for in 2011 (-0.20 M€$_{2009}$ for Slovenia).
- The costs of Slovenia Control (accounting for 88% of the total DCs for Slovenia en-route charging zone for RP2) for 2019 are planned at the same level as in 2011 (an increase of +0.1% or +0.02 M€$_{2009}$). Looking at the individual costs by nature and their evolution in RP1 and RP2, the PRB notes that:
    - 2019 determined staff costs show an increase of +0.18 M€$_{2009}$ (+1.1%) compared to 2011 actual staff costs. Staff costs showed a decrease in 2012, remained stable in 2013 and then show a forecast increase in 2014 (+3.8%) and 2015 (+3.3%). Staff costs are forecast to decrease in the remaining of RP2 (by -2.6% between 2015 and 2019). The RP2 Performance Plan reports that "*The difference between 2015 forecast and 2012 actual data in staff costs is 12.8% in nominal terms or 7.2% in real terms 2012. The actual 2012 costs were significantly lower compared with staff costs forecasts from approved Performance Plan 2012 – 2014 for year 2012 (-7.1%), reason for that being successful social dialogue resulting in agreed non fulfilment of collective agreements on state as well as ANPS level in 2012, which is no longer expected in 2015*."
    - Other operating costs showing a decrease of -0.84 M€$_{2009}$ (-19.0%). In order to compare likes with likes, these have to be considered together with exceptional items as these are forecasted under operating costs (amounting to +0.22 M€$_{2009}$ in 2011) and also with the deduction for other incomes, which was recorded separately in RP1 (amounting to -0.17 M€$_{2009}$ in 2011) and is netted directly from costs in RP2. Taking these into consideration, the overall decrease in other operating costs is -0.89 M€$_{2009}$ or -19.9% between 2011 and 2019). The decreases occurred primarily in 2012 and 2013 as a result of "*mitigation measures needed due to significantly lower traffic than planned*".
    - 2019 determined depreciation is higher by +0.28 M€$_{2009}$ compared to 2011 actuals (+10.3%). After a significant decrease in 2012, the main increase took

place in 2013, reflecting the entry into operation of the new ATC Center at Ljubljana Jože Pučnik Airport in March 2013.

- 2019 determined cost of capital shows an increase of +0.45 M€$_{2009}$ compared to the situation prior to RP1 (+52.9%), as a result of an increase in the en-route asset base, as well as to an increase in the WACC rate from 4.03% in 2011 to 6.03% in both RP1 and RP2. The PRB understands that the increase observed in 2012 is due to an increase in the asset base relating to the new ATCC. The peak in 2015 is due to an increase in the asset base (by +16.4% compared to 2013 and by +31.3% compared to 2014), corresponding primarily to a significant reduction in the net current liabilities deducted from the asset base (by -65.4% compared to 2013 and -67.5% compared to 2014). Explanations and justifications for these variations are not provided in the RP2 Performance Plan.

The PRB also notes that investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

Moreover, on the profitability side, the PRB notes that Slovenia Control managed to generate economic surpluses in the first two years of RP1 (+3.6 M€$_{2009}$ in 2012 and +1.85 M€$_{2009}$ in 2013) in the context of lower traffic than planned. Slovenia's 2015 DCs (28.6 M€$_{2009}$) are substantially higher than 2012 (+9.7%) and 2013 (+5.8%) actuals. This tends to indicate that the economic surpluses achieved in the first years of RP1 were not taken into account when setting the profile of determined costs for RP2.

Finally, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within Slovenia Control or with other ATSPs in the FAB.

Based on this analysis, Slovenia en-route charging zone is assessed as passing this check, with reservations.

En-route Determined Unit Cost level

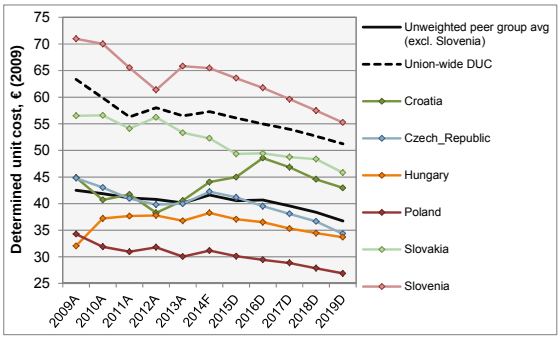


Figure 93: Determined unit cost level

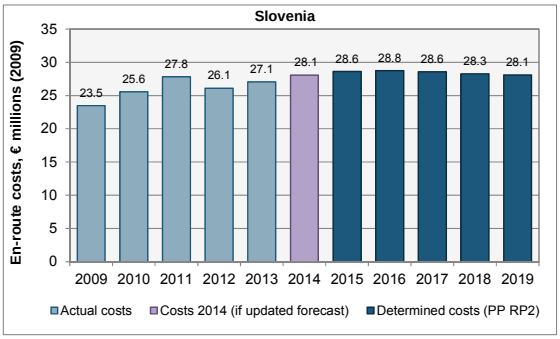


Figure 94: Determined costs 2009-2019

Comments:

Although the DUC trend is better than the comparators, the DUC level of Slovenia en-route charging zone in 2019 is substantially higher (+50.4%) than the average of the DUC of the comparators. It is also significantly higher if calculated using normalised traffic and inflation rates, or adjusted for exchange rates and/or cost of living (PPP).

The DUC level of Slovenia en-route charging zone in 2019 (55.26 €$_{2009}$) is also higher (by +7.8%) than the Union-wide average (51.26 €$_{2009}$).

Based on this analysis, Slovenia en-route charging zone is assessed as <u>not</u> passing this check.

Cost of Capital

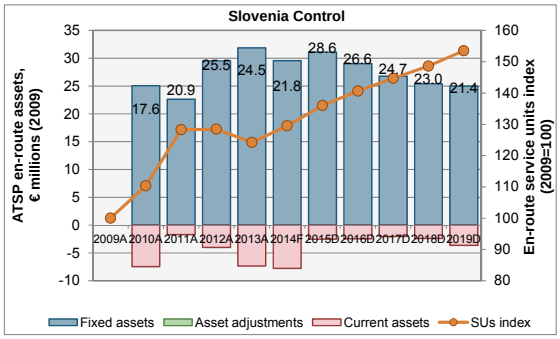


Figure 95: Breakdown of ATSP en-route asset base (2009-2019)

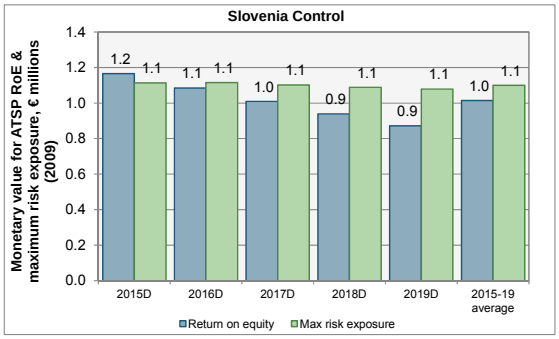


Figure 96: ATSP RoE vs maximum traffic risk exposure

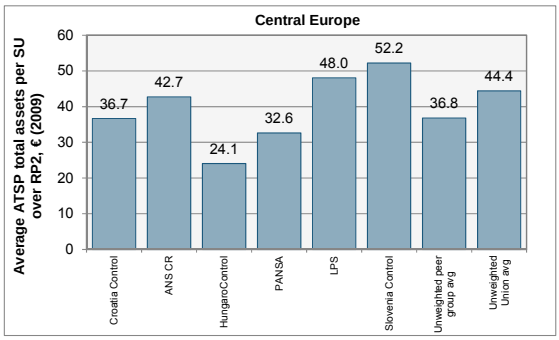


Figure 97: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate used to calculate the en-route cost of capital for Slovenia Control is in line with the notional "efficient" WACC computed by Slovenia and that calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

Although Slovenia Control's en-route asset base per service unit is significantly higher than the comparators (by over +30%), the overall monetary value of the Return on Equity (RoE) is below the monetary value of the maximum revenue risk borne by Slovenia Control for the en-route activity over RP2 (by -7.8%).

Based on this analysis, Slovenia en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic

assumptions provided in the Performance Plan
Comments:
The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.The information on interest rates on loans is consistent with the average cost of debt used in the WACC calculation. The RP2 Performance Plan reports that "*Slovenia Control Ltd introduced International Accounting Standards in 2013. No major deviations due to transition from Slovenian Accounting Standards to International Accounting Standards. No revaluation or influence in respect of the value of fixed assets used for the calculation of investment costs or for employee benefits of assets due to transition from Slovenian Accounting Standards to International Accounting Standards*." **Based on this analysis, Slovenia en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing for 2012 and 2013. These are the subject of a separate assessment by the European Commission. The costs exempt from cost-sharing filed for RP1 (EUROCONTROL costs) do not affect the planned determined costs in RP2. The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2. **Based on this analysis, Slovenia en-route charging zone is assessed as passing this check.**

Slovenia: Assessment of the terminal charging zone

Overview of the terminal charging zone in Slovenia:

There is one terminal charging zone (TCZ) in Slovenia for RP2, covering the 3 airports controlled by Slovenia Control (Ljubljana, Maribor and Portoroz). The TCZ is the same as for RP1. All 3 airports have less than 50 000 movements per year. Ljubljana airport accounts for 95% of the traffic and 80% of the terminal ANS costs.

Traffic risk-sharing is not applicable to terminal ANS.

Total costs for the TCZ account for less than 12% of Slovenia "gate-to-gate" activity subject to SES regulations in RP2.

Traffic forecast assumptions

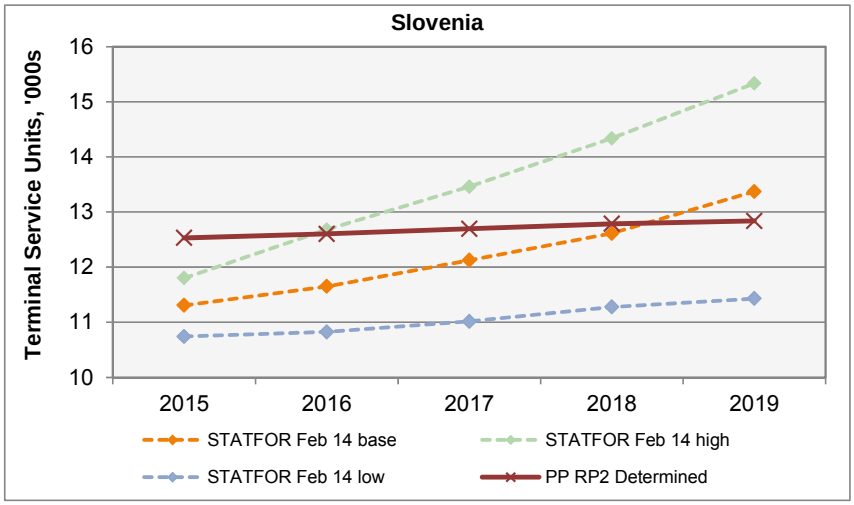


Figure 98: TNSU forecast 2015-2019

The forecast total Terminal Navigation Service Units (TNSUs) for Slovenia TCZ are completely different from the STATFOR base case published in February 2014 for all years of RP2. It starts at a much higher level than STATFOR base case in 2015 (by +10.9% above the STATFOR base case and +6.2% above STATFOR high case) and ends at a lower level than STATFOR base case in 2019 (by -3.8%). No justification for such differences is presented in the RP2 Performance Plan.

Based on this analysis, Slovenia terminal charging zone is assessed as <u>not</u> passing this check.

Economic assumptions

Forecast inflation 2014-2019 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route charging zone.

Based on this analysis, Slovenia terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

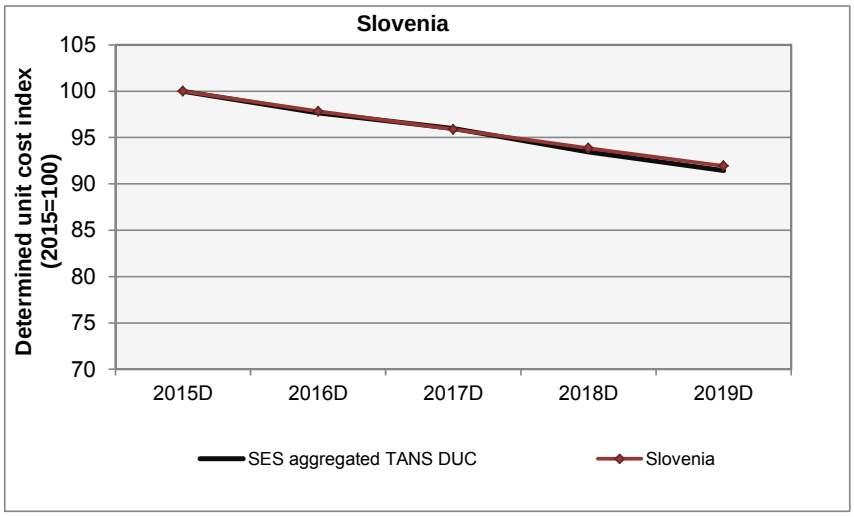


Figure 99: Terminal DUC index, 2015-2019

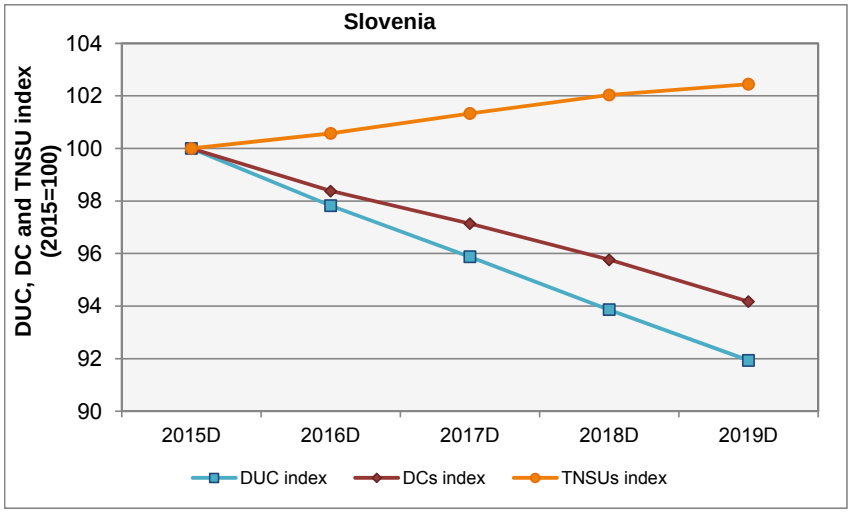


Figure 100: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Slovenia		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	3.9	3.9	3.9	3.9	3.9	0.5%
Inflation rate	annual % change	1.6%	2.1%	1.9%	2.0%	2.0%	2.0%
Inflation index	2009=100	111.9	114.3	116.5	118.8	121.2	
Determined costs	EUR m (2009)	3.5	3.4	3.4	3.3	3.3	-1.5%
Terminal service units	'000s	13	13	13	13	13	0.6%
Determined unit cost	EUR (2009)	275.71	269.71	264.33	258.78	253.46	-2.1%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	275.71	269.71	264.33	258.78	253.46	-2.1%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 64: Terminal DUC, DC and TNSU trends, 2015-2019

The trend in Slovenia terminal ANS DUC in RP2 (-2.1% p.a. on average) is slightly worse than the profile corresponding to the SES aggregated terminal ANS DUC taken from RP2 FAB Performance Plans (-2.2% p.a. on average) when computed over the period 2015-2019. However, it should be noted that this trend is impacted by the high TNSU forecast for

2015 (see above). If the STATFOR base forecast was used to compute the DUC, the trend for Slovenia terminal ANS DUC would be -5.5% p.a. on average for the period, i.e. better than the trend of the SES aggregated terminal ANS DUC.

Terminal DCs for Slovenia are decreasing by -1.5% p.a. over RP2 (2015-2019). All cost items show decreases over the period. The largest decrease is observed in the cost of capital (-15.3%), following the decrease in the asset base.

The PRB notes that the level of determined costs 2015 is consistent with the latest reported actual costs (lower by +0.1% vs. 2012 and higher by +3.1% v. 2013).

It should also be noted that the chargeable unit rate (CUR) for Slovenia TCZ also takes account of a deduction of significant other revenues. For RP2, this corresponds to a reduction of the forecast CUR by -16.6% compared to the DUC.

Based on this analysis, Slovenia terminal charging zone is assessed as passing this check, with reservations due to the TNSU forecast.

Cost of Capital

The return on equity used to calculate the cost of capital of Slovenia Control for the TCZ is the same as for the en-route charging zone.

As traffic risk sharing does not apply in the TCZ, the risk incurred by Slovenia Control for the provision of terminal ANS is lower than for the en-route services. The PRB notes that, as the terminal asset base is significantly lower than the en-route asset base proportionally, the Monetary value of the return on equity (RoE) is much lower than for en-route and is below 1.0% of the terminal revenues on average for RP2.

Based on this analysis, Slovenia terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The assumptions, description and justification of pensions costs and description of national pensions regulations are not consistent with the FAB Performance Plan template and guidance.Information on interest rates on loans is not provided.

The RP2 Performance Plan reports that "*Slovenia Control Ltd introduced International Accounting Standards in 2013. No major deviations due to transition from Slovenian Accounting Standards to International Accounting Standards. No revaluation or influence in respect of the value of fixed assets used for the calculation of investment costs or for employee benefits of assets due to transition from Slovenian Accounting Standards to International Accounting Standards*."

Based on this analysis, Slovenia terminal charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan reports that no changes are foreseen on the assumptions for costs exempt from risk sharing relating to RP2.

Based on this analysis, Slovenia terminal charging zone is assessed as passing this check.

References

[1] Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Commission Implementing Regulation (EU) No 391/2013 of 3 May 2013 laying down a common charging scheme for air navigation services.

[3] Source: European Economic Forecast (Spring 2014).

[4] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[5] Commission Regulation (EC) No 206/2008 of 5 March 2008 laying down the allocation coefficient to be applied to import licence applications lodged from 22 to 29 February 2008 under the tariff quota opened by Regulation (EC) No 1002/2007 for rice originating in and coming from Egypt

[6] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[7] FAB CE Stakeholder Consultation Meeting Summary, 29 April 2014 & IATA letter /6 May 2014

[8] 2010-13 actual CAPEX, 2014-planned CAPEX (PP RP1/2013 Monitoring Report)

[9] Route charges reporting, June 2014, Additional information 4, item 1.3 Depreciation, page 9/13

[10] FAB CE Performance Plan for RP2. Austro Control CAPEX section (CAPEX 4)

[11] Planned CAPEX - ACE 2009; Actual CAPEX – ACE 2010/11/12; 2013 Actual CAPEX / 2014 update planned CAPEX not available (SEID 2013 not provided)

[12] ACE Benchmarking Reports

[13] Updated data on 2013 CAPEX not available, 2013 and 2014 Actual CAPEX is assumed at the planned level

[14] Route Charges Reporting – June 2014, Additional information 4 – item 1.3, page 11/17

[15] Item 3.4 from Annex D (RP2 PP): FAB CE Investment Plan

[16] CRCO Reporting Tables, Additional Information 1 (November 2013 and June 2014-page 4/16)

[17] Hungarian National Stakeholder Consultation Summary, 23 April 2014, pages 4-5

[18] En-route charges reporting – June 2014, Additional Information 4- item 1.3, page 11/16

[19] En-route charges reporting – June 2014, Additional Information 1- RP1 Monitoring (Year 2013), item 1.3, page 7/16

[20] Slovak National Consultation with IATA Summary, 25 April 2014, page 4

[21] Item 3.6 from Annex D (RP2 PP): FAB CE Investment Plan

[22] IATA written comments, 09.05.2014, page 7-8

[23] “CAPEX Effect”= the average (%) for the deviation of Actual/updated CAPEX vs. the Planned amount

[24] “Costs Effect”= the average (%) for the deviation of Actual/updated vs. gate-to-gate costs (in €M2009, real terms)

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

FABEC

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

FABEC

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the FAB Europe Central (FABEC) was received on 30 June 2014 in English. It was co-signed by:

- the Director of the Belgian Supervising Authority for ANS of the Ministry of Mobility and Transports;
- the Director General of Civil Aviation of the French Ministry of Ecology, Sustainable Development and Energy;
- the Director General for Civil Aviation and Aerospace of the Federal Ministry for Transport and Digital Infrastructure of Germany;
- the Director General of Civil Aviation of Luxembourg;
- the Deputy Director for Civil Aviation on behalf of the State Secretary of Infrastructure and Environment of the Netherlands; and
- the Director General of Civil Aviation of Switzerland.

1.1.2 The NSAs responsible for drawing up the Performance Plan are:

- the Belgian Supervisory Authority for Air Navigation Services;
- the Direction of Air Transport of France;
- the Federal Supervisory Authority for the Safety of Air Navigation of Germany;
- the Direction of Civil Aviation of Luxembourg;
- the Ministry of Infrastructure and the Environment of the Netherlands; and
- the Federal Office of Civil Aviation of Switzerland.

1.1.3 The responsibility for the coordination between all the NSAs has been entrusted to the FABEC Financial & Performance Committee (FPC).

1.1.4 The FAB Performance Plan provides performance targets set at local level as defined in the Commission Implementing Regulation (EU) No 390/2013[1] (the performance Regulation) for the following accountable entities:

- [BE] Belgocontrol, as the designated ANS service provider;
- [FR] *Direction des Services de la Navigation Aérienne* (DSNA), as the designated ANS service provider;
- [FR] *Météo France*, as the designated MET service provider;
- [DE] *Deutsche Flugsicherung GmbH* (DFS), as the designated ANS service provider;
- [DE] *Deutscher Wetterdienst* (DWD), as the designated MET service provider;
- [LU] *Administration de la Navigation Aérienne* (ANA), as the designated ANS service provider;
- [NL] Air Traffic Control The Netherlands (LVNL), as the designated ANS service provider;
- [NL] Royal Netherlands Meteorological Institute (KNMI), as the designated MET service provider;

- [CH] *Skyguide,* as the designated ANS service provider;
- [CH] *Office Féderal de la Météorologie et de Climatologie* (MétéoSuisse), as the designated MET service provider; and
- [MUAC] Maastricht Upper Area Control Centre, as the designated ANS service provider for BENELUX and Germany.

1.1.5 Although the Performance Plan presents the covered geographical scope as the 6 FABEC States, the exact Flight Information or Upper Information Regions (FIR/UIRs) are not listed. It is therefore assumed all FIR/UIRs are included, namely Brussels FIR/UIR, Langen FIR, Munchen FIR, Bremen FIR, Rhein UIR, Hannover UIR, Amsterdam FIR, Bordeaux FIR, Reims FIR, Paris FIR, Marseille FIR, Brest FIR, France UIR and Switzerland FIR/UIR.

1.1.6 As far as terminal services are concerned, it covers 5 airports in Belgium, 61 in France, 16 in Germany, 1 in Luxembourg, 4 in the Netherlands and 2 in Switzerland, for a total of 89 airports spread over the 6 countries. The list of airports exempted from the performance and charging Regulations was not provided.

1.1.7 According to Article 14 of the performance Regulation[1], the PRB has assessed the submitted FAB Performance Plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

BELGIUM-LUXEMBOURG

1.2.1 After two years of sluggish economic activity, real GDP is projected to increase by 1.4% in 2014, which is similar to the EU trend[2].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Belgium sourced from the International Monetary Fund (IMF). The GDP figures marginally differ from those presented in Figure 1.

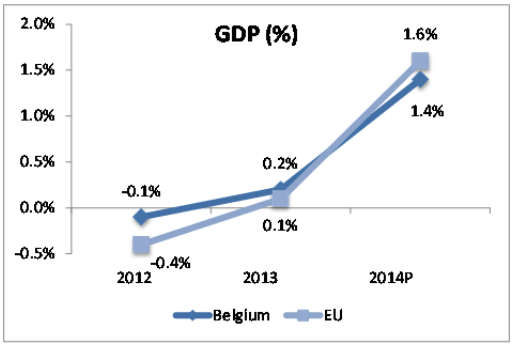


Figure 1: Gross domestic product for Belgium, volume (percentage change on preceding year)[2]

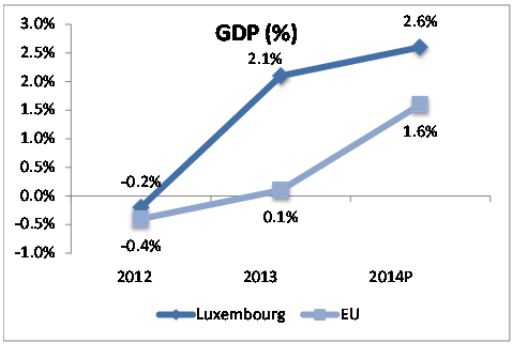


Figure 2: Gross domestic product for Luxembourg, volume (percentage change on preceding year)[2]

1.2.3 Luxembourg's economy rose 2.1% in 2013, significantly faster than the EU average, and is believed to continue to do so with a projected 2.6% in 2014[2].

1.2.4 The FAB Performance Plan contains macroeconomic data and forecasts for France sourced from the International Monetary Fund (IMF). The GDP figures are in line with those presented here.

1.2.5 After the sharp decline of 2009, IFR traffic in Belgian/Luxembourg increased and stabilised at levels comparable to those experienced in 2007.

1.2.6 According to the February 2014 STATFOR baseline scenario, a three-year shift in traffic demand is to be expected as the projection made in 2009 for 2015 should now only be reached in 2018.

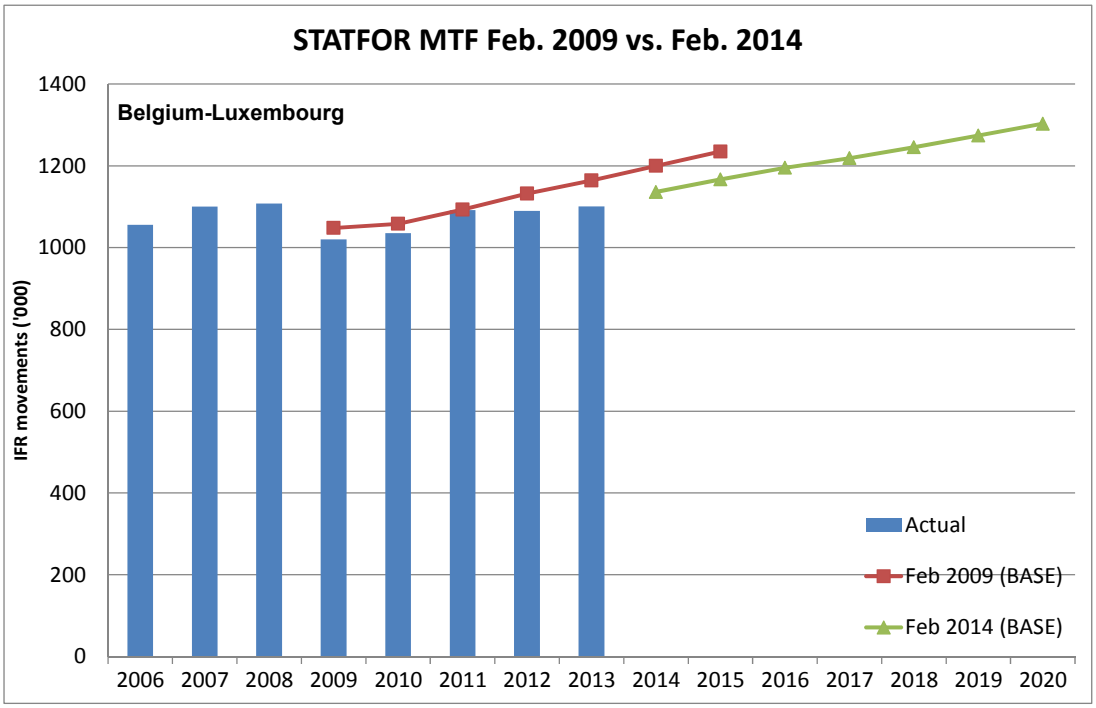


Figure 3: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Belgium−Luxembourg

1.2.7 The traffic forecast used in the Performance Plan for Belgium-Luxembourg is the February 2014 STATFOR low case scenario.

FRANCE

1.2.8 After nearly two years of economic standstill, GDP growth expected to gain traction and reach 1.0% in 2014[2].

1.2.9 The FAB Performance Plan contains macroeconomic data and forecasts for France sourced from the International Monetary Fund (IMF). The GDP figures are in line with those presented here.

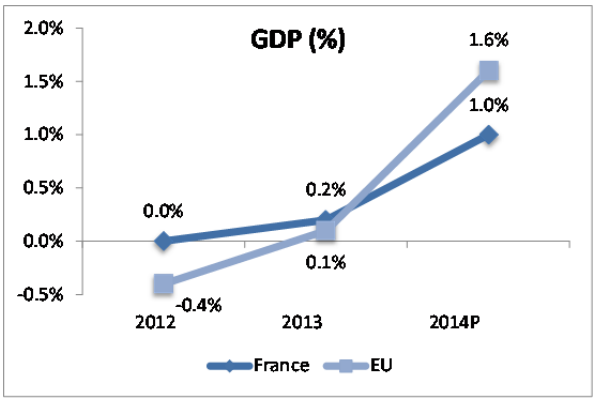


Figure 4: Gross domestic product for France, volume (percentage change on preceding year)[2]

1.2.10 IFR traffic in French airspace also experienced a sharp decline in 2009, and after an encouraging increase in 2011, it entered a downward trend which still puts it

below the 2008 levels.

1.2.11 The February 2014 STATFOR baseline scenario foresees traffic demand in France to increase at a slower pace than what was predicted in 2009. The prediction made in 2009 concerning the traffic levels of 2015 are now only expected in 2020, which represents a five-year shift in traffic demand.

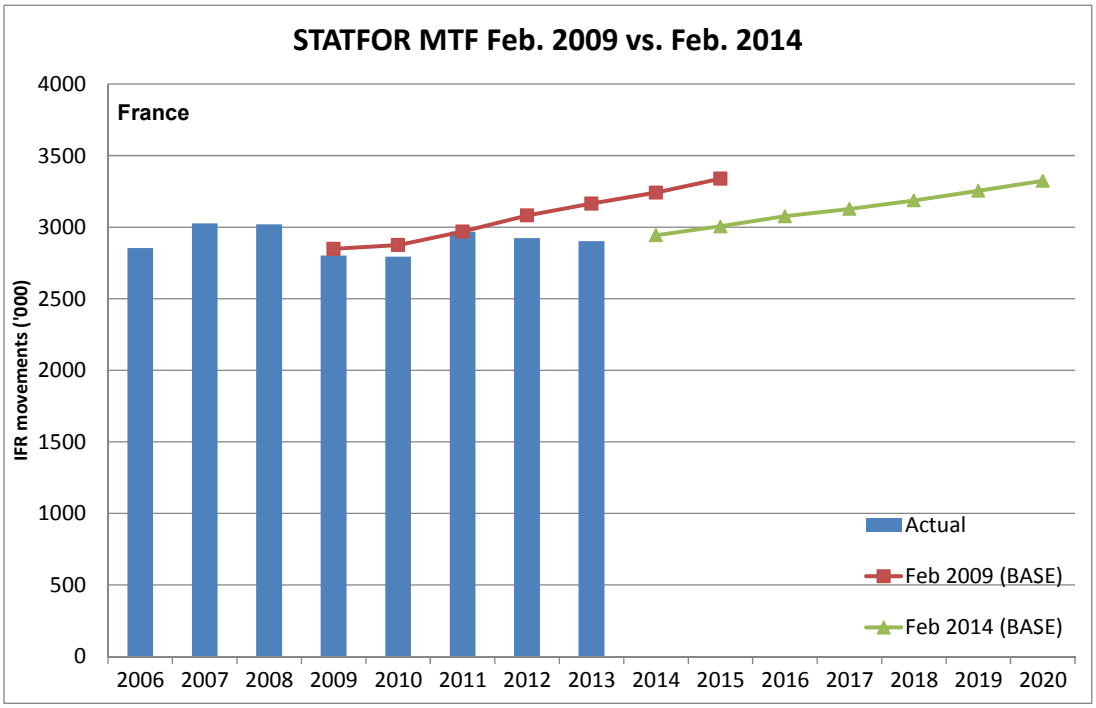


Figure 5: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for France

1.2.12 France also used the traffic forecast of the February 2014 STATFOR low case scenario when drawing up the Performance Plan.

GERMANY

1.2.13 In 2013, real GDP increased by 0.4% and economic growth is expected to accelerate as real GDP is projected to expand by 1.8% in 2014[2].

1.2.14 The FAB Performance Plan contains macroeconomic data and forecasts for Germany sourced from the International Monetary Fund (IMF). The GDP figures are fairly consistent with those of Figure 6.

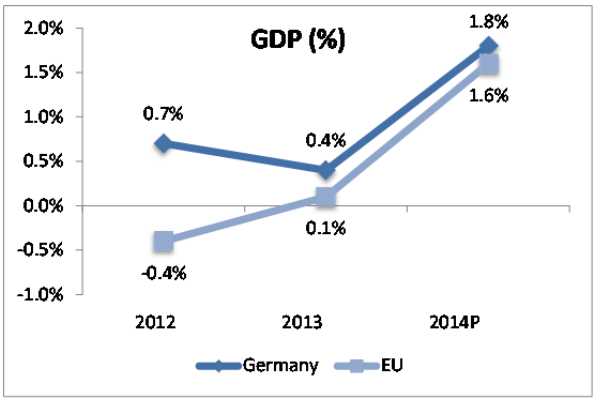


Figure 6: Gross domestic product for Germany, volume (percentage change on preceding year)[2]

1.2.15 After the sharp declined of 2009, IFR traffic in German airspace increased until 2011 to decrease again and experience traffic levels similar to those recorded in

2006. The February 2014 STATFOR baseline scenario foresees traffic to increase at a slower pace than the 2009 predictions. A seven-year shift in traffic demand is foreseen, as traffic levels expected in 2009 for 2013 should only be attained in 2020.

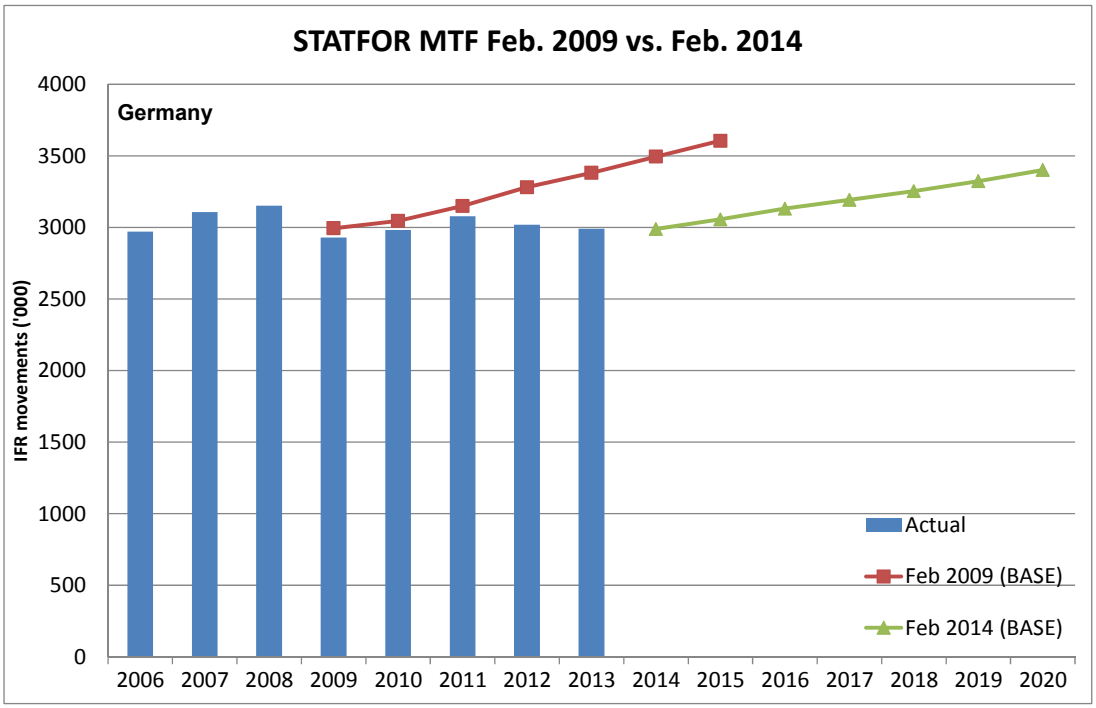


Figure 7: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Germany

1.2.16 For the relevant parts of the Performance Plan, Germany used the traffic forecast included in the February 2014 STATFOR low case scenario.

NETHERLANDS

1.2.17 While real GDP contracted by 0.8% in 2013, economic growth in the Netherlands is projected to gain momentum in 2014 reaching 1.2%[2].

1.2.18 The FAB Performance Plan contains macroeconomic data and forecasts for The Netherlands sourced from the International Monetary Fund (IMF).

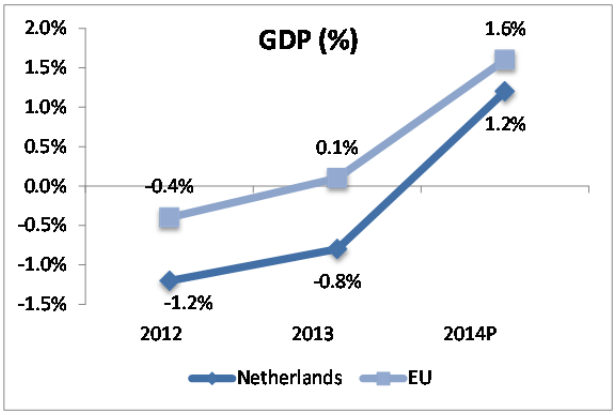


Figure 8: Gross domestic product for Netherlands, volume (percentage change on preceding year)[2]

1.2.19 After the sharp decline of 2009, unlike the other countries of the FABEC, IFR traffic in the Netherlands managed to recover to 2008 levels. Nevertheless, the February 2014 STATFOR baseline scenario has been revised downwards compared to 2009.

Traffic levels expected in 2009 for 2015 should be met in 2017, hence foreseeing a two-year shift in traffic demand.

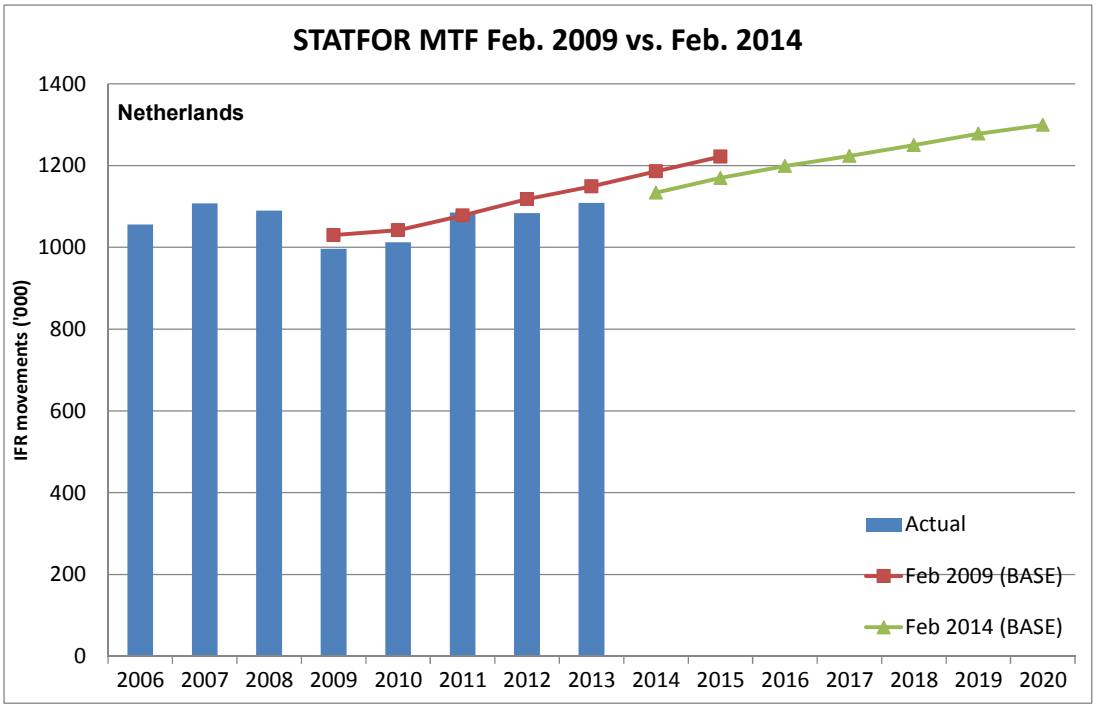


Figure 9: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for the Netherlands

1.2.20 Growth rates in IFR movements for the Netherlands are assumed by STATFOR base scenario, which is used only for capacity purpose while the growth rates of en-route service units are determined by STATFOR low scenario.

SWITZERLAND

1.2.21 As can be seen in Figure 10, GDP remained stable and robust at around 2% in 2012 and 2013, and it is expected to follow the same trend in 2014[3].

1.2.22 The FAB Performance Plan contains macroeconomic data and forecasts for Switzerland sourced from the International Monetary Fund (IMF).

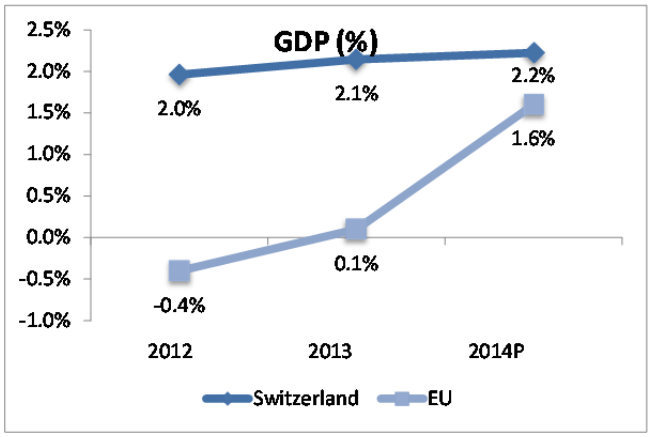


Figure 10: Gross domestic product for Switzerland, volume (percentage change on preceding year)[2]

1.2.23 As depicted in Figure 11, IFR traffic in Swiss airspace decreased in 2012 and 2013. The February 2014 STATFOR baseline scenario shows a six-year shift in traffic demand when compared with the prediction of 2009. Indeed, the traffic forecast

made in 2009 for 2014 should now barely be reached in 2020.

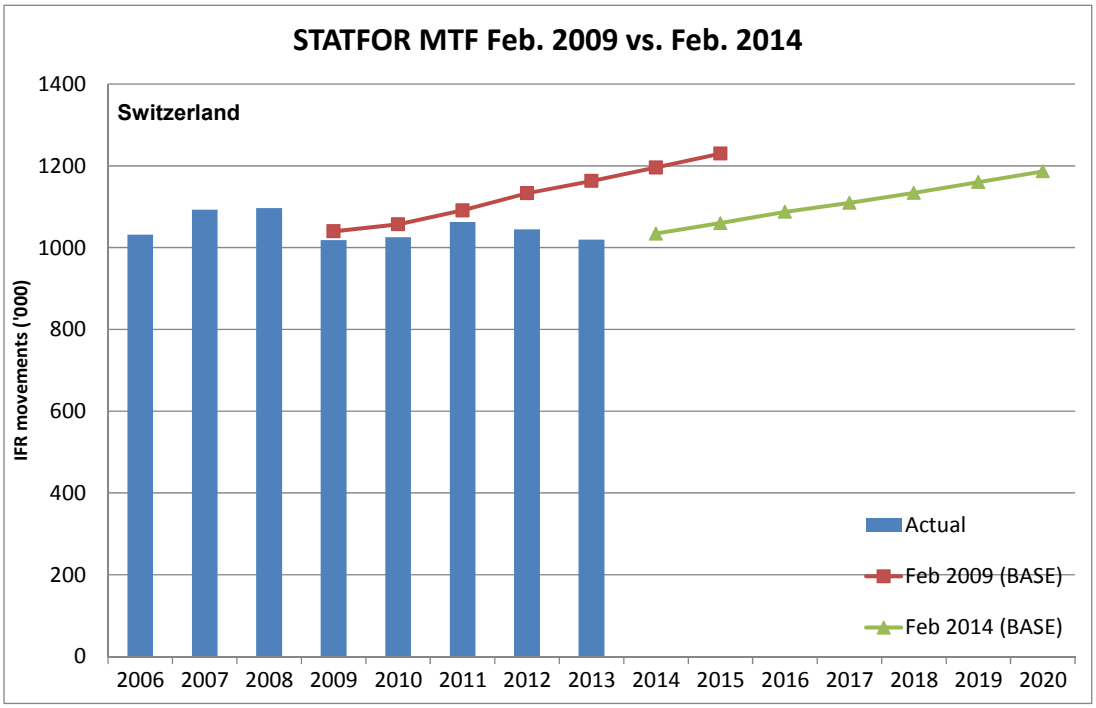


Figure 11: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Switzerland

1.2.24 For the purpose of the Performance Plan, Switzerland decided to use the traffic forecast of the February 2014 STATFOR low case scenario.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	**Belgium**	A
	France	B
	Germany	A
	Luxembourg	A
	The Netherlands	A
	Switzerland	B
	FAB minimum level	*A*

ANSP level	**Belgium for Safety Culture MO**	C
	France for Safety Culture MO	C
	Germany for Safety Culture MO	C
	Luxembourg for Safety Culture MO	C
	Netherlands (ANSP 1) for Safety Culture MO	B
	Netherlands (ANSP 2) for Safety Culture MO	C
	Switzerland for Safety Culture MO	D
	FAB minimum level	*B*
	Belgium for all other MOs	C
	France for all other MOs	C
	Germany for all other MOs	C
	Luxembourg for all other MOs	B
	Netherlands (ANSP 1) for all other MOs	B
	Netherlands (ANSP 2) for all other MOs	C
	Switzerland for all other MOs	C
	FAB minimum level	*C*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

RAT application current performance (2013)		BE	FR	DE	LU	NL	SW	FAB
Separation Minima Infringements (SMIs)	ATM Ground	71%	96%	74%	100%	4%	56%	67%
	ATM Overall	31%	96%	0%	100%	0%	56%	47%
Runway Incursions (RIs)	ATM Ground	100%	97%	4%	20%	0%	5%	38%
	ATM Overall	100%	97%	0%	20%	0%	5%	37%
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	55%	100%	0%	0%	20%	46%

Table 2: Severity classification using the RAT methodology

1.3.3 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[4].

ENVIRONMENT

1.3.4 Current performance shows a notable improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.30 percentage points (from 3.61% in the first half of 2013 to 3.31% in the first half of 2014).

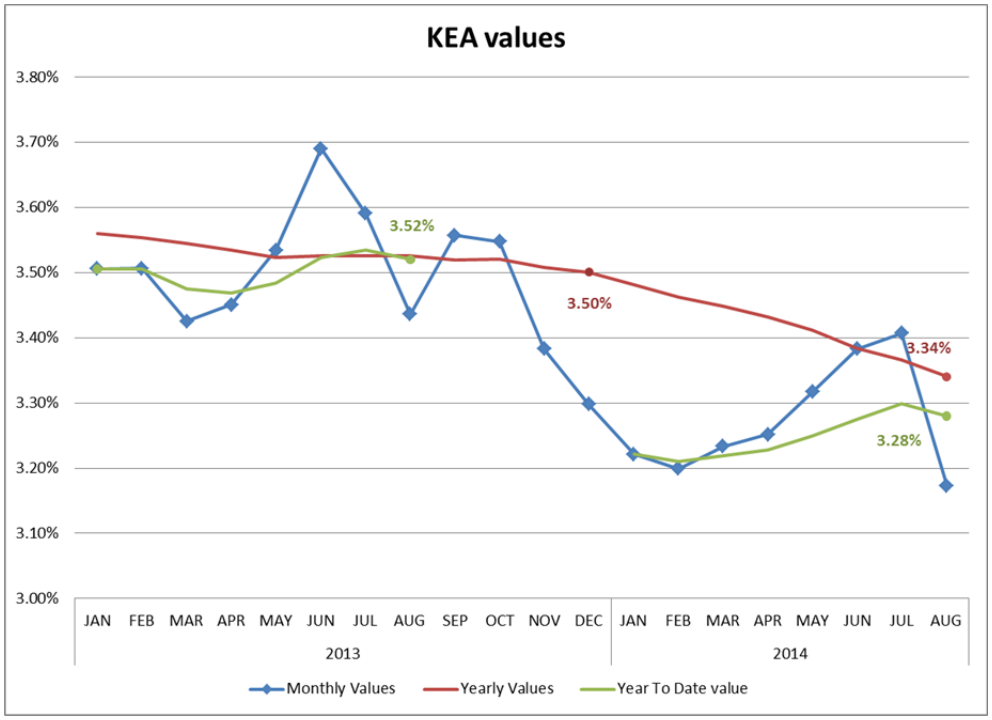


Figure 12: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.5 Current performance shows a notable improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of 0.24 percentage points (from 3.52% in the first half of 2013 to 3.28% in the first half of 2014).

CAPACITY

1.3.6 En-route capacity performance in the FABEC has been improving year on year during RP1 but has still to meet the minimum level of service required to be consistent with the Union-wide target of 0.5 minutes per flight for 2014. The improvement in performance has to be considered in light of decreasing traffic volumes since 2011.

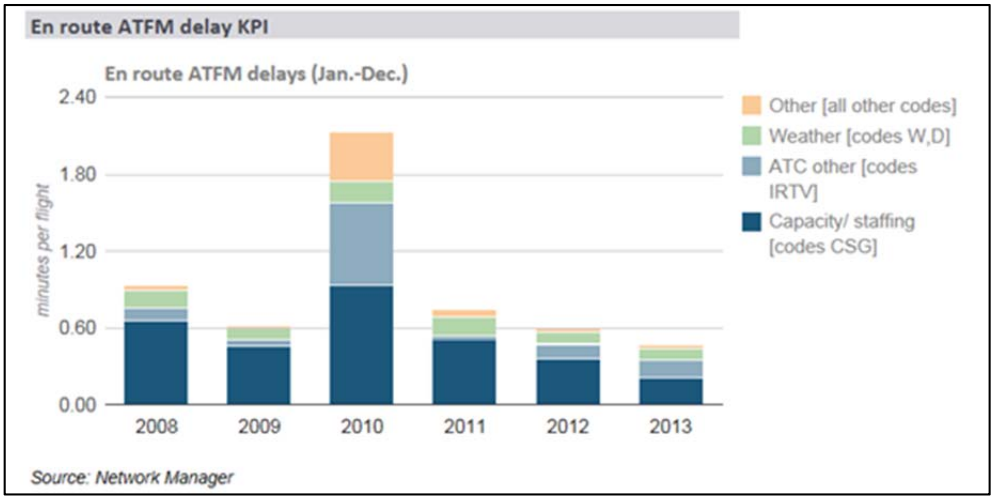


Figure 13: En-route ATFM delay

1.3.7 Throughout the recent years, the yearly average of arrival ATFM delay within the FABEC is constantly decreasing. Next to weather, there is still a discernible share of reported capacity-related causes for arrival restrictions at airports within the FABEC.

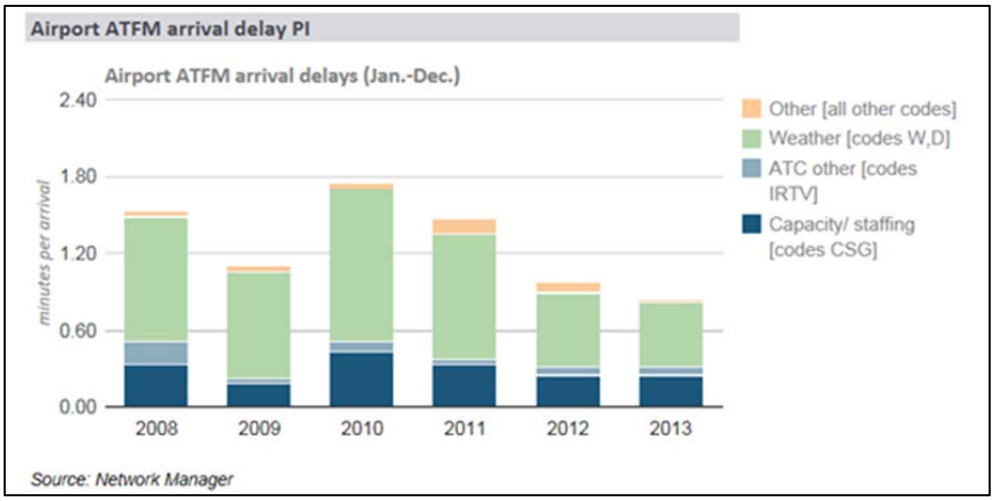


Figure 14: Airport ATFM arrival delay

COST EFFICIENCY

1.3.8 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the FABEC to complement the missing and/or incomplete elements as

mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Thirteen consultation meetings were held at FAB and national level:

- Meeting #1, 26 February 2014: DFS Investment Programme Consultation.
- Meeting #2, 24 March 2014: German written Pre-Consultation Performance Planning RP2.
- Meeting # 3, 11 April 2014: DSNA Strategic Consultation (DSNA and Airspace Users).
- Meeting #4, 16 April 2014, Swiss Stakeholder Consultation on national chapters of the Performance Plan for RP2 2015 -2019 and status report on the national Performance Plan RP1.
- Meeting #5, 6 May 2014: Stakeholder Consultation Meeting of The Netherlands (IATA and Airline representatives).
- Meeting #6, 23 May 2014: FABEC Consultation on the Performance Plan for RP2.
- Meeting #7, 27 May 2014: Common BELUX stakeholder consultation meeting on en-route costs, charges and investments (Airline representatives).
- Meeting #8, 27 May 2014: Belgian Users Consultation Meeting (Airspace Users).
- Meeting #9, 5 June 2014: German national consultation on RP2 targets.
- Meeting #10, 6 June 2014: French Cost-efficiency consultation (Airspace Users).
- Meeting #11, 6 June 2014: Comité technique DGAC, item 1 of the agenda: Plan de performance RP2 (French DGAC and Staff Representatives).
- Meeting #12, 18 June 2014: Luxembourg Stakeholder consultation meeting on terminal costs and targets, with Airport User Committee (AUC) and airline representatives.
- Meeting #13, 24 June 2014: Belgian Staff Consultation Meeting with staff representatives of Belgocontrol.

1.5.2 Based on the comprehensive information contained in the Performance Plan and its Annex A, the following observations could be made:

- Information on the outcome of the consultation (including points of disagreement and reasons) has been made available to the PRB;
- The lists of invited stakeholder and actual attendees have been made available to the PRB;
- It appears that materials for the meeting were provided well in advance.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	…	…	…	…	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The FABEC EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 The thorough verification performed on the five visited States showed that, overall, the replies correspond to the situation found in the audit. Belgium has reported significant improvements in the area of State's safety legislative framework and overall, the replies correspond to the situation found in the audit. In Germany few aspects are yet to be implemented (Levels 'A' and 'B'); most of them related to the measurement of 'Safety Culture'. Luxembourg has slightly increased some of the scores in the past year, however, the majority are still not reaching target Level 'C'. In addition, based on audit findings, some of the aspects of 'Safety Promotion' in Luxembourg are found underrated. The Netherlands has significantly improved its scores in the past year and overall, the declared performance corresponds to the outcome of the audit with the exception of some elements of 'State Safety Policy and Objectives' that were found overrated. In Switzerland only two aspects of declared safety performance (self-scored as Level 'C') were found overrated, in the area of 'State Safety Policy and Objectives'.

2.1.3 As regard as not yet audited FABEC State (France), it declared to have reached the maximum Level 'E' in three main components of safety management, and improved from Level 'C' to Level 'D' in two. All the replies were found consistent and well justified; however, this is to be confirmed after the EASA's visit scheduled at the end of this year.

2.1.4 Overall, based on current performance (2013) and information in the FAB Plan (e.g. in 2013, the 7 FABEC ANSPs committed themselves to reach the Level C in all MOs by the end of 2014) it seems realistic the FABEC will be able to meet these targets.

2.1.5 However, the information about the level of effectiveness of safety management, for each year of the reference period is missing at State level (as per Annex II, 3.1 of

the performance Regulation).

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓
	RIs	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓
	ATM-S	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	…	…	*≥ 80%*	*≥ 80%*	*≥ 80%*	✓
	RIs	…	…	*≥ 80%*	*≥ 80%*	*≥ 80%*	✓
	ATM-S	…	…	*≥ 80%*	*≥ 80%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The FABEC severity classification target is equal to the Union-wide target (both at Regulatory and ANSP level) and is hence **consistent** with the Union-wide target.

2.2.2 Based on the current performance (2013) and the information available in the FAB Performance Plan the PRB is concerned how the FABEC will improve the application of the RAT methodology given the current levels of performance and meet the targets set for ATM Overall.

2.2.3 In addition, the information about the application of severity classification based on RAT methodology for each year of the reference period is missing (2015 and 2016 forecast targets are missing). Therefore, the PRB recommends that the FABEC adds this information (as per Regulation 390/2013 Annex II, 3.1).

2.2.4 The FABEC should consider that the RAT methodology application values for 2015 and 2016, for ATM-S, should be the same for ATM Ground and ATM Overall.

2.2.5 The PRB believes that it is possible for the FABEC to achieve the forecasted

targets by the end of 2017 and 2019 and further suggests that improvements and progress in this area should be closely monitored.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The FABEC indicates in its Performance Plan that a common FAB approach in certain areas for Just Culture improvements **has been established**. In addition, the FABEC defines a number of objectives and actions that will be put in place by both the NSAs and participating ANSPs to support the implementation of Just Culture at FAB level.

2.3.3 Some of these elements include having a Just Culture policy endorsed at State level, as well as a requirement on the ANSPs to have a Just Culture Policy in place. The last action relates to the inclusion of requirements for Just Culture training at NSA and ANSP level. Some of these actions are indicated as being planned, others are already in place or on-going.

2.3.4 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has been set**. However, more information should be provided to explain the basis of the elements in place to promote the application of Just Culture as it is unclear how the targets will be achieved in terms of timelines and milestones.

2.4 Key points

2.4.1 The PRB is confident the FABEC will be able to meet Union-wide EoSM and RAT application targets.

2.4.2 Nevertheless, the PRB suggests that improvements and progress in the RAT methodology severity classification should be closely monitored in the FABEC.

2.4.3 The PRB recommends that safety targets are added for each year of the reference period.

2.4.4 In addition, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	3.30%	3.22%	3.14%	3.05%	2.96%
FAB Target	*3.30%*	*3.22%*	*3.14%*	*3.05%*	*2.96%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The FABEC adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 ANSPs have been given non-financial incentives (as per Article 12.4 of the performance Regulation[1]) to reinforce their commitment towards the FAB adopted targets. Effects of the incentive, though, are not expected until RP3.

3.4 Key points

3.4.1 The FABEC has adopted annual targets which are consistent with the reference values.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.43	0.42	0.42	0.42	0.43
FAB Target	*0.48*	*0.49*	*0.48*	*0.47*	*0.43*
Consistency check	✘	✘	✘	✘	✓
Shortfall	**0.05**	**0.07**	**0.06**	**0.05**	**0**

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The FABEC targets are **not consistent** with the respective FAB reference values for the years 2015-2018, but are consistent for the year 2019. The additional cost to airspace users, due to the capacity shortfall is expected to be approx. €111 million during RP2.

4.1.2 It is interesting to recall that the FABEC target for RP1 was set at a greatly different level to the capacity performance that the ANSP actually delivered.

FABEC during RP1	2012	2013	2014
Reference Value	0.52	0.47	0.40
FABEC Target	0.77	0.68	0.5
Actual Performance	0.60	0.47	

Table 7: Review of FABEC performance during RP1

4.1.3 It is the view of the PRB that this may have encouraged the FABEC ANSPs to divert efforts from providing much needed capacity: something that the PRB is keen to ensure does not happen in RP2.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.4 No other FAB has adopted capacity targets that will make up for the capacity shortfall from the FABEC.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.5 The latest ANSP capacity plans (from the NOP 2014-2019) indicate that the FABEC capacity performance will not meet the required level of performance to be consistent with the Union-wide target for the years 2015-2018 and need to be

revised.

4.1.6 The difference between the required capacity performance and the anticipated delay forecast, based on the existing capacity plans, will cost airspace users in the region of €230 million due to additional delays.

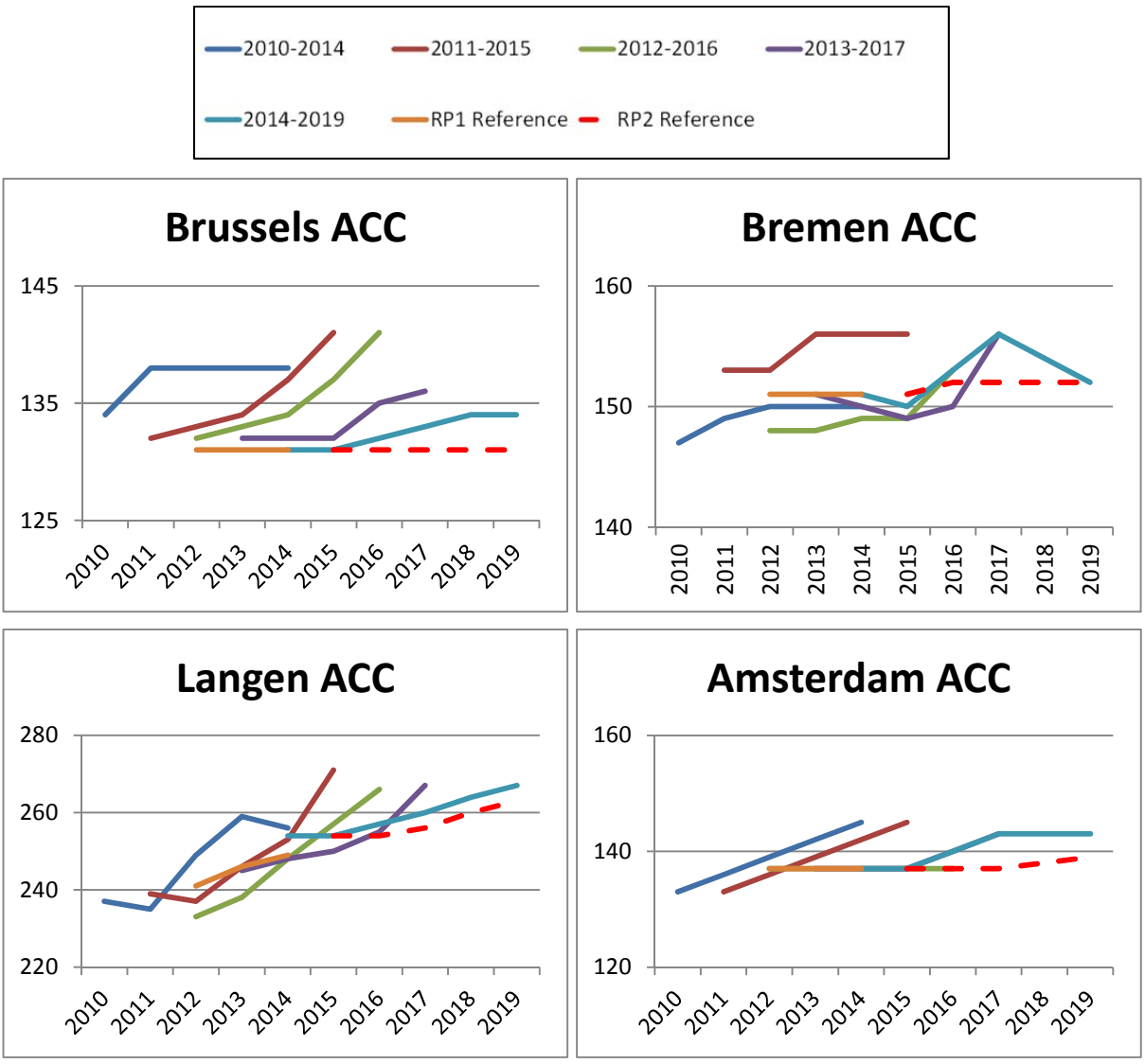
Year	2015	2016	2017	2018	2019
Annual reference value	0.43	0.42	0.42	0.42	0.43
Delay forecast full year	0.46	0.63	0.57	0.51	0.33

Table 8: Extract from Network Operations Plan 2014-2019

4.1.7 The PRB analysed the development of ANSP capacity plans within the FABEC over recent years.

4.1.8 The following ACCs have capacity plans that promise to meet the required performance consistently over RP2: Brussels, Paris, Bremen, Langen, Munich, Amsterdam, Maastricht, Geneva and Zurich.

4.1.9 However, out of these ACCs, Brussels, Bremen, Langen, Amsterdam, Maastricht and Zurich have all downgraded or postponed existing previous capacity improvements.



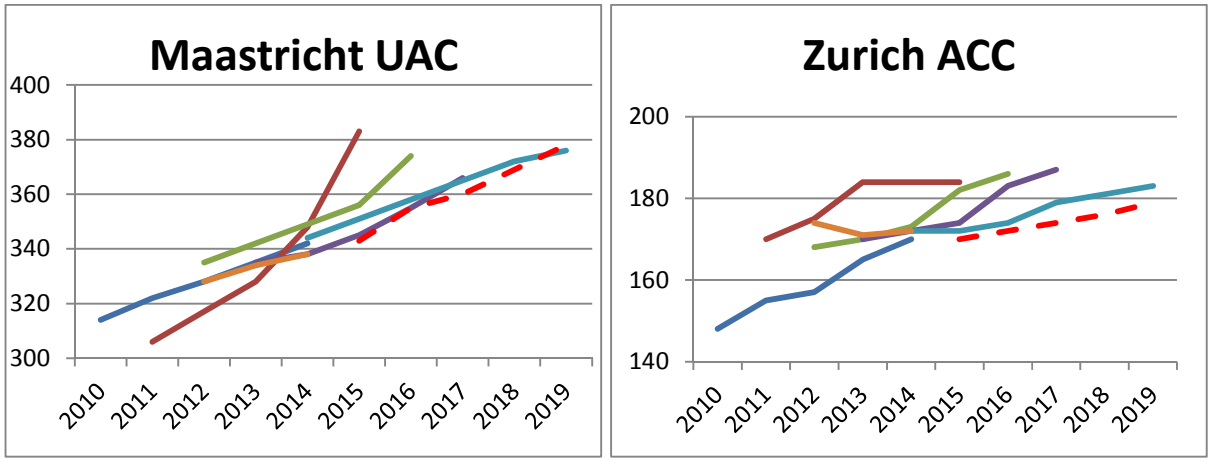
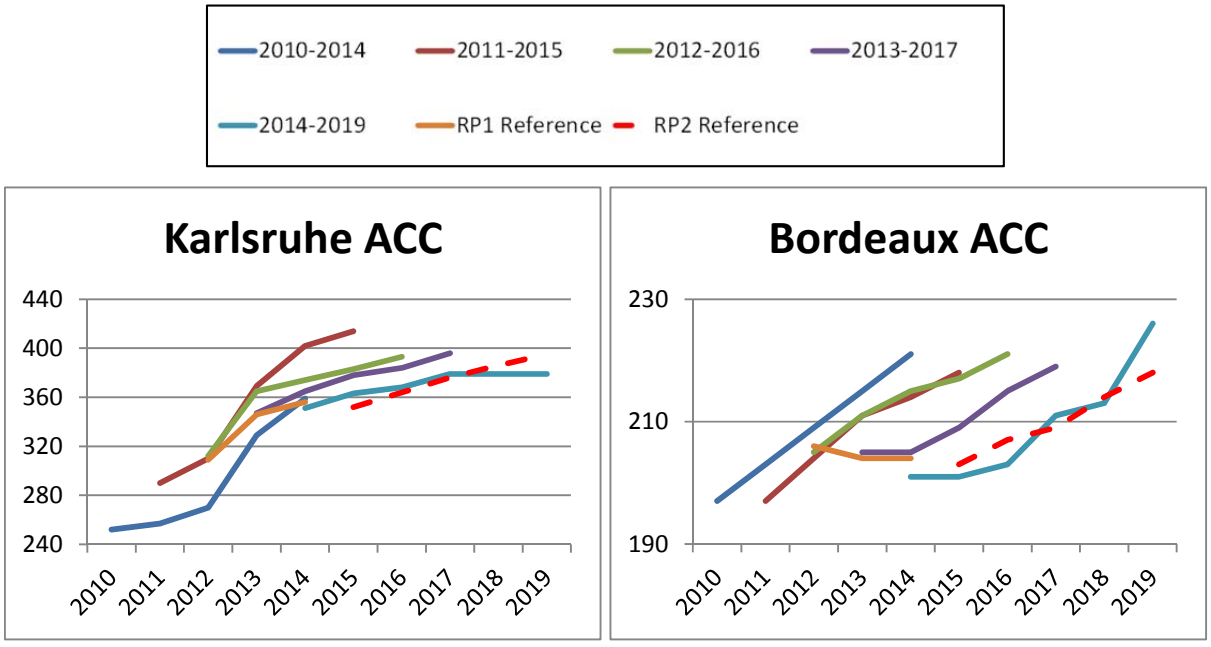


Table 9: Development of capacity plans for Maastricht UAC and Brussels, Bremen, Langen, Amsterdam and Zurich ACCs

4.1.10 The following ACCs have capacity plans that are not expected to meet the required performance levels for significant periods of RP2: Karlsruhe (2 years), Bordeaux (3 years), Marseille (3 years), Reims (4 years) and Brest (5 years).

4.1.11 Out of these ACCs, Karlsruhe, Bordeaux, Brest and Marseille have significantly downgraded or postponed previous capacity improvements.



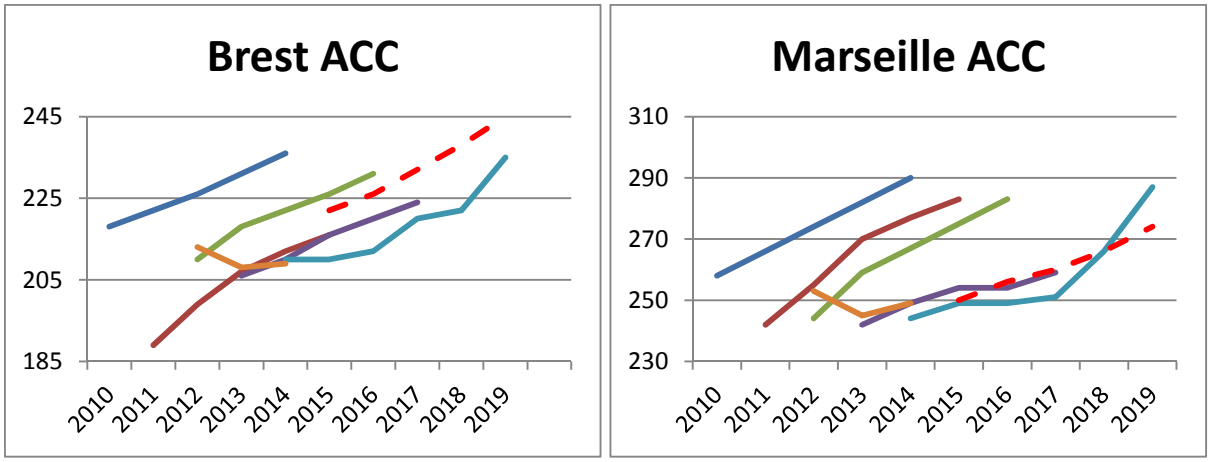


Table 10: Development of capacity plans for Karlsruhe, Bordeaux, Brest and Marseille ACCs

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.12 The contribution of the individual ANSPs, as described in the FAB Performance Plan, is nether consistent with the FAB reference value, nor with the proposed FAB target, for each year during RP2.

Year		2015	2016	2017	2018	2019
FAB reference value		0.43	0.42	0.42	0.42	0.43
ANSP contribution	Belgocontrol	0.08	0.08	0.08	0.08	0.09
	DSNA	0.37	0.40	0.40	0.39	0.32
	DFS	0.35	0.34	0.32	0.31	0.30
	ANA	N/A	N/A	N/A	N/A	N/A
	LVNL	0.16	0.18	0.18	0.16	0.16
	Skyguide	0.22	0.22	0.22	0.23	0.23
	MUAC	0.18	0.18	0.18	0.18	0.18
Aggregated ANSP contribution		**0.49**	**0.51**	**0.50**	**0.50**	**0.45**

Table 11: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.13 No specific details are provided in the Performance Plan of how the FUA legislation will be applied to provide additional capacity for GAT. This is particularly disappointing since the FABEC proved during August 2012 how improved coordination and cooperation between civil and military authorities could benefit both flight efficiency and capacity within the FABEC airspace: In August 2012 en-route ATFM delays in the FABEC were 0.45 minutes per flight, a reduction of 46% from the 2011 figure of 0.96 minutes per flight.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.14 The aggregated capacity performance of the FABEC was consistent with the effort required to meet the Union-wide target of 0.6 minutes per flight in 2013, but was inconsistent with the Union-wide target of 0.7 minutes per flight in 2012.

4.1.15 Following the adoption of FAB targets, for RP1, that were not consistent with the Union-wide target for capacity, the Commission requested the FABEC Member States to require their ANSPs to develop and implement capacity plans that would meet the 2014 FABEC reference value at the earliest possible date in the second reference period. Despite this request, the FABEC ANSPs have downgraded or postponed adding new capacity.

4.2 Average arrival ATFM delay at national level

		2015	2016	2017	2018	2019
Belgium	**(CRSTMP causes)**	*0.11*	*0.10*	*0.10*	*0.10*	*0.10*
France	**(all causes)**	*0.60*	*0.60*	*0.60*	*0.60*	*0.60*
	(CRSTMP causes)	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*
Germany	**(all causes)**	*0.65*	*0.65*	*0.65*	*0.65*	*0.65*
	(CRSTMP causes)	*0.09*	*0.09*	*0.09*	*0.09*	*0.09*
Luxembourg		*0.48*	*0.49*	*0.48*	*0.47*	*0.43*
Netherlands		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*
Switzerland		*0.43(*)*	*0.43(*)*	*0.43(*)*	*0.43(*)*	*0.43(*)*

Table 12: National target on average arrival ATFM delays [minutes per arrival]
(*) traffic-dependent adjustment values as stated in supporting documentation

4.2.1 The scope of the FABEC Performance Plan comprises the terminal air navigation services at 5 airports in Belgium, 61 airports in France, 16 airports in Germany, 1 airport in Luxembourg, 4 airports in the Netherlands, and 2 airports in Switzerland.

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan establishes a national target on arrival ATFM delay for all FABEC Member States. In the case of France and Germany, the national target is expressed as a target comprising all ATFM delay causes and a supporting target on CRSTMP causes only. The Swiss target is established as a traffic dependent target reflecting the variations in yearly traffic around a base value.

4.2.3 No breakdown of the national targets for monitoring purposes is provided for France and Germany. Belgium and the Netherlands do not quantify the breakdown of the national target for a subset of the respective airports.

4.2.4 In general, the plan presents no further description and explanation of the national targets and associated performance aspects. Switzerland provides limited justification of the contributions and expected benefits from planned activities in the supporting documentation, and ultimately motivates the national target.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.5 For Belgium, the national target on arrival ATFM delay is consistent with the observed historical performance achieved in the last 5 years.

4.2.6 The French target on arrival ATFM delay, for all causes and CRSTMP causes only, is consistent with the performance observed throughout the last 5 years.

4.2.7 In the case of Germany, the national target is challenging considering the observed performance achieved in the last 5 years. The target values are aligned with the performance observed throughout the last six years and from this basis the efficiency path of the two recent RP1 years for arrival ATFM performance was deducted.

4.2.8 For the Netherlands, the national target on arrival ATFM delay and its associated breakdown to the local is not fully consistent and the plan lacks of evidence how the target is constructed. The national level refers to all arrival ATFM causes, while the breakdown is only provided for EHAM and limited to CRSTMP causes. Both, the target and local value for monitoring, are padded, e.g. the target value ranges 0.7 minutes per arrival above the historical accrued share of arrival ATFM delay and in the case of EHAM the CRSTMP value chosen exceeds the historical performance about 0.2 minutes per delay.

4.2.9 For Luxembourg, the national target on arrival ATFM delay is not consistent with the observed historical performance. Restricting the permissible causes to ANS-related ATFM causes makes the target ranging about 0.45 minutes per arrival above the historical accrued amount on yearly average arrival ATFM delay.

4.2.10 The Swiss target is established based on the historical performance and in sync with the performance observed throughout the last two years.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.11 For Belgium, the projected growth of air traffic is framed by a constant target throughout 2016-2019. The Belgium NSA established the target based on acknowledging the contribution of two airport handling ca. 80% of the IFR traffic.

4.2.12 For France and Germany, the FABEC Performance Plan presents no evidence or reasoning for the contributions of individual airports to the national target. The targets are kept constant across RP2 framing the anticipated traffic growths.

4.2.13 For Luxembourg, ELLX is the only airport subject to RP2 and as thus the local performance determines the national target.

4.2.14 The Netherlands establish a constant target of 2 minutes per arrival for all causes across RP2. However, no further information on the breakdown and how the other airports contribute to the target are provided. Furthermore, the monitoring value established for EHAM is on CRSTMP causes. It is not specified how the national target recognises the share of CRSTMP causes at EHAM and the other airports as a subset of the – all causes – target.

4.2.15 A breakdown and associated explanation of the traffic-dependent monitoring values for both Swiss airports are provided.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.16 The historical share of arrival ATFM delay accrued at Belgian airports for which no local monitoring value is established is negligible and comparable to other non-congested airports with similar traffic levels. The share of total arrival restrictions at Brussels airport, EBBR, ranges in the order of magnitude of the European average observed in RP1.While weather is the major reported factor for restrictions, there is a discernible share of capacity-related causes.

4.2.17 In France, the major airports accumulative contributing to CRSTMP delay over the past 5 years were LFPG, LFMD, LFMN, LFPO, LFLL, LFML, LFOB, and LFSB. The contributions of Cannes (LFMD) and Beauvais-Tille (LFOB) reflect exceptional peak demands. In that respect, the historical arrival ATFM delay – CRSTMP causes - in France is strongly correlated with the traffic volume. Throughout the recent years, LFPG as the major French hub accrues a considerable share of CRSTMP arrival delay restrictions.

4.2.18 The major German airports (i.e. EDDF, EDDM, and EDDL) range at or below the European average. EDDF and EDDM accrued a significant share of reported weather-dependent arrival restrictions, while other airports contribute to the total arrival ATFM delay in accordance with the performance observed at other airports with similar traffic shares.

4.2.19 Within the group of European hubs, Schiphol (EHAM) ranges above the European average for arrival ATFM delay (all causes) while showing a better than European average performance in other areas. Weather is the pre-dominant factor influencing the arrival ATFM delay performance at EHAM. The contribution of the other Dutch airports to arrival ATFM delay is considerable low and in line with the traffic volume encountered at these airports.

4.2.20 Traditionally, the Swiss airports are subject to a considerable arrival ATFM delay restrictions. Next to weather, capacity-related causes are a main factor.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.21 In general, the FABEC Performance Plan does not point out anticipated benefits from planned activities or how arrival ATFM performance may be subject to change.

4.2.22 Switzerland provides some reasoning for LSGG and LSZH as part of the discussion of the traffic dependent target setting procedure.

Primary check:

- *Other justifications provided*

4.2.23 The FABEC Performance Plan provides no further specific airport capacity-related justifications.

4.3 Additional indicators

EN-ROUTE

4.3.1 The FABEC Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The FABEC Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 The incentive scheme for en-route capacity, described in the Performance Plan has been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

4.4.2 The description of the incentive scheme was considered insufficient as it does not present a clear and understandable process that will incentivise a high level of capacity performance. The graphics presented do not correspond with what is written in the text.

4.4.3 The scheme proposes to use only the delay codes CRSTMP, an option that is permitted in accordance with the charging Regulation. The FABEC propose to adjust the FAB target, which reflects all causes of delay, to a CRSTMP target. The CRSTMP target is 78% of the FAB target.

4.4.4 However, when the PRB reviewed the FABEC performance during RP1, the value of CRSTMP as 78% of total delay has a 16% deviation in 2012, a 36% deviation in 2013 and a 41% deviation for year to date 2014.

4.4.5 A significant aspect of using only selective delay classifications for an incentive scheme is the fact that it is the ANSP itself that determines the reason for the delay classification. The FABEC Performance Plan does not contain any information about establishing an independent and verifiable method of reconciling delay classification against actual events.

4.4.6 The FABEC en-route capacity performance scheme is based on the ANSP contribution presented elsewhere in the plan. However, as previously noted in this assessment, the provided ANSPs contribution are neither consistent with the FAB reference values, nor are they consistent with the FAB target proposed in the Performance Plan.

4.4.7 The FABEC incentive scheme refers to the use of delay data as reported in the annual monitoring report in accordance with Article 18(4) of the performance Regulation. It is important to confirm that the official data to be used in the calculation of the capacity KPIs shall be provided by the Network Manager, in accordance with the definitions of both Union-wide and local Capacity Key Performance Indicators in Annex I of the performance Regulation.

Incentive Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance	Notes
En-route capacity	Not for all delay causes	No (not clear from description)	No (description is opaque)	No (description is opaque)	No (ANSP contributions are not consistent with required performance)	No independent and verifiable method of reconciling delay classification and actual events.

Table 13: Incentives on en-route Capacity

AIRPORT

4.4.8 The FABEC Performance Plan establishes an incentive scheme for the national target on arrival ATFM delay for Belgium, France, Germany, the Netherlands, and Switzerland. No incentive scheme is presented for Luxembourg.

4.4.9 In the case of Belgium, the incentive scheme is not fully transparent. In particular, the incentive scheme refers to local targets which are not established for all airports.

4.4.10 The incentive scheme in France is applied to DSNA servicing all 61 airports and the CRSTMP target. A dead band is applied around the national target, i.e. [0.05 – 0.25] minutes per arrival. The penalty threshold represents an upper bound of the historical performance observed throughout the last 5 years, while the bonus threshold is considered challenging.

4.4.11 The German incentive scheme applies equally for terminal ANS at all 16 airports and is restricted to the CRSTMP causes. It is implied that the incentive scheme applies on a national level without further disaggregation on the local airport level.

4.4.12 The scheme for the Netherlands applies exclusively to EHAM. The plan lacks of evidence how the scheme induces a high-level of performance. In particular, the absence of a dead band and the padded nature of the target values offer a reasonably low entry level for bonuses, while the penalties would only kick in after the consumption of the padding.

4.4.13 Similar to the target, the Swiss incentive scheme is dependent on the traffic level experienced by the ANSP throughout RP2.

4.5 Key points

EN-ROUTE

4.5.1 The FABEC en-route capacity targets are inconsistent with the FAB reference values for the years 2015-2018.

4.5.2 The ANSP en-route capacity plans are inconsistent with the performance required to meet the Union-wide targets for the years 2015-2018.

4.5.3 The individual ANSP contributions, for en-route capacity, as determined by the FAB authorities are inconsistent both with the FAB reference values, and with the proposed FAB targets.

4.5.4 No specific details are provided on how the FABEC will use the FUA legislation to provide additional capacity.

AIRPORT

4.5.5 All FABEC Member States establish a national target on arrival ATFM delay. With the exception of Switzerland and Luxembourg, the breakdown per airport of the national target for monitoring purposes is not or only partially provided, and thus inconsistent with the requirements of the performance regulation.

4.5.6 Though the explanation of the targets is very limited, the established values mostly confirm with the historical performance observed for most FABEC Member States. The local value for EHAM is padded by the Dutch NSA and it is not evident how the national target is constructed. In the case of Luxembourg a conservative target has been chosen ranging well above the historical observed performance and thus not fostering high performance. The German targets are challenging considering the observed performance over the past two years versus the 5-year horizon.

4.5.7 In all cases, the plan lacks a description and explanation of the target. In particular, the discussion of anticipated performance benefits from planned activities is missing. Switzerland provides some insight in influencing factors as part of the explanation of the traffic-dependency of the target.

4.5.8 The FABEC Performance Plan establishes an incentive scheme for the national target on arrival ATFM delay for Belgium, France, Germany, the Netherlands, and Switzerland. No incentive scheme is presented for Luxembourg.

4.5.9 The French, German, and Swiss incentive schemes meet the general principles of the performance and charging Regulations. The incentive scheme for Belgium is not fully transparent as the respective values for each airport are not established, but referred to by the incentive scheme. The Dutch incentive scheme is only applied to EHAM and does not consider services at the other airports in the Netherlands.

5 COST-EFFICIENCY

5.1 Belgium: Setting the scene for the RP2 cost-efficiency assessment

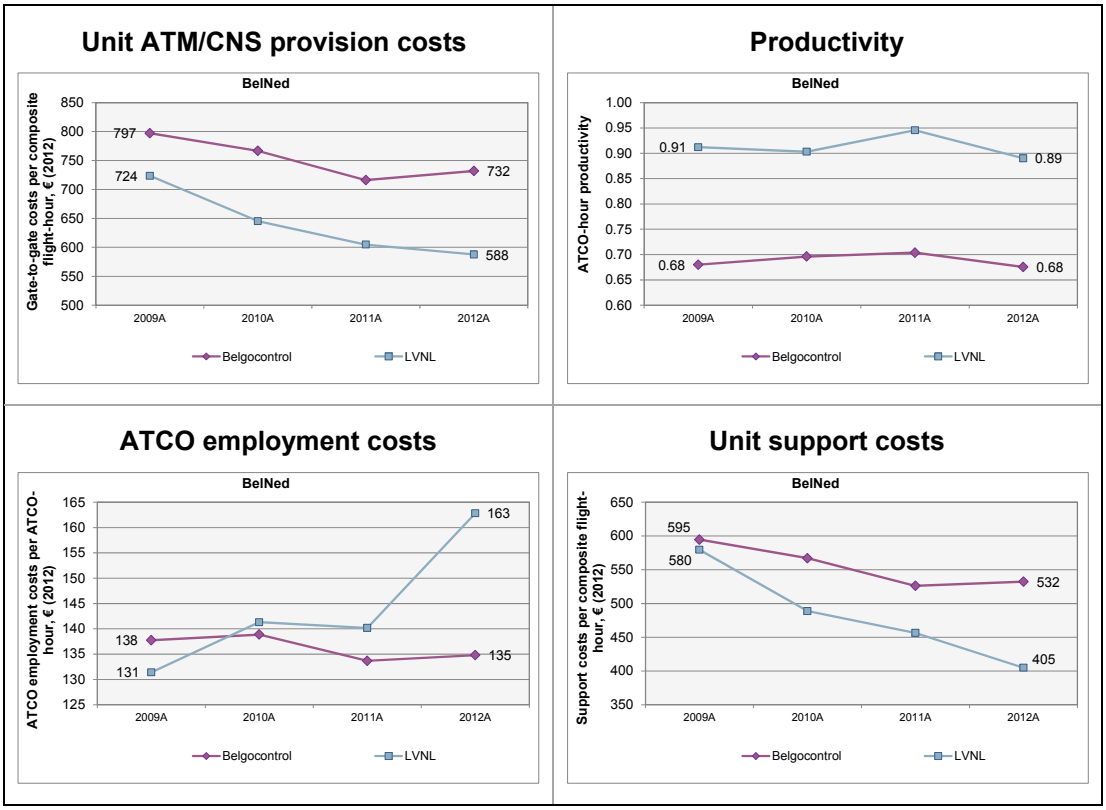
5.1.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on Belgocontrol, the main ATSP in Belgium, which represented 2.1% of the European system ATM/CNS provision costs in 2012.

5.1.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Belgocontrol is part of the "Bel-Ned" comparator group, also including LVNL (Netherlands). Both ATSPs operate exclusively in the lower airspace. It should also be noted that these two ATSPs own infrastructure which is made available to MUAC, the ATSP operating in the upper airspaces of Belgium, the Western part of Germany, Luxembourg and the Netherlands.

5.1.3 The ACE 2012 benchmarking analysis shows that:

- Belgocontrol productivity (0.68) is -24.1% lower than that of LVNL (0.89);
- Employment costs per ATCO-hour (€135) are -17.2% lower than those of LVNL (€163); and,
- Support costs per composite flight-hour (€532) are +31.5% higher than those of LVNL (€405).

5.1.4 As a result, in 2012 Belgocontrol unit ATM/CNS provision costs (€732) were +24.5% higher than for LVNL (€588).



5.1.5 The PRB 2013 monitoring analysis indicates that Belgocontrol actual en-route costs for 2013 were lower than planned (-1.1 M€$_{2009}$). This was not sufficient to compensate for the impact of the lower traffic than planned (-3.1%) on Belgocontrol

revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, Belgocontrol generated a net loss of -1.0 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Belgocontrol economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 4.9 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 4.0 M€$_{2009}$, which implies an ex-post rate of return on equity of 4.3% (compared to 5.3% as initially planned in the NPP). This contrasts with the more substantial gains generated by Belgocontrol in 2012 (10.3 M€$_{2009}$ or 10.6% of en-route revenues leading to an ex-post rate of return on equity of 10.9%).

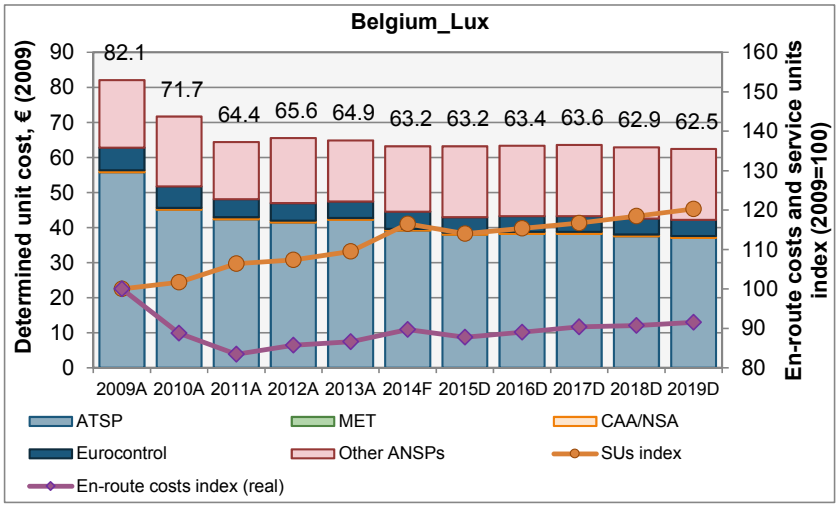
Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	99 108	97 315
Actual costs for the ATSP	92 597	96 195
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	6 511	1 120
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**6 511**	**1 120**
Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-2.28%	-3.10%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-1 889**	**-2 084**
Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**
Net ATSP gain(+)/loss(-) on en-route activity	**4 622**	**-964**
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	5 653	4 925
Overall estimated surplus (+/-) for the en-route activity	10 275	3 961
Revenue/costs for the en-route activity	97 219	95 231
Estimated surplus (+/-) in percent of en-route revenue/costs	**10.6%**	**4.2%**
Estimated ex-post RoE pre-taxe rate (in %)	**10.9%**	**4.3%**

Table 14: ANSP estimated surplus 2012 & 2013

5.2 Belgium-Luxembourg: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	55.76	45.14	42.40	41.49	42.25	39.19	38.01	38.24	38.23	37.50	37.08	-1.7%	-1.1%
MET	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
CAA/NSA	EUR (2009)	0.65	0.52	0.58	0.51	0.54	0.48	0.55	0.55	0.55	0.55	0.55	-0.6%	2.8%
Eurocontrol	EUR (2009)	6.39	6.14	5.14	5.01	4.66	4.94	4.39	4.49	4.54	4.55	4.57	-1.5%	-1.6%
MUAC	EUR (2009)	19.29	19.86	16.27	18.55	17.44	18.61	18.03	17.83	17.97	18.02	18.02	1.3%	-0.6%
ANA Luxembourg	EUR (2009)	-	-	-	-	-	-	2.19	2.27	2.27	2.26	2.24	-	-
Total	**EUR (2009)**	**82.09**	**71.67**	**64.39**	**65.56**	**64.90**	**63.21**	**63.17**	**63.37**	**63.55**	**62.88**	**62.46**	**-0.4%**	**-0.2%**

Figure 15: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	170.7	154.9	150.6	158.8	162.3	169.9	168.1	172.5	177.4	180.6	184.7
Inflation rate	annual % change		2.2%	3.5%	2.6%	1.2%	1.0%	1.1%	1.2%	1.3%	1.4%	1.4%
Inflation index	2009=100	100.0	102.2	105.8	108.5	109.8	111.0	112.2	113.5	115.0	116.6	118.2
Determined costs	EUR m (2009)	170.7	151.5	142.4	146.3	147.8	153.1	149.8	152.0	154.2	154.9	156.2
Service units	'000s	2 079	2 115	2 212	2 232	2 277	2 423	2 371	2 398	2 427	2 463	2 501
Determined unit cost	EUR (2009)	82.09	71.67	64.39	65.56	64.90	63.21	63.17	63.37	63.55	62.88	62.46
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	82.09	71.67	64.39	65.56	64.90	63.21	63.17	63.37	63.55	62.88	62.46

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	0.8%	2.6%	1.7%	2.4%
Inflation	CAGR %	1.7%	1.4%	1.3%	1.3%
Determined costs	EUR m (2009)	-0.9%	1.2%	0.4%	1.1%
Service units	'000s	1.9%	1.6%	0.6%	1.3%
Determined unit cost	EUR (2009)	-2.7%	-0.4%	-0.2%	-0.3%
Exchange rate					
Determined unit cost	EUR (2009)	-2.7%	-0.4%	-0.2%	-0.3%

Table 15: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	No ➔ Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	No ➔ Yes

The en-route determined costs (DCs) reported for the year 2014 in Belgium-Luxembourg's RP2 Performance Plan have not been updated and correspond to the figure provided in the adopted Performance Plan for RP1 (153.1 M€$_{2009}$) which is +3.6% higher than 2013 actual en-route costs (147.8 M€$_{2009}$). This issue significantly affects the trend in DCs when it is computed over the 2014-2019 period.

Similarly, the number of total service units (SUs) reported for the year 2014 has not been updated and is in line with the figure provided in the adopted Performance Plan for RP1 (2,422,721) which is +6.4% higher than the actual number of SUs in 2013 (2,277,014).

As a result, the 2014 DUC reported in the RP2 Performance Plan (€63.21) is -2.6% lower than 2013 actual en-route unit costs (€64.90).

➔ During the fact verification process (16/09 until 26/09/2014), Belgium-Luxembourg indicated that the figures provided in Annex E of the Performance Plan should be used to compute the en-route DCs and SUs for 2014. The PRB notes that these figures are different from the information provided in the body of the Performance Plan for Belgium-Luxembourg which was used to conduct this assessment.

Using the data provided in Annex E, the en-route costs reported for the year 2014 (159.8M€$_{2009}$) are +4.4% higher than the DCs provided in the adopted Performance Plan for RP1 (153.1 M€$_{2009}$). This difference is due to the fact that the figure reported in Annex E of the Performance Plan comprise costs associated to en-route ANS provided by ANA Luxembourg (some 6 M€) which were not included in RP1 DCs.

The number of total service units (SUs) reported for the year 2014 has been revised significantly downwards (-4.1%) compared to the figure provided in the adopted Performance Plan for RP1.

As a result, the 2014 en-route unit costs computed using the information provided in Annex E (68.77 €$_{2009}$) are +8.8% higher than the DUC reported in RP1 Performance Plan and +6.0% higher than 2013 actual en-route unit costs (64.90 €$_{2009}$).

Key points for Belgium-Luxembourg en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

The planned growth of en-route SUs provided for Belgium-Luxembourg en-route charging zone over RP2 is in line with STATFOR February 2014 low scenario.

Information from the CRCO's monthly monitoring of traffic indicates that for Belgium-Luxembourg actual traffic in the first eight months of 2014 is +3.1% higher compared to the same period in 2013. This is higher than STATFOR low case forecast for 2014 (+2.1%).

2. Economic assumptions:	**Passed**

The inflation forecasts submitted for Belgium-Luxembourg en-route charging zone over RP2 are in line with the IMF average inflation forecasts.

3. En-route DUC trend:	**Not passed**

Belgium-Luxembourg en-route DUC is expected to remain fairly constant over the 2014-2019 period (-0.2% p.a.). This is significantly different from the Union-wide cost-efficiency target trend (i.e. -3.3% p.a.). Belgium-Luxembourg planned en-route DUC profile mainly reflects the fact that DCs are expected to slightly increase (+0.4% p.a.) while the number of SUs is planned to grow by +0.6% per year on average.

➔ Using the information provided in Annex E to compute the trend in Belgium-Luxembourg en-route DUC over the 2014-2019 period does not change the results of this analysis. Indeed, the adjusted en-route DUC trend is -1.9% p.a. which is well below the Union-wide cost-efficiency target trend (i.e. -3.3% p.a.).

When assessed over the 2011-2019 period which covers RP1 and RP2, Belgium-Luxembourg's en-route DUC planned reduction (-0.4% p.a.) is also well below the Union-wide target (i.e. -1.7% p.a.). Detailed analysis indicates that over the 2011-2019 period, the en-route DUC reduction is planned to be entirely achieved through the (low) traffic growth (+1.6% p.a.) while DCs are expected to increase (+1.2% p.a.).

Although planned DUC reductions are observed for the main ATSP operating in the en-route charging zone (Belgocontrol, -1.7% p.a.), the DUC of MUAC, which provide ATC services in the upper airspace of Belgium, is expected to increase between 2011 and 2019 (+1.3% p.a.). It is noteworthy that the level of MUAC costs in 2011 was exceptionally low, reflecting the impact of a one-off exceptional reduction mainly relating to the implementation of IFRS budgeting. However, the DUC planned by MUAC for the year 2015 is expected to be +3.4% higher than 2013 actuals and to remain fairly constant until 2019, indicating that no genuine cost reductions are planned for RP2.

As a new feature for this en-route charging zone, from 2014 onwards the en-route DCs of Belgium-Luxembourg comprise costs associated to en-route ANS provided by ANA Luxembourg (some 5 to 6 M€$_{2009}$ p.a.). Excluding these costs does not change the result of the analysis since, after adjustment, Belgium-Luxembourg en-route DUC is expected to reduce by -0.8% p.a. over the 2011-2019 period which is well below the Union-wide target (i.e. -1.7% p.a.).

Belgocontrol actual capex for 2012 (6.9 M€) and 2013 (5.4 M€) are substantially lower than planned (16.8 M€ and 11.4 M€, respectively). As a result, actual depreciation costs for 2012 and 2013 were lower than planned (-9.6% and -12.1%, respectively). It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-route DCs provided for RP2. This issue, which was also identified by airspace users during the consultation of the draft RP2 Performance Plan, deserves a clarification from Belgium-Luxembourg.

Belgium-Luxembourg's en-route DCs for 2015 (149.8 M€$_{2009}$) are +1.4% higher than 2013 actual en-route costs (147.8 M€$_{2009}$) and no structural costs reductions are foreseen for RP2 since DCs are planned to increase by +1.1% p.a. between 2015 and 2019.

4. En-route DUC level:	**Not passed**

Belgium-Luxembourg en-route DUC in 2019 is planned to be at 62.46 €$_{2009}$ which is +3.7% higher than the comparator group average (60.22 €$_{2009}$). A straight comparison with the

Netherlands, rather than the group average, indicates that the Belgium-Luxembourg en-route DUC in 2019 is planned to be +7.7% higher.	
5. En-route cost of capital:	**Passed**
The WACC rates reported for Belgocontrol in the Performance Plan ranges from 3.6% in 2015 to 4.5% in 2019. This is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance. This is also lower than the WACC rates used to compute Belgocontrol cost of capital over RP1 (from 6.2% in 2012 to 6.6% in 2014). Taking into account Belgocontrol capital structure and its asset base allows computing the monetary value of the RoE which amounts to some 2.8-3.3 M€$_{2009}$ p.a. over RP2. This is lower than the maximum traffic risk exposure which will be borne by Belgocontrol over RP2 (around 4.0-4.1 M€$_{2009}$ p.a.). Over RP2, the average value of Belgocontrol en-route asset base per SU (30.8 €$_{2009}$) is expected to be in line with that of the Netherlands (30.0 €$_{2009}$) and substantially lower than the Union-wide average (44.4 €$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The Performance Plan does not comprise information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. No information is provided on the interest rates on loans since Belgocontrol current loans are expected to be completely reimbursed in 2015. The Performance Plan indicates that for Belgocontrol no adjustments were made beyond the provisions of IAS.	
7. Costs exempt from risk sharing:	**Passed**
The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014. The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement.	

Overall consistency assessment of Belgium-Luxembourg en-route cost-efficiency KPIs
Taking into account these key points, in particular 3 and 4, the FABEC Performance Plan, and in particular Belgium-Luxembourg en-route cost-efficiency target, is assessed as <u>not</u> being consistent with and <u>not</u> making an adequate contribution to the Union-wide cost-efficiency target over RP2. **The PRB therefore advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan and, in particular to Belgium-Luxembourg to revise its en-route cost-efficiency target, including, to:**

a) consider revising the TSU forecast for RP2 taking into account the actual traffic evolution in 2014;

b) revise the levels and trends of en-route DCs planned for RP2;

c) ensure that the depreciation costs associated with the non-realised capex programmes over RP1 will not be charged again to airspace users over RP2; and,

d) provide information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template.

5.3 Belgium: Overview of terminal charging zones assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for these Terminal ANS KPIs assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the RP2 Performance Plan, there are five terminal charging zones (TCZ) in Belgium, each comprising one airport. This is different from the situation prior to RP2 where there was only one TCZ comprising one airport (Brussels).

According to the information provided by Belgium in Annex C of the FAB Performance Plan, none of the airports in the Belgian TCZ will be subject to traffic risk sharing over RP2.

Out of the five TCZs, the Belgium-Brussels TCZ accounts for some 60% of the total DCs and some 68% of terminal SUs. Total TNSUs for the TCZ accounted for 99.1% of the TNSUs in Belgium in 2013.

On average, the total costs for the TCZ account for 25.3% of Belgium's "gate-to-gate" activity subject to SES in RP2.

In addition, at the time of writing this report, chargeable unit rates were not computed for the five Belgian TCZs. There is a therefore a potential compliance issue with the charging Regulation for Belgium TCZs. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance" which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements). The outcome of this process will have an impact on whether the plan is accepted by the European Commission or otherwise.

Recently a 3rd Management Contract has been agreed between the Belgian State and Belgocontrol. This new contract which allows the implementation of TNC at regional airports stipulates that the costs of terminal ANS can be financed either by a TNC or through other revenues. The proportion of terminal ANS costs to be financed by other revenues will be determined in September 2014. This decision will allow to set unit rates in the five Belgian TCZs.

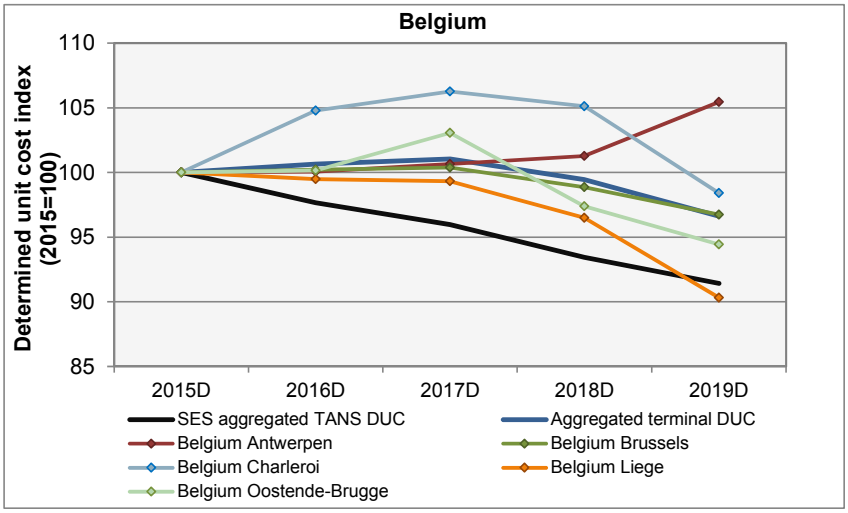


Figure 16: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Total Determined costs	EUR m (nom)	56.4	58.5	60.6	61.9	62.4	2.6%
Inflation rate *	annual % change	1.1%	1.2%	1.3%	1.4%	1.4%	1.3%
Inflation index *	2009=100	112.2	113.5	115.0	116.6	118.2	
Total Determined costs	EUR m (2009)	50.2	51.6	52.7	53.1	52.8	1.2%
Total Terminal SUs	'000s	199.7	203.6	207.3	212.2	217.0	2.1%
DUC (aggregated)	EUR (2009)	251.58	253.22	254.24	250.19	243.10	-0.9%
Exchange rate	EUR:EUR (2009)	1.00					
DUC (aggregated)	EUR (2009)	251.58	253.22	254.24	250.19	243.10	-0.9%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 16: Terminal DUC breakdown

Key points for Belgium terminal charging zones	
1. Traffic forecast assumptions:	**Passed with reservations**
The planned growth in terminal SUs provided in the Performance Plan for the five Belgian TCZs over RP2 is in line with STATFOR February 2014 low scenario.	
2. Economic assumptions:	**Passed**
Over RP2 a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.	
3. Terminal ANS DUC trend:	**Not passed, except for Liège TCZ**
Over the 2015-2019 period, the profile of terminal ANS DUC for Antwerpen (+1.3% p.a.), Brussels (-0.8% p.a.), Charleroi (-0.4% p.a.) and Oostende Brugge (-1.4% p.a.) significantly differ from the SES aggregated DUC trend (-2.2% p.a.). On the other hand, the profile of terminal ANS DUC for Liège TCZ (-2.5% p.a.) is better than the Union-wide aggregated DUC trend. These terminal ANS DUC trends should be seen in the light that the terminal DCs reported by Belgium over RP2 do not include infrastructure costs currently financed by the regional governments. Belgium indicated that these costs would probably be included in RP3 terminal DCs. In addition, the average level of terminal DUC planned for all the Belgian TCZs over RP2 (around €250) is much higher than the SES aggregated average (€167).	

4. Terminal cost of capital:	**Passed**
The RoE and WACC rates used to compute the cost of capital for Belgium's TCZ over the 2015-2019 period (from 2.6% to 3.1%) are lower than those used to compute the cost of capital for the en-route charging zone (from 3.6% to 4.5%), which is consistent with the lower risk for terminal ANS since the traffic risk sharing does not apply for the five TCZs.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
As for en-route ANS, the Performance Plan does not comprise information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template.	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement.	

Overall consistency assessment of Belgium terminal ANS cost-efficiency KPIs

Taking into account the above key points, in particular 3, the FABEC Performance Plan, and in particular Belgium terminal ANS cost-efficiency target for Liège TCZ is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

Taking into account the above key points, in particular 3, the FABEC Performance Plan, and in particular Belgium terminal ANS cost-efficiency targets for Antwerpen, Brussels, Charleroi, Oostende and Brugge TCZs are assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan, in particular to Belgium to revise its terminal ANS cost-efficiency target, including to:

a) consider revising its RP2 TNSU forecasts in the light of the evolution of actual traffic in 2014

b) revise the trends and levels of terminal DCs planned for RP2; and,

c) provide the information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template.

5.4 Luxembourg: Overview of terminal charging zone assessment

5.4.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Luxembourg which comprises one airport (Luxembourg), with less than 70,000 movements per year.

There was no terminal navigation charge in Luxembourg prior to RP2. Terminal ANS costs were recovered through the airport charges.

Luxembourg airport will not be subject to traffic risk sharing over RP2.

In addition, there is a potential compliance issue with the charging Regulation for Luxembourg TCZ. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance" which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements). The outcome of this process will have an impact on whether the plan is accepted by the European Commission or otherwise.

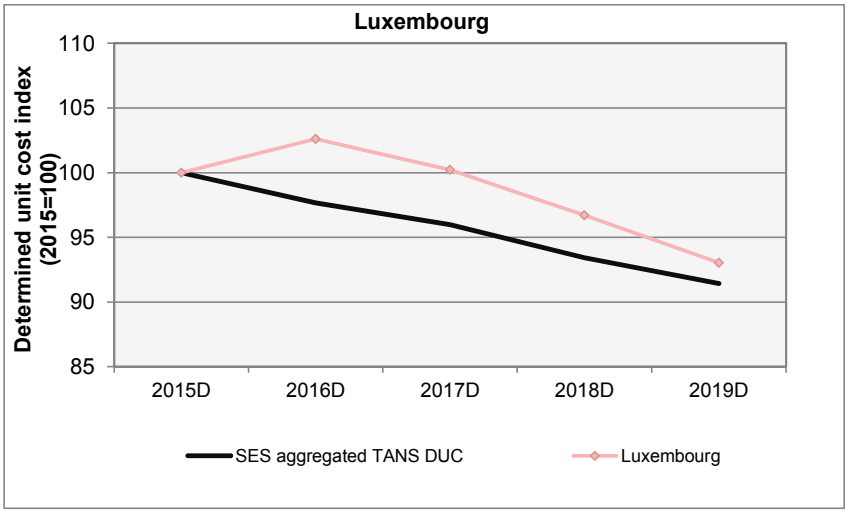


Figure 17: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	11.4	12.4	12.8	13.2	13.5	4.4%
Inflation rate *	annual % change	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%
Inflation index *	2009=100	114.6	116.6	118.8	121.1	123.4	
Determined costs	EUR m (2009)	9.9	10.6	10.8	10.9	11.0	2.5%
Terminal SUs	'000s	41.3	43.0	44.7	46.9	49.0	4.4%
Determined unit cost	EUR (2009)	240.23	246.51	240.77	232.34	223.47	-1.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	240.23	246.51	240.77	232.34	223.47	-1.8%

Table 17: Terminal DUC breakdown

Key points for Luxembourg terminal charging zone	
1. Traffic forecast assumptions:	**Passed**
Over RP2, the planned growth of terminal SUs provided for Luxembourg TCZ is in line with STATFOR February 2014 base scenario.	
2. Economic assumptions:	**Passed**
The inflation forecasts submitted for Luxembourg TCZ over the 2015-2019 period are in line with the IMF average inflation forecasts.	
3. Terminal ANS DUC trend:	**Not passed**
Over the 2015-2019 period, the terminal DUC profile of the Luxembourg TCZ (-1.8% p.a.) is below the SES aggregated TANS DUC trend (-2.2% p.a.). The reduction in the terminal DUC mainly reflects the fact that terminal SUs are expected to increase faster (+4.4% p.a.) than terminal DCs (+2.5% p.a.) over the 2015-2019 period. The year 2013 is the latest for which actual terminal cost data is available. The determined cost base used to compute Luxembourg TCZ DUC for the year 2015 (9.9 M€$_{2009}$) is -5.0% lower than 2013 actual terminal costs (10.4 M€$_{2009}$). However, Luxembourg terminal DCs are expected to substantially increase in 2016 (+6.8%) and then to continuously rise until 2019 (+1.1% p.a.) to reach an amount (11.0 M€$_{2009}$) which is +4.9% higher than 2013 actuals. In addition, the average level of terminal DUC planned for Luxembourg TCZ over RP2 (around 240 €$_{2009}$) is much higher than the SES aggregated average (167 €$_{2009}$).	
4. Terminal cost of capital:	**Passed**
The WACC rate reported for Luxembourg TCZ amounts to 2.8% for each year of RP2. This is in line with the WACC rates that will be used to compute the en-route cost of capital of ANA Luxembourg over RP2.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The Performance Plan does not comprise information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. No information is provided on the interest rates on loans since the cost of debt is not included in the computation of the WACC for ANA Luxembourg. The Performance Plan indicates that for ANA Luxembourg no adjustments were made beyond the provisions of IAS.	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement.	

Overall consistency assessment of Luxembourg terminal ANS cost-efficiency KPIs
Taking into account the above key points, in particular 3, the FABEC Performance Plan, and in particular Luxembourg terminal ANS cost-efficiency targets are assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation. **Therefore the PRB advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan, in particular to Luxembourg to revise its terminal ANS cost-efficiency target, including to:** **a) revise the trends and levels of terminal DCs planned for RP2; and,** **b) provide the information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template.**

5.5 France: Setting the scene for the RP2 cost-efficiency assessment

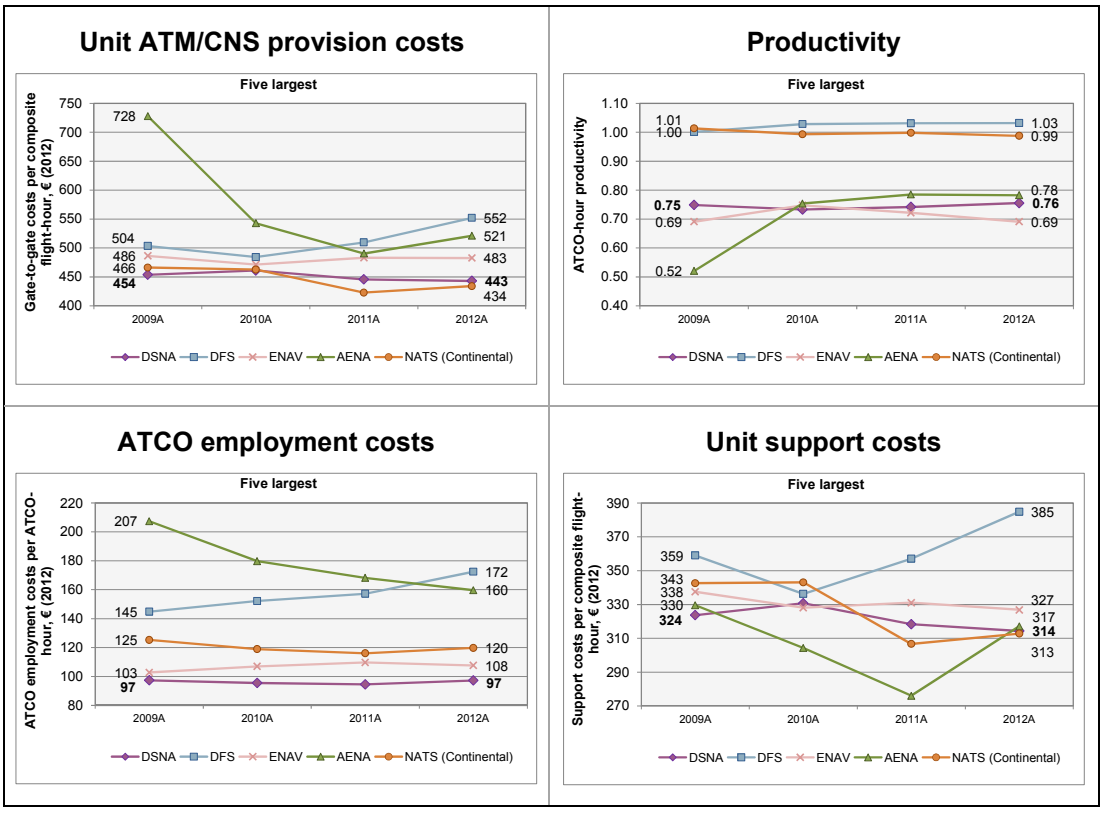
5.5.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analyses. It focuses on DSNA, the main ATSP in France, which represented 15.9% of the European system ATM/CNS provision costs in 2012.

5.5.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. DSNA is part of the five largest ANSPs comparator group, also including Aena (Spain), DFS (Germany), ENAV (Italy) and NATS (UK).

5.5.3 The ACE 2012 benchmarking analysis shows that:

- DSNA's productivity (0.76) is -13.5% below the average for the comparators (0.87);
- Employment costs per ATCO-hour (97 €$_{2012}$) are -30.5% lower than the average for the comparators (140 €$_{2012}$); and,
- Support costs per composite flight-hour (314 €$_{2012}$) are -6.3% lower than the average for the comparators (335 €$_{2012}$).

5.5.4 As a result, DSNA's unit ATM/CNS provision costs (443 €$_{2012}$) were -10.9% lower than the average for the comparators in 2012 (497 €$_{2012}$).



5.5.5 The PRB 2013 monitoring analysis indicates that the en-route activity for the year 2013 generated a net gain of +1.5 M€$_{2009}$ for DSNA overall. This is the combination of two separate elements:

- a gain of +23.8 M€$_{2009}$ for DSNA resulting from the cost-sharing mechanism (based on provisional actual 2013 data provided by France);
- a loss of –22.3 M€$_{2009}$ resulting from the traffic risk sharing mechanism for 2013.

5.5.6 On the profitability side for the en-route activity, the ex-ante estimated surplus embedded in the cost of capital through the return on equity planned in the RP1 Performance Plan amounted to +15.1 M€$_{2009}$, corresponding to an estimated surplus of +1.5% of the en-route costs/revenues for 2013. Ex-post, the estimated surplus for the year computed by adding the return on equity surplus embedded in the cost of capital (+15.8 M€$_{2009}$) and the net gain from the en-route activity in 2013 (+1.5 M€$_{2009}$), gives a total of +17.3 M€$_{2009}$ for 2013, corresponding to +1.8% of the en-route revenues in 2013. The resulting ex-post rate of return on equity for 2013 is +8.8% (compared to +8.0% as initially planned in the RP1 Performance Plan).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	978 962	986 356
Actual costs for the ATSP	932 410	963 792
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	46 552	22 564
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	868	1 266
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**47 421**	**23 830**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-2.62%	-2.91%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-21 148**	**-22 315**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	26 272	**1 515**

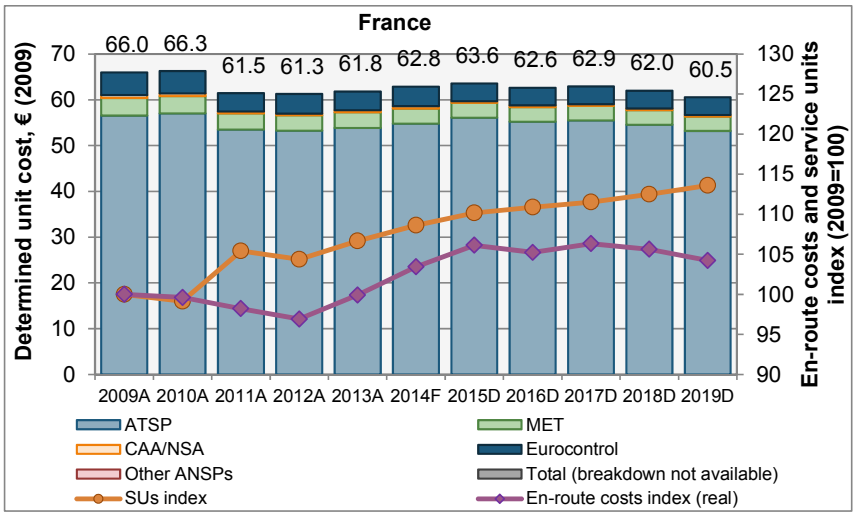
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	17 813	15 812
Overall estimated surplus (+/-) for the en-route activity	44 085	17 327
Revenue/costs for the en-route activity	958 682	965 307
Estimated surplus (+/-) in percent of en-route revenue/costs	**4.6%**	**1.8%**
Estimated ex-post RoE pre-taxe rate (in %)	**19.8%**	**8.8%**

Table 18: ANSP estimated surplus 2012 & 2013

5.6 France: Overview of en-route KPI assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	56.58	57.04	53.47	53.23	53.84	54.76	56.10	55.19	55.48	54.57	53.20	-0.1%	-0.6%
MET	EUR (2009)	3.82	3.77	3.55	3.37	3.41	3.32	3.24	3.22	3.20	3.17	3.14	-1.5%	-1.1%
CAA/NSA	EUR (2009)	0.61	0.59	0.39	0.39	0.47	0.55	0.37	0.36	0.35	0.34	0.34	-2.0%	-9.5%
Eurocontrol	EUR (2009)	4.98	4.89	4.05	4.28	4.07	4.20	3.85	3.86	3.88	3.87	3.86	-0.6%	-1.7%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**65.98**	**66.30**	**61.47**	**61.27**	**61.80**	**62.84**	**63.56**	**62.63**	**62.91**	**61.96**	**60.54**	**-0.2%**	**-0.7%**

Figure 18: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	1 107.2	1 122.1	1 131.7	1 141.6	1 188.5	1 242.8	1 290.6	1 296.6	1 328.7	1 340.1	1 343.8
Inflation rate	annual % change		1.7%	2.3%	2.2%	1.0%	1.0%	1.2%	1.3%	1.4%	1.5%	1.6%
Inflation index	2009=100	100.0	101.7	104.1	106.4	107.4	108.5	109.8	111.3	112.9	114.6	116.4
Determined costs	EUR m (2009)	1 107.2	1 102.9	1 087.5	1 073.2	1 106.3	1 145.3	1 175.0	1 165.2	1 177.3	1 169.5	1 154.0
Service units	'000s	16 780	16 637	17 691	17 515	17 900	18 226	18 487	18 604	18 714	18 876	19 064
Determined unit cost	EUR (2009)	65.98	66.30	61.47	61.27	61.80	62.84	63.56	62.63	62.91	61.96	60.54
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	65.98	66.30	61.47	61.27	61.80	62.84	63.56	62.63	62.91	61.96	60.54

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.0%	2.2%	1.6%	1.0%
Inflation	CAGR %	1.5%	1.4%	1.4%	1.5%
Determined costs	EUR m (2009)	0.4%	0.7%	0.2%	-0.4%
Service units	'000s	1.3%	0.9%	0.9%	0.8%
Determined unit cost	EUR (2009)	-0.9%	-0.2%	-0.7%	-1.2%
Exchange rate					
Determined unit cost	EUR (2009)	-0.9%	-0.2%	-0.7%	-1.2%

Table 19: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	No

The total en-route determined costs (DCs) reported for year 2014 in the RP2 Performance Plan have not been updated from those planned for 2014 in the RP1 Performance Plan in nominal terms (although the breakdown of DSNA costs by nature has changed). When converted in real terms, the 2014 costs in the RP2 Performance Plan are slightly higher (by +0.3%) than those in the RP1 Performance Plan due to a slightly lower forecast inflation index than in the RP1 Performance Plan.

On the other hand, the en-route Total Service Units (TSUs) for 2014 have been updated and are -4.3% lower in the RP2 Performance Plan than in RP1 NPP.

This issue affects the en-route TSUs, en-route DCs and Determined Unit Costs (DUC) trends when calculated over the 2014-2019 period, as it results in a higher starting point for RP2.

For the purposes of en-route DUC trend assessments, more attention will therefore be given to the 2011-2019 period (covering both RP1 and RP2).

Key points for France's en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

The forecast en-route TSUs for RP2 are in line with STATFOR low case forecast published in February 2014 (+0.9% p.a.). This choice seems very conservative in the light of the growth observed in the period January to August 2014 (+3.6%), which exceeds the STATFOR base case forecast for 2014 (+3.0% vs 2013). Given the relatively high proportion of domestic traffic in France, it also raises a consistency issue with the traffic forecasts chosen for the terminal cost-efficiency targets, which is close to the STATFOR base case forecast.

2. Economic assumptions:	**Passed**

The forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014.

3. En-route DUC trend:	**Not passed**

The en-route DUC trend for France over the period 2014-2019 (-0.7% p.a.) is much worse than the Union-wide targets (-3.3% p.a.), despite a high starting point 2014 (based on 2014 RP1 DCs but a traffic forecast revised downwards – see above). The en-route DUC trend is also worse if considered over the period 2011-2019, even if normalised for the STATFOR base case traffic forecast.

The en-route DCs trend is also much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the periods 2014-2019 (+0.2% p.a. vs. -2.1% p.a.) or 2011-2019 (+0.7% p.a. vs. -0.8% p.a.). 2015 DCs are +9.5% above 2012 actual costs (or +8.3% without other income/revenues) and +6.2% above 2013 actual costs (or +5.5% without other income/revenues). As a result, the cost-efficiency improvements achieved in the first two years of RP1 do not seem to be genuinely reflected in RP2.

Moreover, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within the DSNA or with other ATSPs in the FAB.

Finally, the investments that were cancelled or delayed compared to the RP1 Performance Plan do not seem to have given rise to adjustments on the RP2 DCs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.

4. En-route DUC level:	**Passed**

The en-route DUC level for France in 2019 is lower by -2.8% than the average of the DUC of the comparators. This difference is gradually and considerably reducing over time, as the unit cost of France is over -10% lower than the comparators in RP1.

It should also be noted that the average of the comparators DUC level in 2019 is significantly impacted by the increase in the DUC for Germany and decreases for the other comparators in the group.

5. En-route cost of capital:	**Passed**

The WACC rate used to calculate the cost of capital of the DSNA (4.76%) is within the range of values for the "notional" efficient WACC calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

DSNA's asset base per SU is lower than for the comparators.

The monetary value of the Return on Equity (RoE) is below the monetary value of the maximum revenue risk borne by the DSNA for the en-route activity. However, it should be noted in this respect that the choice of the low STATFOR traffic forecast scenario reduces the probability of reaching the maximum loss.

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

The information provided on pension costs assumptions and justifications is not consistent with the FAB Performance Plan template and guidance as it is incomplete.

The information provided on interest on loans is limited to the average annual cost of debt falling on the ANSP. The RP2 Performance Plan indicates that "*the ANSP borrows money through the DGAC, which in its turn borrows through the French Treasury Agency. The DGAC has about 50 loans outstanding."*

Adjustments beyond IAS are reported to be applied. However, there is only limited information on the specific adjustments and their impact on the DCs.

7. Costs exempt from risk sharing:	**Passed**

The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 6. above). It should be noted that France intends to update this information following the European Commission feedback for RP1. France also indicates that "*the costs exempt from cost-sharing filed for RP1 "have been taken into account for the RP2 forecasts, based on what can be currently known*".

Overall consistency assessment of France en-route cost-efficiency KPIs

Taking into account these key points, in particular 1 and 3, France en-route cost-efficiency target is assessed as not being consistent with and not making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2.

Therefore, the PRB advises the Commission to issue a recommendation to France to:

a) revise its en-route DCs downwards for RP2 so as to ensure that the cost-efficiency improvements achieved in the first two years of RP1 are genuinely reflected in RP2;

b) reconsider the traffic forecast in the light of the latest available year-to-date actual situation;

c) ensure that airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. Provide detailed information in the Performance Plan on how this is ensured; and,

d) provide information on the underlying pension costs assumptions and adjustments beyond IAS in line with the requirements of the FAB Performance Plan template (based on key point 6).

5.7 France: Overview of terminal KPI assessment

5.7.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in France for RP2, which covers 61 airports and where traffic risk-sharing applies.

France is the only SES State which already applied determined costs, traffic risk-sharing and cost-sharing to its TCZ in RP1.

The TCZ is the same as for RP1, with one additional airport (LFJR - Angers Marcé).

Total TNSUs for the TCZ accounted for 99% of the TNSUs in France in 2013.

Total costs for the TCZ account for 16% of France's "gate-to-gate" activity subject to SES in RP2.

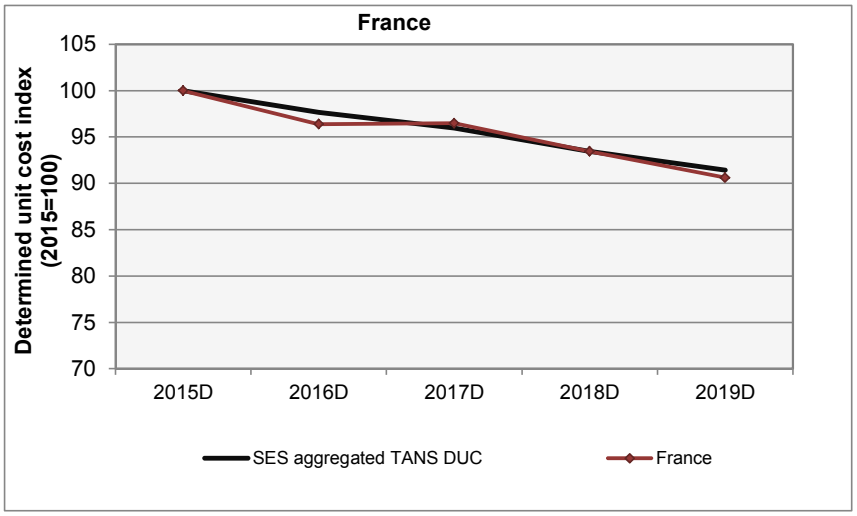


Figure 19: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	241.0	243.4	248.0	248.5	250.2	0.9%
Inflation rate *	annual % change	1.2%	1.3%	1.4%	1.5%	1.6%	1.5%
Inflation index *	2009=100	109.8	111.3	112.9	114.6	116.4	
Determined costs	EUR m (2009)	219.4	218.8	219.8	216.9	214.9	-0.5%
Terminal SUs	'000s	1 057.1	1 093.6	1 097.2	1 118.0	1 142.2	2.0%
Determined unit cost	EUR (2009)	207.59	200.07	200.29	193.98	188.10	-2.4%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	207.59	200.07	200.29	193.98	188.10	-2.4%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 20: Terminal DUC breakdown

Key points for France terminal charging zone	
1. Traffic forecast assumptions:	**Passed**
The forecast total TNSUs is based on France's own forecasts. They are higher than the STATFOR base case published in February 2014 for 2015 and 2016 (by +0.8% and +1.4%, respectively). For the remaining years of RP2, the forecast TNSUs correspond to the STATFOR base case published in February 2014.	
2. Economic assumptions:	**Passed**
Forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route KPI.	
3. Terminal ANS DUC trend:	**Passed**
The terminal DUC trend for France over the period 2015-2019 (-2.4% p.a.) is slightly better than the profile corresponding to the SES aggregated Terminal ANS DUC taken from RP2 Performance Plans (-2.2% p.a.). The terminal DCs trend (-0.5% p.a.) is similar to the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (-0.4% p.a.).	
4. Terminal cost of capital:	**Passed**
The WACC and RoE used to calculate the cost of capital for terminal ANS is the same as that used to calculate the en-route cost of capital for the DSNA.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided in the Performance Plan for the description economic assumptions is the same as for en-route. As for en-route, the information provided on pension costs assumptions and justifications is not consistent with the FAB Performance Plan template and guidance as it is incomplete. The information provided on interest on loans is limited to the average annual cost of debt falling on the ANSP. The RP2 Performance Plan indicates that "*the ANSP borrows money through the DGAC, which in its turn borrows through the French Treasury Agency. The DGAC has about 50 loans outstanding.*" Adjustments beyond IAS are reported to be applied. However, there is only limited information on the specific adjustments and their impact on the RP2 DCs.	
6. Costs exempt from risk sharing:	**Passed**
As for en-route, the RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions – see 5. above). It should be noted that France intends to update this information following the European Commission feedback for RP1 (France is the only SES State which already applied DCs and cost-sharing to its TCZ in RP1). France also indicates that the costs exempt from cost-	

sharing filed for RP1 "*have been taken into account for the RP2 forecasts, based on what can be currently known*".

Overall consistency assessment of France terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1, 2, 3 and 4, France terminal ANS cost-efficiency targets are assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

However, the PRB advises the Commission to issue a recommendation to France to:

a) provide information on the underlying pension costs assumptions and adjustments beyond IAS in line with the requirements of the FAB Performance Plan template (based on key point 5).

5.8 Germany: Setting the scene for the RP2 cost-efficiency assessment

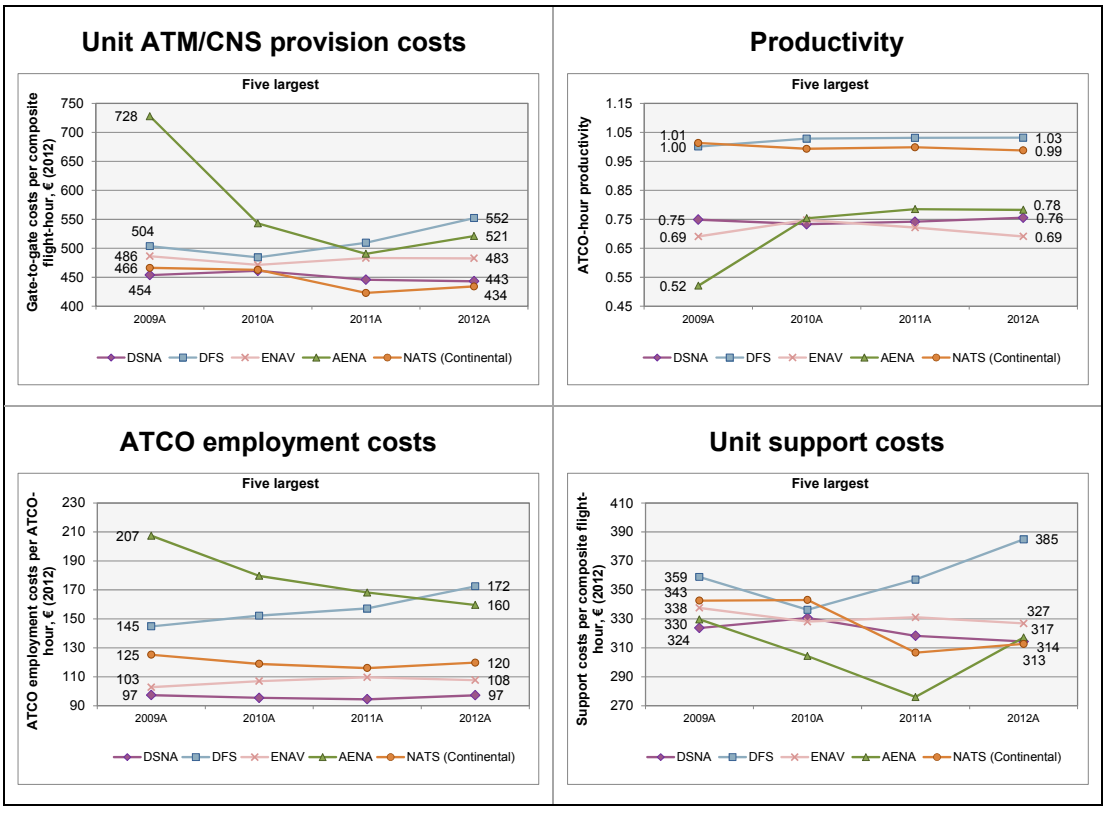
5.8.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on DFS, the main ATSP in Germany, which represented 14.4% of the European system ATM/CNS provision costs in 2012.

5.8.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. DFS is part of the five largest ANSPs comparator group, also including Aena (Spain), DSNA (France), ENAV (Italy) and NATS (UK).

5.8.3 The ACE 2012 benchmarking analysis shows that:

- DFS ATCO-hour productivity (1.03), the second highest amongst the European ATSPs, is +28.3% higher than the comparator group average (0.80);
- Employment costs per ATCO-hour (€172) are +42.4% higher than the comparator group average (€121); and,
- Support costs per composite flight hour (€385) are +21.1% higher than the comparator group average (€318).

5.8.4 As a result, DFS unit ATM/CNS provision costs (€552) were +17.4% higher than the comparator group average in 2012 (€470).



5.8.5 The PRB 2013 monitoring analysis indicates that DFS actual en-route costs for 2013 were lower than planned (-27.1 M€$_{2009}$). This was not sufficient to compensate for the impact of the lower traffic than planned (-8.8%) on DFS revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, DFS generated a net loss of 9.5 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating DFS economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity

(some 31.7 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 22.2 M€$_{2009}$, which implies an ex-post rate of return on equity of 3.0% (compared to 2.8% as initially planned in the NPP). This contrasts with the loss realised by DFS in 2012 (-6.2 M€$_{2009}$ or -0.8% of en-route revenues leading to a negative ex-post rate of return on equity of -1.6%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	773 032	780 345
Actual costs for the ATSP	781 583	753 284
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-8 552	27 061
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-2 197	-5 193
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**-10 749**	**21 867**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-6.51%	-8.77%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-25 767**	**-31 392**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	-36 516	-9 524

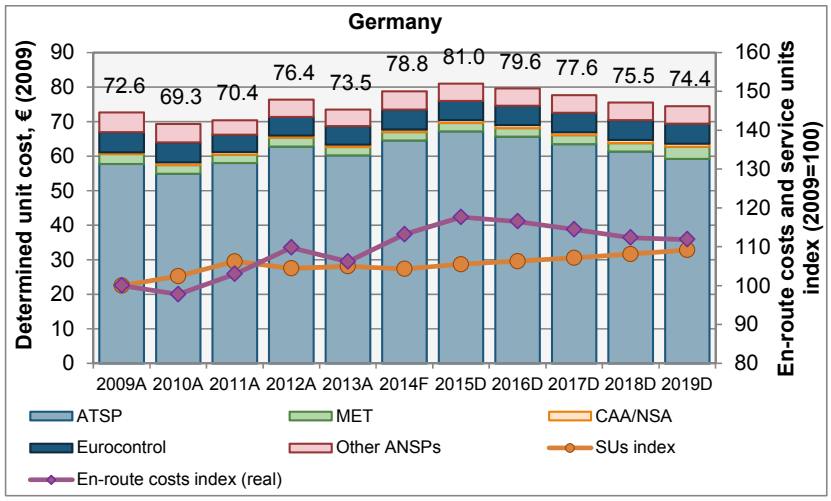
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	30 320	31 703
Overall estimated surplus (+/-) for the en-route activity	-6 195	22 179
Revenue/costs for the en-route activity	745 068	743 760
Estimated surplus (+/-) in percent of en-route revenue/costs	**-0.8%**	**3.0%**
Estimated ex-post RoE pre-taxe rate (in %)	**-1.6%**	**5.4%**

Table 21: ANSP estimated surplus 2012 & 2013

5.9 Germany: Overview of en-route charging zone assessment

5.9.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	57.74	54.92	57.98	62.82	60.23	64.57	67.15	65.64	63.50	61.36	59.25	0.3%	-1.7%
MET	EUR (2009)	2.85	2.52	2.45	2.53	2.44	2.37	2.49	2.49	2.52	2.44	3.44	4.3%	7.8%
CAA/NSA	EUR (2009)	0.53	0.77	0.75	0.64	0.68	0.79	0.79	0.86	0.87	0.90	0.91	2.4%	3.0%
Eurocontrol	EUR (2009)	5.81	5.83	5.03	5.39	5.38	5.76	5.53	5.65	5.72	5.75	5.78	1.7%	0.1%
Other ANSPs	EUR (2009)	5.71	5.31	4.18	4.98	4.74	5.33	5.02	4.97	5.01	5.04	5.05	2.4%	-1.1%
Total	**EUR (2009)**	**72.65**	**69.34**	**70.40**	**76.36**	**73.47**	**78.81**	**80.99**	**79.60**	**77.61**	**75.50**	**74.44**	**0.7%**	**-1.1%**

Figure 20: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	865.5	856.3	924.3	1 006.3	988.7	1 068.4	1 125.3	1 132.3	1 131.6	1 129.5	1 143.7
Inflation rate	annual % change		1.2%	2.5%	2.1%	1.6%	1.4%	1.4%	1.6%	1.7%	1.7%	1.7%
Inflation index	2009=100	100.0	101.2	103.7	105.9	107.6	109.1	110.5	112.3	114.2	116.2	118.1
Determined costs	EUR m (2009)	865.5	846.1	891.1	950.1	918.9	979.5	1 017.9	1 008.2	990.7	972.3	968.0
Service units	'000s	11 913	12 202	12 658	12 442	12 506	12 429	12 568	12 665	12 765	12 879	13 004
Determined unit cost	EUR (2009)	72.65	69.34	70.40	76.36	73.47	78.81	80.99	79.60	77.61	75.50	74.44
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	72.65	69.34	70.40	76.36	73.47	78.81	80.99	79.60	77.61	75.50	74.44

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.8%	2.7%	1.4%	0.4%
Inflation	CAGR %	1.7%	1.6%	1.6%	1.7%
Determined costs	EUR m (2009)	1.1%	1.0%	-0.2%	-1.2%
Service units	'000s	0.9%	0.3%	0.9%	0.9%
Determined unit cost	EUR (2009)	0.2%	0.7%	-1.1%	-2.1%
Exchange rate					
Determined unit cost	EUR (2009)	0.2%	0.7%	-1.1%	-2.1%

Table 22: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The number of en-route service units (SUs) reported for the year 2014 in the RP2 Performance Plan for Germany (12,429,000) has been updated and revised substantially downwards (-12.0%) compared to the information provided in the NPP for RP1 (14,119,320).

The en-route determined costs (DCs) reported for the year 2014 (979.5 M€$_{2009}$) have also been revised but they are +2.3% higher than the figure provided in the NPP for RP1 (957.5 M€$_{2009}$). It is noteworthy that these revised 2014 DCs are +6.6% higher than 2013 actual en-route costs (919.0 M€$_{2009}$) and +3.1% higher than 2012 actuals (950.1 M€$_{2009}$).

As a result, the revised en-route unit costs for 2014 amount to 78.81 €$_{2009}$ which is +7.3% higher than the actual 2013 unit costs and +16.2% higher than the unit cost reported for 2014 in the RP1 Performance Plan.

This issue affects the en-route TSUs, en-route DCs and Determined Unit Cost (DUC) trends when calculated over the 2014-2019 period, as it results in a higher starting point for RP2. For the purposes of en-route DUC trend analysis, it will therefore be informative to consider the profile in en-route DUC over different time periods than 2014-2019 (e.g. 2011-2019).

Key points for Germany en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**
The planned growth of en-route SUs provided for Germany en-route charging zone over RP2 is in line with STATFOR February 2014 low case scenario. However, the latest information from the CRCO's monthly monitoring of traffic indicates that for Germany actual traffic in the first eight months of 2014 is +2.2% higher compared to the same period in 2013. This significantly contrasts with the planned decrease in SUs reported in the Performance Plan for 2014 (-0.6%).	
2. Economic assumptions:	**Passed**
The inflation forecasts submitted for Germany en-route charging zone over RP2 are in line with the IMF average inflation forecasts.	
3. En-route DUC trend:	**Not passed**
Important note: The information provided by Germany in the FABEC Performance Plan for RP2 significantly differs from the data submitted in June for the purposes of the Enlarged Committee for Route Charges. Indeed, the en-route costs profile provided for 2015-2019 has been substantially revised downwards reflecting reductions in the cost-base planned for the German ATSP DFS (i.e. ranging from -74M€ in 2015 to -92M€ in 2019). These decreases are the result of a "top-down" approach to reduce the German determined costs (DCs) planned for RP2. As a consequence of this last minute revision, the RP2 Performance Plan does not comprise detailed cost breakdown figures for DFS. For this reason, a complete analysis of the German en-route DUC trend over RP2 could not be carried out. Germany forecasts a -1.1% annual en-route DUC decrease over the 2014-2019 period which is significantly below the Union-wide cost-efficiency target (i.e. -3.3% p.a.). The German DUC reduction is planned to be mainly achieved through the (low) traffic growth (+0.9% p.a.) while DCs are expected to remain fairly constant (-0.2 % p.a.). As highlighted above, the DCs and SUs provided by Germany for the year 2014 were updated. The revised en-route unit costs for 2014 amount to 78.81 €$_{2009}$ which is +16.2% higher than the unit cost reported for 2014 in the RP1 Performance Plan. This significant deviation is due to the fact that while the number of SUs were revised substantially downwards (-12.0%), en-route costs were revised upwards (+2.3%). This upwards revision should be seen in the light of the new collective agreement signed in October 2011 resulting in additional staff costs (some 50 M€ over RP1 – an average of 17 M€ p.a.) which were not reflected in the DCs planned for 2014 in the RP1 Performance Plan. In addition, the revised 2014 en-route costs are significantly higher (+6.6%) than 2013 actual en-route costs. This contributes to a relatively high starting point for RP2 cost-efficiency targets since 2014 en-route unit costs are +7.3% higher than 2013 actuals. When assessed over the 2011-2019 period which covers RP1 and RP2, Germany's en-route DUC is expected to increase by +0.7% p.a. which contrasts with the Union-wide target profile (i.e. -1.7% p.a.). The planned growth of en-route SUs provided in Germany Performance Plan for the period 2015-2019 is in line with STATFOR February 2014 low scenario (+0.9% p.a.). If STATFOR February 2014 base case forecasts were used to compute the planned DUC, then the adjusted profile over the 2014-2019 period would be -2.4% p.a. which is still below the Union-wide cost-efficiency target (-3.3% p.a.). Similarly, over the 2011-2019 period the adjusted DUC trend would be -0.2% p.a. which is well below the Union-wide cost-efficiency	

target (-1.7% p.a.).

Detailed analysis indicates that over the 2011-2019 period, the German en-route DUC is planned to increase (+0.7% p.a.) since the traffic growth (+0.3% p.a.) is not expected to compensate for the rise in DCs (+1.0 % p.a.). Except for DFS (+0.3% p.a.), en-route DUC are planned to increase for all the entities included in the en-route charging zone: +4.3% p.a. for the MET provider (DWD), +2.4% p.a. for the German NSA, +1.7% p.a. for the EUROCONTROL Agency and +2.4% p.a. for MUAC which provides ATC services over the North-Western part of Germany.

For MUAC and the EUROCONTROL Agency, the level of 2011 en-route costs was exceptionally low following the impact of a one-off exceptional reduction mainly relating to the implementation of IFRS budgeting. Without this one-off reduction, the DUC reported for EUROCONTROL is expected to remain fairly constant (+0.1% p.a.) between 2011 and 2019. On the other hand, the DUC planned by MUAC for the year 2015 is expected to be +6.0% higher than 2013 actuals and to remain fairly constant until 2019. The higher DUC planned for 2015 mainly reflects higher other operating costs (+3.2 M€$_{2009}$ or +57% compared to 2013). The Performance Plan does not provide detailed information on the main drivers for this increase.

The increase in the en-route DUC reported for DWD (+4.3% p.a.) between 2011 and 2019 mainly reflects a sharp rise in DCs planned for the year 2019 (+13.3 M€$_{2009}$ compared to 2018) due to significantly higher other operating costs (+97%) and cost of capital (+176%). According to the information provided in the Performance Plan, this significant increase reflects the inclusion in DWD en-route cost-base of a contribution to EUMETSAT associated with the launch of MTG (Meteosat Third Generation) satellites in 2018. This issue was also identified by airspace users during the consultation of the draft RP2 Performance Plan.

The PRB 2013 monitoring analysis indicates that DFS estimated economic surplus for the en-route activity in 2013 amounts to 22.2 M€$_{2009}$, which implies an ex-post rate of return on equity of 3.0% (compared to 2.8% as initially planned in the NPP). This contrasts with the loss realised by DFS in 2012 (6.2 M€$_{2009}$ or -0.8% of en-route revenues leading to a negative ex-post rate of return on equity of -1.6%).

DFS en-route DCs for 2015 (844.0 M€$_{2009}$) are +12.0% higher than 2013 actual en-route costs (753.3 M€$_{2009}$). This significant difference is partly driven by higher pension-related costs to be reported in DFS cost-base from 2015 onwards. Indeed, following an amendment of IAS 19 in 2013, any gains/losses arising from a change in actuarial assumptions has to be directly reflected in the financial statements of DFS. This contrasts with the methodology that was used by DFS until 2012 (i.e. corridor approach) according to which only a part of the actuarial gains/losses were recognised in the financial statements. As a result, previously "unrecognised" actuarial losses amounting to 739.3 M€ had to be recorded in DFS 2013 financial statements. It is understood that these actuarial losses have been spread over a 15 years period and that they are reflected in the DCs planned for RP2. [Analysis to be completed after final submission of Annex C for Germany in the FABEC Performance Plan, and in particular the en-route DCs breakdown for DFS]

Finally, there are no indications in the FAB Performance Plan of significant structural and organisational changes in the delivery of ATC services within the DFS or with other ATSPs in the context of the FABEC initiative.

4. En-route DUC level:	**Not passed**

In 2019, Germany's en-route DUC is planned to amount to 74.44 €$_{2009}$ per SU which is +26.6% higher than the average of the comparator group (58.80 €$_{2009}$). Germany en-route DUC is well above the comparator group average for each year of RP2. In addition, Germany en-route DUC is expected to be substantially higher (+45.2% in 2019) than the Union-wide aggregated DUC.

Over the 2011-2019 period, the German en-route DUC is expected to increase by +0.7% p.a. This contrasts with the reductions planned by the United Kingdom (-2.8% p.a.), Spain Continental (-1.6% p.a.) and Italy (-1.4% p.a.). In the meantime, the French DUC is expected to remain fairly constant (-0.2% p.a.).

Similarly, the decrease in the en-route DUC forecast by Germany over 2014-2019 (-1.1% p.a.) is lower than that planned by the United Kingdom (-5.3% p.a.), Spain Continental (-2.0% p.a.) and Italy (-2.8% p.a.).

5. En-route cost of capital:	**[TBD]**

[Analysis to be carried out when the missing data on the cost of capital planned for over RP2 is provided]

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for three defined benefits pension schemes that were established by DFS.

Similarly, information is provided on the interest rates on several loans contracted by DFS The average interest rate for these loans is in line with the interest rate on debt (2.0%) used to compute DFS cost of capital for en-route ANS. [To be checked when missing data is provided]

The Performance Plan specifies that for Germany some adjustments were made beyond the provisions of IAS. These adjustments mainly relates to the methodology used to set the discount rate required to compute DFS future pension obligations.

[Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]

7. Costs exempt from risk sharing:	**Passed**

The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the German NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014.

The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. As for RP1, these amounts will be considered eligible (or not eligible) only after the EC verification process.

[Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]

Overall consistency assessment of Germany en-route cost-efficiency KPIs

Taking into account these key points, in particular 3 and 4, the FABEC Performance Plan, and in particular Germany's en-route cost-efficiency target, is assessed as not being consistent with and not making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan and, in particular to Germany to revise its en-route cost-efficiency target for RP2, including, to:

a) consider revising the TSU forecast for RP2 taking into account the actual traffic evolution in 2014; and,

b) revise the trends and levels of en-route DCs planned for RP2.

5.10 Germany: Overview of terminal charging zone assessment

5.10.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Germany comprising 16 airports of which seven (Frankfurt, Hamburg, Koln, Dusseldorf, Munich, Stuttgart and Berlin) are above 70,000 movements per year.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was already applied in the German TCZ during RP1. All the airports in the TCZ will be subject to traffic risk sharing over RP2.

The TCZ is the same as for RP1 in terms of airports scope. Total TNSUs for the TCZ accounted for 92.7% of the TNSUs in Germany in 2013.

On average, the total costs for the TCZ account for 18.1% of Germany's "gate-to-gate" activity subject to SES in RP2.

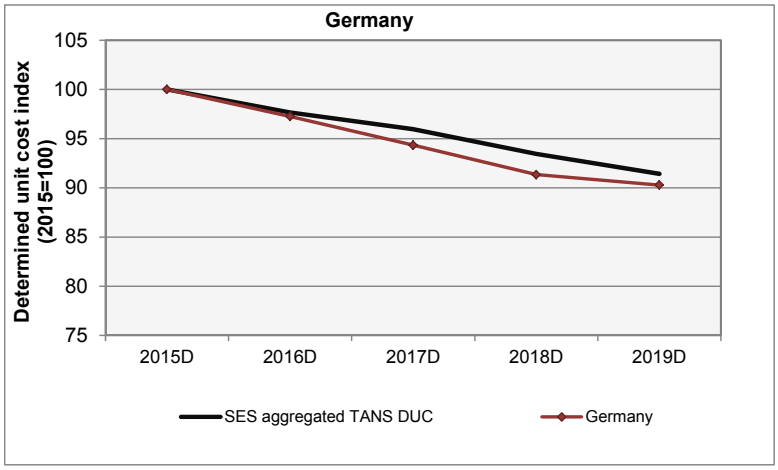


Figure 21: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	251.3	251.8	250.2	248.1	251.9	0.1%
Inflation rate *	annual % change	1.4%	1.6%	1.7%	1.7%	1.7%	1.7%
Inflation index *	2009=100	110.5	112.3	114.2	116.2	118.1	
Determined costs	EUR m (2009)	227.3	224.2	219.0	213.6	213.2	-1.6%
Terminal SUs	'000s	1 274.3	1 292.3	1 301.7	1 310.8	1 323.9	1.0%
Determined unit cost	EUR (2009)	178.38	173.47	168.27	162.94	161.05	-2.5%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	178.38	173.47	168.27	162.94	161.05	-2.5%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 23: Terminal DUC breakdown

Key points for Germany terminal charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**
The planned growth of terminal SUs provided for Germany TCZ over the period 2015-2019 (+1.0% p.a.) is in line with STATFOR February 2014 low scenario (+1.0% p.a.).	
2. Economic assumptions:	**Passed**
Over RP2 a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.	
3. Terminal ANS DUC trend:	**Not passed**
Over the 2015-2019 period, the profile of terminal ANS DUC for the German charging zone (-2.5% p.a.) is better than the SES aggregated DUC trend (-2.2% p.a.). The decrease in the German terminal DUC mainly reflects the fact that terminal DCs are expected to reduce by -1.6% p.a. while the number of terminal SUs is planned to increase by +1.0% p.a. on average. The year 2013 is the latest for which actual terminal costs data is available. The DCs used to compute Germany TCZ DUC for the year 2015 (227.3 M€$_{2009}$) are +12.1% higher than 2013 actual terminal costs (202.8 M€$_{2009}$). This difference contributes to a relatively high starting point for RP2 terminal cost-efficiency targets in terms of DUC. Indeed, despite an expected decrease of -1.6% p.a. over RP2, Germany 2019 terminal DCs are planned to be +5.2% higher than 2013 actuals.	
4. Terminal cost of capital:	**[TBD]**
[Analysis to be carried out when the missing data on the cost of capital planned for over RP2 is provided]	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
As for en-route ANS, the Performance Plan comprises information on the economic assumptions. [Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]	
6. Costs exempt from risk sharing:	**Passed**
The information provided for the description of costs exempt from risk sharing is the same as for en-route ANS (except for EUROCONTROL costs). [Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]	

Overall consistency assessment of Germany terminal ANS cost-efficiency KPIs

Taking into account the above key points, in particular 4, the FAB Performance Plan, and in particular Germany terminal ANS cost-efficiency target is assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan, in particular to Germany to revise its terminal ANS cost-efficiency target, including to:

a) consider revising its RP2 TSU forecasts in the light of the evolution of actual traffic in 2014; and,

b) revise the trends and levels of terminal DCs planned for RP2.

5.11 The Netherlands: Setting the scene for the RP2 cost-efficiency assessment

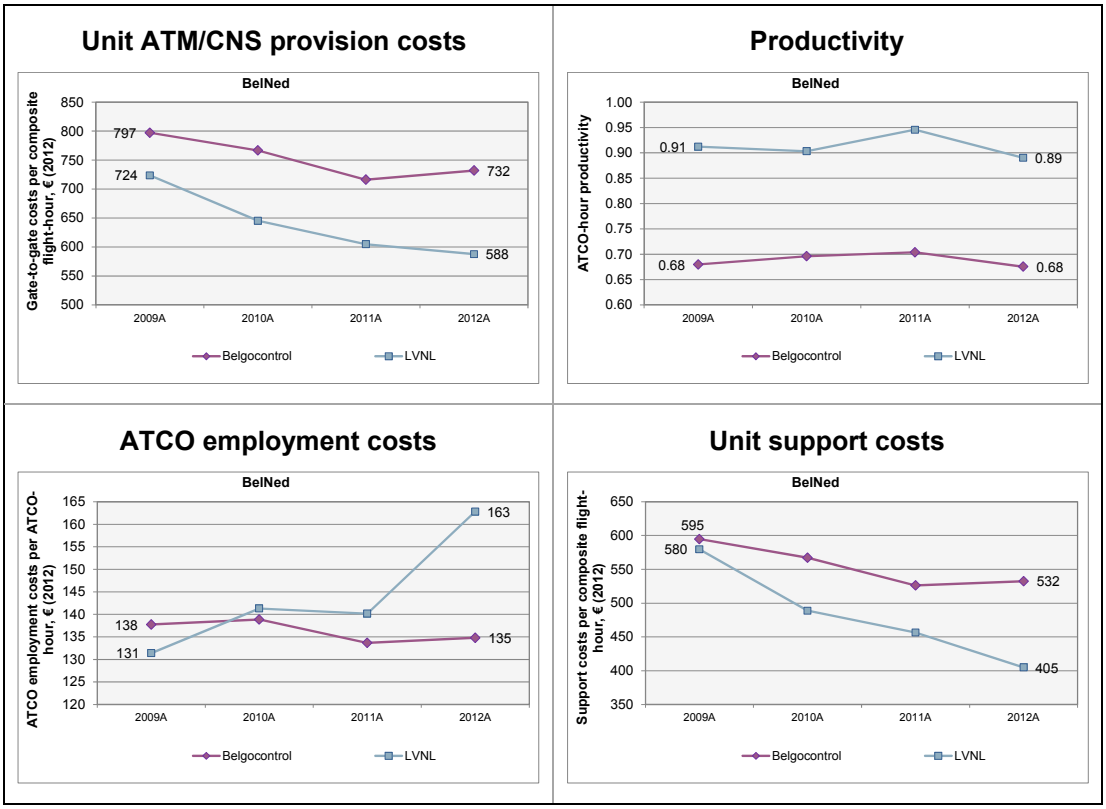
5.11.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on LVNL, the main ATSP in the Netherlands, which represented 2.2% of the European system ATM/CNS provision costs in 2012.

5.11.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. LVNL is part of the "BelNed" comparator group, also including Belgocontrol (Belgium). Both ATSPs operate exclusively in the lower airspace. It should also be noted that these two ATSPs own infrastructure which is made available to MUAC, the ATSP operating in the upper airspaces of Belgium, the North-Western part of Germany, Luxembourg and the Netherlands.

5.11.3 The ACE 2012 benchmarking analysis shows that:

- LVNL's productivity (0.89) is +31.8% higher than Belgocontrol's (0.68);
- Employment costs per ATCO-hour (€163) are +20.8% higher than that of Belgocontrol (€135); and,
- Support costs per composite flight-hour (€405) are -24.0% lower than that of Belgocontrol (€532).

5.11.4 As a result, LVNL's unit ATM/CNS provision costs (€588) were -19.7% lower than Belgocontrol's in 2012 (€732).



5.11.5 The PRB 2013 monitoring analysis indicates that LVNL actual en-route costs for 2013 were substantially higher than planned (+6.6 M€$_{2009}$). In addition actual traffic was lower than planned (-1.1%) negatively affecting LVNL revenues. As a result, taking into account the amount of costs exempt from the cost sharing and the traffic

risk sharing arrangements, LVNL generated a net loss of 6.0 M€$_{2009}$ in 2013 on the en-route activity. For LVNL this is the second consecutive year in which it has incurred a loss (2.3 M€$_{2009}$ in 2012) with the consequent negative impact on its financial strength. The PRB notes that, following a decision from the Dutch government, prior to RP2 LVNL had no equity and was 100% financed by debt, therefore in the table below there is no surplus embedded in the cost of capital which was planned for LVNL in the Performance Plan for RP1.

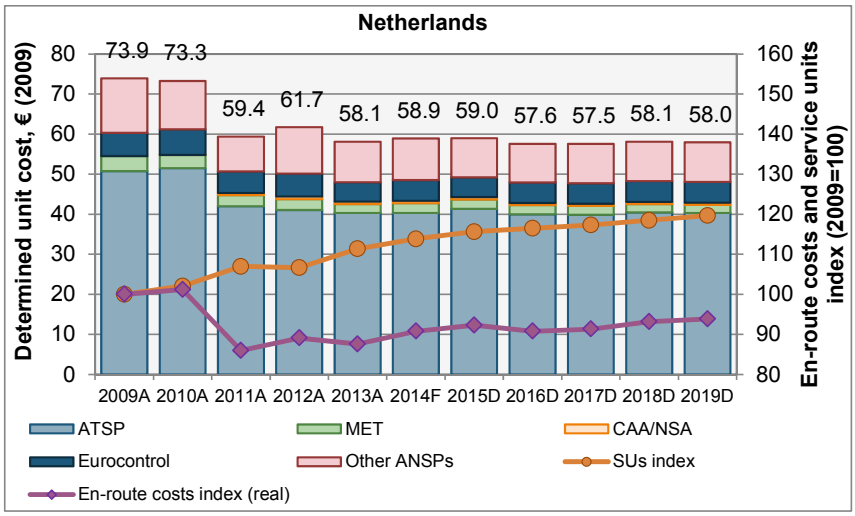
Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	103 450	102 694
Actual costs for the ATSP	106 788	109 322
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-3 338	-6 627
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	3 573	1 813
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**236**	**-4 814**
Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-3.49%	-1.14%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-2 490**	**-1 149**
Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**
Net ATSP gain(+)/loss(-) on en-route activity	**-2 255**	**-5 962**
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	-	-
Overall estimated surplus (+/-) for the en-route activity	-2 255	-5 962
Revenue/costs for the en-route activity	104 534	103 359
Estimated surplus (+/-) in percent of en-route revenue/costs	**-2.2%**	**-5.8%**
Estimated ex-post RoE pre-taxe rate (in %)	**N/appl.**	**N/appl.**

Table 24: LVNL estimated surplus 2012 & 2013

5.12 The Netherlands: Overview of en-route charging zone assessment

5.12.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	50.79	51.53	41.99	41.10	40.30	40.31	41.35	40.00	39.85	40.44	40.31	-0.5%	0.0%
MET	EUR (2009)	3.72	3.28	2.80	2.67	2.28	2.45	2.36	2.28	2.21	2.12	2.04	-3.9%	-3.6%
CAA/NSA	EUR (2009)	-	0.02	0.54	0.64	0.59	0.56	0.57	0.56	0.55	0.53	0.52	-0.4%	-1.6%
Eurocontrol	EUR (2009)	5.81	6.34	5.40	5.76	4.86	5.20	4.93	5.06	5.14	5.18	5.22	-0.4%	0.1%
Other ANSPs	EUR (2009)	13.59	12.11	8.67	11.58	10.09	10.40	9.77	9.69	9.80	9.85	9.89	1.7%	-1.0%
Total	**EUR (2009)**	**73.91**	**73.29**	**59.40**	**61.75**	**58.12**	**58.93**	**58.98**	**57.60**	**57.54**	**58.13**	**57.98**	**-0.3%**	**-0.3%**

Figure 22: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	179.3	183.3	159.6	170.0	171.5	181.3	186.2	185.4	189.2	195.9	200.3
Inflation rate	annual % change		1.0%	2.5%	2.8%	2.6%	2.0%	1.0%	1.2%	1.4%	1.5%	1.5%
Inflation index	2009=100	100.0	101.0	103.5	106.4	109.2	111.4	112.5	113.9	115.5	117.2	119.0
Determined costs	EUR m (2009)	179.3	181.5	154.1	159.8	157.0	162.8	165.5	162.8	163.7	167.1	168.3
Service units	'000s	2 426	2 476	2 595	2 587	2 702	2 762	2 806	2 826	2 846	2 874	2 903
Determined unit cost	EUR (2009)	73.91	73.29	59.40	61.75	58.12	58.93	58.98	57.60	57.54	58.13	57.98
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	73.91	73.29	59.40	61.75	58.12	58.93	58.98	57.60	57.54	58.13	57.98

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	1.1%	2.9%	2.0%	1.8%
Inflation	CAGR %	1.8%	1.8%	1.3%	1.4%
Determined costs	EUR m (2009)	-0.6%	1.1%	0.7%	0.4%
Service units	'000s	1.8%	1.4%	1.0%	0.8%
Determined unit cost	EUR (2009)	-2.4%	-0.3%	-0.3%	-0.4%
Exchange rate					
Determined unit cost	EUR (2009)	-2.4%	-0.3%	-0.3%	-0.4%

Table 25: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The number of en-route service units (SUs) reported for the year 2014 in the RP2 Performance Plan for the Netherlands (2,762,000) has been updated and revised downwards (-1.1%) compared to the information provided in the NPP for RP1 (2,794,000).

The en-route costs reported for the year 2014 (162.8 M€$_{2009}$) have also been revised but they are +2.8% higher than the determined costs (DCs) provided in the NPP for RP1 (158.4 M€$_{2009}$). The PRB notes that these revised 2014 costs are +3.7% higher than 2013 actual en-route costs (157.0 M€$_{2009}$).

As a result, the revised en-route unit costs for 2014 amount to 58.93 €$_{2009}$, which is +1.4% higher than actual 2013 unit costs.

Key points for the Netherlands en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**

The planned growth of en-route SUs provided for the Netherlands en-route charging zone over RP2 is in line with STATFOR February 2014 low scenario.

It should be noted that the planned number of SUs provided in the Performance Plan for the year 2014 (2,762,000) is +1.0% higher than the figure reported in STATFOR database for the low scenario (2,735,523). The Netherlands indicates in the Performance Plan that reporting in 2014 a number of SUs in line with STATFOR low scenario would be not realistic according to the latest local traffic forecast. For this reason, the Netherlands chose to report a number of SUs close to STATFOR base scenario in 2014 but to use a prudent traffic growth forecast until 2019.

The PRB notes that information from the CRCO's monthly monitoring of traffic indicates that for the Netherlands actual traffic in the first eight months of 2014 is +3.1% higher compared to the same period in 2013. This is significantly higher than the planned increase in SUs reported in the Performance Plan for 2014 (+2.2%).

2. Economic assumptions:	**Not passed**

Although the inflation forecasts submitted for the Netherlands en-route charging zone over the 2015-2019 period are in line with the IMF average inflation forecasts, a substantial difference in inflation is observed for the year 2014 (1.2 percentage point). This discrepancy is mainly due to the fact that the inflation rate reported in the Performance Plan for 2014 has not been revised and corresponds to the figure provided in the RP1 Performance Plan. This technical issue affects the level of the Netherlands en-route DUC and DCs which is planned over RP2.

3. En-route DUC trend:	**Not passed, with reservations**

The Netherlands en-route DUC is expected to remain fairly constant over the 2014-2019 period (-0.3% p.a.). This is significantly different from the Union-wide cost-efficiency target trend (i.e. -3.3% p.a.). This mainly reflects the fact that SUs are planned to increase slightly faster (+1.0% p.a.) than DCs (+0.7 p.a.).

As highlighted above, the DCs and SUs provided by the Netherlands for the year 2014 were updated and the revised en-route unit costs for 2014 amount to 58.93 €$_{2009}$ which is +3.9% higher than the DUC reported for 2014 in the RP1 Performance Plan. This significant deviation is due to the fact that, while the number of SUs were revised downwards (-1.1%), en-route costs were revised upwards (+2.8%).

Over the 2009-2019 period, the planned reduction in the Netherlands DUC (-2.4% p.a.) is in line with the Union-wide cost-efficiency target (-2.5% p.a.). This mainly reflects the fact that 2009 en-route costs (i.e. 179.3 M€$_{2009}$) includes one-off exceptional costs associated with a staff reduction programme implemented by its main en-route ATSP (LVNL). If these costs (some 14 M€$_{2009}$) were excluded from the 2009 en-route costs, then the adjusted DUC profile over the 2009-2019 period would be -1.6% p.a. which is substantially below the Union-wide cost-efficiency target (-2.5% p.a.).

When assessed over the 2011-2019 period which covers RP1 and RP2, the Netherlands en-route DUC is expected to remain fairly constant (-0.3% p.a.), a trend similar to that planned over the 2014-2019 period, and substantially different from the Union-wide target profile (-1.7% p.a.). The PRB notes that the modest DUC reduction over RP1 and RP2 (-0.3% p.a.) is expected to be entirely achieved through the (low) traffic growth (+1.4% p.a.) given that the DCs are planned to increase at a rate of +1.1% p.a.

The PRB computes that if STATFOR February 2014 base case forecasts were used (instead of the low case) to compute the planned DUC, then the adjusted profile over the 2014-2019 period would be -1.6% p.a. which is still below the Union-wide cost-efficiency target (-3.3% p.a.). Similarly, the adjusted profile over the 2011-2019 period would be -1.2% p.a. which is below the Union-wide cost-efficiency target (-1.7% p.a.).

Detailed analysis indicates that over the 2011-2019 period, except for MUAC (+1.7% p.a.), en-route DUCs are planned to decrease or to remain fairly constant for all the entities included in the en-route charging zone: -3.9% p.a. for the MET provider (KNMI), -0.5% p.a. for LVNL and -0.4% p.a. for the Dutch NSA and the EUROCONTROL Agency. For MUAC, the level of 2011 en-route costs was exceptionally low following the impact of a one-off exceptional reduction mainly relating to the implementation of IFRS. When analysed over the 2014-2019 period, MUAC en-route DUC is expected to reduce by -1.0% p.a.

The PRB notes that in 2015, LVNL depreciation costs are expected to be significantly higher than actual 2013 costs (+12.0%) and to increase by +2.3% p.a. until 2019. These depreciation costs are related to significant capex in RP2 associated with associated with the replacement of the current ATM system (AAA, some 82.4 M€ over RP2) and the extension of LVNL ACC building (21.5 M€). The PRB monitoring analysis also indicates that actual depreciation costs for 2012 and 2013 were lower than planned (-10.4% and -4.2%, respectively) since capex projects (in particular the replacement of the ATM system) have been postponed to future years. It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-route DCs provided for RP2. This issue, which was also identified by airspace users during the consultation of the draft RP2 Performance Plan, deserves a clarification from the Netherlands.

The PRB 2013 monitoring analysis indicates that LVNL generated a net loss of 6.0 M€$_{2009}$ in 2013 on the en-route activity. This adds to the loss generated in 2012 (2.3 M€$_{2009}$) which is negatively impacting LVNL's financial strength. Before RP1, LVNL had no equity in its balance sheet and was fully financed through debt. The objective of LVNL for RP1 was to build up an equity capital in order to improve its financial strength and be in a position to bear the risks associated with the Charging and Performance regulations during RP1. The process used to build this equity capital was to include in the 2010 actual en-route cost-base an exceptional cost item of 22 M€ to be recovered through the 2012-2014 chargeable unit rates and to record it as equity in the balance-sheet. According to information provided by the Netherlands during the consultation of the draft RP2 Performance Plan, the assumption used for the level of LVNL's equity in 2015 was 30 M€ (5% equity and 95% debt).

The PRB considers that it is important to take this particular context into account when assessing the Netherlands en-route cost-efficiency targets for RP2.

4. En-route DUC level:	**Passed**

The Netherlands en-route DUC in 2019 is planned to be at 57.98 €$_{2009}$ which is -3.7% lower than the comparator group average (60.22 €$_{2009}$). A straight comparison with Belgium-Luxembourg, rather than the group average, indicates that the Netherlands en-route DUC is planned to be -7.2% lower in 2019.

5. En-route cost of capital:	**Passed**

The WACC rates planned by LVNL for RP2 are below the lower bound of the range of values calculated with the methodology laid down in Annex C guidance. LVNL WACC was not computed according to the CAPM methodology but it corresponds to the cost of debt since LVNL capital structure is assumed be 100% debt over RP2.

Over RP2, the average value of LVNL en-route asset base per SU (30.0 €$_{2009}$) is expected to be in line with that of Belgium-Luxembourg (30.8 €$_{2009}$) and substantially lower than the Union-wide average (44.4 €$_{2009}$).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template.

On the other hand, although the Netherlands indicates in the Performance Plan that over RP2 LVNL will reduce its commercial loans and contract loans from the Ministry of Finance, no quantitative information is provided on the interest rates for these loans.

The Performance Plan specifies that for the Netherlands some adjustments were made beyond the provisions of IAS. These adjustments mainly relate to a departure from IFRS 19 in the context of the early retirement arrangements of LVNL operational staff.

7. Costs exempt from risk sharing:	Passed

The Netherlands specifies in the Performance Plan that the amounts resulting from uncontrollable costs factors in 2012 and 2013 have been taken into account in the planned DCs for RP2.

The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014.

The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement.

Overall consistency assessment of the Netherlands en-route cost-efficiency KPIs

Taking into account these key points, in particular 1, 2 and 3, the FABEC Performance Plan, and in particular the Netherlands en-route cost-efficiency target, is assessed as not being consistent with and not making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the FABEC to adopt a revised Performance Plan and, in particular for the Netherlands to revise its en-route cost-efficiency target, including, to:

a) **consider revising its RP2 TSU forecasts in the light of the evolution of actual traffic in 2014;**

b) **update the inflation rate provided for the year 2014 in order to reflect the latest forecast from IMF;**

c) **confirm that depreciation costs associated with non-realised capex over RP1 would be returned to users, and provide a description on how this will be implemented; and,**

d) **provide information on interest rates on loans in line with the requirements of the FAB Performance Plan template.**

5.13 The Netherlands: overview of terminal charging zone assessment

5.13.1 The summary results of each of the checks are provided below, along with the key points for these Terminal ANS KPIs assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in the Netherlands which comprises four airports (of which one - Amsterdam - is above 70,000 movements per year).

The TCZ is the same as for RP1 in terms of airports scope and the harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was already applied in the TCZ during RP1. All the airports in the TCZ will be subject to traffic risk sharing over RP2.

On average, the total costs for the TCZ account for 24.0% of the Netherlands's "gate-to-gate" ANS subject to SES in RP2.

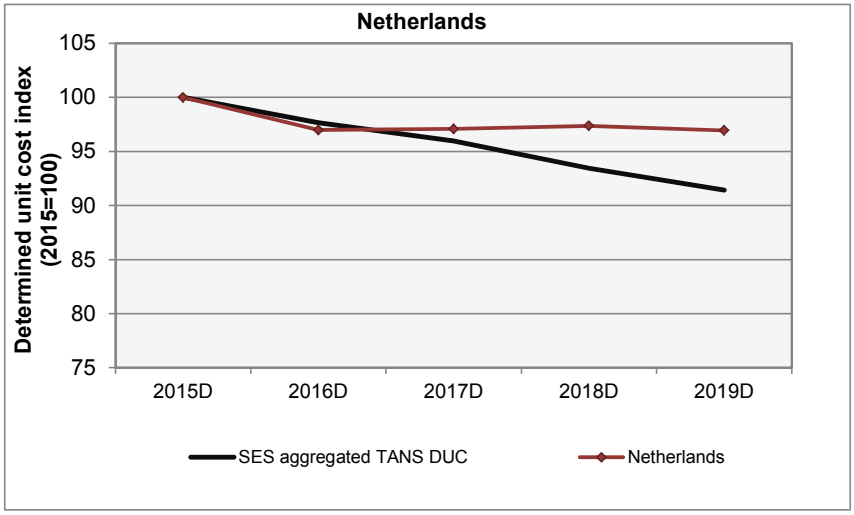


Figure 23: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	59.2	58.4	59.9	61.6	62.9	1.5%
Inflation rate *	annual % change	1.0%	1.2%	1.4%	1.5%	1.5%	1.4%
Inflation index *	2009=100	112.5	113.9	115.5	117.2	119.0	
Determined costs	EUR m (2009)	52.7	51.3	51.8	52.5	52.8	0.1%
Terminal SUs	'000s	354.5	355.9	359.5	363.1	366.7	0.8%
Determined unit cost	EUR (2009)	148.56	144.07	144.22	144.65	144.02	-0.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	148.56	144.07	144.22	144.65	144.02	-0.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 26: Terminal DUC breakdown

Key points for the Netherlands terminal charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**
The planned growth of en-route SUs provided for the Netherlands TCZ over the period 2015-2019 (+0.8% p.a.) is slightly lower than STATFOR February 2014 low scenario (+1.0% p.a.). The planned number of SUs provided in the Performance Plan for the year 2015 (354,510) is in line with the figure reported in STATFOR database for the base scenario (354,385). The Netherlands indicates in the Performance Plan that reporting in 2014 a number of SUs in line with STATFOR low scenario would be not realistic according to the latest local traffic forecast. For this reason, the Netherlands chose to report a number of SUs close to STATFOR base scenario for 2014 but to use a prudent traffic growth forecast until 2019. It is noteworthy that over RP2 the number of SUs planned over RP2 is consistently above the figures reported in STATFOR database for the low scenario.	
2. Economic assumptions:	**Passed**
Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.	
3. Terminal ANS DUC trend:	**Not passed with reservations**
Over the 2015-2019 period, the profile of terminal ANS DUC for the Netherlands TCZ (-0.8% p.a.) is well below the SES aggregated DUC trend (-2.2% p.a.). The decrease in the Dutch terminal DUC mainly reflects the fact that terminal DCs are expected to remain fairly constant (+0.1% p.a.), while the number of terminal SUs is planned to increase by +0.8% per year on average. On the other hand, the average level of terminal DUC planned for the Netherlands TCZ over RP2 (145 €$_{2009}$) is much lower than that of Belgium TCZs (250 €$_{2009}$) which operate in a relatively similar economic and operational environments. The year 2013 is the latest for which actual terminal cost data is available. The DCs used to compute the Netherlands TCZ DUC for the year 2015 (52.7 M€$_{2009}$) are +7.0% higher than 2013 actual terminal costs (49.2 M€$_{2009}$). The Netherlands terminal DCs are then expected to remain fairly constant until 2019 (+0.1% p.a.), a trend similar to that observed for en-route ANS (+0.4% p.a.). As for en-route, the PRB considers that it is important to take LVNL particular context (no equity prior to RP1, relatively low ratio of current assets over current liabilities in 2013) into account when assessing the Netherlands terminal cost-efficiency targets for RP2.	
4. Terminal cost of capital:	**Passed**
The WACC rates used to compute the cost of capital for the Netherlands TCZ over the 2015-2019 period are in the same order of magnitude as those used to compute the cost of capital for the en-route charging zone.	

5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
As for en-route ANS, the Performance Plan does not comprise quantitative information on the interest rates on loans for RP2.	
6. Costs exempt from risk sharing:	**Passed**
The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement.	

Overall consistency assessment of the Netherlands terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1 and 3, the FABEC Performance Plan, and in particular the Netherlands terminal ANS cost-efficiency target is assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to issue a Recommendation to the FABEC to adopt a revised Performance Plan, and in particular for the Netherlands to revise its terminal ANS cost-efficiency target, including to:

a) **consider revising its RP2 TNSU forecasts in the light of the evolution of actual traffic in 2014; and,**

b) **provide information on interest rates on loans in line with the requirements of the FAB Performance Plan template.**

5.14 Switzerland: Setting the scene for the RP2 cost-efficiency assessment

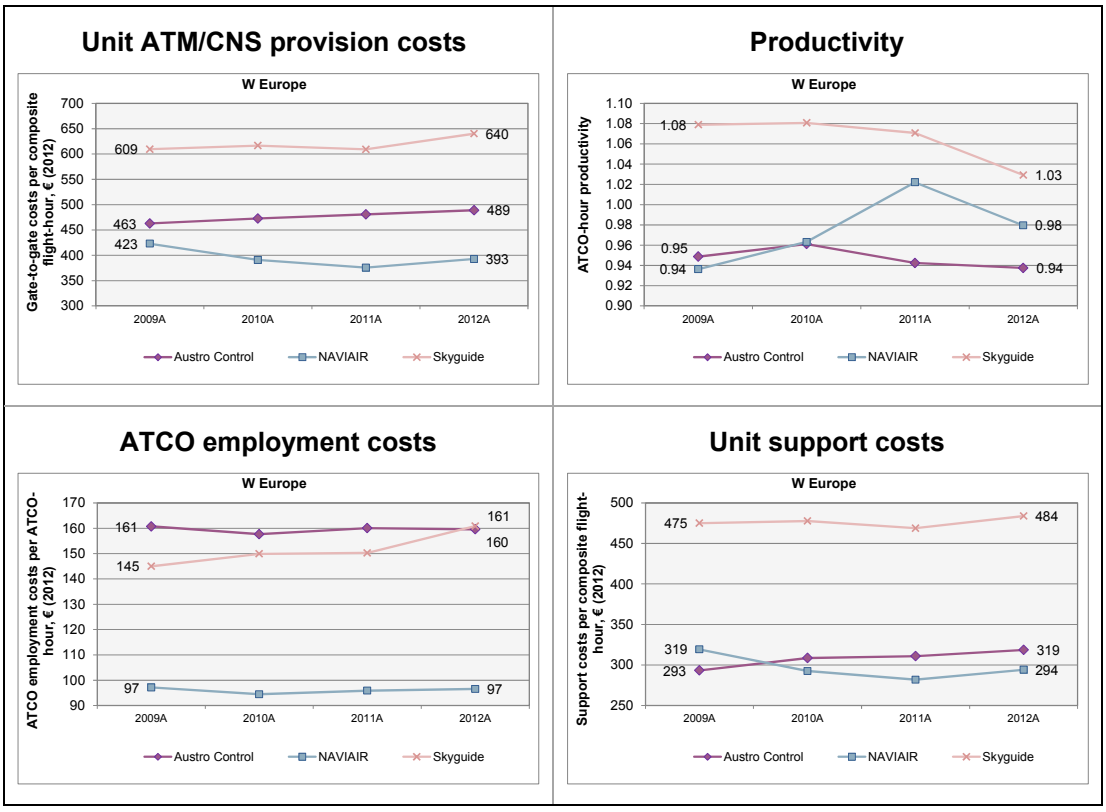
5.14.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on Skyguide, the main ATSP in Switzerland, which represented 4.0% of the European system ATM/CNS provision costs in 2012.

5.14.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Skyguide is part of the Western Europe comparator group, also including Austro Control (Austria) and NAVIAIR (Denmark).

5.14.3 The ACE 2012 benchmarking analysis shows that:

- Skyguide productivity (1.03) is the highest amongst the comparator ATSPs and is +7.4% higher than the group average (0.96);
- Employment costs per ATCO-hour (€161) are +25.6% higher than the comparator group average (€128); and,
- Support costs per composite flight hour (€484) are +57.9% higher than the comparator group average (€306).

5.14.4 As a result, Skyguide unit ATM/CNS provision costs (€640) are by far the highest of the comparator group and +45.2% higher than the group average.



5.14.5 The PRB 2013 monitoring analysis indicates that Skyguide actual en-route costs for 2013 were substantially lower than planned (-8.2 M€$_{2009}$). This was sufficient to compensate for the impact of the lower traffic than planned (-9.4%) on Skyguide revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, Skyguide generated a net gain of 5.5 M€$_{2009}$ in 2013 on the en-route activity. When estimating Skyguide economic surplus, it is important to account for the profit embedded in the cost of capital

through the return on equity (some 2.3 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 7.8 M€$_{2009}$, which implies an ex-post rate of return on equity of 7.3% (compared to 2.2% as initially planned in the NPP). This contrasts with the relatively smaller gains generated by Skyguide in 2012 (0.2 M€$_{2009}$ or 0.2% of en-route revenues leading to an ex-post rate of return on equity of 0.2%).

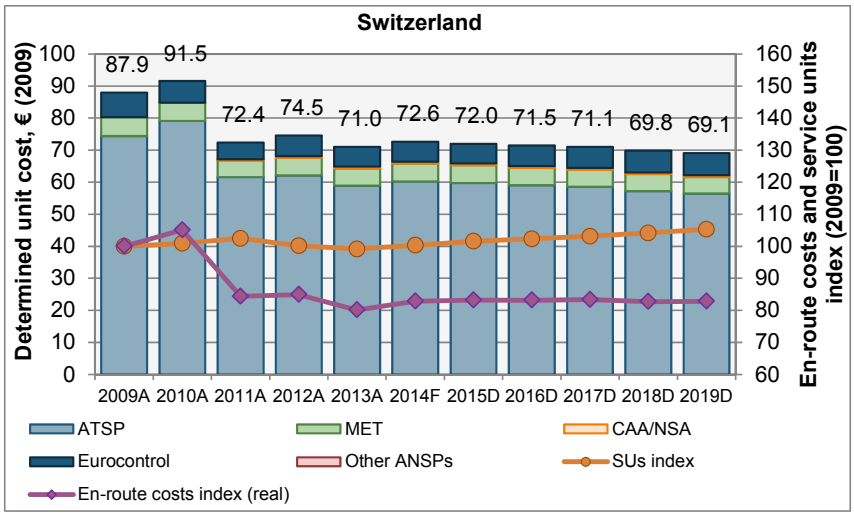
Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	89 894	91 720
Actual costs for the ATSP	88 879	83 561
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	1 015	8 160
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	44	1 155
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**1 059**	**9 315**
Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-6.28%	-9.36%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-2 940**	**-3 870**
Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**
Net ATSP gain(+)/loss(-) on en-route activity	**-1 881**	**5 445**
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	2 063	2 331
Overall estimated surplus (+/-) for the en-route activity	182	7 777
Revenue/costs for the en-route activity	86 998	89 006
Estimated surplus (+/-) in percent of en-route revenue/costs	**0.2%**	**8.7%**
Estimated ex-post RoE pre-taxe rate (in %)	**0.2%**	**7.3%**

Table 27: ANSP estimated surplus 2012 & 2013

5.15 Switzerland: Overview of en-route charging zone assessment

5.15.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	74.42	79.14	61.60	62.10	58.87	60.24	59.78	59.06	58.57	57.25	56.50	-1.1%	-1.3%
MET	EUR (2009)	5.89	5.69	5.23	5.47	5.42	5.54	5.54	5.45	5.35	5.24	5.14	-0.2%	-1.5%
CAA/NSA	EUR (2009)	-	-	0.30	0.61	0.62	0.61	0.60	0.59	0.58	0.57	0.56	8.2%	-1.9%
Eurocontrol	EUR (2009)	7.61	6.69	5.26	6.36	6.13	6.23	6.08	6.36	6.58	6.76	6.94	3.5%	2.2%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**87.92**	**91.53**	**72.39**	**74.55**	**71.04**	**72.62**	**72.00**	**71.45**	**71.07**	**69.82**	**69.13**	**-0.6%**	**-1.0%**

Figure 24: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	CHF m (nom)	185.2	195.8	157.4	157.3	148.6	153.9	155.4	156.8	158.8	159.1	160.9
Inflation rate	annual % change		0.6%	0.1%	-0.7%	0.1%	0.2%	0.5%	1.0%	1.0%	1.0%	1.0%
Inflation index	2009=100	100.0	100.6	100.7	100.0	100.1	100.3	100.8	101.8	102.8	103.9	104.9
Determined costs	CHF m (2009)	185.2	194.6	156.3	157.3	148.5	153.5	154.1	154.0	154.4	153.2	153.4
Service units	'000s	1 396	1 409	1 431	1 399	1 385	1 401	1 419	1 429	1 440	1 454	1 470
Determined unit cost	CHF (2009)	132.67	138.11	109.23	112.49	107.20	109.58	108.64	107.82	107.24	105.36	104.32
Exchange rate	CHF:EUR	1.51										
Determined unit cost	EUR (2009)	87.92	91.53	72.39	74.55	71.04	72.62	72.00	71.45	71.07	69.82	69.13

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	CHF m (nom)	-1.4%	0.3%	0.9%	0.9%
Inflation	CAGR %	0.5%	0.5%	0.9%	1.0%
Determined costs	CHF m (2009)	-1.9%	-0.2%	0.0%	-0.1%
Service units	'000s	0.5%	0.3%	1.0%	0.9%
Determined unit cost	CHF (2009)	-2.4%	-0.6%	-1.0%	-1.0%
Exchange rate					
Determined unit cost	EUR (2009)	-2.4%	-0.6%	-1.0%	-1.0%

Table 28: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The number of en-route total service units (TSUs) reported for the year 2014 in the RP2 Performance Plan for Switzerland (1,400,592) have been updated and revised substantially downwards (-10.5%) compared to the information provided in the NPP for RP1 (1,564,541).

In addition, the en-route determined costs (DCs) reported for the year 2014 (153.5 $MCHF_{2009}$) have been revised substantially downwards (i.e. -6.8%) compared to the figure provided in the NPP for RP1 (164.7 $MCHF_{2009}$, excluding the costs associated with exempted VFR flights). It is noteworthy that these revised 2014 DCs are slightly higher than 2013 actual en-route costs (148.5 $MCHF_{2009}$) but lower than 2012 actuals (157.3 $MCHF_{2009}$).

As a result, the revised en-route unit costs for 2014 amount to 109.58 CHF_{2009} which is +2.2% higher than the actual 2013 unit costs.

It appears that in its Performance Plan, Switzerland took into account the latest information in terms of en-route costs and traffic in order to set the starting point for its en-route DUC profile over RP2.

Key points for Switzerland en-route charging zone	
1. Traffic forecast assumptions:	**Not passed**

The planned growth of en-route SUs provided for Switzerland en-route charging zone over RP2 is in line with STATFOR February 2014 low scenario.

However, the planned number of SUs provided in the Performance Plan for the year 2014 (1,400,594) is -1.0% lower than the figure reported in STATFOR database for the low scenario (1,414,457). The Performance Plan indicates that Switzerland used its own SUs forecasts over RP2 in order to reflect local circumstances such as the outcome of the first quarter of 2014 in terms of traffic growth.

On the other hand, information from the CRCO's monthly monitoring of traffic indicates that for Switzerland actual traffic in the first eight months of 2014 is +2.8% higher compared to the same period in 2013. This is significantly higher than the planned increase in SUs reported in the Performance Plan for 2014 (+1.1%) and than STATFOR low case forecast for 2014 (+2.1%).

2. Economic assumptions:	**Passed**

The inflation forecasts submitted for Switzerland en-route charging zone over RP2 are in line with the IMF average inflation forecasts.

3. En-route DUC trend:	**Not passed**

Switzerland forecasts a -1.0% annual en-route DUC decrease over the 2014-2019 period which is significantly below the Union-wide cost-efficiency target (i.e. -3.3% p.a.). Switzerland's planned en-route DUC profile mainly reflects the fact that DCs are expected to remain constant while the number of SUs is planned to grow by +1.0% per year on average. Switzerland states in the Performance Plan that a more ambitious en-route DCs profile over RP2 would severely affect the quality of service provided by Skyguide. This statement is not

supported by detailed quantitative analysis, evidence or justifications.

When assessed over the 2011-19 period which covers RP1 and RP2, Switzerland's en-route DUC planned reduction (-0.6% p.a.) is below the Union-wide target (i.e. -1.7% p.a.).

As highlighted above, the planned growth of en-route SUs provided in Switzerland Performance Plan for the period 2014-2019 is in line with STATFOR February 2014 low scenario (+1.0% p.a.). If STATFOR February 2014 base case forecasts were used to compute the Swiss planned DUC, then the adjusted profile over the 2011-2019 period would be -1.7% p.a. which is in line with the Union-wide cost-efficiency target (-1.7% p.a.). Similarly, the adjusted profile over the 2014-2019 period would be -2.3% p.a. which is closer to the Union-wide cost-efficiency target (-3.3% p.a.) than the DUC reduction provided in the Performance Plan (-1.0% p.a.).

Amongst the different accountable entities, the larger decreases in DUC between 2014 and 2019 are observed for the Swiss NSA (-1.9% p.a.) and for the MET provider (-1.5% p.a.). In the meantime, Skyguide DUC is planned to decrease by -1.3% p.a. while that reported for the EUROCONTROL Agency is expected to rise (+2.2% p.a.).

The PRB 2013 monitoring analysis indicates that Skyguide estimated economic surplus for the en-route activity in 2013 amounts to 7.8 M€$_{2009}$, which implies an ex-post rate of return on equity of 7.3% (compared to 2.2% as initially planned in the NPP). This contrasts with the relatively smaller gains generated in 2012 (0.2 M€$_{2009}$ or 0.2% of en-route revenues leading to an ex-post rate of return on equity of 0.2%).

The starting point in terms of DCs used by Switzerland for 2014 (101.7 M€$_{2009}$) is slightly higher than 2013 actual en-route costs (98.4 M€$_{2009}$) but lower than 2012 actuals (104.3 M€$_{2009}$). This tends to indicate that the cost-efficiency performance improvements achieved in the first years of RP1 were taken into account when setting the profile of determined costs.

However, the profile planned for the 2015-2019 period shows that no genuine reductions in DCs are foreseen over RP2. Around 14% of the capex planned by Skyguide for RP2 is associated with the Virtual Centre project. It is understood that the overall aim of this project is to establish (in the course of RP3) a single "virtual ACC" covering the operations of Geneva and Zurich ACCs. The Performance Plan does not provide detailed information on the quantitative impact of this project on Skyguide planned cost-efficiency performance over RP2.

4. En-route DUC level:	**Not passed**

In 2019, Switzerland's en-route DUC is planned to amount to 69.13 €$_{2009}$ per SU which is +26.6% higher than the average of the comparator group (54.62 €$_{2009}$). Switzerland en-route DUC is well above the comparator group average for each year of RP2. Adjusting the DCs of the States part of the comparator group for differences in cost of living (using PPPs) and exchange rates does not change the result of this analysis.

Switzerland en-route DCs are expected to remain fairly constant between 2015 and 2019. As a result, at the end of RP2, Switzerland en-route DCs are expected to amount to 101.7 M€$_{2009}$ which is +3.3% higher than 2013 actuals.

5. En-route cost of capital:	**Passed**
The Weighted Average Cost of Capital (WACC) rate used to compute Skyguide en-route cost of capital was capped at 2.5% which is below the lower bound of the range of values calculated with the methodology laid down in Annex C guidance. The monetary value of the return on equity (RoE, around 1.7 M€$_{2009}$ p.a. over RP2) is significantly lower than the maximum traffic risk exposure which will be borne by Switzerland over RP2 (around 3.7 M€$_{2009}$ p.a.). Over RP2, the average value of Skyguide en-route asset base per SU (68.7 €$_{2009}$) is expected to be in line with the comparator group average which is the combination of an ANSP with a relatively low asset base (Austro Control, 36.4 €$_{2009}$) and one with a relatively high asset base (NAVIAIR 100.9 €$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for the defined contributions pension scheme that was established by Skyguide. Similarly, information is provided on the interest rates on the loan contracted by Skyguide (200 MCHF or 165 M€ using an exchange rate of 1 Euro = 1.21 CHF) in order to partly finance the provision of ANS services. The average interest rate for this loan is in line with the interest rate on debt (2.2%) used to compute Skyguide cost of capital for en-route ANS. The Performance Plan indicates that for Skyguide no adjustments were made beyond the provisions of IAS.	
7. Costs exempt from risk sharing:	**Passed**
The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the Swiss NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. Three cost categories among the five reported in Article 14.2(a) of the common charging regulation have been identified for Switzerland in the Performance Plan. As for RP1, these amounts will be considered eligible (or not eligible) only after the EC verification process.	

Overall consistency assessment of Switzerland en-route cost-efficiency KPIs

Taking into account these key points, in particular 1, 3, and 4, the FABEC Performance Plan, and in particular Switzerland's en-route cost-efficiency target, is assessed as not being consistent with and not making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan and, in particular to Switzerland to revise its en-route cost-efficiency target, including, to:

a) revise its RP2 TSU forecasts in the light of the actual evolution of traffic observed in 2014; and,

b) revise the trends and levels of DCs planned for RP2.

5.16 Switzerland: Overview of terminal charging zone assessment

5.16.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

There is one terminal charging zone (TCZ) in Switzerland which comprises two airports (Geneva and Zurich) above 70,000 movements per year. The TCZ is the same as for RP1 in terms of airports scope.

Total TNSUs for the TCZ accounted for 96.2% of the TNSUs in Switzerland in 2013. On average, the total costs for the TCZ account for 38.9% of Switzerland "gate-to-gate" activity subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was not applied in the Swiss TCZ during RP1. All the airports in the TCZ will be subject to traffic risk sharing over RP2.

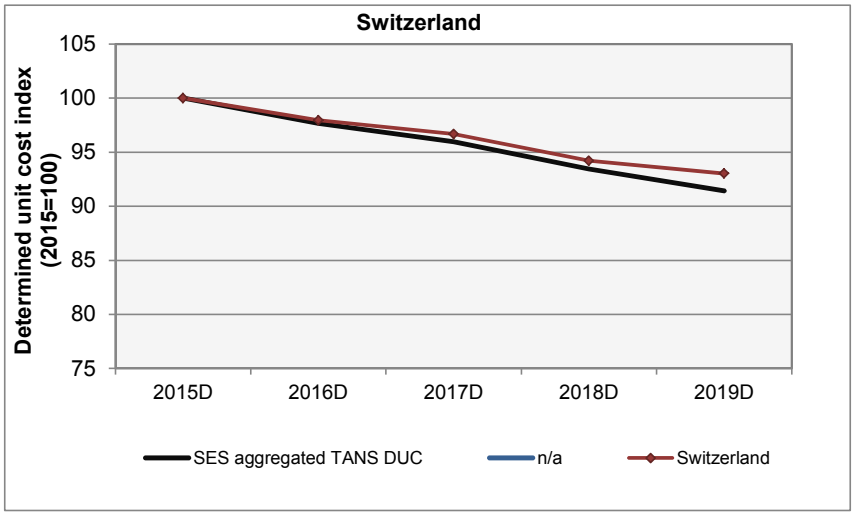


Figure 25: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	CHF m (nom)	98.9	99.5	100.9	101.5	103.1	1.1%
Inflation rate *	annual % change	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%
Inflation index *	2009=100	100.8	101.8	102.8	103.9	104.9	
Determined costs	CHF m (2009)	98.1	97.8	98.1	97.7	98.3	0.1%
Terminal SUs	'000s	265.6	270.1	274.7	280.7	286.1	1.9%
Determined unit cost	CHF (2009)	369.47	361.91	357.22	348.09	343.71	-1.8%
Exchange rate	CHF:EUR (2009)	1.51					
Determined unit cost	EUR (2009)	244.85	239.84	236.73	230.68	227.77	-1.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

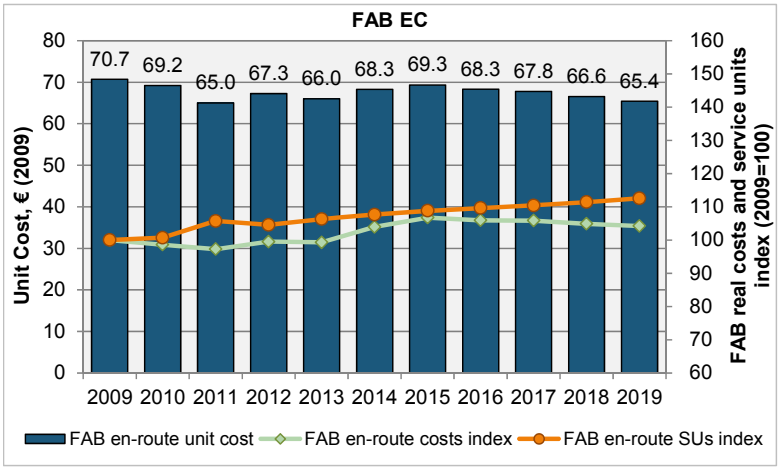
Table 29: Terminal DUC breakdown

Key points for Switzerland terminal charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**
The planned growth of terminal TSUs provided for the Swiss TCZ over the period 2015-2019 (+1.9% p.a.) is in line with STATFOR February 2014 low scenario (+1.9% p.a.). The planned number of SUs provided in the Performance Plan for the year 2015 (265,598) is in the same order of magnitude as the figure reported in STATFOR database for the base case scenario and +2.7% higher than the number of SUs forecast in STATFOR low scenario (258,660).	
2. Economic assumptions:	**Passed**
Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.	
3. Terminal ANS DUC trend:	**Not passed**
Over the 2015-2019 period, the decrease in the terminal ANS DUC for the Swiss charging zone (-1.8% p.a.) is below the SES aggregated DUC trend (-2.2% p.a.). In addition, Switzerland 2015 terminal DCs (65.0 M€$_{2009}$) are higher than in 2012 (+6.7%) and 2013 (+3.7%), indicating that the cost base used to set the starting point for RP2 terminal cost-efficiency targets is relatively high compared to the level of actual costs.	
4. Terminal cost of capital:	**Passed**
The RoE and WACC rates used to compute the cost of capital for Switzerland's TCZ over the 2015-2019 period are in line with those used to compute the cost of capital for the en-route charging zone.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
As for en-route ANS, the Performance Plan comprises information on the economic assumptions where relevant.	
6. Costs exempt from risk sharing:	**Passed**
The information provided for the description of costs exempt from risk sharing is the same as for en-route ANS (except for EUROCONTROL costs and the cross-border services).	

Overall consistency assessment of Switzerland terminal ANS cost-efficiency KPIs
Taking into account the above key points, in particular 3, the FABEC Performance Plan, and in particular Switzerland terminal ANS cost-efficiency target is assessed as not being consistent with the criteria laid down in Annex IV of the performance Regulation. **Therefore the PRB advises the Commission to issue a recommendation to the FABEC to adopt a revised Performance Plan, in particular to Switzerland to revise its terminal ANS cost-efficiency target, including, to:** **a) Consider revising its RP2 TNSU forecasts in the light of the actual evolution of traffic observed in 2014; and,** **b) revise the trends and levels of DCs planned for RP2.**

5.17 FABEC: Overview of FAB en-route trend

Overview



Key figures: FAB EC		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	2 445.4	2 411.0	2 378.7	2 433.7	2 428.3	2 542.5	2 610.3	2 590.2	2 588.3	2 565.3	2 548.3
FAB en-route service units	'000s	34 594	34 838	36 587	36 175	36 770	37 240	37 651	37 921	38 191	38 546	38 943
FAB en-route unit cost	EUR (2009)	70.69	69.21	65.01	67.27	66.04	68.27	69.33	68.31	67.77	66.55	65.44

Key figures: FAB EC CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	0.4%	0.9%	0.0%	-0.6%
FAB en-route service units	'000s	1.2%	0.8%	0.9%	0.8%
FAB en-route unit cost	EUR (2009)	-0.8%	0.1%	-0.8%	-1.4%

Figure 26: FAB en-route unit cost trend overview

Key points for the FABEC

Note: the following comments on the aggregated FAB en-route cost trend should not be interpreted as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level, and for RP2 there are no FABs with a common charging zone and a single unit rate.

France and Germany en-route DCs represent 83.7% of the total en-route costs for the FABEC over RP2. The trend of the en-route unit costs aggregated at FAB level is therefore significantly impacted by the French and German contributions.

In 2013, the FAB en-route costs (2,428.3 M€$_{2009}$) represent 40.2% of the total SES en-route costs. By 2019, these are planned to amount to 2,548.3 M€$_{2009}$ which is 41.4% total SES en-route costs.

The en-route unit cost trends for the FABEC over RP2 (-0.8% p.a. between 2014 and 2019) and over RP1 and RP2 combined (+0.1% p.a. between 2011 and 2019) are significantly worse than the Union-wide cost-efficiency target trends (-3.3% p.a. over 2014-2019 and -1.7% p.a. over 2011-2019). In addition, it should be noted that in 2019, FABEC unit cost is expected to amount to €65.44 which is +27.7% higher than the Union-wide aggregated DUC (€51.26).

This factual analysis seems to indicate that no significant structural and organisational changes in the delivery of ATC services are planned over RP2 in the context of the FABEC initiative.

6 INVESTMENTS

6.1.1 The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.2 Compatibility and coherence of planned investments

BELGIUM

6.2.1 For RP2, planned projects links or references are provided to the ATM Master Plan essentials (ESSIP Objectives and/or Enablers) for 12 (out of 17) projects and NSP for 6 projects. But, for all the planned projects, no links or references are provided to IOP Regulations and PCP.

FRANCE

6.2.2 DSNA does provide links or reference to Master Plan Level 3 - ESSIP Objectives - for all 14 planned projects. Links or references are also provided to NSP for 4 projects and to IOP IRs only for 1 project, but not to the PCP. Only through its strategic plan, some of France's ANSP projects are presented as enablers of the PCP, but without reference to any specific functionality.

GERMANY

6.2.3 There are 19 planned projects reported in the Performance Plan. Links or references are provided to the Master Plan, Level 2 and/or 3 for 7 projects, the NSP for 11 projects, the IDP for 2 projects, and IOP IRs for 12 projects. Links or references are provided to three PCP ATM Functionalities, AF2, AF5 and AF6 for 8 projects. However, the remaining three functionalities, AF1, AF3 and AF4 are not covered.

6.2.4 There are four projects: 1) Technical centre on the campus in Langen 2) Control centre simulators, 3) TOPAS 2016 and 4) Overhaul academy which are not directly related to IOP IRs, Master Plan, NSP or PCP.

LUXEMBOURG

6.2.5 For all RP2 planned projects links or references are provided to the ATM Master Plan essentials (ESSIP Objectives and/or Enablers) and to the EU Legislation. The PCP is not directly applicable to Luxembourg. No references are provided to the NSP for any of the projects.

MUAC

6.2.6 No links or references are provided to the Master Plan, IOP IRs and NSP for any of the RP2 planned projects. Links or references are provided to all 6 functionalities of the PCP for 2 projects (ATFCM/ASM and SESAR Compliant ATM).

NETHERLANDS

6.2.7 For RP2 planned projects links or references are provided to Master Plan, Level 2 for four (out of 7) projects and also to the 4 ATM Functionalities of the PCP,AF1,

AF2, AF5 and AF6 for two projects. The links or references to IOP IRs and NSP are missing for all projects. There are three projects, respectively “Expansion facilities”, “Maintenance investments” and “Hardware replacement AAA”, which do not contribute directly to EC IRs, Master Plan, NSP and PCP.

SWITZERLAND

6.2.8 Links or references for the RP2 planned projects are provided to the Master Plan, Level 2 and/or 3 except for “Network Evolutions”, “Smart Radio” and “VCS TWR/APP ZRH”. Links or references to NSP, PCP and IOP IRs are missing for all projects.

6.3 FAB and/or Regional dimension

6.3.1 There are no commonly agreed FAB Projects reported by any of the FABEC States, but a number of projects are reported as achieving synergy at FAB/Regional level, as follows:

- Belgium – Belgocontrol: “Approach radars Brussels”;
- Germany – DFS for “iCAS programme (iTEC Centre Automation System)” and “Product management iCAS (iTEC Centre Automation System);
- France – DSNA for “4-FLIGHT”, “CSSIP”, “NVCS (new Voice Communication System)” and “CDM / AMAN / DMAN / XMAN / collaborative NOP (Network Operation Planning)”;
- Netherlands – LVNL for “Replacement AAA”’;
- MUAC: “New Generation ATM FDPS convergence” and “SESAR Compliant ATM”;
- Switzerland – SKYGUIDE: “XMAN FABEC” and “FRA (FABEC initiative)”.

REGIONAL PROJECTS:

- Belgium – Belgocontrol: Telecommunications and IT infrastructure, cooperation with RAPNET project;
- Germany –DFS: “iCAS programme (iTEC Centre Automation System)” and “Product management iCAS (iTEC Centre Automation System)”: iTEC International Cooperation with AENA, NATS and LVNL aiming at a joint development of core iCAS components;
- DFS and LVNL - Cooperation aiming at a common iCAS development to use in Lower Airspace;
- France – DSNA: “COFLIGHT” and “ERATO”: Development with ENAV, “FDS”: Development with DFS, concerning COSNET and “NVCS (new Voice Communication System)”: Joint investment with MUAC;
- Netherlands – LVNV “Replacement AAA”: in partnership with DFS and LVNL has joined DFS in the development of iTEC;
- MUAC: “Voice Systems: New VCS System (N-VCS);
- DSNA and MUAC share the cost of a common product.

6.4 Total CAPEX for RP2

FAB LEVEL

6.4.1 As shown in the table below the average per year of the planned investment for RP2 is foreseen to be 21% higher than the average of the previous five years (updated for 2010-14[5]) (i.e. 355.1M€$_{2009}$ RP2 planned annual average vs. 292.4M€$_{2009}$ updated annual average for 2010-14).

FABEC CAPEX (M€2009, real terms)	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	366.7	392.2	380.1	351.3	285.3	1775.6	355.1

Table 30: RP2 FABEC CAPEX

FABEC CAPEX (M€2009, real terms)	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	330.1	340.1	343.3	405.6	380.5	1799.7	359.9
Total Updated Planned	248.0	280.9	284.7	304.7	343.6	1461.9	292.4
U-P	-82.1	-59.3	-58.6	-100.9	-36.9	-337.8	-67.6
U/P (%)	-24.9%	-17.4%	-17.1%	-24.9%	-9.7%	-17.4%	-18.8%

Table 31: 2010-14 FABEC CAPEX

6.4.2 The FABEC focus is on airspace design projects, South East (part SWAP), ready for implementation in 2014, CBA Land, Free Route Airspace (FRA) and FOCS. These projects influence positively numerous KPAs and are described as "*key to achieve the Environment targets in RP2"*.

6.4.3 The FABEC has presented its investment strategy to the stakeholders. At this occasion the airspace users mentioned that the FABEC "*is desperately lacking ambition and a real plan"*[6]. It was recommended to move more sectors to MUAC, to use the restructuring mechanism for the airspace projects and to rationalise infrastructure and support functions across the FAB.

6.4.4 This FAB level assessment does not reflect different situations at national level, as described below:

BELGIUM ANSP

6.4.5 Belgium's ANSP investments are planned to be on average 81% higher in RP2 than for the period 2010-14 (i.e. 15.4M€$_{2009}$ RP2 yearly average vs. 8.5M€$_{2009}$ updated average over the past five years). This increase is due to the "ATM automation system" (14.3M€$_{2009}$ planned for RP2, no details provided), "A-SMGCS" project at Charleroi, Liege and Brussels airports (13.8M€$_{2009}$ in total for RP2) and 18.7M€$_{2009}$ for "other" not detailed projects.

6.4.6 The planned total CAPEX is higher for the first two years of RP2 (i.e. 18.4M$_{€2009}$ planned for 2015 and 19.6M$_{€2009}$ for 2016)as most of the investments are concentrated over these two years.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	18.4	19.6	11.3	13.6	14.1	77.1	15.4
MAIN	Planned	14.3	17.0	8.7	9.8	8.6	58.4	11.7
MAIN versus TOTAL		77.5%	86.7%	76.6%	72.1%	61.2%	75.8%	75.8%

Table 32: RP2 Belgium ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	19.4	11.6	15.5	19.4	3.4	69.3	13.9
	Updated Plan	12.8	7.4	6.4	5.2	10.7	42.5	8.5
	U-P	-6.6	-4.2	-9.1	-14.2	7.3	-26.8	-5.4
	U/P (%)	-34.1%	-35.9%	-58.8%	-73.2%	215.0%	-38.7%	2.6%
MAIN	Planned	16.1	10.9	13.4	17.3	2.6	60.3	12.1
	Updated Plan	10.3	6.7	5.5	4.2	8.6	35.3	7.1
	U-P	-5.8	-4.2	-7.9	-13.1	6.0	-25.0	-5.0
	U/P (%)	-36.2%	-38.4%	-59.0%	-75.5%	231.6%	-41.4%	4.5%
MAIN versus TOTAL (Planned)		83.0%	94.0%	86.7%	89.2%	76.3%	87.1%	85.8%
MAIN versus TOTAL (Updated Plan)		80.4%	90.3%	86.2%	81.5%	80.4%	83.1%	83.7%

Table 33: 2010-14 Belgium ANSP CAPEX (Actual vs. Planned)

6.4.7 Several projects are continuing from the RP1 project list (the most important being "Approach radars Brussels, Ostend and Charleroi", and "VOR/DME").

6.4.8 "Approach radars Brussels, Ostend and Charleroi" is Belgocontrol's main project for both reference periods. This project is related to the installation of new combined PSR/Mode S approach, planned in RP1 for a total cost of €24.6M€$_{2009}$, whilst for RP2 the planned CAPEX amounts to an additional 3.9M€$_{2009}$. Only 3M€$_{2009}$ were spent in 2012 for this project so it is assumed that the planned amount for RP2 is a catch-up from RP1. It is described as providing benefits for safety, capacity and cost-efficiency and it is a joint project with States from FAB CE and DK-SE FAB. It is stated that *"the cooperation reduces system development costs by approximately 30 %"* [7] for each member.

6.4.9 At the consultation with Stakeholders clarifications were required for such an increase in CAPEX in RP2 and a "*credible and realistic plan*" was asked for. Additionally, airlines stated that "*they don't want to pay for investments that are used for low cost airports used by other low cost airlines*"[8]. Furthermore, IATA has stated that the significant reduction in RP1 of the capital expenditure "*has caused Belgocontrol to benefit from significant amounts of depreciation and cost of capital allowances over RP1 for investments that were never made. In this regard we seek for the confirmation that any excess given in RP1 will be given back to users in RP2.*" On the other hand *"it is difficult for airspace users to support the relatively high-level of CAPEX investment; especially when considering the ill-disciplined investment program management to-date".*[9]

6.4.10 Depreciation costs are foreseen to decrease by 2.8% on average over RP2, though the commissioning dates for several projects are foreseen during the reference period. Belgium, in contradiction to the planning for RP2 (see 6.4.9 above),

explained that this trend is "*because the investments in the past were higher than the current and future investments*."[10]

6.4.11 On the other hand it is observed that depreciation for 2010-14 is foreseen to decrease in total over the period by 2.7% (-4.6% for the terminal activity), due to the investments postponed in 2012 and 2013.

FRANCE ANSP

6.4.12 France's ANSP investments are planned to be on average 27% higher in RP2 than for the period 2010-14 (i.e. 163.5M€$_{2009}$ RP2 yearly average vs. 129.2M€$_{2009}$ updated average over the past five years).

6.4.13 The most important projects planned for RP2 (43% from total CAPEX), continuing from the RP1 investments, are the following:

- "4-FLIGHT", modernisation of the French ATM System, amounts to 335.9M€2009 (41% from the total planned CAPEX for RP2). For this project 168.3M€2009 were planned to be spent in RP1 but after the updated planning only 61% will be actually spent, so in part the planned amount for RP2 is a catch-up effect from RP1. It is a joint FABEC project, described as providing benefits to all the four KPAs;
- "COFLIGHT", a new generation automatic flight plan processing system, it is a joint project with ENAV which amounts to 5.7M€2009 (in addition to 47.4M€2009 (-3M€ less than planned) expected to be spent over RP1). It can be assumed to be a catch-up from RP1;
- "ERATO" (stripless system) and "EVOL CAUTRA Data Link" – total planned CAPEX for RP2 amounts to 12.6M€2009 in addition to 50.4M€2009 foreseen for RP1. For ERATO 30.3M€2009 was spent in RP1 (vs. 23.4M€2009 planned) and for CAUTRA 20.1M€2009 was spent (vs. 29.9M€2009 planned). It was explained that some unspent amounts for CAUTRA have been attributed to OPS costs from accounting reasons (Source: 2013 Monitoring Report).

6.4.14 Additional qualitative information as regards France's investment strategy is detailed through the "DSNA Strategic Plan 2014-2016". Some projects are presented as being enablers of the PCP, without any reference to PCP functionality.

6.4.15 European ATM Master Plan-related projects are funded up to the level of 50% by the European Commission. There is no information allowing knowing whether this public funding was deducted from the chargeable costs as requested by the provisions of the charging Regulation and the common projects Regulation In reference to this plan, stakeholders[11] were consulted and had the following remarks:

- DSNA investments and operating expenditure deserve prioritisation in order to reduce the cost base (e.g. rationalisation of ACCs, infrastructure and support costs);
- The Strategic Plan should be aligned with the performance scheme for RP2 in which relevant projects and initiatives are taken up for implementation, making reference also to the NSP;
- ATM projects must identify and realise synergies as well as economies of scale;
- DSNA investments should be mapped with the ATM functionalities of the PCP.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	161.4	174.6	181.6	165.0	134.7	817.3	163.5
MAIN	Planned	116.8	119.1	124.3	115.2	94.4	569.8	114.0
MAIN versus TOTAL		72.4%	68.2%	68.5%	69.8%	70.0%	69.7%	69.7%

Table 34: RP2 France ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	159.0	165.0	163.2	192.1	188.1	867.4	173.5
	Updated Plan	120.0	122.1	133.0	117.4	153.3	645.8	129.2
	U-P	-39.0	-42.9	-30.2	-74.7	-34.7	-221.6	-44.3
	U/P (%)	-24.5%	-26.0%	-18.5%	-38.9%	-18.5%	-25.5%	-25.3%
MAIN	Planned	49.0	51.0	89.4	114.2	119.5	423.1	84.6
	Updated Plan	34.0	45.2	69.7	72.1	95.0	315.9	63.2
	U-P	-15.0	-5.8	-19.8	-42.1	-24.4	-107.1	-21.4
	U/P (%)	-30.6%	-11.4%	-22.1%	-36.9%	-20.5%	-25.3%	-24.3%
MAIN versus TOTAL (Planned)		30.8%	30.9%	54.8%	59.4%	63.5%	48.8%	47.9%
MAIN versus TOTAL (Updated Plan)		28.3%	37.0%	52.4%	61.4%	62.0%	48.9%	48.2%

Table 35: 2010-14 France ANSP CAPEX (Actual vs. Planned)

6.4.16 For DSNA the percentage of main versus total investments is higher for each year in RP2 than it was for the previous five years (i.e. 69.7% average for RP2 vs 48.2%, updated average for 2010-14). The issue of high CAPEX amounts for RP2 "*in a period of quite low traffic growth"* was raised at the consultation with stakeholders. DSNA has replied that "*will not be in a position to deliver systems and operational changes meeting with new SESAR standards and ATC tools or interoperability requirements*"[12] if these major investments are delayed.

6.4.17 Most of the projects planned for RP2 are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 3.5% on average over the period. It is also noted that total depreciation costs for RP2 is foreseen to be 16% higher than the total foreseen for RP1 (at ANSP level, total depreciation planned for RP2 amounts to 755M€$_{2009}$ vs. total depreciation foreseen for 2010-14, 649M€$_{2009}$).

6.4.18 Actual depreciation vs. the planned one for 2010-14 is expected to decrease by 15% on average as a result of changes in accounting rules but also "*in the budget cuts in response to the loss of revenues due to the difference between forecasted and actual traffic."*[13]

6.4.19 IATA has explained the need for brief business cases and/or CBAs for the major projects throughout the RP2 period, "*to give a better understanding of our depreciation and capital costs. We would like the assurance that we are not paying twice in RP2 for the depreciation and cost of capital on the deployed or postponed investments that have already been included within our RP1 costs."* It was also mentioned that costs for common projects are not detailed so *"DSNA to recoup the maximum possible costs from available EC funding."*[14]

GERMANY ANSP

6.4.20 Germany's ANSP investments are planned to be on average 22% higher in RP2 than for the period 2010-14 (i.e. 121.1M€$_{2009}$ RP2 yearly average vs. 99.3M€$_{2009}$ updated average over the past five years).

6.4.21 The most important projects planned for RP2 (43% from total CAPEX), in continuation to the RP1 investments and assumed to be a catch-up for the amounts non-spent over this reference period, are the following:

- "iCAS programme (iTEC Centre Automation System)", for the replacement of the German ATM System and it amounts to 188.7M€$_{2009}$ (31% from the total planned CAPEX for RP2). For this project 57.7M were planned to be spent in RP1 but after the updated planning only 72% will be actually spent. It is a joint project, development costs will be shared with LVNL, NATS and AENA. It is described as providing benefits to all the four KPAs;
- "RASUM 8.33 (Radio Site Upgrade and Modernisation)", which amounts to €33.7M (in addition to 19.2M€$_{2009}$ (67% from the total planned) expected to be spent over RP1);
- A-SMGCS (5.8M€$_{2009}$ planned for RP2), and "Remote Tower Control" (5.7M€$_{2009}$ planned for RP2). For A-SMGCS only 1.5M€$_{2009}$ was spent over RP1 (vs. 9.7M€$_{2009}$ planned) and for RTC 1.5M€$_{2009}$ was spent vs. 1.7M€$_{2009}$ planned. Therefore A-SMGCS is assumed to be a catch-up from RP1.

6.4.22 It is noted that the percentage of main vs. total CAPEX is foreseen to be higher for RP2 than for RP1 (67.9% planned average for RP2 vs. 54.4% expected average for RP1), though "other" planned CAPEX amounts on average to 32% from total planned CAPEX.

6.4.23 Additional qualitative information as regards Germany investment strategy was provided for the consultation meeting with stakeholders. Stakeholders[15] were informed that the investment programme is needed for the replacement of infrastructure and systems or upgrades for others. Several explanations/comments were raised for the main projects, as follows:

- It was recommended to perform a NPV for "iCAS". DFS explained that this project is linked to SESAR and the benefits will be beyond RP2;
- As regards "MaRS" (Modernisation and replacement of Surveillance Infrastructure), a new project between FABEC partners designed to develop a common surveillance strategy in RP2 (amounts to €24.5M over RP2), is strongly supported by IATA.
- The Strategic Plan should be aligned with the Performance Scheme for RP2, in which relevant projects and initiatives are taken up for implementation, making reference also to the NSP.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	121.8	121.0	129.2	130.1	103.2	605.3	121.1
MAIN	Planned	95.5	97.9	93.5	72.7	51.3	411.0	82.2
MAIN versus TOTAL		78.4%	80.9%	72.4%	55.9%	49.7%	67.9%	67.9%

Table 36: RP2 Germany ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	96.5	79.6	85.6	102.1	82.2	446.1	89.2
	Updated Plan	78.9	102.3	89.3	120.5	105.7	496.7	99.3
	U-P	-17.6	22.7	3.7	18.4	23.5	50.6	10.1
	U/P (%)	-18.3%	28.5%	4.3%	18.0%	28.6%	11.4%	12.2%
MAIN	Planned	72.2	55.0	27.7	60.7	44.1	259.6	51.9
	Updated Plan	42.5	63.3	11.8	93.6	69.0	280.3	56.1
	U-P	-29.7	8.4	-15.8	32.9	24.9	20.6	4.1
	U/P (%)	-41.1%	15.2%	-57.2%	54.2%	56.4%	7.9%	5.5%
Plan MAIN versus TOTAL		74.8%	69.0%	32.3%	59.4%	53.7%	58.2%	57.9%
Actual MAIN versus TOTAL		53.9%	61.9%	13.3%	77.6%	65.3%	56.4%	54.4%

Table 37: 2010-14 Germany ANSP CAPEX (Actual vs. Planned)

6.4.24 Most of the planned projects are foreseen to be commissioned over RP2. The impact in depreciation costs cannot be assessed since the relevant data is missing.

6.4.25 Actual depreciation vs. the planned one for 2010-14 is expected to increase by 8% as a result of the rise in CAPEX for this timeframe (+12.2%). DFS has explained that the increase of €15.5M results mainly from the ICAS programme and its related projects, the reconstruction of DFS energy plant (€2.1M) and others.[16]

LUXEMBOURG ANSP

6.4.26 Luxembourg's investments amount to 7.9M€$_{2009}$, of which 50% refers to "ATC systems"; (ASMGC-S, modernisation of tower consoles, implementation of CDO etc.). The main aim of these investments is to modernise the actual ATC system in claimed accordance to the SES legislation. As stated by the ANSP, "*for the moment the investment costs are financed by the state budget and are not charged to users.*" [17]

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	**Planned**	3.9	4.0	0.0	0.0	0.0	7.9	1.6
MAIN	**Planned**	3.9	4.0	0.0	0.0	0.0	7.9	1.6
MAIN versus TOTAL		100.0%	100.0%					100.0%

Table 38: RP2 Luxembourg ANSP Planned CAPEX

6.4.27 Actual depreciation vs. the planned one for 2010-14 is expected to increase by 8% as a result of the rise in CAPEX for this timeframe (+12.2%). DFS has explained that the increase of €15.5M results mainly from the ICAS programme and its related projects, the reconstruction of DFS energy plant (€2.1M) and others.[18]

NETHERLANDS ANSP

6.4.28 Netherlands's ANSP investments are planned to be on average 103% higher for RP2 than for the period 2010-14 (i.e. 26.9M€$_{2009}$, RP2 yearly average vs. 13.2M€$_{2009}$, updated average over the past five years).

6.4.29 The most important project planned for RP2 (50% from total CAPEX), a catch-up from RP1, is the "Replacement AAA", for the replacement of the Netherlands FDP System and amounts to 67.1M€$_{2009}$. For this project 51.5M€$_{2009}$ were planned to be spent in RP1 but after the updated planning only 7% will be actually spent. It is a joint project within the FABEC, and it is a common project. A business case is in progress and it is described to bring benefits to all the four KPAs starting with 2020 (see also 6.4.31).

6.4.30 It is noted that the percentage of main vs. total CAPEX is foreseen to be higher for RP2 than for RP1 (87.5% planned average for RP2 vs. 76.4% expected average for RP1).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	32.9	41.5	31.3	18.7	10.1	134.6	26.9
MAIN	Planned	26.8	39.5	30.4	18.2	3.0	117.8	23.6
MAIN versus TOTAL		81.5%	95.0%	97.0%	97.1%	29.4%	87.5%	87.5%

Table 39: RP2 Netherlands ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	19.8	27.0	26.9	33.8	45.9	153.4	30.7
	Updated Plan	4.4	17.5	14.7	11.0	18.7	66.2	13.2
	U-P	-15.4	-9.6	-12.3	-22.8	-27.2	-87.2	-17.4
	U/P (%)	-77.7%	-35.4%	-45.6%	-67.5%	-59.3%	-56.9%	-57.1%
MAIN	Planned	19.8	27.0	20.4	28.2	40.2	135.6	27.1
	Updated Plan	4.4	17.5	14.7	5.3	6.5	48.2	9.6
	U-P	-15.4	-9.6	-5.7	-22.9	-33.7	-87.3	-17.5
	U/P (%)	-77.9%	-35.4%	-28.1%	-81.2%	-83.9%	-64.4%	-61.3%
MAIN versus TOTAL (Planned)		100.0%	100.0%	75.6%	83.4%	87.6%	88.4%	89.3%
MAIN versus TOTAL (Updated Plan)		99.0%	100.0%	100.0%	48.3%	34.6%	72.9%	76.4%

Table 40: 2010-14 Netherlands ANSP CAPEX (Actual vs. Planned)

6.4.31 Additional qualitative information as regards Netherlands investment strategy was provided for the consultation meeting with stakeholders. Stakeholders[19] were informed that additional 5M€$_{2009}$ are needed for AAA replacement and 8M€$_{2009}$ for the replacement of tower system. Both projects will impact depreciation and operational expenditures. Therefore stakeholders have asked LVNL to apply "*ring-fencing investments*", the mechanism developed by other EU States in order to return the costs included in the cost-base that were not spent to the users.

6.4.32 Most of the projects planned are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 2.3% on average over the period. It is also noted that total depreciation costs for RP2 is foreseen to be 11% higher than the total foreseen for RP1 (at ANSP level, total depreciation planned for RP2 amounts to 57.1M€$_{2009}$ vs. total depreciation foreseen for 2010-14, 51.5M€$_{2009}$).

6.4.33 Actual depreciation vs. the planned one for 2010-14 is expected to decrease by

2.3% (yearly average) as a result of the fall in CAPEX due to the "*postponement of the implementation of investments*"[20] for this timeframe (see item 6.5.10).

MUAC ANSP

6.4.34 MUAC's ANSP investments are planned to be on average 28.9% higher for RP2 than for the period 2010-14 (i.e. 13M€$_{2009}$, RP2 yearly average vs. 10.1M€$_{2009}$, updated average over the past five years).

6.4.35 All main projects ("Voice Systems", "New Generation ATM", "ATFCM / ASM" and "SESAR Compliant ATM") planned for RP2 are continuing from RP1. Only for the first one the planned amount for RP1 was entirely spent, for the other three projects, only 40% was spent from the total planned for RP1 and it can be assumed that the amounts planned for RP2 are a catch-up from the previous reference period.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	10.6	14.0	13.4	13.6	13.5	65.0	13.0
MAIN	Planned	8.9	12.9	12.8	13.0	12.9	60.6	12.1
MAIN versus TOTAL		81.5%	84.4%	92.7%	95.5%	95.7%	95.8%	93.2%

Table 41: RP2 MUAC ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	11.9	18.7	16.3	21.3	22.8	91.0	18.2
	Updated Plan	9.5	6.4	8.7	11.9	13.9	50.4	10.1
	U-P	0.3	-2.4	-12.3	-7.6	-9.4	-9.0	-40.6
	U/P (%)	-100.0%	-19.9%	-66.0%	-46.6%	-44.0%	-39.2%	-44.6%
MAIN	Planned	7.8	11.5	5.6	9.0	15.3	49.2	9.8
	Updated Plan	5.6	3.6	1.8	3.9	11.3	26.2	5.2
	U-P	-2.2	-7.9	-3.8	-5.1	-4.0	-23.0	-4.6
	U/P (%)	-27.9%	-69.1%	-67.8%	-56.5%	-26.3%	-46.8%	-49.5%
MAIN versus TOTAL (Planned)		65.5%	61.5%	34.5%	42.3%	66.9%	54.0%	54.1%
MAIN versus TOTAL (Updated Plan)		59.0%	55.9%	20.8%	32.8%	81.2%	51.9%	49.9%

Table 42: 2010-14 MUAC ANSP CAPEX (Actual vs. Planned)

6.4.36 It is noted that the percentage of main vs. total CAPEX is foreseen to be higher for RP2 than for RP1 (93.2% planned average for RP2 vs. 49.9% expected average for RP1).

6.4.37 Additional qualitative information as regards MUAC investment strategy was provided for the consultation meeting with stakeholders. It was mentioned that though "*substantial investments are planned for RP2 yet the ATCO head count and productivity remain stable*."

6.4.38 Most of the projects planned are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 5.6% on average over the period.

6.4.39 Actual depreciation vs. the planned one for 2010-14 is expected to decrease by 8.5% (yearly average) as a result of the fall in CAPEX due to the "*postponement of the implementation of investments*"[20] for this timeframe.

SWITZERLAND ANSP

6.4.40 Switzerland's ANSP investments are planned to be on average 57% lower for RP2 than for the period 2010-14 (i.e. 13.7M€$_{2009}$, RP2 yearly average vs. 32.1M€$_{2009}$, updated average over the past five years).

6.4.41 None of the main projects planned for RP2 are continuing from RP1. "FDP GVA ACC & TWR" a new main project accounts for 18% from total RP2 planned investments and is foreseen to improve interoperability and trajectory prediction starting with 2019.

6.4.42 It is noted that the percentage of main vs. total CAPEX is foreseen to be significantly higher for RP2 than for RP1 (82.9% planned average for RP2 vs. 39.4% expected average for RP1) due to lower amounts planned for "other" projects.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	17.8	17.5	13.2	10.3	9.8	68.6	13.7
MAIN	Planned	15.4	15.2	10.9	8.0	7.5	56.9	11.4
MAIN versus TOTAL		86.5%	86.5%	82.2%	77.3%	76.4%	82.9%	82.9%

Table 43: RP2 Switzerland ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	23.5	38.2	35.8	36.9	38.2	172.6	34.5
	Updated Plan	22.4	25.2	32.7	38.6	41.3	160.3	32.1
	U-P	-1.1	-12.9	-3.1	1.7	3.1	-12.2	-2.4
	U/P (%)	-4.6%	-33.9%	-8.6%	4.6%	8.2%	-7.1%	-6.8%
MAIN	Planned	14.5	23.1	9.0	5.2	0.1	51.8	10.4
	Updated Plan	16.7	19.0	7.1	6.7	3.4	52.9	10.6
	U-P	2.2	-4.0	-1.9	1.5	3.3	1.0	0.2
	U/P (%)	15.1%	-17.4%	-21.3%	28.4%	6253.0%	2.0%	1251.6%
MAIN versus TOTAL (Planned)		61.5%	60.4%	25.3%	14.0%	0.1%	30.0%	32.3%
MAIN versus TOTAL (Updated Plan)		74.2%	75.5%	21.8%	17.2%	8.2%	33.0%	39.4%

Table 44: 2010-14 Switzerland ANSP CAPEX (Actual vs. Planned)

6.4.43 All the projects planned for RP2 are foreseen to be commissioned over 2015-19. This is reflected into depreciation costs which are foreseen to increase by 0.5% on average over the period, whilst for 2010-14 is expected to decrease by 7.6%. It is however noted that total depreciation costs for RP2 is foreseen to be 11% lower than the total foreseen for RP1 (at ANSP level, total depreciation planned for RP2 amounts to 157M€$_{2009}$ vs. total depreciation foreseen for 2010-14, 177M€$_{2009}$).

6.5 Total investments vs. Total ANS costs

BELGIUM

6.5.1 Over RP2, total CAPEX is foreseen to represent on average 9.4% of gate-to-gate costs with a peak in 2015 and 2016 (see details in 6.4.9 and 6.4.10).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	11.8%	12.2%	6.8%	8.1%	8.3%	9.4%

Table 45: % RP2 Belgium ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.2 For 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 6.5% (vs. 10.3% planned) and this is due to +2.6% "CAPEX effect"[21] and -2.5% due to "Costs effect"[22].

FRANCE

6.5.3 Over RP2, total CAPEX is foreseen to represent on average 13.1% of gate-to-gate costs with a peak in 2017 (14.5%). For this year only, total CAPEX represents 22% from the total planned for RP2, an important amount (75.3M€$_{2009}$) being planned for the "4-Flight" (see also 6.4.21 above).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	12.9%	14.0%	14.5%	13.3%	11.0%	13.1%

Table 46: % RP2 France ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.4 For 2010-2014, the percentage of CAPEX into total gate-to-gate costs is expected to be 10.7% (vs. 14.1% planned) and this is due to -25.3% "CAPEX effect" and -1.8% due to "Costs effect".

GERMANY

6.5.5 Over RP2, total CAPEX is foreseen to represent on average 11.9% of gate-to-gate costs with a peak in 2018 (13.1%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	11.5%	11.6%	12.7%	13.1%	10.6%	11.9%

Table 47: % RP2 Germany ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.6 For 2010-2014, the percentage of CAPEX into total gate-to-gate costs is expected to be 10.4% (vs. 9.3% planned) and this is due to +12.2% "CAPEX effect" and -0.4% due to "Costs effect".

LUXEMBOURG

6.5.7 Over RP2, total CAPEX is foreseen to represent on average 15% of gate-to-gate costs.

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	37.8%	37.0%	0.0%	0.0%	0.0%	15.0%

Table 48: % RP2 Luxembourg ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.8 For 2010-14, this percentage cannot be assessed as the data is not available.

THE NETHERLANDS

6.5.9 Over RP2, total CAPEX is foreseen to represent on average 16.2% of gate-to-gate costs with a peak in 2016 (25.4%), due to the AAA replacement project (21.7M$_{€2009}$ foreseen for 2016).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	19.6%	25.4%	19.1%	11.2%	6.0%	16.2%

Table 49: % RP2 Netherlands ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.10 For 2010-2014, the percentage of CAPEX into total gate-to-gate costs is expected to be 8% (vs. 19.6% planned) and this is due to -57.1% “CAPEX effect” and +6.8% due to “Costs effect”.

MUAC

6.5.11 Over RP2, total CAPEX is foreseen to represent on average 9.6% of gate-to-gate costs with a peak in 2016 (10.5%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	8.0%	10.5%	9.9%	9.9%	9.7%	9.6%

Table 50: % RP2 MUAC Total CAPEX vs. (gate-to-gate) ANS costs

6.5.12 For the 2010-2014 period, the percentage of CAPEX into total gate-to-gate costs is expected to be 7.7% (vs. 13.1% planned) and this is due to -43.2% “CAPEX effect” and -6.5% due to “Costs effect”.

SWITZERLAND

6.5.13 Over RP2, total CAPEX is foreseen to represent on average 9.2% of gate-to-gate costs.

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	11.9%	11.8%	8.9%	7.0%	6.6%	9.2%

Table 51: % RP2 Switzerland ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.5.14 For the 2010-2014 period, the percentage of CAPEX into total gate-to-gate costs is expected to be 20.5% (vs. 21.7% planned) and this is due to –6.8% "CAPEX effect" and +3.0% due to "Costs effect".

6.6 Ancillary assessments

6.6.1 In accordance with the performance regulation, additional reporting requirements were included in the RP2 Performance Plans by the States/ANSPs. This information ensures the transparency of the investment policy at ANSP level, details the impact of expected benefits per KPA and details also the synergies achieved at FAB level.

6.6.2 The information provided by the FABEC is detailed in the table below.

Ancillary assessments	Belgium ANSP (Belgocontrol)	France ANSP (DSNA)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Several projects are in continuation of the RP1 planned investments, of which "Approach radars Brussels, Ostend and Charleroi" is Belgocontrol's main project for both periods. It is assumed that the planned amount for RP2 is a catch-up from RP1 (see 6.4.9).	The most impoertant projects refer to 4-Flight, COFLIGHT and ERATO. Imortant amounts are planned both in RP1 and RP2 (See 6.4.13)
Overview, impact and date of expected benefits per KPA	Information provided for most of the projects. Expected benefits are foreseen starting with RP2.	Several benefits detailed for each main project (e.g. 4-Flight and COFLIGHT DSNA main investments are expected to impact all the 4 KPAs starting with 2017).
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Decision making drivers mentioned: ESSIP objectives and end-of-life or hardware obsolesce. CBAs or NPVs were required also by the stakeholders. See information on consultation meeting in paragraph 6.4.9.	4-Flight and NVCS (joint investment with MUAC) are based on CBAs. See information on consultation meetings in paragraphs 6.4.14 and 6.4.19.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Belgocontrol Investment plan summary available. Projects breakdown is per domain and per projects and amounts are consistent with the PP list of investments.	DSNA Strategic Plan 2014-2016 with complete qualitative information for each project is provided. No investment plan for RP2.

Table 52: Ancillary assessments for the FABEC – Belgocontrol and DSNA

Ancillary assessments	Germany ANSP (DFS)	Netherlands ANSP (LVNL) incl. MUAC
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	The most important projects planned for RP2 are in continuation of RP1 investment (i.e. iTEC, RTC, Rasum 8.33 and A-SMGCS accounts for 43% from total CAPEX in RP2).	The most important project planned for RP2 (50% from total CAPEX) in continuation of RP1 is the "Replacement AAA". Other two projects are linked to RP1 investment plan, i.e. Replacement VCS and Fallback air-ground/ground-ground voice. For MUAC, there are 3 projects which are carried over from the RP1 Performance Plan to RP2, respectively, 1) Voice systems 2) ATFCM / ASM Tools and 3) SESAR Compliant ATM.
Overview, impact and date of expected benefits per KPA	Information provided for most of the projects. Expected benefits are foreseen starting with RP2.	Information provided for most of the projects. Expected benefits are foreseen beyond RP2.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Decision making drivers mentioned: DFS internal decision making process. CBAs or NPVs were required also by the stakeholders. See information on consultation meeting in paragraph 6.4.23.	CBA is in progress for the "Replacement AAA". See information on consultation meetings in paragraph 6.4.31. MUAC: References are provided to the body responsible for being consulted and the decision making process that should be followed for the approval of each project
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	DFS Investment plan not available.	LVNL Investment plan not available.

Table 53: Ancillary assessments for the FABEC – DFS and LVNL / MUAC

Ancillary assessments	Luxembourg ANSP (ANA)	Switzerland ANSP (Skyguide)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	Luxembourg was not part of Performance scheme reporting for RP1.	None of the main projects planned for RP2 are in continuation of RP1.
Overview, impact and date of expected benefits per KPA	Information provided for most of the projects. Expected benefits are foreseen from RP2.	Information provided for most of the projects. Expected benefits are foreseen from RP2.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Decision making process according to internal project management process including a prioritization according to the 4 Key performance areas.	Decision making drivers mentioned: ESSIP objectives, interoperability Regulation.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Additional qualitative information provided in the Investment Plan.	Skyguide's CAPEX (abstract) for RP2 provided.

Table 54: Ancillary assessments for the FABEC – ANA and Skyguide

6.7 PCP Prerequisites view

PCP	ESSIP	BE	FR	DE	LU	MUAC	NL	CH
AF1	ATC15	2015	2017	2017			2017	2017
	ATC07.1	2015	2015					2016
	NAV03	2014		2014				
AF2	AOP05		2016				2015	2014
	AOP04.1	2014	2016	2017				
	AOP04.2	2015	2017	2017				
AF3	AOM19	2015	2015			2014	2015	2014
	AOM21	2017	2017	2017		2014	2017	2017
	ATC12	2015	2017	2018		2016	2016	2015
AF4	FCM04	2015	2014					
	FCM05	2016	2016	2015		2015	2016	
AF5	COM09		2015	2014				2014
AF6	ITY-AGDL		2018					

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 55: PCP Prerequisites view

6.8 Key Points

FAB LEVEL

6.8.1 Volume of investment: The planned investment average per year for RP2 is foreseen to be 21% higher than the average for the previous five years (updated for 2010-14[23]) (i.e. 355.1M€$_{2009}$ RP2 planned annual average vs. 292.4M€$_{2009}$ updated annual average for 2010-14).

6.8.2 Overall, coherence and consistency is shown between the RP1 and RP2 sets of projects for all the FABEC States and most of the projects which are not planned to be finalised by the end of RP1 are carried over to RP2 .There is therefore in RP2 a catch-up effect from the investments non-realised in RP1.

6.8.3 FAB / Regional approach: There are no commonly agreed FAB projects, but a number of projects are reported by States as achieving synergy at FAB level. There are also several airspace design projects developed at FAB level (see 6.4.2).

6.8.4 Consultation: All FABEC States have established consultation and decision making processes that were used for the development and approval of the PP2. References to specific consultation events and also CBAs are provided by some States. The airspace users mentioned the FABEC "*is desperately lacking ambition and a real plan*". It was recommended to move more sectors to MUAC, to use the restructuring mechanism for the airspace projects and to rationalize infrastructure and support functions across the FAB.

6.8.5 Link with Master Plan: Overall, all FABEC States/ANSPs have correctly linked their planned main projects to the IOP IRs, Master Plan, NSP and/or PCP.

6.8.6 The investments of the FABEC States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation. This conclusion is the result of a factual mapping between these investments and the

general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

BELGIUM

6.8.7 Belgium's ANSP investments are planned to be on average 81% higher for RP2 than for the period 2010-14.

6.8.8 Several projects are continuing from the RP1 project list ("Approach radars Brussels, Liege and Charleroi", and "VOR/DME"). The planned amount for RP2 for the approach radars is a catch-up from RP1 (see details in 6.4.13). For those RP1 investments continuing in RP2, there is no transparency in regard to the spent amounts over the previous reference period. Therefore, it is not possible to assess the effect on charges.

6.8.9 Stakeholders stated that "it is difficult for airspace users to support the relatively high-level of CAPEX investment; especially when considering the ill-disciplined investment program management to-date".

6.8.10 Depreciation costs are foreseen to decrease by 2.8% on average over RP2, and, for 2010-14, it is foreseen to decrease in total over the period by 2.7% due to the investments postponed in 2012 and 2013.

6.8.11 Over RP2, total CAPEX is foreseen to represent on average 9.4% of gate-to-gate costs with a peak in 2015 and 2016 (see details in 6.4.5 and 6.4.6).

6.8.12 When applicable, Belgocontrol has correctly linked its planned projects to the ATM Master Plan essentials and provided links to the NSP for 6 projects However, Belgium has not provided references to any of the PCP requirements. The ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk.

FRANCE

6.8.13 France's ANSP investments are planned to be on average 27% higher for RP2 than for the period 2010-14.

6.8.14 The most important projects planned for RP2 (43% from total CAPEX), continuing from the RP1 investments are assumed to be a catch-up for the amounts not spent over the period (see details in 6.4.13). For those RP1 investments continuing in RP2, there is no transparency in regard to the spent amounts over the previous reference period. Therefore, it is not possible to assess the effect on charges.

6.8.15 Most of the projects planned are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 3.5% on average over the period.

6.8.16 Over RP2, total CAPEX is foreseen to represent on average 13.1% of gate-to-gate costs with a peak in 2017 (14.5%).

6.8.17 France investments do not contain any reference to the functionalities of the PCP, but only to enablers of the PCP without mentioning for which functionality. The ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk.

GERMANY

6.8.18 Germany's ANSP investments are planned to be on average 22% higher for RP2 than for the period 2010-14.

6.8.19 The most important projects planned for RP2 (43% from total CAPEX), in continuation to the RP1 investments are assumed to be a catch-up for the amounts not spent over the period (see details in 6.4.21). For those RP1 investments continuing in RP2, there is no clarity about a possible catch-up effect possibly generating double charging of airspace users.

6.8.20 Most of the projects planned for RP2 are foreseen to be commissioned over RP2.

6.8.21 Over RP2, total CAPEX is foreseen to represent on average 11.9% of gate-to-gate costs with a peak in 2018 (13.1%).

6.8.22 Links or references are provided to three PCP ATM Functionalities, AF2, AF5 and AF6 for 8 projects.

LUXEMBOURG

6.8.23 Luxembourg's ANSP investments amount to €7.9M, of which 50% refer to "ATC systems" (ASMGC-S, modernisation of tower consoles, implementation of CDO etc.). The main aim of these investments is to modernise the actual ATC system.

6.8.24 When applicable ANA has correctly linked their planned projects to the ATM Master Plan essentials and provided links to EU Legislation for all projects. There is no PCP requirement applying directly to Luxembourg.

NETHERLANDS

6.8.25 Netherlands's ANSP investments are planned to be on average 103% higher for RP2 than for the period 2010-14.

6.8.26 The most important project planned for RP2 (50% from total CAPEX), a catch-up from RP1, is the "Replacement AAA" assumed to be a catch-up from RP1 (see paragraph 6.4.29). For those RP1 investments continuing in RP2, there is no transparency in regard to the spent amounts over the previous reference period. Therefore, it is not possible to assess the effect on charges.

6.8.27 Stakeholders have asked LVNL to apply "*ring-fencing investments*", the mechanism developed by other EU States in order to return the costs included in the cost-base that were not spent to the users.

6.8.28 Most of the projects planned for RP2 are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 2.3% on average over the period, whilst for 2010-14 is expected to decrease by 2.3%.

6.8.29 Over RP2, total CAPEX is foreseen to represent on average 16.2% of gate-to-gate costs with a peak in 2016 (25%).

6.8.30 Appropriate links or references are provided to Master Plan, Level 2 for four projects and also to the 4 ATM Functionalities of the PCP AF1, AF2, AF5 and AF6 for other two projects.

MUAC

6.8.31 MUAC's ANSP investments are planned to be on average 28.9% higher for RP2 than for the period 2010-14.

6.8.32 All main projects ("Voice Systems", "New Generation ATM", "ATFCM / ASM" and "SESAR Compliant ATM") planned for RP2 are continuing from RP1. Only for the first one the planned amount for RP1 was entirely spent, for the other three projects, only 40% was spent from the total planned for RP1 and i the amounts planned for RP2 are a catch-up from the previous reference period.

6.8.33 Most of the projects planned for RP2 are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 5.6% on average over the period, whilst for 2010-14 depreciation is expected to decrease by 8.5%.

6.8.34 Over RP2, total CAPEX is foreseen to represent on average 9.6% of gate-to-gate costs.

6.8.35 Links or references are provided to the functionalities of the PCP for two of the projects.

SWITZERLAND

6.8.36 Switzerland's ANSP investments are planned to be on average 57% lower for RP2 than for the period 2010-14.

6.8.37 None of the main projects planned for RP2 are continuing from RP1. "FDP GVA ACC & TWR" a new main project accounts for 17% from total RP2 planned investments and is foreseen to improve interoperability and trajectory prediction starting with 2019.

6.8.38 All the planned projects are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 0.5% on average over the period, whilst for 2010-14 are expected to decrease by 7.6%.

6.8.39 Over RP2, total CAPEX is foreseen to represent on average 9.2% of gate-to-gate costs.

6.8.40 Switzerland's investments do not contain any reference to the PCP deployment. The ability to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Performance Plan clearly describes which entities are responsible for the monitoring and reporting in “Section 7 - Implementation of the performance plan”.

7.1.2 A clear description of the measures applied to monitor and report has been included.

7.1.3 There is sufficient indication on how the situation would be addressed if targets were not met during the reference period.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 The FABEC Performance Plan contained no specific details on how the FUA legislation would be applied to provide additional capacity. This is particularly important for two reasons:

- The FABEC capacity plans are not consistent with the required performance and improving the effectiveness of FUA is a cost-effective method of improving capacity; and
- The FABEC themselves proved in August 2012 that both flight efficiency and capacity could be significantly improved simply by improving the civil military cooperation and coordination.

8.2 Additional indicators

8.2.1 No additional civil military indicators were described in the FAB Performance Plan.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the FABEC Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the FABEC Performance Plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 The FABEC en-route capacity targets are inconsistent with the respective FAB reference values for the years 2015-2018, as contained in the Network Operations Plan of the Network Manager (2014-2018/2019).

9.1.4 Although all FABEC Member States established a national target on arrival ATFM delay, the breakdown per airport of the national target for monitoring purposes (c.f. Commission Implementing Regulation (EU) No 390/2013, Annex I, 3.1.b), is provided only for Switzerland and Luxembourg, This is therefore inconsistent with the requirements of the performance Regulation for Belgium, France, Germany and the Netherlands.

COST-EFFICIENCY

9.1.5 The cost-efficiency targets for the en-route charging zones of Belgium-Luxembourg, France, Germany, Netherlands and Switzerland are not consistent with and do not adequately contribute to the achievement of the en-route Union-wide target;

9.1.6 The cost-efficiency targets for the terminal charging zones of Belgium (Antwerpen / Brussels / Charleroi / Oostende / Brugge), Luxembourg, Germany, Netherlands and Switzerland are not consistent with the criteria laid down in Annex IV of the performance Regulation;

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the FABEC in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The FABEC should revise its en-route capacity FAB targets to be consistent with the FAB reference values described in the Network Operations Plan of the Network Manager (2014-2018/2019).

9.2.2 As far as arrival ATFM delay is concerned, the FABEC should:

- for France and Germany, provide a breakdown of the national target per airport for monitoring purposes; and
- for Belgium and the Netherlands, complement the national breakdown for each airport for monitoring purposes.

Note: An aggregated monitoring value for a set of airports with a historically and anticipated low share of arrival ATFM delay is acceptable.

RECOMMENDATIONS FOR THE COST-EFFICIENCY KPA

9.2.3 Belgium should:

- revise downwards the en-route determined costs planned for RP2;
- reconsider the en-route TSU forecast in the light of the latest available information;
- revise downwards the terminal ANS determined costs planned for RP2;
- reconsider the TNSU forecast in the light of the latest available information.

9.2.4 Luxembourg should:

- revise downwards the terminal ANS determined costs planned for RP2.

9.2.5 France should:

- revise downwards the en-route determined costs planned for RP2;
- reconsider the en-route TSU forecast in the light of the latest available information.

9.2.6 Germany should:

- revise downwards the en-route determined costs planned for RP2;
- reconsider the en-route TSU forecast in the light of the latest available information;
- revise downwards the terminal ANS determined costs planned for RP2;
- reconsider the TNSU forecast in the light of the latest available information.

9.2.7 The Netherlands should:

- reconsider the en-route TSU forecast in the light of the latest available information;
- reconsider the TNSU forecast in the light of the latest available information;

- update, for en-route, the inflation rate provided for the year 2014 in order to reflect the latest forecast.

9.2.8 Switzerland should:

- revise downwards the en-route determined costs planned for RP2;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the terminal ANS determined costs planned for RP2;
- reconsider the TNSU forecast in the light of the latest available information.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The FABEC should provide the list of airports that are exempted from the provisions of the performance and charging Regulations.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.3.2 The FABEC should add safety targets for each year of the reference period for both effectiveness of safety management and the application of the severity classification based on the RAT methodology.

9.3.3 The FABEC should revise the RAT methodology application target for ATM-S (for 2015 and 2016) to ensure the values for ATM Ground and ATM Overall scores are identical.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.4 The FABEC should mandate its ANSPs to revise their en-route capacity plans to meet the required performance, as described in the Network Operations Plan of the Network Manager (2014-2018/2019).

9.3.5 The FABEC should ensure that the individual ANSP contributions for en-route capacity are revised so that, when aggregated, they are consistent with the required level of performance as determined by the FABEC reference values from the Network Operations Plan (2014-2018/2019), and to enable effective monitoring of capacity performance.

9.3.6 The FABEC should revise its incentive scheme for en-route capacity in accordance with Article 12 of the performance Regulation and Article 15 of the charging Regulation. In particular the following items should be addressed:

- The explanatory documentation provided in the performance plan does not present a clear and understandable process; graphics do not correspond to the text;
- The individual ANSP contributions, used for incentive purposes, are not consistent with the required capacity performance;
- The proposed target (using only codes CRSTMP) is not consistent with the

required capacity performance;

- There is no mention of an independent verifiable method of reconciling delay classification against actual events, which combined with the selective use of certain delay codes, could result in errors or gaming;
- Confirmation is required that the official data for the calculation of the capacity indicators shall be provided by the Network Manager.

9.3.7 The FABEC should review and provide details of how civil military coordination and cooperation could provide additional capacity for general air traffic.

9.3.8 Furthermore, Luxembourg should review and clarify the target for arrival ATFM delay in consistency with the historical performance observed to foster high performance. It should also establish an incentive scheme for the national target on arrival ATFM delay.

9.3.9 The Netherlands should review and adapt the conservative padding of the national target on arrival ATFM delay.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.10 Belgium should:

- provide information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template, for both en-route and terminal.

9.3.11 Luxembourg should:

- provide information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template.

9.3.12 France should:

- provide information on the underlying pension costs assumptions and adjustments beyond International Accounting Standards in line with the requirements of the FAB Performance Plan template (for both the en-route and terminal charging zones).

9.3.13 Germany should:

- provide the detailed breakdown and complementary information for DFS determined costs for each year of RP2.

9.3.14 The Netherlands should:

- provide information on interest rates on loans in line with the requirements of the FAB Performance Plan template, for both en-route and terminal.

9.3.15 The FABEC should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE SAFETY KPA

9.4.1 The FABEC should closely monitor improvements and progress in the RAT methodology severity classification.

9.4.2 The FABEC should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE ENVIRONMENT KPA

9.4.3 The FABEC has adopted the reference value as the FAB target. However, FABEC itself considers it a very challenging target. Given the importance of FABEC in achieving the Union-wide target, it will be essential to closely monitor the actual performance.

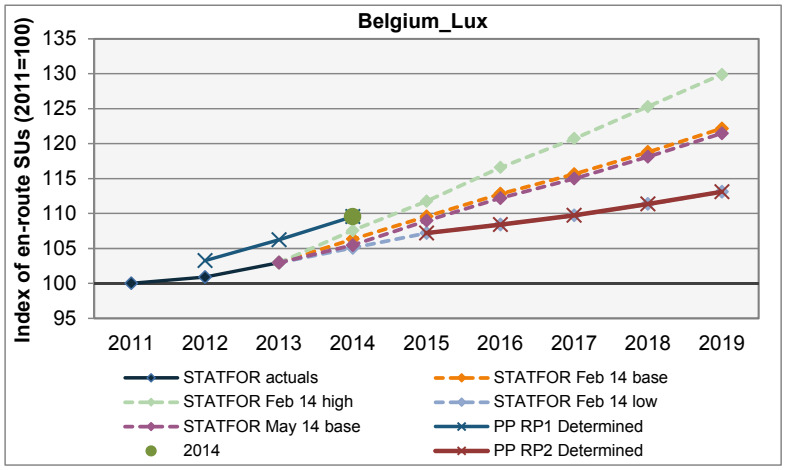
OBSERVATIONS FOR THE INVESTMENTS

9.4.4 The investment plans of Belgium, France and Switzerland should be reviewed so as to ensure coverage of the applicable ATM functionalities of the PCP within the determined costs for the reference period.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Belgium-Luxembourg: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		2 284	2 350	2 423							
Actuals, 2014, PP RP2 Determined	2 212	2 232	2 277	2 423	**2 371**	**2 398**	**2 427**	**2 463**	**2 501**	**1.6%**	**1.3%**
STATFOR Feb 14 base				**2 352**	**2 424**	**2 495**	**2 558**	**2 627**	**2 702**	**2.5%**	**2.8%**
STATFOR Feb 14 high				2 379	2 472	2 578	2 670	2 771	2 872	3.3%	3.8%
STATFOR Feb 14 low				2 324	2 371	2 398	2 427	2 463	2 501	1.6%	1.3%
STATFOR May 14 base				2 333	2 410	2 481	2 543	2 613	2 687	2.5%	2.8%
PP RP2 vs STATFOR Feb 14 base (%)					-2.2%	-3.9%	-5.1%	-6.3%	-7.4%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 27: En-route TSU forecasts

Comments:

Note: The planned traffic reported for the year 2014 in the RP2 Performance Plan has not been updated and correspond to the figures provided in the adopted Performance Plan for RP1. This issue significantly affects the trend in SUs when it is computed over the 2014-2019 period. Hence, for the purposes of this check, the focus will be on the changes in SUs over the 2011-2019 and 2015-2019 periods.

The traffic growth forecast for Belgium-Luxembourg en-route charging zone (+1.6% p.a. over 2011-2019 or +1.3% p.a. over 2015-2019) is in line with STATFOR February 2014 low case scenario.

This implies that if the outturn traffic over RP2 is in line with STATFOR base case scenario, then through the traffic risk sharing arrangements, Belgium-Luxembourg would receive additional cumulative revenues amounting to some 12.7 M€$_{2009}$ over RP2. Similarly, airspace users would receive an additional amount of 9.8 M€$_{2009}$.

Information from the CRCO's monthly monitoring of traffic indicates that for Belgium-Luxembourg actual traffic in the first eight months of 2014 is +3.1% higher compared to the same period in 2013. This is higher than STATFOR low case forecast for 2014 (+2.1%).

Based on this analysis, Belgium/Luxembourg en-route charging zone is assessed as passing this check with reservation.

Economic assumptions

Inflation: Belgium_Lux		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.6%	1.2%	1.0%	1.1%	1.2%	1.3%	1.4%	1.4%
Eurostat/IMF avg	annual % change		1.2%	1.0%	1.1%	1.2%	1.3%	1.4%	1.4%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	108.5	109.8	111.0	112.2	113.5	115.0	116.6	118.2
Eurostat/IMF avg	2009=100	108.5	109.8	111.0	112.2	113.5	115.0	116.6	118.2
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 28: Economic assumptions

Comments:

The inflation forecasts submitted for Belgium-Luxembourg en-route charging zone over the 2015-2019 period are in line with the IMF average inflation forecasts.

Based on this analysis, Belgium/Luxembourg en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	170.7	154.9	150.6	158.8	162.3	169.9	168.1	172.5	177.4	180.6	184.7
Inflation rate	annual % change		2.2%	3.5%	2.6%	1.2%	1.0%	1.1%	1.2%	1.3%	1.4%	1.4%
Inflation index	2009=100	100.0	102.2	105.8	108.5	109.8	111.0	112.2	113.5	115.0	116.6	118.2
Determined costs	EUR m (2009)	170.7	151.5	142.4	146.3	147.8	153.1	149.8	152.0	154.2	154.9	156.2
Service units	'000s	2 079	2 115	2 212	2 232	2 277	2 423	2 371	2 398	2 427	2 463	2 501
Determined unit cost	EUR (2009)	82.09	71.67	64.39	65.56	64.90	63.21	63.17	63.37	63.55	62.88	62.46
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	82.09	71.67	64.39	65.56	64.90	63.21	63.17	63.37	63.55	62.88	62.46

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	0.8%	2.6%	1.7%	2.4%
Inflation	CAGR %	1.7%	1.4%	1.3%	1.3%
Determined costs	EUR m (2009)	-0.9%	1.2%	0.4%	1.1%
Service units	'000s	1.9%	1.6%	0.6%	1.3%
Determined unit cost	EUR (2009)	-2.7%	-0.4%	-0.2%	-0.3%
Exchange rate					
Determined unit cost	EUR (2009)	-2.7%	-0.4%	-0.2%	-0.3%

Table 56: Determined unit cost trend

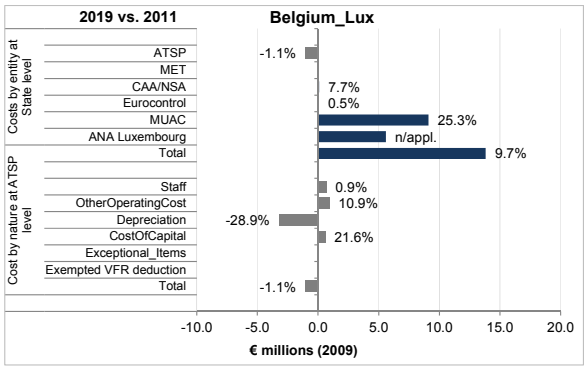


Figure 29: Planned cost category changes over RP1 and RP2

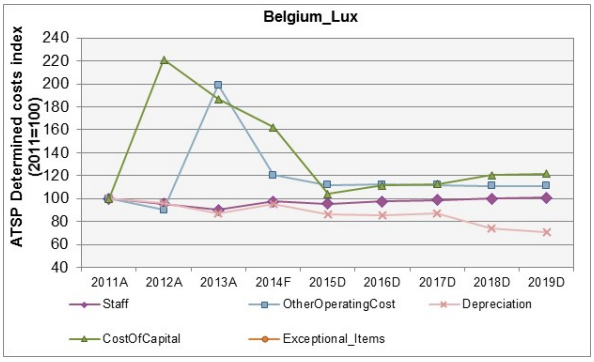


Figure 30: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Belgium-Luxembourg en-route DUC is expected to remain fairly constant over the 2014-2019 period (-0.2% p.a.). This is significantly different from the Union-wide cost-efficiency target trend (i.e. -3.3% p.a.).

➔ During the fact verification process (16/09 until 26/09/2014), Belgium-Luxembourg indicated that the figures provided in Annex E of the Performance Plan should be used to compute the en-route DCs and SUs for 2014. The PRB notes that these figures are different from the information provided in the body of the Performance Plan for Belgium-Luxembourg which was used to conduct this assessment.

Using the data provided in Annex E, the en-route costs reported for the year 2014 (159.8M€2009) are +4.4% higher than the DCs provided in the adopted Performance Plan for RP1 (153.1 M€2009). This difference is due to the fact that the figure reported in Annex E of the Performance Plan comprise costs associated to en-route ANS provided by ANA Luxembourg (some 6 M€) which were not included in RP1 DCs.

The number of total service units (SUs) reported for the year 2014 has been revised significantly downwards (-4.1%) compared to the figure provided in the adopted Performance Plan for RP1.

Using the information provided in Annex E to compute the trend in Belgium-Luxembourg en-route DUC over the 2014-2019 period does not change the results of this analysis. Indeed, the adjusted en-route DUC trend is -1.9% p.a. which is well below the Union-wide cost-efficiency target trend (i.e. -3.3% p.a.).

When assessed between 2011 and 2014, which covers RP1 and RP2, Belgium-Luxembourg's en-route DUC planned reduction (-0.4% p.a.) is also well below the Union-wide target (i.e. -1.7% p.a.). Over this period, the en-route DUC reduction is planned to be entirely achieved through the (low) traffic growth (+1.6% p.a.), while DCs are expected to increase (+1.2% p.a.).

Over the 2009-2019 period, the planned reduction in Belgium-Luxembourg DUC (-2.7% p.a.) is slightly better than the Union-wide cost-efficiency target (-2.5% p.a.). However, this profile is significantly affected by changes in the reporting of en-route costs over the period. Indeed, the substantial decrease in en-route unit costs observed in 2010 (-12.7%) mainly reflects the deduction from the en-route cost-base of costs associated to the provision of ATC services in regional airports which were in the past charged to en-route airspace users.

The planned growth of en-route SUs provided in Belgium-Luxembourg Performance Plan for the period 2015-2019 is in line with STATFOR February 2014 low scenario (+1.3% p.a.). If

STATFOR February 2014 base case forecasts were used to compute the planned DUC, then the adjusted profile over the 2011-2019 period would be -1.3% p.a. which is closer but still below the Union-wide cost-efficiency target (-1.7% p.a.).

Amongst the different accountable entities, the larger decreases in DUC between 2011 and 2019 are observed for the main en-route ATSP operating in Belgium-Luxembourg (Belgocontrol, -1.7% p.a.) and for the EUROCONTROL Agency (-1.5% p.a.). It should be noted that as Belgocontrol also provides MET services, part of its DCs and DUC also include costs associated to the provision of MET services. The NSA DUC is planned to remain fairly constant (-0.6% p.a.).

For Belgocontrol, the decrease in the en-route DUC planned over 2011-2019 (-1.7% p.a.) is due to the fact that DCs are planned to remain fairly constant (-0.1% p.a.) while SUs are forecast to increase by +1.6% p.a. This indicates that Belgocontrol planned DUC reduction over RP1 and RP2 is expected to be entirely achieved through the (low) traffic growth.

The relatively flat profile of DCs for Belgocontrol between 2011 and 2019 is mainly due to the fact that planned increases in other operating costs and in the cost of capital (+1.3% p.a., and +2.5% p.a., respectively) are expected to be compensated by a substantial reduction in depreciation costs (-4.2% p.a.). In the meantime, staff costs are planned to remain fairly constant (+0.1% p.a.).

In 2015, Belgocontrol other operating costs are expected to be -43.9% lower than 2013 actuals but +11.7% higher than in 2011. It should be noted that in 2013, Belgocontrol other operating costs were exceptionally high following the reporting of extraordinary costs relating to a law suit (see Figure 30). Over the 2015-2019 period, other operating costs are planned to remain fairly constant (-0.2% p.a.).

The cost of capital (2.8 M€$_{2009}$) in 2015 is expected to be in the same order of magnitude as 2011 actuals (2.7 M€$_{2009}$) but substantially lower than in 2012 and 2013 (5.9 and 5.0 M€$_{2009}$, respectively). It is then expected to significantly increase by +3.9% p.a. between 2015 and 2019, mainly reflecting a planned rise in the weighted average cost of capital (WACC) rate over RP2 (from 3.6% in 2015 to 4.5% in 2019).

Belgocontrol depreciation costs are expected to substantially decrease over 2011-2019 (-4.2% p.a.) and 2015-2019 (-4.6% p.a.). Belgium-Luxembourg indicates in the Performance Plan that these decreasing trends mainly reflect the fact that the volume of capex planned over RP2 is of a lower magnitude than those expensed prior to RP1. In addition, the Performance Plan shows that Belgocontrol actual capex for 2012 (6.9 M€$_{2009}$) and 2013 (5.4 M€$_{2009}$) are substantially lower than planned (16.8 M€$_{2009}$ and 11.4 M€$_{2009}$, respectively). As a result, actual depreciation costs for 2012 and 2013 were lower than planned (-9.6% and -12.1%, respectively). It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-route DCs provided for RP2. This issue, which was also identified by airspace users during the consultation of the draft RP2 Performance Plan, deserves a clarification from Belgium-Luxembourg.

The en-route cost-base of Belgium-Luxembourg comprises costs associated with two other ANSPs: MUAC which provides ATC services in the upper airspaces of Belgium and Luxembourg, and ANA Luxembourg which provides en-route ANS in Luxembourg lower airspace:

- MUAC en-route DCs per SU are expected to increase by +1.3% p.a. over the 2011-2019 period. It is noteworthy that the level of MUAC costs in 2011 was exceptionally low reflecting the impact of a one-off exceptional reduction mainly relating to the implementation of IFRS budgeting. The DUC planned by MUAC for the year 2015 is expected to be +3.4% higher than 2013 actuals and to remain fairly constant until 2019. The higher DUC planned for 2015 mainly reflects higher staff costs (+5.8 M€$_{2009}$) and other operating costs (+3.2 M€$_{2009}$). The Performance Plan does not

provide detailed information on the main drivers for these increases.

- The en-route DCs of ANA Luxembourg which amount to some 5 to 6 M€2009 are only reported from 2014 onwards. Excluding ANA Luxembourg DCs does not change the result of this assessment since, after adjustment, Belgium-Luxembourg en-route DUC is expected to reduce by -0.8% p.a. over the 2011-2019 period which is well below the Union-wide target (i.e. -1.7% p.a.). Over the 2015-2019 period, ANA DUC is expected to slightly increase (+0.6% p.a.) since DCs are planned to rise faster (+1.9% p.a.) than the number of SUs (+1.3% p.a.).

The PRB 2013 monitoring analysis indicates that Belgocontrol actual en-route costs for 2013 were lower than planned (-1.1 M€$_{2009}$). This was not sufficient to compensate for the impact of the lower traffic than planned (-3.1%) on Belgocontrol revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, Belgocontrol generated a net loss of -1.0 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Belgocontrol economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 4.9 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 4.0 M€$_{2009}$, which implies an ex-post rate of return on equity of 4.3% (compared to 5.3% as initially planned in the NPP). This contrasts with the more substantial gains generated by Belgocontrol in 2012 (10.3 M€$_{2009}$ or 10.6% of en-route revenues leading to an ex-post rate of return on equity of 10.9%).

Belgium-Luxembourg's en-route DCs for 2015 (149.8 M€$_{2009}$) are +1.4% higher than 2013 and no structural costs reductions are foreseen for RP2 since DCs are planned to increase by +1.1% p.a. between 2015 and 2019.

Based on this analysis, Belgium/Luxembourg en-route charging zone is assessed as not passing this check.

En-route Determined Unit Cost level

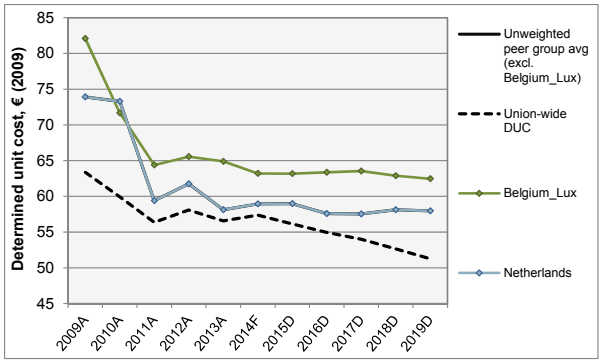


Figure 31: Determined unit cost level

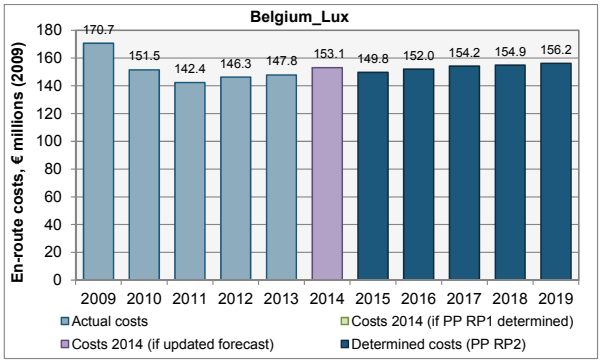


Figure 32: Determined costs 2009-2019

Comments:

Belgium-Luxembourg en-route DUC in 2019 is planned to be at 62.46 €$_{2009}$ which is +3.7% higher than the comparator group average (60.22 €$_{2009}$). A straight comparison with the Netherlands, rather than the group average, indicates that the Belgium-Luxembourg en-route DUC in 2019 is planned to be +7.7% higher.

The reductions in the en-route DUC forecast by Belgium-Luxembourg over 2011-2019 (-

0.4% p.a.) and 2015-2019 (-0.3% p.a.) are in line with those planned by the Netherlands (-0.3% p.a. and -0.4% p.a., respectively).

As highlighted above, the DCs used by Belgium-Luxembourg to compute the DUC for the year 2015 (149.8 M€$_{2009}$) are +1.4% higher than 2013 actual en-route costs (147.8 M€$_{2009}$). Belgium-Luxembourg en-route DCs are expected to slightly increase (+1.1% p.a.) between 2015 and 2019. As a result, at the end of RP2, en-route DCs are expected to amount to 156.2 M€$_{2009}$ which is +5.7% higher than 2013 actuals.

Based on this analysis, Belgium-Luxembourg en-route charging zone is assessed as not passing this check.

Cost of Capital

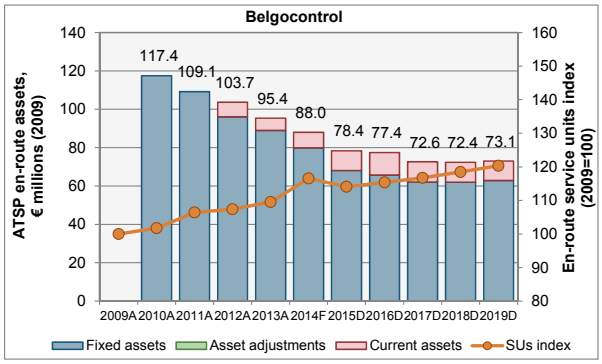


Figure 33: Breakdown of ATSP en-route asset base (2009-2019)

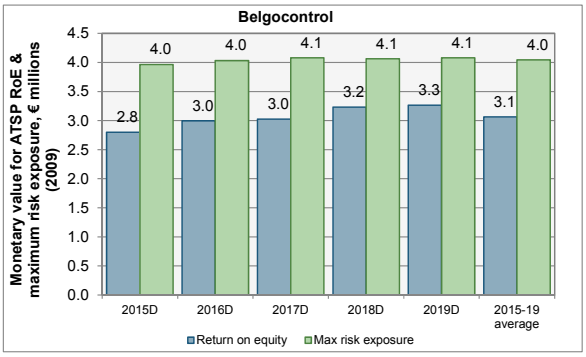


Figure 34: ATSP RoE vs maximum traffic risk exposure

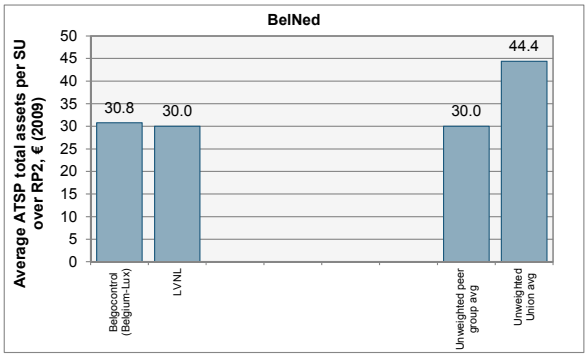


Figure 35: Average en-route asset base per SU over RP2

Comments:

The WACC rates reported for Belgocontrol in the Performance Plan ranges from 3.6% in 2015 to 4.5% in 2019. This is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance (4.4%). This is also lower than the WACC rates used to compute Belgocontrol cost of capital over RP1 (from 6.2% in 2012 to 6.6% in 2014).

Taking into account Belgocontrol capital structure and its asset base allows computing the monetary value of the RoE which amounts to some 2.8-3.3 M€$_{2009}$ p.a. over RP2. This is lower than the maximum traffic risk exposure which will be borne by Belgocontrol over RP2 (around 4.0-4.1 M€$_{2009}$ p.a.).

Over RP2, the average value of Belgocontrol en-route asset base per SU (30.8 €$_{2009}$) is expected to be in line with that of the Netherlands (30.0 €$_{2009}$) and substantially lower than the Union-wide average (44.4 €$_{2009}$).

Based on this analysis, Belgium-Luxembourg en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan does not comprise information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. No information is provided on the interest rates on loans since Belgocontrol current loans are expected to be completely reimbursed in 2015. The Performance Plan indicates that for Belgocontrol no adjustments were made beyond the provisions of IAS. **Based on this analysis, Belgium-Luxembourg en-route charging zone is assessed as not passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014. The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement. **Based on this analysis, Belgium-Luxembourg en-route charging zone is assessed as passing this check.**

Belgium: Assessment of terminal charging zones

Overview of terminal charging zones in Belgium:

Based on the information provided in the RP2 Performance Plan, there are five terminal charging zones (TCZ) in Belgium, each comprising one airport:

- Belgium Antwerpen (14 081 movements in 2013);
- Belgium Brussels (211 108 movements in 2013);
- Belgium Charleroi (49 967 movements in 2013);
- Belgium Liège (28 502 movements in 2013); and,
- Belgium Oostende-Brugge (5 875 movements in 2013).

This is different from the situation prior to RP2 since there was in Belgium only one TCZ comprising one airport (Brussels).

Out of the five TCZs, the Belgium-Brussels TCZ accounts for some 60% of the total DCs and some 68% of terminal SUs. Total TNSUs for the TCZ accounted for 99.1% of the TNSUs in Belgium in 2013.

On average, the total costs for the TCZ account for 25.3% of Belgium's "gate-to-gate" activity subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was not applied in Belgium during RP1.

According to the information provided by Belgium in Annex C of the FAB Performance Plan, none of the airports in the Belgian TCZ will be subject to traffic risk sharing over RP2.

In addition, at the time of writing this report, chargeable unit rates were not computed for the five Belgian TCZs. There is a therefore a potential compliance issue with the charging Regulation for Belgium TCZs. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance" which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements). The outcome of this process will have an impact on whether the plan is accepted by the European Commission or otherwise.

Recently a 3rd Management Contract has been agreed between the Belgian State and Belgocontrol. This new contract which allows the implementation of TNC at regional airports stipulates that the costs of terminal ANS can be financed either by a TNC or through other revenues. The proportion of terminal ANS costs to be financed by other revenues will be determined in September 2014. This decision will allow to set unit rates in the five Belgian TCZs.

Traffic forecast assumptions

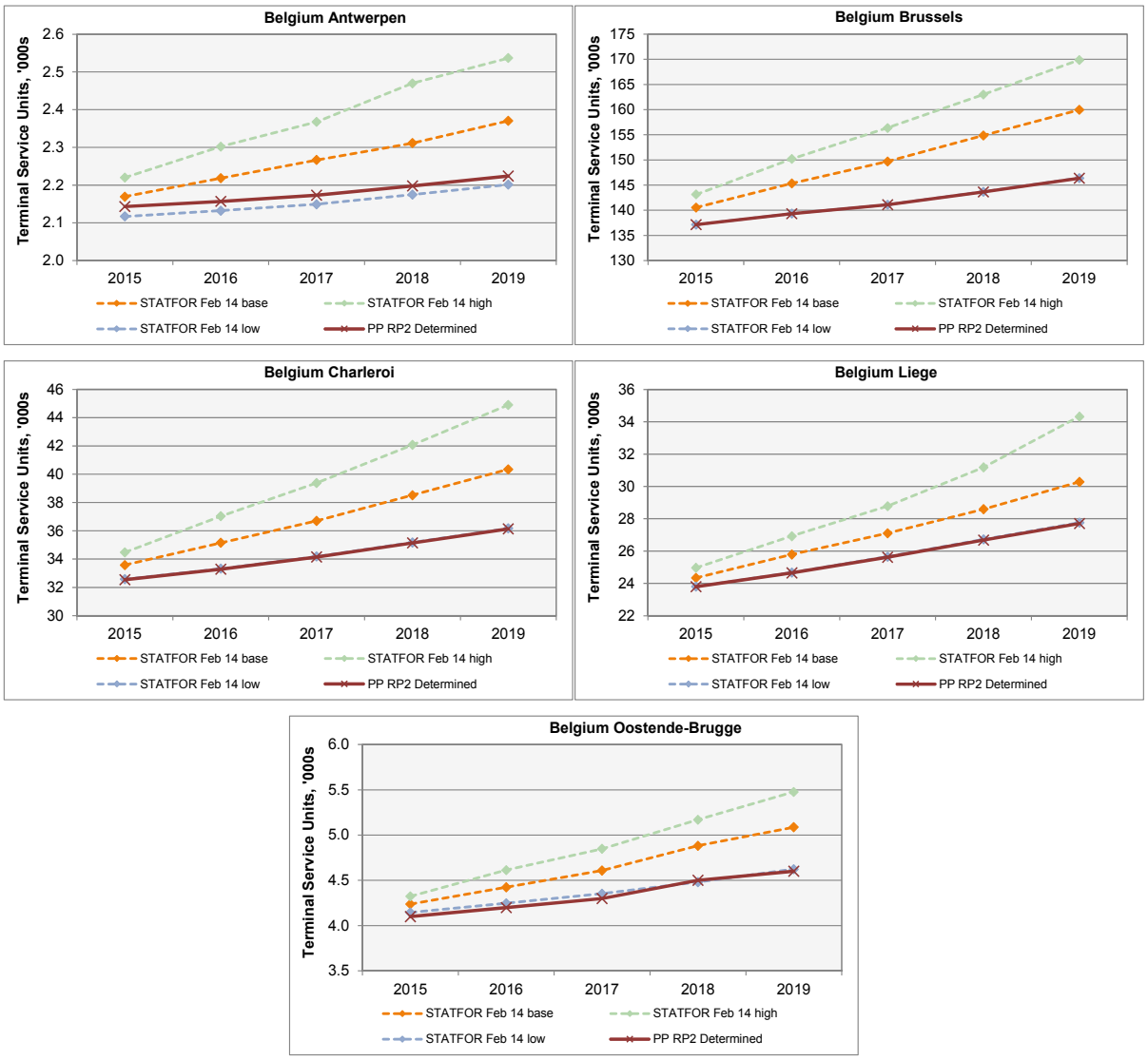


Figure 36: TNSU forecast 2015-2019

The planned growth in terminal SUs provided in the Performance Plan for the five Belgian TCZs over RP2 is in line with STATFOR February 2014 low scenario.

For Belgium Antwerpen, the planned number of SUs provided in the Performance Plan for the year 2015 (2,143) is -1.2% lower than the figure reported in STATFOR database for the base case scenario and +1.2% higher than the number of SUs forecast in STATFOR low scenario (2,117).

Based on this analysis, Belgium terminal charging zones are assessed as passing this check with reservations.

Economic assumptions

Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.

Based on this analysis, Belgium terminal charging zones are assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

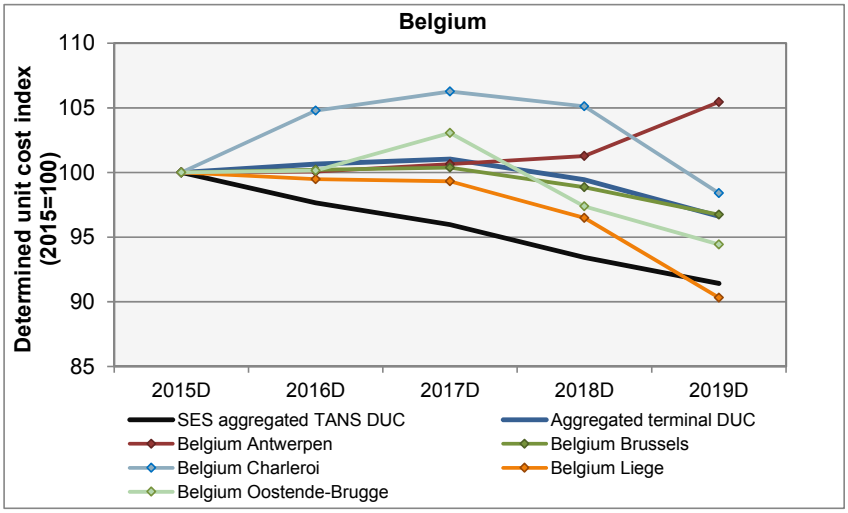


Figure 37: Terminal DUC index, 2015-2019

Over the 2015-2019 period, the profile of the aggregated DUC for Belgium TCZs (-0.9% p.a.) is below the SES aggregated DUC trend (-2.2% p.a.). The small reduction in the terminal DUC mainly reflects the fact that terminal DCs are expected to slightly rise (+1.2% p.a.) while terminal SUs are expected to increase by +2.1% p.a. over the 2015-2019 period.

These trends should be seen in the light that the terminal DCs reported by Belgium over RP2 do not include that the infrastructure costs currently financed by the regional governments. Belgium indicated that these costs would probably be included in RP3 terminal DCs.

In addition, the average level of terminal DUC planned for all the Belgian TCZs over RP2 (around 250 €$_{2009}$) is much higher than the SES aggregated average (167 €$_{2009}$).

Detailed analysis at individual TCZ level is provided below.

Terminal charging zone 1: Belgium Antwerpen

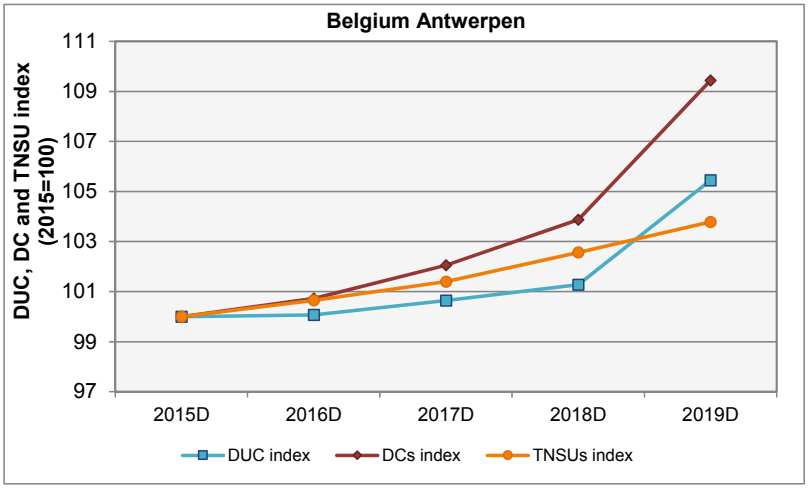


Figure 38: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Belgium Antwerpen		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	5.4	5.5	5.7	5.8	6.2	3.6%
Inflation rate	annual % change	1.1%	1.2%	1.3%	1.4%	1.4%	1.3%
Inflation index	2009=100	112.2	113.5	115.0	116.6	118.2	
Determined costs	EUR m (2009)	4.8	4.8	4.9	5.0	5.3	2.3%
Terminal service units	'000s	2	2	2	2	2	0.9%
Determined unit cost	EUR (2009)	2 246.84	2 248.47	2 261.37	2 275.43	2 369.31	1.3%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	2 246.84	2 248.47	2 261.37	2 275.43	2 369.31	1.3%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 57: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for Antwerpen TCZ (+1.3% p.a.) is substantially above the SES aggregated DUC trend (-2.2% p.a.). The increase in the terminal DUC mainly reflects the fact that terminal DCs are expected to rise faster (+2.3% p.a.) than terminal SUs (+0.9% p.a.) over the 2015-2019 period.

In addition, the level of DUC planned for Antwerpen TCZ over RP2 (ranging from 2,250 €$_{2009}$ to 2,370 €$_{2009}$) is extremely high compared to the SES aggregated TANS DUC (167 €$_{2009}$).

Based on this analysis, Antwerpen terminal charging zone is assessed as not passing this check.

Terminal charging zone 2: Belgium Brussels

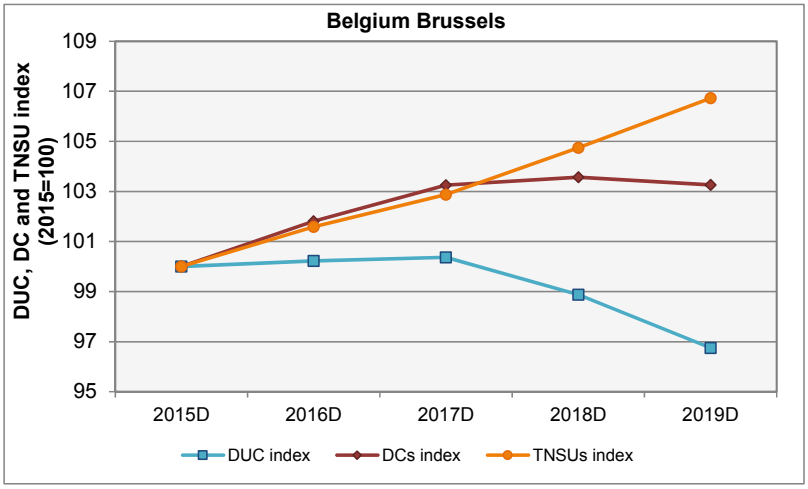


Figure 39: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Belgium Brussels		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	34.0	35.0	36.0	36.6	37.0	2.1%
Inflation rate	annual % change	1.1%	1.2%	1.3%	1.4%	1.4%	1.3%
Inflation index	2009=100	112.2	113.5	115.0	116.6	118.2	
Determined costs	EUR m (2009)	30.3	30.9	31.3	31.4	31.3	0.8%
Terminal service units	'000s	137	139	141	144	146	1.6%
Determined unit cost	EUR (2009)	220.95	221.44	221.77	218.46	213.78	-0.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	220.95	221.44	221.77	218.46	213.78	-0.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 58: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for Brussels charging zone (-0.8% p.a.) is below the SES aggregated DUC trend (-2.2% p.a.). The small reduction in the terminal DUC mainly reflects the fact that terminal DCs are expected to slightly rise (+0.8% p.a.) while terminal SUs are expected to increase by +1.6% p.a. over the 2015-2019 period.

The year 2013 is the latest for which actual terminal cost data is available. The DCs used to compute Brussels TCZ DUC for the year 2015 (30.3 M€$_{2009}$) are in the same order of magnitude as 2013 actual terminal costs (30.5 M€$_{2009}$). Brussels terminal DCs are expected to increase until 2018 and then to slightly reduce in 2019 to reach an amount (31.3 M€$_{2009}$) which is +2.5% higher than 2013 actuals.

Based on this analysis, Brussels terminal charging zone is assessed as not passing this check.

Terminal charging zone 3: Belgium Charleroi

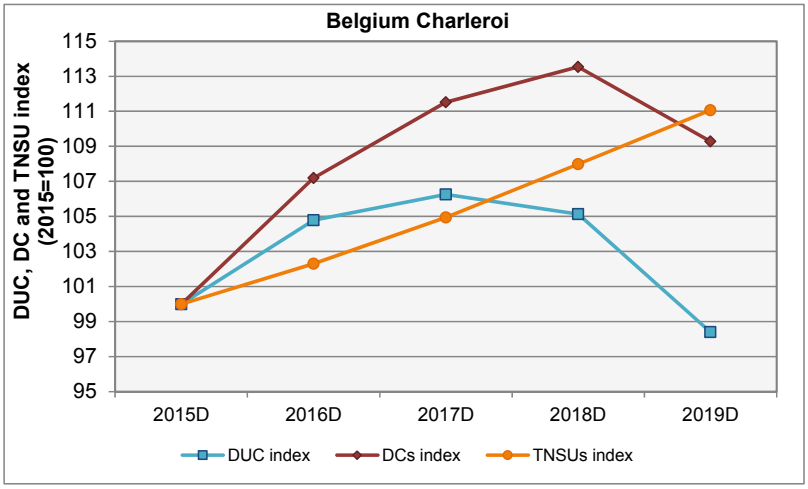


Figure 40: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Belgium Charleroi		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	7.5	8.1	8.5	8.8	8.6	3.6%
Inflation rate	annual % change	1.1%	1.2%	1.3%	1.4%	1.4%	1.3%
Inflation index	2009=100	112.2	113.5	115.0	116.6	118.2	
Determined costs	EUR m (2009)	6.7	7.1	7.4	7.6	7.3	2.2%
Terminal service units	'000s	33	33	34	35	36	2.7%
Determined unit cost	EUR (2009)	204.76	214.56	217.57	215.26	201.50	-0.4%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	204.76	214.56	217.57	215.26	201.50	-0.4%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 59: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, Charleroi TCZ terminal ANS DUC is expected to slightly decrease by -0.4% p.a. which is below the SES aggregated DUC trend (-2.2% p.a.). This average trend over RP2 masks consecutive increases in 2016 (+4.8%) and 2017 (+1.4%) followed by reductions in 2018 (-1.1%) and 2019 (-6.4%).

The small reduction in Charleroi terminal DUC over the 2015-2019 period mainly reflects the fact that terminal DCs are expected to rise (+2.2% p.a.) at a lower rate than terminal SUs (+2.7% p.a.).

Based on this analysis, Charleroi terminal charging zone is assessed as not passing this check.

Terminal charging zone 4: Belgium Liège

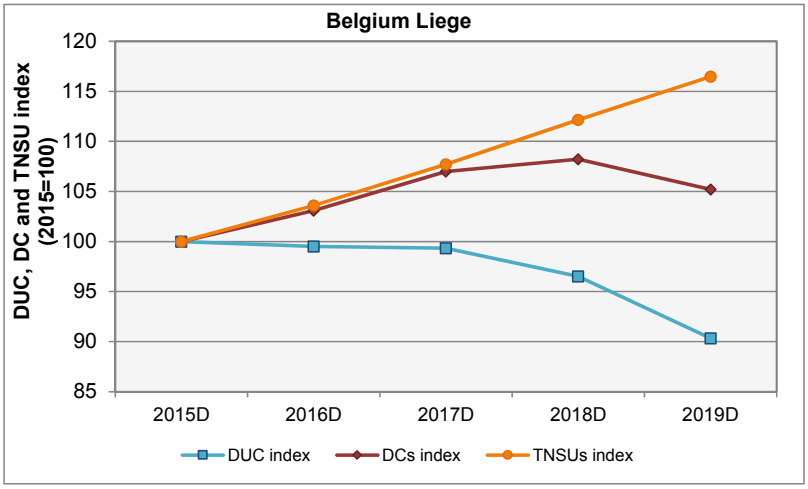


Figure 41: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Belgium Liege		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	7.2	7.5	7.9	8.1	8.0	2.6%
Inflation rate	annual % change	1.1%	1.2%	1.3%	1.4%	1.4%	1.3%
Inflation index	2009=100	112.2	113.5	115.0	116.6	118.2	
Determined costs	EUR m (2009)	6.4	6.6	6.8	6.9	6.7	1.3%
Terminal service units	'000s	24	25	26	27	28	3.9%
Determined unit cost	EUR (2009)	268.84	267.49	267.03	259.44	242.82	-2.5%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	268.84	267.49	267.03	259.44	242.82	-2.5%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 60: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for Liège charging zone (-2.5% p.a.) is better than the SES aggregated DUC trend (-2.2% p.a.). The reduction in the terminal DUC mainly reflects the fact that terminal SUs are expected to increase faster (+3.9% p.a.) than terminal DCs (+1.3% p.a.) over the 2015-2019 period.

Based on this analysis, Liège terminal charging zone is assessed as passing this check.

Terminal charging zone 5: Belgium Oostende-Brugge

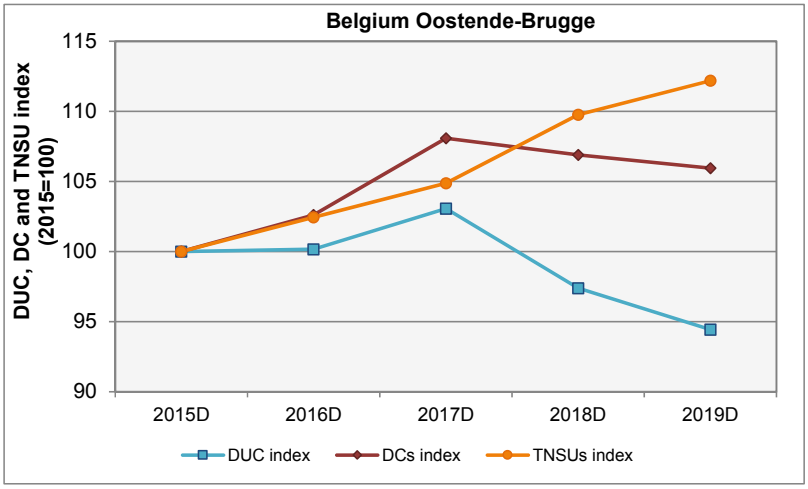


Figure 42: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Belgium Oostende-Brugge		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	2.3	2.4	2.6	2.6	2.6	2.8%
Inflation rate	annual % change	1.1%	1.2%	1.3%	1.4%	1.4%	1.3%
Inflation index	2009=100	112.2	113.5	115.0	116.6	118.2	
Determined costs	EUR m (2009)	2.1	2.1	2.2	2.2	2.2	1.5%
Terminal service units	'000s	4	4	4	5	5	2.9%
Determined unit cost	EUR (2009)	504.68	505.49	520.14	491.49	476.59	-1.4%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	504.68	505.49	520.14	491.49	476.59	-1.4%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 61: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, Oostende-Brugge TCZ terminal ANS DUC is expected to decrease by -1.4% p.a. which is below the SES aggregated DUC trend (-2.2% p.a.). This average trend over RP2 masks a planned increase in 2017 (+2.9%) and significant decreases in 2018 (-5.5%) and 2019 (-3.0%).

The reduction in the terminal DUC mainly reflects the fact that terminal SUs are expected to increase faster (+2.9% p.a.) than terminal DCs (+1.5% p.a.) over the 2015-2019 period.

In addition, the level of DUC planned for Oostende-Brugge TCZ over RP2 (ranging from some 480 €$_{2009}$ to 505 €$_{2009}$) is extremely high compared to the SES aggregated TANS DUC (around 167 €$_{2009}$).

Based on this analysis, Oostende-Brugge terminal charging zone is assessed as not passing this check.

Cost of Capital
The RoE and WACC rates used to compute the cost of capital for Belgium's TCZ over the 2015-2019 period (from 2.6% to 3.1%) are lower than those used to compute the cost of capital for the en-route charging zone (from 3.6% to 4.5%). **Based on this analysis, Belgium terminal charging zones are assessed as passing this check.**

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
The Performance Plan does not comprise information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. No information is provided on the interest rates on loans since Belgocontrol current loans are expected to be completely reimbursed in 2015. The Performance Plan indicates that for Belgocontrol no adjustments were made beyond the provisions of IAS. **Based on this analysis, Belgium terminal charging zones are assessed as not passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement. **Based on this analysis, Belgium terminal charging zones are assessed as passing this check.**

Luxembourg: Assessment of terminal charging zone

Overview of terminal charging zones in Luxembourg:

Based on the information provided in the draft RP2 Performance Plan, there is one terminal charging zone (TCZ) in Luxembourg. This charging zone comprises one airport (Luxembourg) which is below 70,000 movements per year.

There was no terminal navigation charge in Luxembourg prior to RP2. Terminal ANS costs were recovered through the airport charges.

Luxembourg airport will not be subject to traffic risk sharing over RP2.

In addition, there is a potential compliance issue with the charging Regulation for Luxembourg TCZ. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance" which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements). The outcome of this process will have an impact on whether the plan is accepted by the European Commission or otherwise.

Traffic forecast assumptions

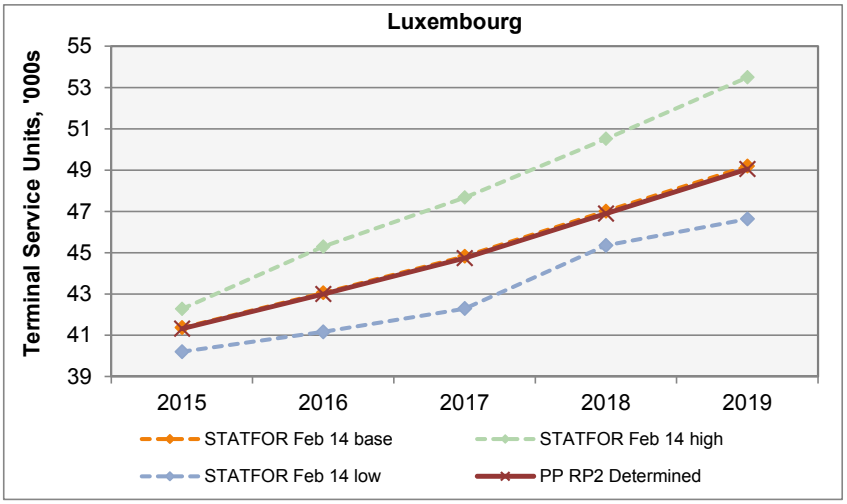


Figure 43: TNSU forecast 2015-2019

The planned growth of terminal SUs provided for Luxembourg TCZ over the period 2015-2019 (+4.4% p.a.) is in line with STATFOR February 2014 base scenario.

Based on this analysis, Luxembourg terminal charging zone is assessed as passing this check.

Economic assumptions

The inflation forecasts submitted for Luxembourg TCZ over the 2015-2019 period are in line with the IMF average inflation forecasts.

Based on this analysis, Luxembourg terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

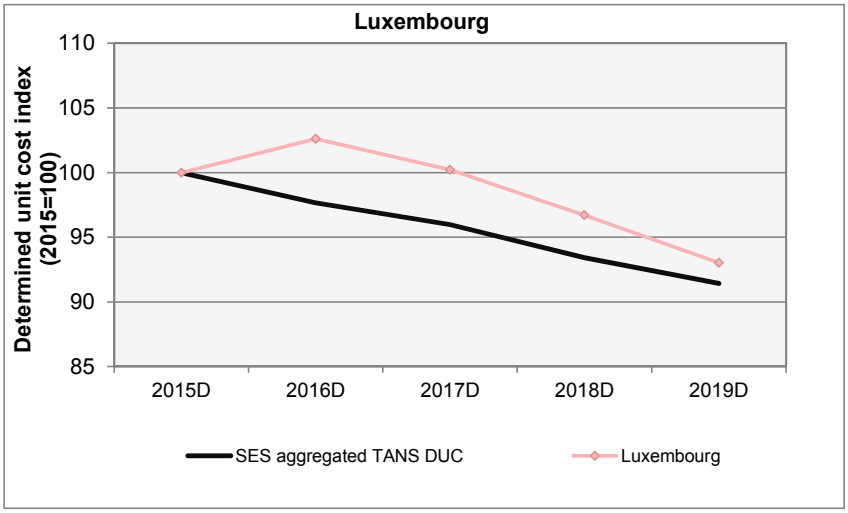


Figure 44: Terminal DUC index, 2015-2019

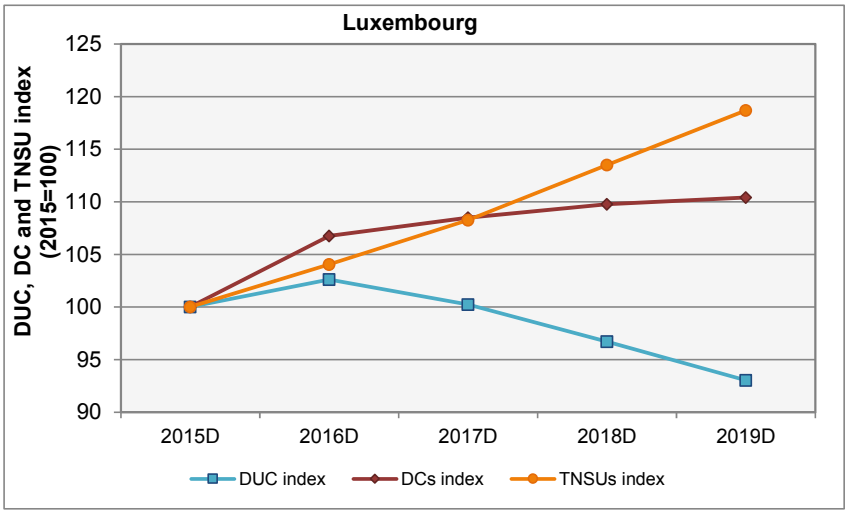


Figure 45: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Luxembourg		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	11.4	12.4	12.8	13.2	13.5	4.4%
Inflation rate	annual % change	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%
Inflation index	2009=100	114.6	116.6	118.8	121.1	123.4	
Determined costs	EUR m (2009)	9.9	10.6	10.8	10.9	11.0	2.5%
Terminal service units	'000s	41	43	45	47	49	4.4%
Determined unit cost	EUR (2009)	240.23	246.51	240.77	232.34	223.47	-1.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	240.23	246.51	240.77	232.34	223.47	-1.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 62: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the terminal DUC profile of the Luxembourg TCZ (-1.8% p.a.) is below the SES aggregated TANS DUC trend (-2.2% p.a.). The reduction in the terminal DUC mainly reflects the fact that terminal SUs are expected to increase faster (+4.4% p.a.) than terminal DCs (+2.5% p.a.) over the 2015-2019 period.

The year 2013 is the latest for which actual terminal cost data is available. The determined cost base used to compute Luxembourg TCZ DUC for the year 2015 (9.9 M€$_{2009}$) is -5.0% lower than 2013 actual terminal costs (10.4 M€$_{2009}$). However, Luxembourg terminal DCs are expected to substantially increase in 2016 (+6.8%) and then to continuously rise until 2019 (+1.1% p.a.) to reach an amount (11.0 M€$_{2009}$) which is +4.9% higher than 2013 actuals.

In addition, the average level of terminal DUC planned for Luxembourg TCZ over RP2 (around 240 €$_{2009}$) is much higher than the SES aggregated average (167 €$_{2009}$).

Based on this analysis, Luxembourg terminal charging zone is assessed as not passing this check.

Cost of Capital

The WACC rate reported for Luxembourg TCZ amounts to 2.8% for each year of RP2. This is in line with the WACC rates that will be used to compute the en-route cost of capital of ANA Luxembourg over RP2.

On the other hand, it is expected that the revenue risk is lower for the TCZs where the traffic risk sharing does not apply (especially when the traffic forecast is based on prudent assumptions). It is also expected that this lower risk is reflected through lower RoE and WACC rates than those reported for the en-route ATSP whose costs are subject to traffic risk sharing.

However, the WACC rates used to compute the en-route and terminal cost of capital for ANA Luxembourg are relatively low (2.8%) and in the same order of magnitude as the average WACC rate reported for the Belgian TCZs over RP2 (2.9%).

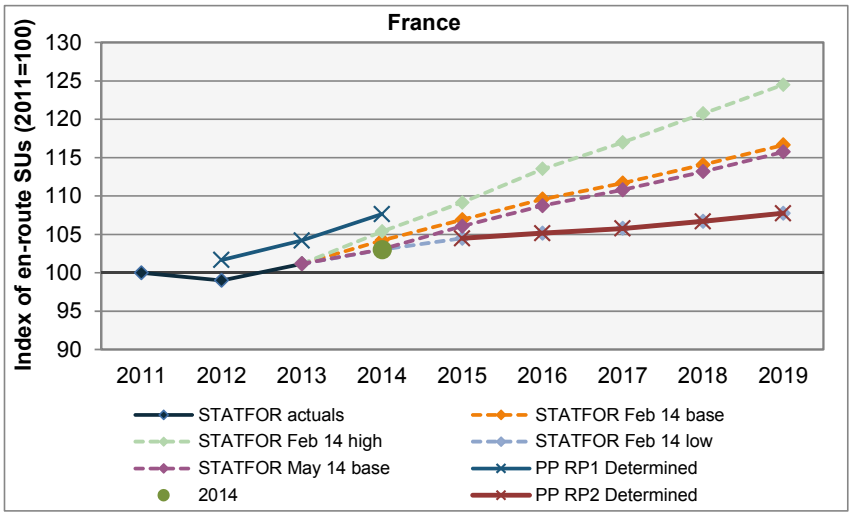
Based on this analysis, Luxembourg terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
The Performance Plan does not comprise information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. No information is provided on the interest rates on loans since the cost of debt is not included in the computation of the WACC for ANA Luxembourg. The Performance Plan indicates that for ANA Luxembourg no adjustments were made beyond the provisions of IAS. **Based on this analysis, Luxembourg terminal charging zone is assessed as not passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement. **Based on this analysis, Luxembourg terminal charging zone is assessed as passing this check.**

France: Assessment of the en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		17 987	18 437	19 045							
Actuals, 2014, PP RP2 Determined	17 691	17 515	17 900	18 226	**18 487**	**18 604**	**18 714**	**18 876**	**19 064**	**0.9%**	**0.8%**
STATFOR Feb 14 base				**18 438**	**18 915**	**19 390**	**19 759**	**20 181**	**20 637**	**1.9%**	**2.2%**
STATFOR Feb 14 high				18 644	19 313	20 084	20 696	21 364	22 023	2.8%	3.3%
STATFOR Feb 14 low				18 226	18 487	18 604	18 714	18 876	19 064	0.9%	0.8%
STATFOR May 14 base				18 232	18 766	19 237	19 603	20 022	20 474	1.8%	2.2%
PP RP2 vs STATFOR Feb 14 base (%)					-2.3%	-4.1%	-5.3%	-6.5%	-7.6%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 46: En-route TSU forecasts

Comments:

The forecast total en-route TSUs for France en-route charging zone is equivalent to the STATFOR low case forecast published in February 2014 for every year 2015-2019.

France indicates that the use of the STATFOR low scenario is "*consistent with EC decision 11th March 2014. This scenario is also consistent with FABEC ANSPs forecast and with National DTA forecast for RP2*".

For 2014, the STATFOR low case forecast considered in the RP2 Performance Plan shows an increase in TSUs of +1.8% compared to 2013 actuals. The PRB notes that the actual 2014 TSUs to date (covering the period January to August) show an increase of +3.6%, which is even higher than the STATFOR base case for 2014 (+3.0%).

In this context, the choice of the STATFOR low case forecast seems very conservative. It also means that, if the STATFOR base case forecast materialises for RP2, the State/ANSP would entirely retain the additional revenues generated by the difference in traffic in the 0%-2% dead-band for the costs subject to traffic risk sharing and would share a part of the additional revenues generated by the difference in traffic above +2% with the airspace users. Overall, the State/ANSP would retain +3.0% of the total costs subject to traffic risk sharing for RP2 (+156.1 M€$_{2009}$) as additional revenues and airspace users would retain +2.4% (+124.2 M€$_{2009}$).

It should also be noted that France has chosen a forecast broadly in line with the STATFOR

baseline forecast for its TCZ, which does not seem consistent with the choice of the low forecast for en-route

Based on this analysis, France en-route charging zone is assessed as passing this check with reservations.

Economic assumptions

Inflation: France		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.2%	1.0%	1.0%	1.2%	1.3%	1.4%	1.5%	1.6%
Eurostat/IMF avg	annual % change		1.0%	1.0%	1.2%	1.3%	1.4%	1.5%	1.6%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	106.4	107.4	108.5	109.8	111.3	112.9	114.6	116.4
Eurostat/IMF avg	2009=100	106.4	107.4	108.5	109.9	111.3	112.9	114.6	116.5
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 47: Economic assumptions

Comments:

The inflation forecasts for France en-route charging zone are equivalent to IMF average inflation rate forecast published in April 2014 for every year 2014-19.

Therefore, based on this analysis, France en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	1 107.2	1 122.1	1 131.7	1 141.6	1 188.5	1 242.8	1 290.6	1 296.6	1 328.7	1 340.1	1 343.8
Inflation rate	annual % change		1.7%	2.3%	2.2%	1.0%	1.0%	1.2%	1.3%	1.4%	1.5%	1.6%
Inflation index	2009=100	100.0	101.7	104.1	106.4	107.4	108.5	109.8	111.3	112.9	114.6	116.4
Determined costs	EUR m (2009)	1 107.2	1 102.9	1 087.5	1 073.2	1 106.3	1 145.3	1 175.0	1 165.2	1 177.3	1 169.5	1 154.0
Service units	'000s	16 780	16 637	17 691	17 515	17 900	18 226	18 487	18 604	18 714	18 876	19 064
Determined unit cost	EUR (2009)	65.98	66.30	61.47	61.27	61.80	62.84	63.56	62.63	62.91	61.96	60.54
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	65.98	66.30	61.47	61.27	61.80	62.84	63.56	62.63	62.91	61.96	60.54

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.0%	2.2%	1.6%	1.0%
Inflation	CAGR %	1.5%	1.4%	1.4%	1.5%
Determined costs	EUR m (2009)	0.4%	0.7%	0.2%	-0.4%
Service units	'000s	1.3%	0.9%	0.9%	0.8%
Determined unit cost	EUR (2009)	-0.9%	-0.2%	-0.7%	-1.2%
Exchange rate					
Determined unit cost	EUR (2009)	-0.9%	-0.2%	-0.7%	-1.2%

Table 63: Determined unit cost trend

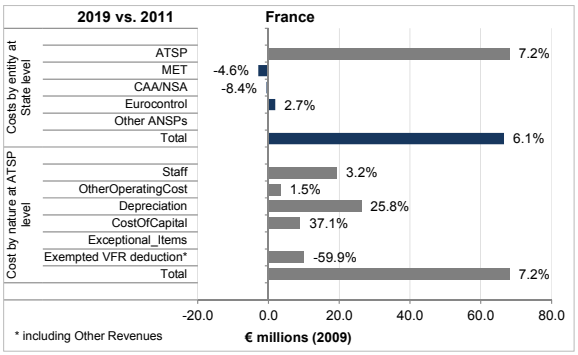


Figure 48: Planned cost category changes over RP1 and RP2

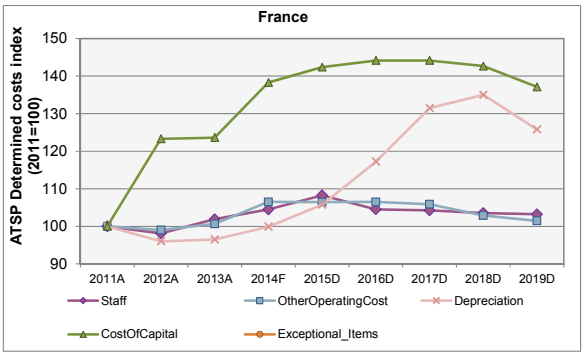


Figure 49: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

The en-route DUC trend for France over the period 2014-2019 (-0.7% p.a.) is much worse than the Union-wide targets (-3.3% p.a.). The en-route DUC trend is also worse if considered over the period 2011-2019 (-0.2% p.a. vs. -1.7% p.a.), even if normalised for the STATFOR base case traffic forecast.

The en-route DC trend is also much worse than that for the DCs profile underlying the Union-wide targets, whether considered over the periods 2014-2019 (+0.2% p.a. vs. -2.1% p.a.) or 2011-2019 (+0.7% p.a. vs. -0.8% p.a.).

2015 DCs are +9.5% above 2012 actual costs (or +8.3% without other income/revenues) and +6.2% above 2013 (provisional) actual costs (or +5.5% without other income/revenues). The PRB notes that, in this respect, there is an apparent divergence with the situation observed for the 2015 Terminal DCs, which are +1.7% compared to 2012 actuals and +1.0% compared to 2013 actuals (noting that the France TCZ is already applying the DC method with risk sharing). This apparent divergence raises an issue.

As a result, the cost-efficiency improvements achieved in the first two years of RP1 do not seem to be genuinely reflected in RP2.

When looking at the contribution of each entity over the period 2011-2019 (i.e. covering both RP1 and RP2), the PRB notes that:

- Overall total costs for France en-route charging zone (after deduction of costs for exempted VFR flights and other revenues) show an increase of +6.1% over the period 2011-2019 (+66.6 M€$_{2009}$).
- MET costs and NSA/CAA costs both show decreases between 2011 and 2019 (by -2.9 M€$_{2009}$ and -0.6 M€$_{2009}$, respectively).
- The increase in EUROCONTROL costs (+1.9 M€$_{2009}$) is mainly driven by the one-off reduction “"IFRS Budgeting" accounted for in 2011 (-10.0 M€$_{2009}$ for France). Without this one-off reduction, the EUROCONTROL costs for France would show a decrease of -8.1 M€$_{2009}$ or -9.9% over RP1 and RP2.
- The costs of DSNA (accounting for 88% of the total DCs for France en-route charging zone for RP2) show an increase of +7.2% between 2011 and 2019 (+68.2 M€$_{2009}$). Looking at the individual costs by nature and their evolution in RP1 and RP2, the PRB notes that:
    - 2019 determined staff costs show an increase of +19.4 M€$_{2009}$ (+3.2%) compared to 2011 actual staff costs. The increase in staff costs in mainly attributable to “*a*

progressive increase in the "CAS pensions" contribution rate, which is a major component of the staff costs evolution, as the amounts of pensions account for about 25% of staff costs". The PRB notes however that information provided by France on pensions is insufficient and incomplete.

- Other operating costs show an increase of +3.4 M€$_{2009}$ (+1.5%). It should be noted that "*a non-negligible part of investment expenditures are recorded as operating expenses*." Other operating costs are planned to decrease over RP2. However, the PRB notes that the determined operating cost 2015 are up by +5.7% compared to 2013 actuals and by +7.5% compared to 2012 actuals.
- The overall increase between 2011 and 2019 for DSNA is mainly driven by an increase in depreciation (+26.3 M€$_{2009}$). The increase is mainly observed in RP2 until 2018 (up by nearly +40% between 2013 actuals and 2018), followed by a -6.8% decrease in 2019. DSNA is planning for a significant investment programme in RP2 to continue "*to modernize its equipment, to update it to the technological standards required by the SESAR programme and to allow reaching the capacity targets set by the European Commission*". The PRB notes that, in spite of the capex increase, DSNA continues to have a much lower asset base per service units than its comparators in RP2. However, the PRB also notes that DSNA has postponed some major investments initially foreseen for RP1. In this respect, it is not clear how these have been taken into account in RP2 costs, so as to ensure that airspace users are not paying for cancelled investments and are not charged again in RP2 for the part of the investments already charged in RP1.
- 2019 determined cost of capital shows an increase of +9.0 M€$_{2009}$ compared to the situation prior to RP1, as a result of an increase in the en-route asset base, as well as to an increase in RoE rate from 6.0% in 2011 to 8.0% in RP1 and to 8.6% in RP2.
- Deductions from total costs have decreased by -59.9% (corresponding to an increase in costs by +10.1 M€$_{2009}$). These include:
  - A deduction of costs for exempted VFR flights, which have decreased by -4.0%, leading to an increase in costs of +0.3 M€$_{2009}$ between 2011 and 2019.
  - A deduction of other incomes/revenues. These were directly deducted from DSNA total costs in RP1 (-9.8 M€$_{2009}$ in 2011) but are no longer taken into account in RP2 for the calculation of the DCs. The RP2 Performance Plan reports that "*for RP2, the treatment of other incomes will be consistent with the regulation*". Thus, they will be deducted only for the purpose of calculating the unit rates charged to airspace users. Other incomes/revenues include reimbursements from the S-JU, revenues from commercial activities (mostly originated from the Aeronautical Information Service), as well as the co-financing of Coflight by ENAV and Skyguide. As a result, this constitutes an increase in costs of +9.8 M€$_{2009}$ between 2011 and 2019. The PRB notes that without these other incomes/ revenues, DSNA costs would show an increase of +58.4 M€$_{2009}$ (+5.9%) instead of +68.2 M€$_{2009}$ (+7.2%).

On the profitability side, the PRB notes that the DSNA managed to generate economic surpluses in the first two years of RP1 (+44.1 M€$_{2009}$ in 2012 and +17.3 M€$_{2009}$ in 2013) in the context of lower traffic than planned, although the estimated surplus in percent of the en-route revenues/costs remains modest (+4.6% and +1.8% in 2012 and 2013, respectively).

Finally, there are no indications in the FAB Performance Plan for significant structural and

organisational changes in the delivery of services within the DSNA or with other ATSPs in the FAB.

Based on this analysis, France en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

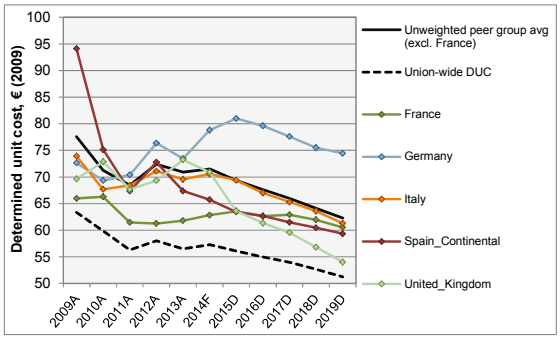


Figure 50: Determined unit cost level

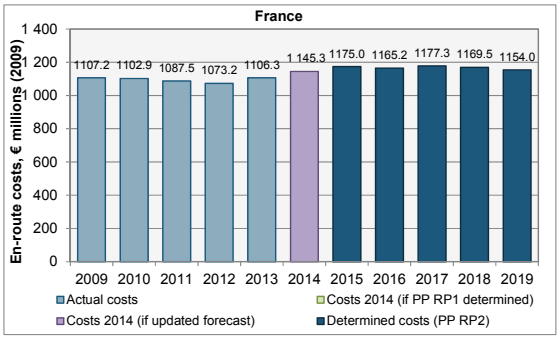


Figure 51: Determined costs 2009-2019

Comments:

The level of the en-route DUC for France in 2019 is lower by -2.8% than the average of the DUCs of the comparators. This difference is gradually and considerably reducing over time, as the unit cost of France is over -10% lower than the comparators in RP1.

It should also be noted that the DUC level in 2019 for the comparators is significantly impacted by the increase in the DUC for Germany and decreases for the other comparators in the group (Italy, Spain Continental and the United Kingdom).

Overtime, France is also deteriorating its relative performance against the Union-wide average. The 2019 DUC in France is planned to be +18.1% higher than the Union-wide aggregated DUC, whereas the 2012 actual unit cost for France was +5.5% above the actual Union-wide aggregated unit cost and the 2013 unit cost was +9.2% above the actual Union-wide aggregated unit cost.

Based on this analysis, France en-route charging zone is assessed as passing this check.

Cost of Capital

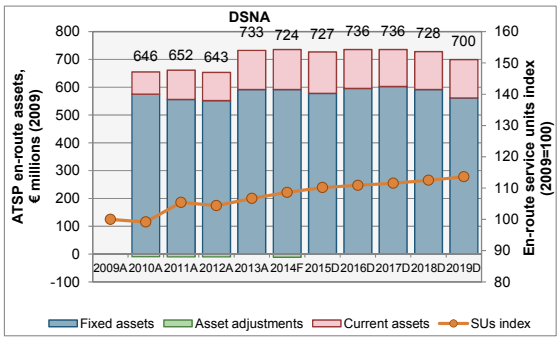


Figure 52: Breakdown of ATSP en-route asset base (2009-2019)

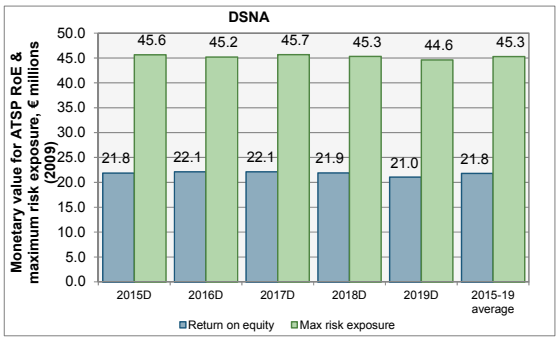


Figure 53: ATSP RoE vs maximum traffic risk exposure

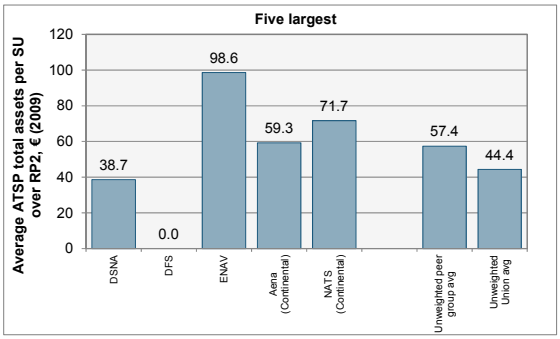


Figure 54: Average en-route asset base per SU over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate used to calculate the en-route cost of capital for DSNA is in line with the notional "efficient" WACC computed by France and that calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

DSNA's en-route asset base per service unit is significantly lower than the comparators (by over -50% (provisional figure excluding DFS, as data breakdown including asset base has not yet been provided for DFS) and the Union-wide average (by around -10%). It should be noted however that "*a non-negligible part of investment expenditures are recorded as operating expenses*." The impact of these investments on the level of the asset base is unknown.

As a result, the monetary value of the Return on Equity (RoE) is below the monetary value of the maximum revenue risk borne by the DSNA for the en-route activity. Although, it should be noted in this respect that the choice of the low STATFOR traffic forecast scenario reduces the probability of reaching the maximum loss.

Notes on DSNA's en-route asset base for RP2:

- Net current assets account for 19.2% of the total asset base in RP2. The RP2 Performance Plan reports that *"net current assets take into account the receivables from route charges, payables arising from purchases, as well as the receivables or payables*

resulting from the adjustment mechanisms. Cash is excluded."

- The RP2 Performance Plan also reports that "*the asset base is adjusted to take account of a specific treatment of the air navigation assets bought from Aéroports de Paris (ADP) in 2006. For these assets, the depreciation charged to the users corresponds to the repayment of the loan specifically taken out to buy these assets, rather than to the actual depreciation of these assets. For consistency, the Net Book Value (NBV) of these assets bought from ADP is retreated: the asset life is set equal to the loan length*." As no amounts have been recorded as adjustments in RP2, it is not clear whether such adjustments for assets bought from Aéroports de Paris (ADP) in 2006 are still deducted or to be deducted from the RP2 asset base, as was the case in RP1.

Based on this analysis, France en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The information provided on pension costs assumptions and justifications is not consistent with FAB Performance Plan template and guidance as it is incomplete. The information provided on interest on loans is limited to the average annual cost of debt falling on the ANSP. The RP2 Performance Plan indicates that "*the ANSP borrows money through the DGAC, which in its turn borrows through the French Treasury Agency. The DGAC has about 50 loans outstanding."* Adjustments beyond IAS are reported to be applied. However, there is only limited information on the specific adjustments and their impact on the RP2 DCs. **Based on this analysis, France en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing for 2012 and 2013. These are the subject of a separate assessment by the European Commission. France indicates that "*the costs exempt from cost-sharing filed for RP1 "have been taken into account for the RP2 forecasts, based on what can be currently known*". The Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions). However, France suggests that "*the list of costs exempt from cost-sharing for RP2 will be updated following up on the European Commission feedback*." **Based on this analysis, France en-route charging zone is assessed as passing this check.**

France: Assessment of the terminal charging zone

Overview of the terminal charging zone in France

There is one terminal charging zone (TCZ) in France for RP2, which covers 60 airports and where traffic risk-sharing applies.

France is the only SES State which already applied determined costs, traffic risk-sharing and cost-sharing to its TCZ in RP1.

The TCZ is the same as for RP1, except for Rouen (LFOP) which is no longer included in RP2.

Total TNSUs for the TCZ accounted for 99% of the TNSUs in France in 2013.

Total costs for the TCZ account for 16% of France's "gate-to-gate" activity subject to SES in RP2.

Traffic forecast assumptions

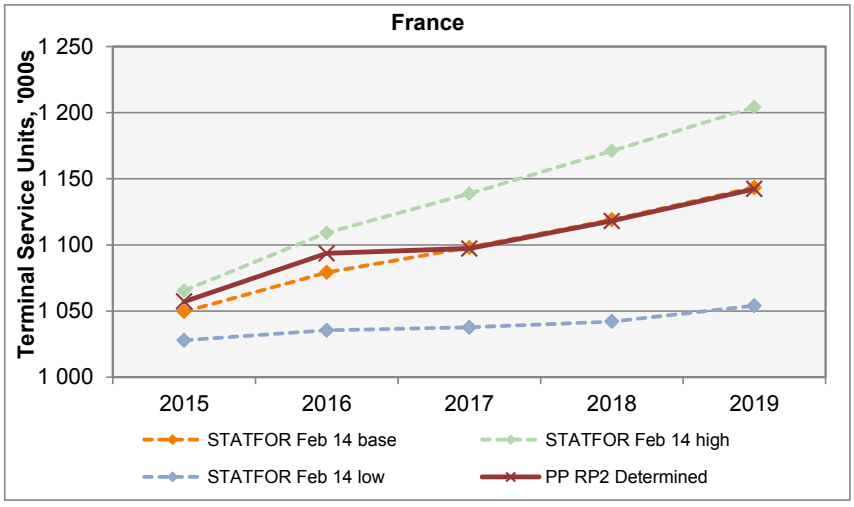


Figure 55: TNSU forecast 2015-2019

The forecast total TNSUs is based on France's own forecasts. They are higher than the STATFOR base case published in February 2014 for 2015 and 2016 (by +0.8% and +1.4%, respectively). For the remaining years of RP2, the forecast TNSUs correspond to the STATFOR base case published in February 2014.

Based on this analysis, France terminal charging zone is assessed as passing this check.

Economic assumptions

Forecast inflation for RP2 is in line with IMF average inflation rate forecast published in April 2014 and is the same as used for the en-route KPI.

Based on this analysis, France terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

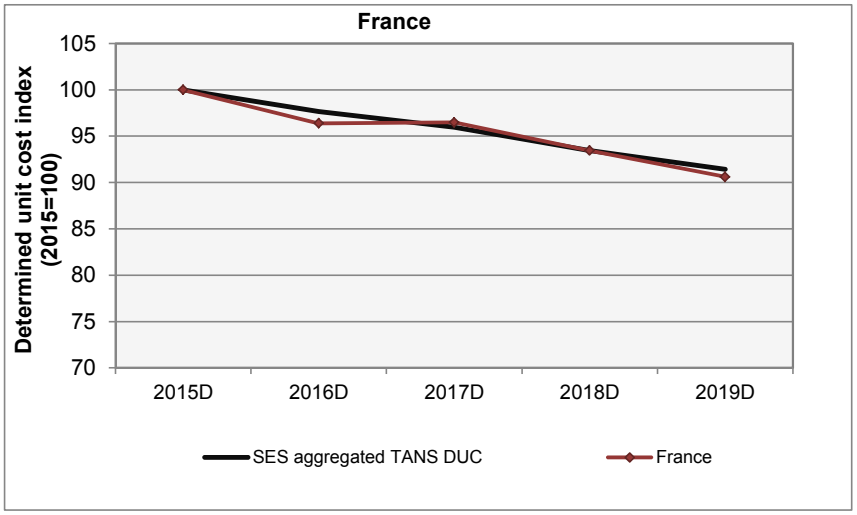


Figure 56: Terminal DUC index, 2015-2019

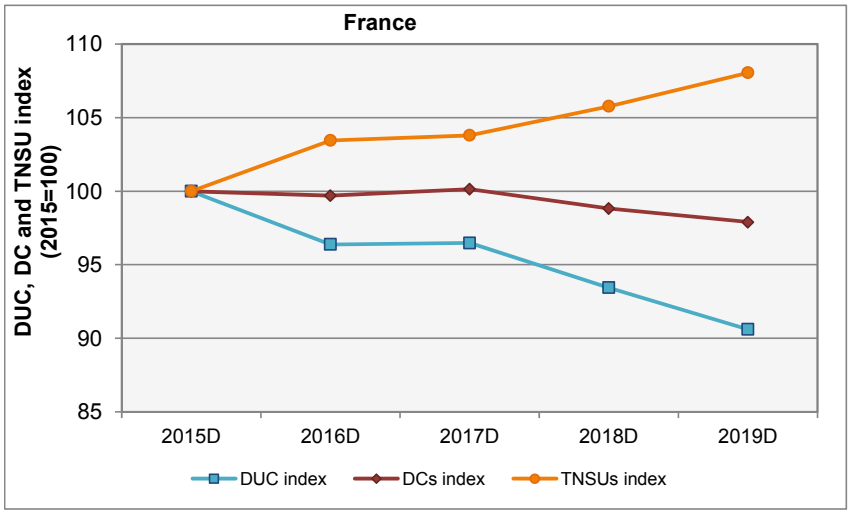


Figure 57: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: France		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	241.0	243.4	248.0	248.5	250.2	0.9%
Inflation rate	annual % change	1.2%	1.3%	1.4%	1.5%	1.6%	1.5%
Inflation index	2009=100	109.8	111.3	112.9	114.6	116.4	
Determined costs	EUR m (2009)	219.4	218.8	219.8	216.9	214.9	-0.5%
Terminal service units	'000s	1 057	1 094	1 097	1 118	1 142	2.0%
Determined unit cost	EUR (2009)	207.59	200.07	200.29	193.98	188.10	-2.4%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	207.59	200.07	200.29	193.98	188.10	-2.4%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 64: Terminal DUC, DC and TNSU trends, 2015-2019

The terminal DUC trend for France over the period 2015-2019 (-2.4% p.a.) is slightly better than the profile corresponding to the SES aggregated Terminal ANS DUC taken from RP2 Performance Plans (-2.2% p.a.).

The terminal DCs trend (-0.5% p.a.) is similar to the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (-0.4% p.a.). Determined costs 2015 are consistent with the latest available actual costs for the TCZ (+1.7% compared to 2012 actuals and +1.0% compared to 2013 actuals).

Based on this analysis, France terminal charging zone is assessed as passing this check.

Cost of Capital

The WACC, the RoE and the average interest on debt used to calculate the cost of capital for terminal ANS are the same as those used to calculate the en-route cost of capital for the DSNA. This is consistent with the fact that the traffic risk sharing also applies to the TCZ.

Based on this analysis, France terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the FAB Performance Plan for the description economic assumptions is the same as for en-route.

The information provided on pension costs assumptions and justifications is not consistent with FAB Performance Plan template and guidance as it is incomplete.

The information provided on interest on loans is limited to the average annual cost of debt falling on the ANSP. The RP2 Performance Plan indicates that "*the ANSP borrows money through the DGAC, which in its turn borrows through the French Treasury Agency. The DGAC has about 50 loans outstanding.*"

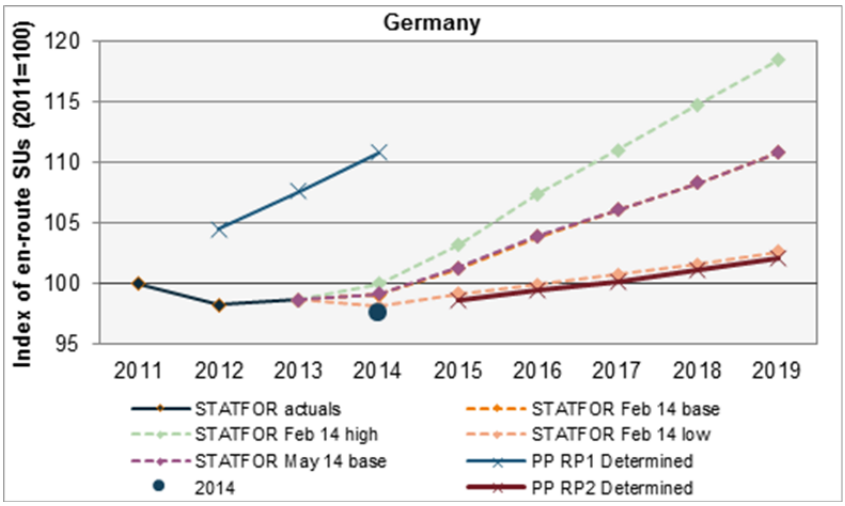
Adjustments beyond IAS are reported to be applied. However, there is only limited information on the specific adjustments and their impact on the RP2 DCs.

Based on this analysis, France terminal charging zone is assessed as not passing this check.

Description, level, composition and justification of costs exempt from risk sharing
The information provided in the FAB Performance Plan for the costs exempt from cost-sharing is the same as for en-route. France is the only SES State which already applied determined costs and cost-sharing to its terminal charging zone in RP1. As for en-route, information for RP1 on the level and composition of costs exempt from risk sharing has been provided as part of the NSA Report on costs exempt from cost-sharing for 2012 and 2013. These are the subject of a separate assessment by the European Commission. France indicates that "*the costs exempt from cost-sharing filed for RP1 "have been taken into account for the RP2 forecasts, based on what can be currently known*". The RP2 Performance Plan includes information on the assumptions for costs exempt from risk sharing relating to RP2 (although insufficient in respect of pensions). It should be noted that France intends to update this information following the European Commission feedback for RP1 **Based on this analysis, France terminal charging zone is assessed as passing this check.**

Germany: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		13 309	13 708	14 119							
Actuals, 2014, PP RP2 Determined	12 658	12 442	12 506	12 429	**12 568**	**12 665**	**12 765**	**12 879**	**13 004**	**0.3%**	**0.9%**
STATFOR Feb 14 base				**12 618**	**12 896**	**13 233**	**13 512**	**13 795**	**14 114**	**1.3%**	**2.3%**
STATFOR Feb 14 high				12 740	13 141	13 684	14 140	14 623	15 093	2.1%	3.5%
STATFOR Feb 14 low				12 494	12 633	12 730	12 830	12 944	13 069	0.3%	0.9%
STATFOR May 14 base				12 626	12 902	13 239	13 519	13 801	14 121	1.3%	2.3%
PP RP2 vs STATFOR Feb 14 base (%)					-2.5%	-4.3%	-5.5%	-6.6%	-7.9%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 58: En-route TSU forecasts

Comments:

The planned growth of en-route SUs provided for Germany en-route charging zone over the period 2015-2019 (+0.9% p.a.) is in line with STATFOR February 2014 low scenario (+0.9% p.a.).

This implies that if the outturn traffic over RP2 is in line with STATFOR base case scenario, then through the traffic risk sharing arrangements, Germany would receive additional cumulative revenues amounting to some 125.3 M€$_{2009}$. Similarly, airspace users would receive an additional amount of 103.5 M€$_{2009}$ over RP2.

It should be noted that the planned number of SUs provided in the Performance Plan for the year 2014 (12,429,000) is -0.5% lower than the figure reported in STATFOR database for the low scenario (12,494,445). This difference is due to the fact that the SUs forecasts provided by STATFOR include military SUs (i.e. some 65,000 SUs) while these were not included in the planned traffic figures reported by Germany over the 2014-2019 period. This small difference does not affect the results of this assessment.

The latest information from the CRCO's monthly monitoring of traffic indicates that for Germany actual traffic in the first eight months of 2014 is +2.2% higher compared to the same period in 2013. This significantly contrasts with the planned decrease in SUs reported in the Performance Plan for 2014 (-0.6%).

Based on this analysis, Germany en-route charging zone is assessed as passing this

check with reservations.

Economic assumptions

Inflation: Germany		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.1%	1.6%	1.4%	1.4%	1.6%	1.7%	1.7%	1.7%
Eurostat/IMF avg	annual % change		1.6%	1.4%	1.4%	1.6%	1.7%	1.7%	1.7%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	105.9	107.6	109.1	110.5	112.3	114.2	116.2	118.1
Eurostat/IMF avg	2009=100	105.9	107.6	109.1	110.5	112.3	114.2	116.2	118.1
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 59: Economic assumptions

Comments:

The inflation forecasts submitted for Germany en-route charging zone over the 2014-2019 period are in line with the IMF average inflation forecasts.

Based on this analysis, Germany en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	865.5	856.3	924.3	1 006.3	988.7	1 068.4	1 125.3	1 132.3	1 131.6	1 129.5	1 143.7
Inflation rate	annual % change		1.2%	2.5%	2.1%	1.6%	1.4%	1.4%	1.6%	1.7%	1.7%	1.7%
Inflation index	2009=100	100.0	101.2	103.7	105.9	107.6	109.1	110.5	112.3	114.2	116.2	118.1
Determined costs	EUR m (2009)	865.5	846.1	891.1	950.1	918.9	979.5	1 017.9	1 008.2	990.7	972.3	968.0
Service units	'000s	11 913	12 202	12 658	12 442	12 506	12 429	12 568	12 665	12 765	12 879	13 004
Determined unit cost	EUR (2009)	72.65	69.34	70.40	76.36	73.47	78.81	80.99	79.60	77.61	75.50	74.44
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	72.65	69.34	70.40	76.36	73.47	78.81	80.99	79.60	77.61	75.50	74.44

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.8%	2.7%	1.4%	0.4%
Inflation	CAGR %	1.7%	1.6%	1.6%	1.7%
Determined costs	EUR m (2009)	1.1%	1.0%	-0.2%	-1.2%
Service units	'000s	0.9%	0.3%	0.9%	0.9%
Determined unit cost	EUR (2009)	0.2%	0.7%	-1.1%	-2.1%
Exchange rate					
Determined unit cost	EUR (2009)	0.2%	0.7%	-1.1%	-2.1%

Table 65: Determined unit cost trend

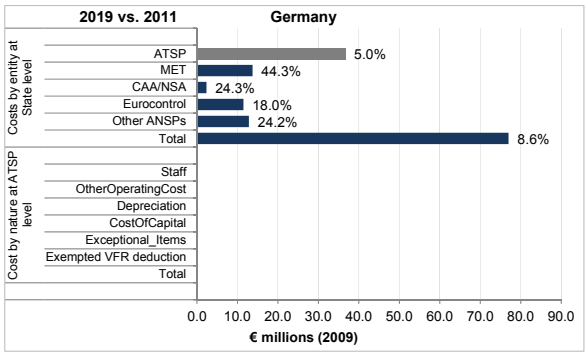


Figure 60: Planned cost category changes over RP1 and RP2

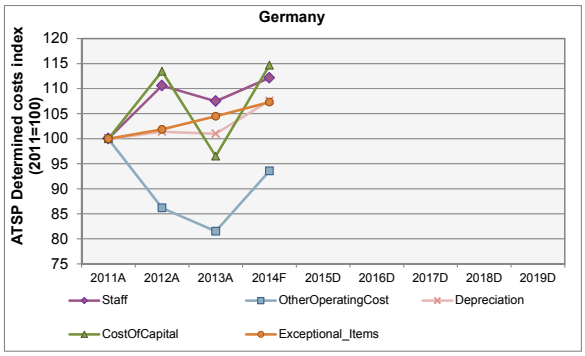


Figure 61: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

<u>Note:</u> The information provided by Germany in the FABEC Performance Plan for RP2 significantly differs from the data submitted in June for the purposes of the Enlarged Committee for Route Charges. Indeed, the en-route costs profile provided for 2015-2019 has been substantially revised downwards reflecting reductions in the cost-base planned for the German ATSP DFS (i.e. ranging from -€74M in 2015 to -€92M in 2019). These decreases are the result of a "top-down" approach to reduce the German determined costs (DCs) planned for RP2. As a consequence of this last minute revision, the RP2 Performance Plan does not comprise detailed cost breakdown figures for DFS. For this reason, data are missing in Figures 6 and 7 above and a complete analysis of the German en-route DUC trend over RP2 could not be carried out below.

Germany forecasts a -1.1% annual en-route DUC decrease over the 2014-2019 period which is significantly below the Union-wide cost-efficiency target (i.e. -3.3% p.a.). The German DUC reduction is planned to be mainly achieved through the (low) traffic growth (+0.9% p.a.) while DCs are expected to remain fairly constant (-0.2 % p.a.).

As highlighted above, the DCs and SUs provided by Germany for the year 2014 were updated and the revised en-route unit costs for 2014 amount to 78.81 €$_{2009}$ which is +16.2% higher than the DUC reported for 2014 in the RP1 Performance Plan. This significant deviation is due to the fact that while the number of SUs were revised substantially downwards (-12.0%), en-route costs were revised upwards (+2.3%). These differences should be seen in the light of the signature of a new collective agreement in October 2011 resulting in additional staff costs (some 17 M€ p.a. over RP1) which were not reflected in the determined costs planned for 2014 in RP1 Performance Plan.

In addition, the revised 2014 en-route costs are significantly higher (+6.6%) than 2013 actual en-route costs. This contributes to a relatively high starting point for RP2 cost-efficiency targets since the revised 2014 en-route unit cost is +7.3% higher than 2013 actuals. For the purposes of this assessment, it will therefore be informative to consider the trend in en-route DUC over different time periods. When assessed over the 2011-2019 period which covers RP1 and RP2, Germany's en-route DUC is expected to increase by +0.7% p.a. which significantly contrasts with the Union-wide target profile (i.e. -1.7% p.a.).

The planned growth of en-route SUs provided in Germany Performance Plan for the period 2015-2019 is in line with STATFOR February 2014 low scenario (+0.9% p.a.). If STATFOR February 2014 base case forecasts were used to compute the planned DUC, then the adjusted profile over the 2014-2019 period would be -2.4% p.a. which is but still below the Union-wide cost-efficiency target (-3.3% p.a.). Similarly, over the 2011-2019 period the adjusted DUC trend would be -0.2% p.a. which is well below the Union-wide cost-efficiency

target (-1.7% p.a.).

The en-route cost-base of Germany comprises costs associated with the main German ATSP (DFS), another ATSP (MUAC) which provides ATC services in a part of Germany upper airspace, the MET provider (DWD), the EUROCONTROL Agency and the German NSA.

Except for DFS (+0.3% p.a.), en-route DUC are planned to increase over the 2011-2019 period for all the entities included in the en-route charging zone: +4.3% p.a. for the MET provider (DWD), +2.4% p.a. for the German NSA, +1.7% p.a. for the EUROCONTROL Agency and +2.4% p.a. for MUAC.

It is noteworthy that for MUAC and the EUROCONTROL Agency, the level of 2011 en-route costs was exceptionally low following the impact of a one-off exceptional reduction mainly relating to the implementation of IFRS budgeting. Without this one-off reduction, the DUC reported for EUROCONTROL is expected to remain fairly constant (+0.1% p.a.) between 2011 and 2019. On the other hand, the DUC planned by MUAC for the year 2015 is expected to be +6.0% higher than 2013 actuals and to remain fairly constant until 2019. The higher DUC planned for 2015 mainly reflects higher other operating costs (+3.2 M€$_{2009}$ or +57% compared to 2013). The Performance Plan does not provide detailed information on the main drivers for this increase.

The increase in the en-route DUC reported for DWD (+4.3% p.a.) mainly reflects a sharp rise in DCs planned for the year 2019 (+13.3 M€$_{2009}$ compared to 2018) due to significantly higher other operating costs (+97%) and cost of capital (+176%). According to the information provided in the Performance Plan, these sharp increases reflects the inclusion in DWD en-route cost-base of a contribution to EUMETSAT associated with the launch of MTG (Meteosat Third Generation) satellites in 2018. This issue was identified by airspace users during the consultation of the draft RP2 Performance Plan. In particular, the airspace users were doubtful about the fact that MTG satellites would already be operational in 2019. DWD therefore proposed that if these costs do not materialize in 2019, or if assumptions such as the apportionment of costs or the assets life change then any extra costs charged during RP2 should be given back in RP3. The PRB computed that if 2019 MET costs would remain at 2018 levels, then the adjusted German en-route DUC profile over the 2014-2019 period would be -1.4% p.a. which is still below the Union-wide cost-efficiency target (-3.3% p.a.).

The increase in the en-route DUC reported for German NSA (+2.4% p.a.) over the 2011-2019 period mainly reflects an increase in staff costs compared to RP1 levels since 21 additional staff are expected to be recruited over RP2.

The PRB 2013 monitoring analysis indicates that DFS actual en-route costs for 2013 were lower than planned (-27.1 M€$_{2009}$). This was not sufficient to compensate for the impact of the lower traffic than planned (-8.8%) on DFS revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, DFS generated a net loss of 9.5 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating DFS economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 31.7 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 22.2 M€$_{2009}$, which implies an ex-post rate of return on equity of 3.0% (compared to 2.8% as initially planned in the NPP). This contrasts with the loss realised by DFS in 2012 (-6.2 M€$_{2009}$ or -0.8% of en-route revenues leading to a negative ex-post rate of return on equity of -1.6%).

DFS en-route DCs for 2015 (844.0 M€$_{2009}$) are +12.0% higher than 2013 actual en-route costs (753.3 M€$_{2009}$). This significant difference is partly driven by higher pension-related costs to be reported in DFS cost-base from 2015 onwards. Indeed, following an amendment of IAS 19 in 2013, any gains/losses arising from a change in actuarial assumptions has to be directly reflected in the financial statements of DFS. This contrasts with the methodology that was used by DFS until 2012 (i.e. corridor approach) according to which only a part of the

actuarial gains/losses were recognised in the financial statements. As a result, previously "unrecognised" actuarial losses amounting to 739.3 M€ had to be recorded in DFS 2013 financial statements. It is understood that these actuarial losses have been spread over a 15 years period and that they are reflected in the DCs planned for RP2.

[Analysis to be completed after final submission of Annex C for Germany in the FABEC Performance Plan including the en-route DCs breakdown for DFS.

It will be particularly important to look at the trends and levels over RP2 of the different cost items for DFS (staff costs, other operating costs, depreciation costs, the cost of capital and exceptional costs). It will also be important to look at the composition of the asset base planned for DFS over RP2. Indeed, in 2013 more than the half of DFS asset base relates to "adjustment of total assets" which amounts to 655.2 M€. Germany indicates in Annex C of the Performance Plan that this amount mainly comprises two elements:

1. Outstanding receivables from the implementation of IFRS in 2007;
2. Outstanding receivables for the difference between the obligation and plan assets of the pension scheme (plan deficit/plan surplus).

These "outstanding receivables" are then recovered by DFS through the cost of capital and the unit rate charged to airspace users.

However, Germany already includes in its cost base exceptional costs reflecting the transition costs to IFRS. For this reason, it would be important to make sure that the costs relating to the transition to IFRS are not charged twice to airspace users (i.e. through the exceptional costs and through the cost of capital (see item 1)).

Similarly, as highlighted above, the additional actuarial losses associated with the amendment of IFRS 19 will be spread over a 15 years period and reflected in the DCs planned for RP2. It is important to make sure that these costs are not also charged through the cost of capital (see item 2).]

Finally, there are no indications in the FAB Performance Plan of significant structural and organisational changes in the delivery of ATC services within the DFS or with other ATSPs in the context of the FABEC.

Based on this analysis, Germany en-route charging zone is assessed as not passing this check.

En-route Determined Unit Cost level

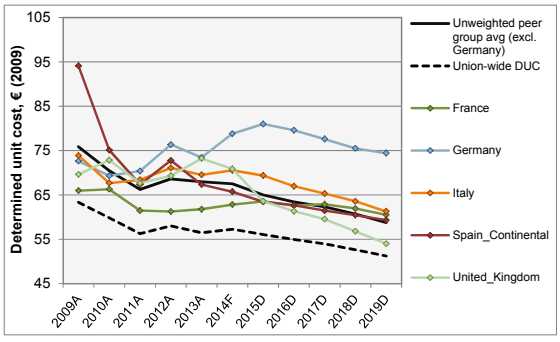


Figure 62: Determined unit cost level

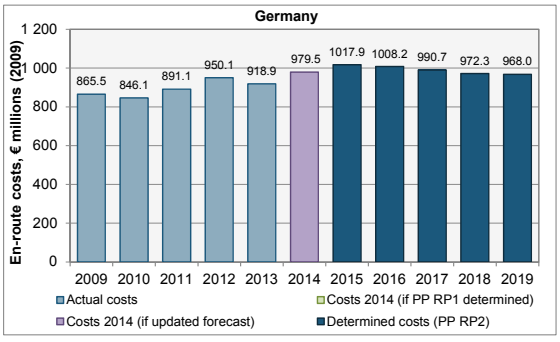


Figure 63: Determined costs 2009-2019

Comments:

In 2019, Germany's en-route DUC is planned to amount to 74.44 €$_{2009}$ per SU which is +26.6% higher than the average of the comparator group (58.80 €$_{2009}$). Germany en-route DUC is well above the comparator group average for each year of RP2. In addition, Germany en-route DUC is expected to be substantially higher (+45.2% in 2019) than the Union-wide aggregated DUC.

Over the 2011-2019 period, the German en-route DUC is expected to increase by +0.7% p.a. This contrasts with the reductions planned by the United Kingdom (-2.8% p.a.), Spain Continental (-1.6% p.a.) and Italy (-1.4% p.a.). In the meantime, the French DUC is expected to remain fairly constant (-0.2% p.a.).

Similarly, the reductions in the en-route DUC forecast by Germany over 2014-2019 (-1.1% p.a.) are lower than those planned by the United Kingdom (-5.3% p.a.), Spain Continental (-2.0% p.a.) and Italy (-2.8% p.a.).

The determined cost base used by Germany to compute the starting point for the year 2014 (979.5 M€$_{2009}$) is +6.6% higher than 2013 actual en-route costs (919.0 M€$_{2009}$). Germany en-route DCs are expected to increase by +3.9% in 2015 and then to decrease by -1.2% p.a. until 2019. As a result, at the end of RP2, Germany en-route DCs are expected to amount to 968.0 M€$_{2009}$ which is +5.4% higher than 2013 actuals.

Based on this analysis, Germany en-route charging zone is assessed as not passing this check.

Cost of Capital

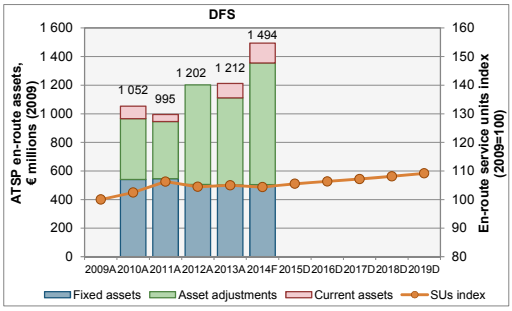


Figure 64: Breakdown of ATSP en-route asset base (2009-2019)

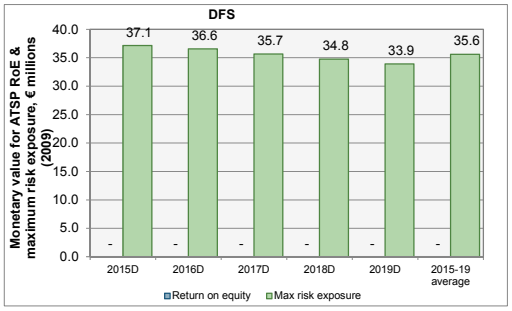


Figure 65: ATSP RoE vs maximum traffic risk exposure

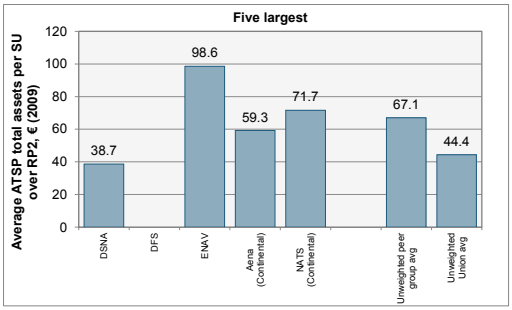


Figure 66: Average en-route asset base per SU over RP2

Comments:

[Analysis to be carried out when the missing data on the cost of capital planned for over RP2 is provided]

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for three defined benefits pension schemes that were established by DFS.

Similarly, information is provided on the interest rates on several loans contracted by DFS The average interest rate for these loans is in line with the interest rate on debt (2.0%) used to compute DFS cost of capital for en-route ANS. [To be checked when missing data is provided]

The Performance Plan specifies that for Germany some adjustments were made beyond the provisions of IAS. These adjustments mainly relates to the methodology used to set the discount rate required to compute DFS future pension obligations.

Based on this analysis, Germany en-route charging zone is assessed as passing this check.

[Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]

Description, level, composition and justification of costs exempt from risk sharing

Comments:

The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013.

These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the German NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014.

The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. The five reported in Article 14.2(a) of the common charging regulation have been identified for Germany in the Performance Plan.

As for RP1, these amounts will be considered eligible (or not eligible) only after the EC verification process.

Based on this analysis, Germany en-route charging zone is assessed as passing this check.

[Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]

Germany: Assessment of terminal charging zone

Overview of terminal charging zone in Germany:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Germany.

This TCZ comprises 16 airports of which seven (Frankfurt, Hamburg, Koln, Dusseldorf, Munich, Stuttgart and Berlin) are above 70,000 movements per year. The TCZ is the same as for RP1 in terms of airports scope.

Total TNSUs for the TCZ accounted for 92.7% of the TNSUs in Germany in 2013. On average, the total costs for the TCZ account for 18.1% of Germany's "gate-to-gate" activity subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was already applied in the German TCZ during RP1. All the airports in the TCZ will be subject to traffic risk sharing over RP2.

Traffic forecast assumptions

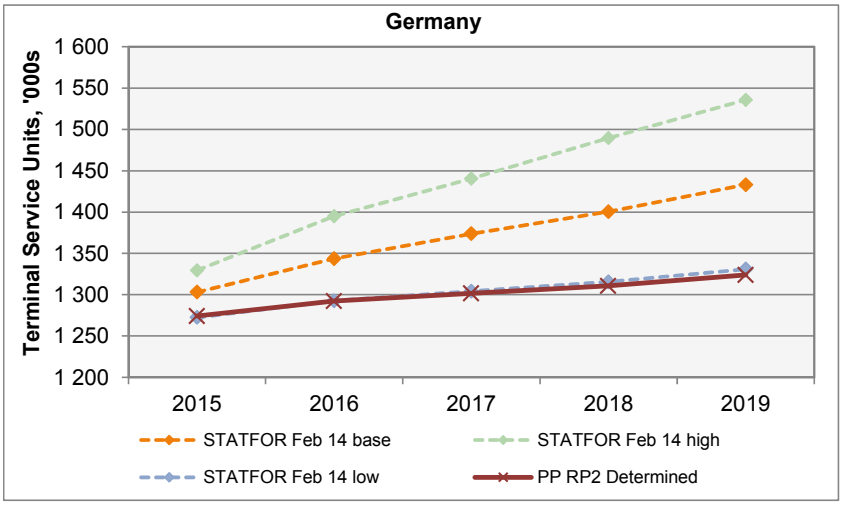


Figure 67: TNSU forecast 2015-2019

The planned growth of terminal SUs provided for Germany TCZ over the period 2015-2019 (+1.0% p.a.) is in line with STATFOR February 2014 low scenario (+1.0% p.a.).

The planned number of terminal SUs provided in the Performance Plan for the year 2015 (1,274,289) slightly differs from the figure reported in STATFOR database for the low scenario (1,268,390). This marginal difference (0.5%) does not affect the results of this check.

Based on this analysis, Germany terminal charging zone is assessed as passing this check with reservations.

Economic assumptions

Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.

Based on this analysis, Germany terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

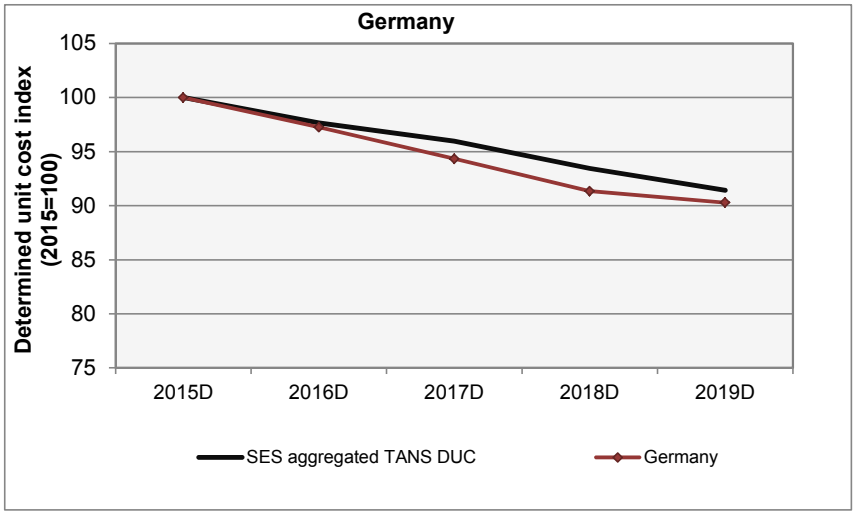


Figure 68: Terminal DUC index, 2015-2019

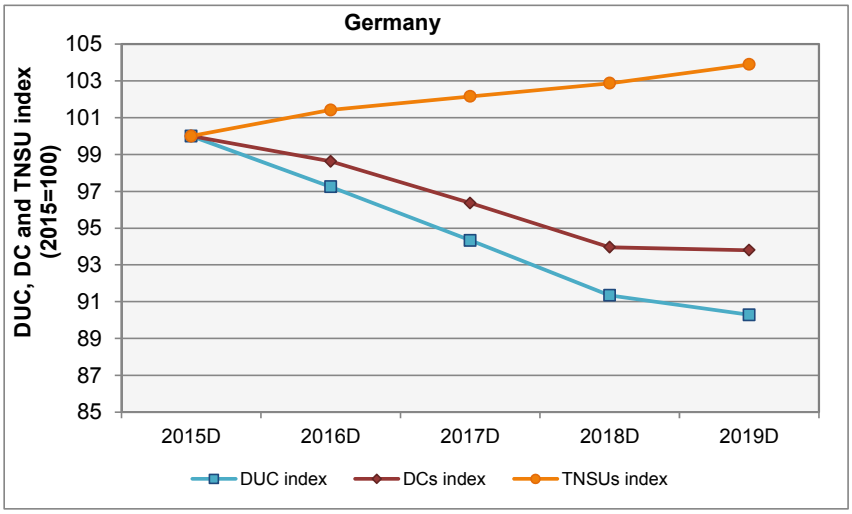


Figure 69: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Germany		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	251.3	251.8	250.2	248.1	251.9	0.1%
Inflation rate	annual % change	1.4%	1.6%	1.7%	1.7%	1.7%	1.7%
Inflation index	2009=100	110.5	112.3	114.2	116.2	118.1	
Determined costs	EUR m (2009)	227.3	224.2	219.0	213.6	213.2	-1.6%
Terminal service units	'000s	1 274	1 292	1 302	1 311	1 324	1.0%
Determined unit cost	EUR (2009)	178.38	173.47	168.27	162.94	161.05	-2.5%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	178.38	173.47	168.27	162.94	161.05	-2.5%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 66: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for the German charging zone (-2.5% p.a.) is better than the SES aggregated DUC trend (-2.2% p.a.). The decrease in the German terminal DUC mainly reflects the fact that terminal DCs are expected to reduce by -1.6% p.a. while the number of terminal SUs is planned to increase by +1.0% per year on average.

The year 2013 is the latest for which actual terminal cost data is available. The determined cost base used to compute Germany TCZ DUC for the year 2015 (227.3 M€$_{2009}$) is +12.1% higher than 2013 actual terminal costs (202.8 M€$_{2009}$). This difference contributes to a relatively high starting point for RP2 terminal cost-efficiency targets in terms of DUC. Although they are expected to decrease by -1.6% p.a. between 2015 and 2019, Germany terminal DCs are planned to amount to 213.2 M€$_{2009}$ at the end of RP2 which is +5.2% higher than 2013 actuals.

Over the 2015-2019 period, the planned profile in terminal DUC (-2.5% p.a.) is better than that of the en-route DUC (-2.1% p.a.). This mainly reflects the fact that, all else equal, the terminal DCs are expected to decrease faster (i.e. -1.6%) than en-route DCs (-1.2% p.a.).

Based on this analysis, Germany terminal charging zone is assessed as not passing this check.

Cost of Capital

[Analysis to be carried out when the missing data on the cost of capital planned for over RP2 is provided]

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for three defined benefits pension schemes that were established by DFS.

Similarly, information is provided on the interest rates on several loans contracted by DFS The average interest rate for these loans is in line with the interest rate on debt (2.0%) used to compute DFS cost of capital for terminal ANS. [To be checked when missing data is

provided]

The Performance Plan specifies that for Germany some adjustments were made beyond the provisions of IAS. These adjustments mainly relates to the methodology used to set the discount rate required to compute DFS future pension obligations.

Based on this analysis, Germany terminal charging zone is assessed as passing this check.

[Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]

Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. The five reported in Article 14.2(a) of the common charging regulation have been identified for Germany in the Performance Plan.

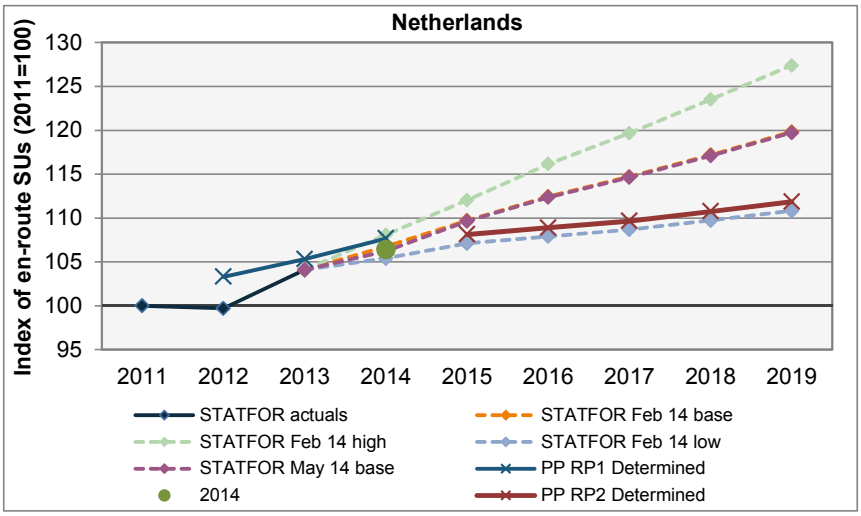
These amounts will be considered eligible (or not eligible) only after the EC verification process.

Based on this analysis, Germany terminal charging zone is assessed as passing this check.

[Analysis to be confirmed after final submission of Annex C for Germany in the FABEC Performance Plan]

The Netherlands: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		2 681	2 733	2 794							
Actuals, 2014, PP RP2 Determined	2 595	2 587	2 702	2 762	**2 806**	**2 826**	**2 846**	**2 874**	**2 903**	**1.4%**	**0.8%**
STATFOR Feb 14 base				**2 770**	**2 847**	**2 918**	**2 977**	**3 041**	**3 109**	**2.3%**	**2.2%**
STATFOR Feb 14 high				2 805	2 908	3 015	3 106	3 205	3 306	3.1%	3.3%
STATFOR Feb 14 low				2 736	2 780	2 800	2 821	2 848	2 876	1.3%	0.9%
STATFOR May 14 base				2 756	2 845	2 916	2 975	3 039	3 107	2.3%	2.2%
PP RP2 vs STATFOR Feb 14 base (%)					-1.4%	-3.2%	-4.4%	-5.5%	-6.6%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 70: En-route TSU forecasts

Comments:

The planned growth of en-route SUs provided for the Netherlands en-route charging zone over the period 2015-2019 (+0.8% p.a.) is in line with STATFOR February 2014 low scenario (+0.9% p.a.).

This implies that if the outturn traffic over RP2 is in line with STATFOR base case scenario, then through the traffic risk sharing arrangements, the Netherlands would receive additional cumulative revenues amounting to some 15.3 M€$_{2009}$. Similarly, airspace users would receive an additional amount of 10.4 M€$_{2009}$ over RP2.

It should be noted that the planned number of SUs provided in the Performance Plan for the year 2014 (2,762,000) is +1.0% higher than the figure reported in STATFOR database for the low scenario (2,735,523). The Netherlands indicates in the Performance Plan that reporting in 2014 a number of SUs in line with STATFOR low scenario would be not realistic according to the latest local traffic forecast. For this reason, the Netherlands chose to report a number of SUs close to STATFOR base scenario in 2014 but to use a prudent traffic growth forecast until 2019.

As a result, the number of SUs planned over RP2 is consistently above the figures reported in STATFOR database for the low scenario.

Information from the CRCO's monthly monitoring of traffic indicates that for the Netherlands actual traffic in the first eight months of 2014 is +3.1% higher compared to the same period

in 2013. This is significantly higher than the planned increase in SUs reported in the Performance Plan for 2014 (+2.2%).

Based on this analysis, the Netherlands en-route charging zone is assessed as passing this check with reservations.

Economic assumptions

Inflation: Netherlands		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.8%	2.6%	2.0%	1.0%	1.2%	1.4%	1.5%	1.5%
Eurostat/IMF avg	annual % change		2.6%	0.8%	1.0%	1.2%	1.4%	1.5%	1.5%
Difference	p.p. difference		0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	106.4	109.2	111.4	112.5	113.9	115.5	117.2	119.0
Eurostat/IMF avg	2009=100	106.4	109.2	110.1	111.2	112.5	114.2	115.9	117.6
Difference	index difference	0.0	0.0	1.3	1.3	1.3	1.4	1.4	1.4

Figure 71: Economic assumptions

Comments:

The inflation forecasts submitted for the Netherlands en-route charging zone over the 2015-2019 period are in line with the IMF average inflation forecasts.

The substantial difference observed for the inflation indexes (1.4 in 2019) mainly reflects the fact that the inflation rate reported in the Performance Plan for 2014 has not been revised and corresponds to the figure provided in the RP1 Performance Plan. This technical issue affects the level of the Netherlands en-route DUC and DCs over RP2.

Based on this analysis, the Netherlands en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	179.3	183.3	159.6	170.0	171.5	181.3	186.2	185.4	189.2	195.9	200.3
Inflation rate	annual % change		1.0%	2.5%	2.8%	2.6%	2.0%	1.0%	1.2%	1.4%	1.5%	1.5%
Inflation index	2009=100	100.0	101.0	103.5	106.4	109.2	111.4	112.5	113.9	115.5	117.2	119.0
Determined costs	EUR m (2009)	179.3	181.5	154.1	159.8	157.0	162.8	165.5	162.8	163.7	167.1	168.3
Service units	'000s	2 426	2 476	2 595	2 587	2 702	2 762	2 806	2 826	2 846	2 874	2 903
Determined unit cost	EUR (2009)	73.91	73.29	59.40	61.75	58.12	58.93	58.98	57.60	57.54	58.13	57.98
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	73.91	73.29	59.40	61.75	58.12	58.93	58.98	57.60	57.54	58.13	57.98

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	1.1%	2.9%	2.0%	1.8%
Inflation	CAGR %	1.8%	1.8%	1.3%	1.4%
Determined costs	EUR m (2009)	-0.6%	1.1%	0.7%	0.4%
Service units	'000s	1.8%	1.4%	1.0%	0.8%
Determined unit cost	EUR (2009)	-2.4%	-0.3%	-0.3%	-0.4%
Exchange rate					
Determined unit cost	EUR (2009)	-2.4%	-0.3%	-0.3%	-0.4%

Table 67: Determined unit cost trend

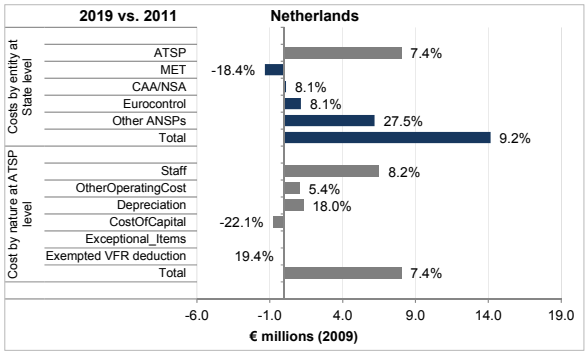


Figure 72: Planned cost category changes over RP1 and RP2

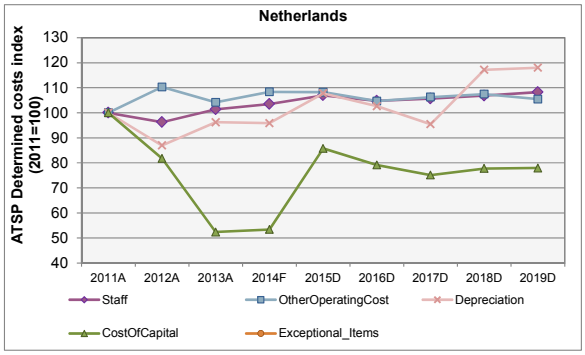


Figure 73: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

The Netherlands en-route DUC is expected to remain fairly constant over the 2014-2019 period (-0.3% p.a.). This is significantly different from the Union-wide cost-efficiency target trend (i.e. -3.3% p.a.). This mainly reflects the fact that SUs are planned to increase slightly faster (+1.0% p.a.) than DCs (+0.7 p.a.).

As highlighted above, the DCs and SUs provided by the Netherlands for the year 2014 were updated and the revised en-route unit costs for 2014 amount to 58.93 $€_{2009}$ which is +3.9% higher than the DUC reported for 2014 in the RP1 Performance Plan. This significant deviation is due to the fact that while the number of SUs were revised downwards (-1.1%), en-route costs were revised upwards (+2.8%). In addition, the revised 2014 en-route costs are +3.7% higher than 2013 actual en-route costs. As a result, the revised 2014 en-route unit cost is +1.4% higher than 2013 actuals.

When assessed over the 2011-2019 period which covers RP1 and RP2, the Netherlands en-route DUC is expected to remain fairly constant (-0.3% p.a.), a trend similar to that planned

over the 2014-2019 period but substantially different from that of the Union-wide target profile (i.e. -1.7% p.a.).

Over the 2009-2019 period, the planned reduction in the Netherlands DUC (-2.4% p.a.) is in line with the Union-wide cost-efficiency target (-2.5% p.a.). This mainly reflects the fact that 2009 en-route costs (i.e. 179.3 M€$_{2009}$) includes one-off exceptional costs associated with a staff reduction programme implemented by LVNL (reduction in the number of support staff of 128 FTEs by 2014 compared to 2008 (100 FTEs by end 2010 and a further 28 in 2014)). If these costs (some 14 M€$_{2009}$) were excluded from the 2009 en-route costs, then the adjusted DUC profile over the 2009-2019 period would be -1.6% p.a. which is substantially below the Union-wide cost-efficiency target (-2.5% p.a.).

The planned growth of en-route SUs provided in the Netherlands Performance Plan for the period 2015-2019 is in line with STATFOR February 2014 low scenario. If STATFOR February 2014 base case forecasts were used to compute the planned DUC, then the adjusted profile over the 2014-2019 period would be -1.6% p.a. which is still below the Union-wide cost-efficiency target (-3.3% p.a.). Similarly, the adjusted profile over the 2011-2019 period would be -1.2% p.a. which is below the Union-wide cost-efficiency target (-1.7% p.a.).

Amongst the different accountable entities, the larger decrease in DUC between 2011 and 2019 is observed for the MET provider (KNMI, -3.9% p.a.). KNMI DCs are expected to decrease by -2.5% p.a. over the 2011-2019 period mainly reflecting lower staff costs (-3.7% p.a.) and other operating costs (-1.5% p.a.). KNMI indicates in the Performance Plan that this mainly reflects the impact of operational costs reduction measures (including a staff reduction programme) and savings following the implementation of an automated process for visual observations in regional airports.

The en-route DUC reported for the Dutch NSA (-0.4% p.a.) and the EUROCONTROL Agency (-0.4% p.a.) are expected to remain fairly constant over the 2011-2019 period.

In the meantime, MUAC en-route DCs per SU are expected to increase by +1.7% p.a. It is noteworthy that the level of MUAC costs in 2011 was exceptionally low reflecting the impact of a one-off exceptional reduction mainly relating to the implementation of IFRS budgeting. When assessed on the 2014-2019 period, MUAC DUC is expected to reduce by -1.0% p.a. This trend is mainly due to the fact that the DUC planned by MUAC for the year 2015 is expected to be -3.2% lower than 2013 actuals. Over the 2015-2019 period, MUAC DUC is expected to remain fairly constant (+0.3% p.a.).

Between 2011 and 2019, LVNL en-route DCs per SU are expected to slightly decrease (-0.5% p.a.). This decrease is due to the fact that DCs are planned to slightly rise (+0.9% p.a.) while SUs are forecast to increase by +1.4% p.a. This indicates that LVNL planned DUC reduction over RP1 and RP2 is expected to be entirely achieved through the (low) traffic growth. The increase in LVNL en-route DCs between 2011 and 2019 mainly reflects higher staff costs (+1.0% p.a.) and depreciation costs (+2.1% p.a.) while the cost of capital is expected to substantially decrease (-3.1% p.a.) and the other operating costs are planned to rise by +0.7% p.a.

LVNL 2015 staff costs are planned to be significantly higher than actual 2013 costs (+5.5%) and to remain fairly constant (+0.3% p.a.) until 2019. The Netherlands explain in the Performance Plan that LVNL DCs are affected by the amounts of costs exempt from risk sharing relating to the first years of RP1 (3.8 M€ for 2012 and 2.0 M€ for 2013, mostly staff costs) which were taken into account for RP2. Although, these costs certainly affect the level of 2015 determined staff costs, their impact on the planned trend over RP2 should be rather limited.

In 2015, LVNL other operating costs are expected to be +3.9% higher than 2013 actuals and to slightly reduce by -0.6% p.a. until 2019. This trend is consistent with the information

provided in Annex C of the Performance Plan where the Netherlands indicates that LVNL other operating costs are expected to reduce by some 3% over RP2 following the implementation of cost containment measures.

The cost of capital (3.0 M€$_{2009}$) in 2015 is expected to be +64% higher than 2013 actuals (1.8 M€$_{2009}$). This difference mainly reflects the use of a higher interest rate on debts to compute LVNL 2015 cost of capital (3.65% compared to 2.68% in 2013). The cost of capital is then expected to reduce by -2.4% p.a. between 2015 and 2019.

LVNL 2015 depreciation costs are expected to be significantly higher than actual 2013 costs (+12.0%) and to increase by +2.3% p.a. until 2019. The Netherlands indicates in the Performance Plan that this trend mainly reflects investments associated with the replacement of the current ATM system (AAA, some 82.4 M€ over RP2). Another substantial capex programme relates to the extension of LVNL ACC building (21.5 M€).

The PRB monitoring analysis indicates that actual depreciation costs for 2012 and 2013 were lower than planned (-10.4% and -4.2%, respectively) since capex projects have been postponed to future years. It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 are not included in the en-route DCs provided for RP2. This issue, which was also identified by airspace users during the consultation of the draft RP2 Performance Plan, deserves a clarification from the Netherlands.

The PRB 2013 monitoring analysis also indicates that LVNL actual en-route costs for 2013 were substantially higher than planned (+6.6 M€$_{2009}$). In addition, actual traffic was lower than planned (-1.1%) negatively affecting LVNL revenues. As a result, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, LVNL generated a net loss of 6.0 M€$_{2009}$ in 2013 on the en-route activity, which is negatively impacting LVNL's financial strength. This adds to the loss generated by LVNL in 2012 (2.3 M€$_{2009}$). In addition, the ACE data shows that in 2012 LVNL had a "quick ratio" (ratio of cash+debtors to current liabilities) of 0.82 which is much lower than the Union-wide average (1.37).

Before RP1, LVNL had no equity in its balance sheet and was fully financed through debt. The objective of LVNL for RP1 was to build up an equity capital in order to (1) improve LVNL financial strength and (2) to be in a position to bear potential losses in revenues arising from the traffic risk sharing during RP1. This equity capital was built by adding to the 2010 actual en-route cost-base an exceptional cost item of 22 M€ to be recovered by the Netherlands through the 2012-2014 chargeable unit rates and recorded as equity in the balance-sheet. According to information provided by the Netherlands during the consultation of the draft RP2 Performance Plan, the assumption used for the level of LVNL equity in 2015 was 30 M€.

Based on this analysis, the Netherlands en-route charging zone is assessed as not passing this check but the PRB notes that in 2013 LVNL generated a loss for the second year in a row during RP1.

En-route Determined Unit Cost level

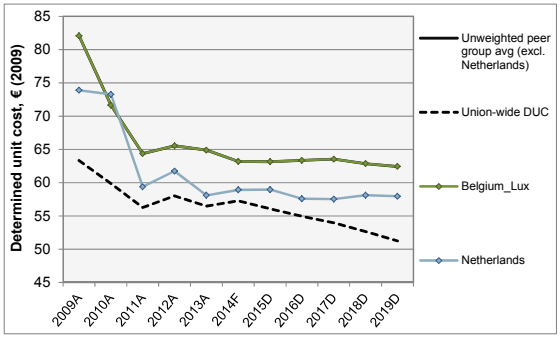


Figure 74: Determined unit cost level

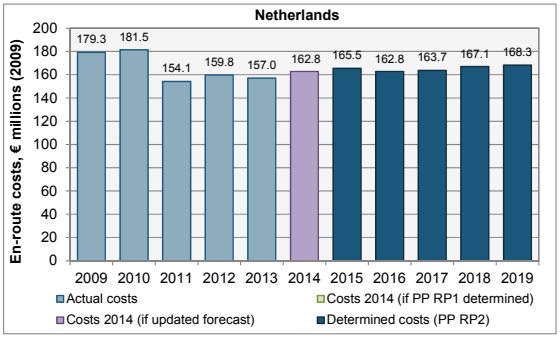


Figure 75: Determined costs 2009-2019

Comments:

The Netherlands en-route DUC in 2019 is planned to be at 57.98 €$_{2009}$ which is -3.7% lower than the comparator group average (60.22 €$_{2009}$). A straight comparison with Belgium-Luxembourg, rather than the group average, indicates that the Netherlands en-route DUC in 2019 is planned to be -7.2% lower.

The reductions in the en-route DUC forecast by the Netherlands over 2011-2019 (-0.3% p.a.) and 2015-2019 (-0.4% p.a.) are in line with those planned by Belgium-Luxembourg (-0.4% p.a. and -0.3% p.a., respectively).

The DCs used by the Netherlands to compute the DUC for the year 2015 (165.5 M€$_{2009}$) are +5.4% higher than 2013 actual en-route costs (157.0 M€$_{2009}$). The Netherlands en-route DCs are expected to slightly increase (+0.4% p.a.) between 2015 and 2019. As a result, at the end of RP2, en-route DCs are expected to amount to 168.3 M€$_{2009}$ which is +7.2% higher than 2013 actuals.

Based on this analysis, the Netherlands en-route charging zone is assessed as passing this check.

Cost of Capital

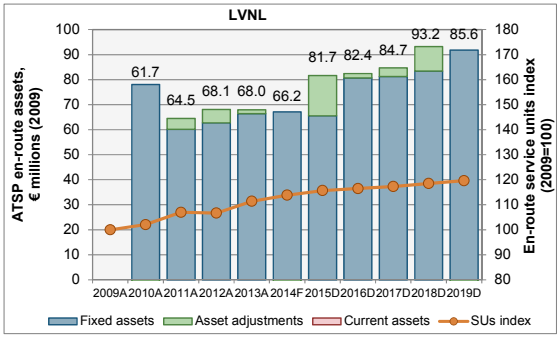


Figure 76: Breakdown of ATSP en-route asset base (2009-2019)

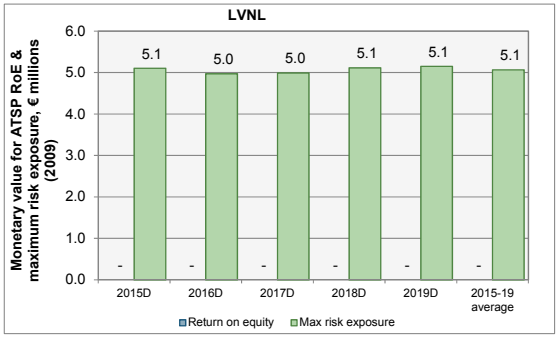


Figure 77: ATSP RoE vs maximum traffic risk exposure

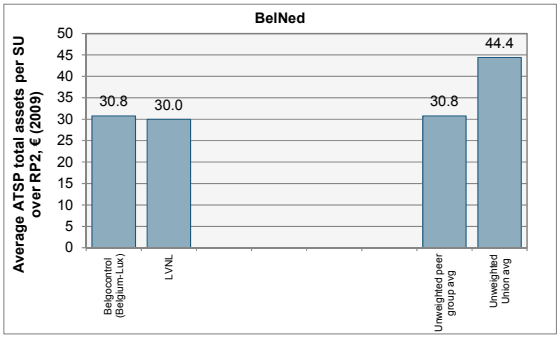


Figure 78: Average en-route asset base per SU over RP2

Comments:

Note: Based on the information provided in Annex C of the Performance Plan (Reporting Tables), LVNL cost of capital for RP2 will be computed by only taking into account the cost of debt (the capital structure indicates 100% of debt and no equity). This means that no risk premium is taken into account for the computation of the cost of capital.

At face value, this information seems not consistent with the understanding that LVNL is gradually building up an equity capital over RP1 (by adding to the 2010 actual en-route cost-base an exceptional cost item of €22 million which would be recovered over the 2012-2014 period from user charges). In addition, during the consultation of the draft RP2 Performance Plan, the Netherlands specified that an amount of 30 M€ would be considered for the planned level of LVNL equity in 2015.

The Netherlands indicates in the Additional Information annexed to the Performance Plan that LVNL is financed by debts (95%) and equity capital (5%), but that since the substantial part of their assets is financed through debt they decided to assume that LVNL capital structure is 100% based on debt over RP2.

The WACC rates reported for LVNL in the Performance Plan ranges from 3.7% in 2015 to 3.2% in 2019. As highlighted, above, LVNL WACC was not computed according to the CAPM methodology but it corresponds to the cost of debt since LVNL capital structure is assumed be 100% debt over RP2.

The WACC rates planned by LVNL for RP2 are below the lower bound of the range of values calculated with the methodology laid down in Annex C guidance.

Over RP2, the average value of LVNL en-route asset base per SU (30.0 $€_{2009}$) is expected to be in line with that of Belgium-Luxembourg (30.8 $€_{2009}$) and substantially lower than the Union-wide average (44.4 $€_{2009}$).

It is noteworthy that in 2015, 19.7% of LVNL asset base is expected to be associated with "adjustments to total assets" (compared to a proportion of 2.3% in 2013). The Performance Plan does not comprise detailed information on the nature of this amount.

Based on this analysis, the Netherlands en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. On the other hand, although the Netherlands indicates in the Performance Plan that over RP2 LVNL will reduce its commercial loans and contract loans from the Ministry of Finance, no quantitative information is provided on the interest rates for these loans. The Performance Plan specifies that for the Netherlands some adjustments were made beyond the provisions of IAS. These adjustments mainly relate to a departure from IFRS 19 in the context of the early retirement arrangements of LVNL operational staff. **Based on this analysis, the Netherlands en-route charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
The Netherlands specifies in the Performance Plan that the amounts resulting from uncontrollable costs factors have been taken into account in the planned DCs for RP2. The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014. The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement. **Based on this analysis, the Netherlands en-route charging zone is assessed as passing this check.**

The Netherlands: Assessment of terminal charging zone

Overview of terminal charging zone in the Netherlands:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in the Netherlands.

This TCZ comprises four airports of which one (Amsterdam) is above 70,000 movements per year. The TCZ is the same as for RP1 in terms of airports scope.

On average, the total costs for the TCZ account for 24.0% of the Netherlands's "gate-to-gate" ANS subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was already applied in the TCZ during RP1. All the airports in the TCZ will be subject to traffic risk sharing over RP2.

Traffic forecast assumptions

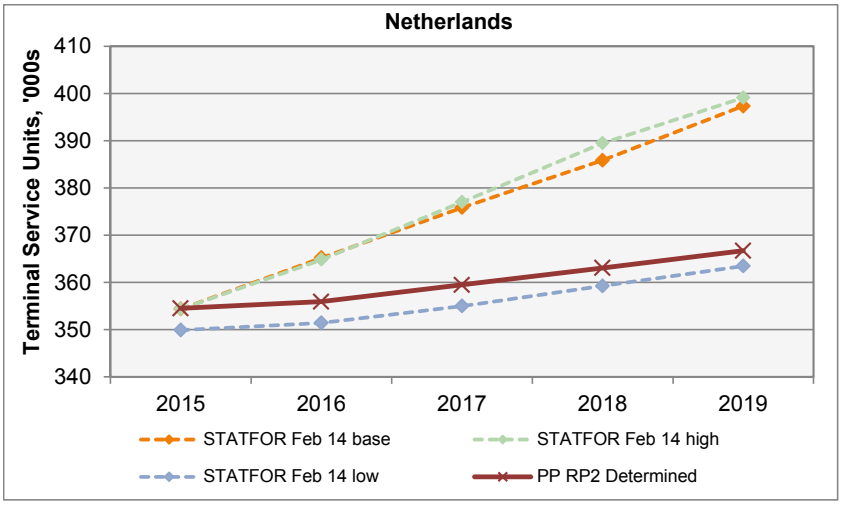


Figure 79: TNSU forecast 2015-2019

The planned growth of en-route SUs provided for the Netherlands TCZ over the period 2015-2019 (+0.8% p.a.) is slightly lower than STATFOR February 2014 low scenario (+1.0% p.a.).

The planned number of SUs provided in the Performance Plan for the year 2015 (354,510) is in line with the figure reported in STATFOR database for the base scenario (354,385). The Netherlands indicates in the Performance Plan that reporting in 2014 a number of SUs in line with STATFOR low scenario would be not realistic according to the latest local traffic forecast. For this reason, the Netherlands chose to report a number of SUs close to STATFOR base scenario in 2014 but to use a prudent traffic growth forecast until 2019.

It is noteworthy that over RP2 the number of SUs planned over RP2 is consistently above the figures reported in STATFOR database for the low scenario.

Based on this analysis, the Netherlands terminal charging zone is assessed as passing this check with reservations.

Economic assumptions

Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.

Based on this analysis, the Netherlands terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

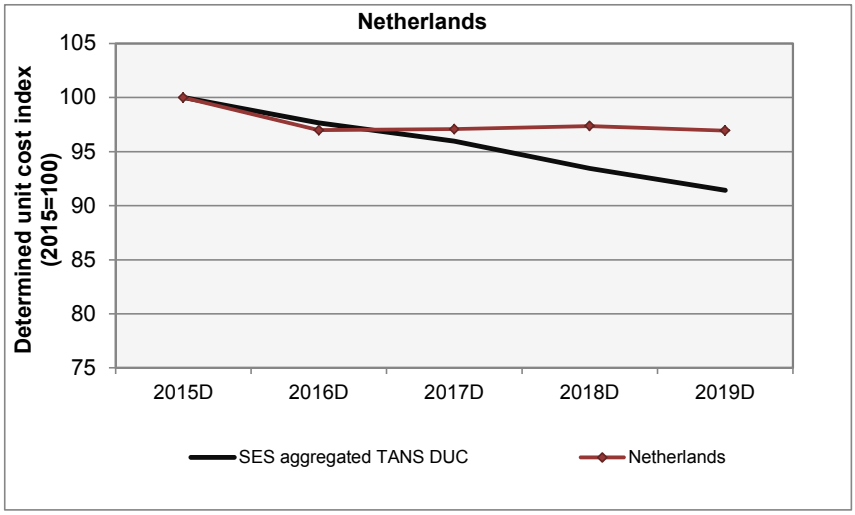


Figure 80: Terminal DUC index, 2015-2019

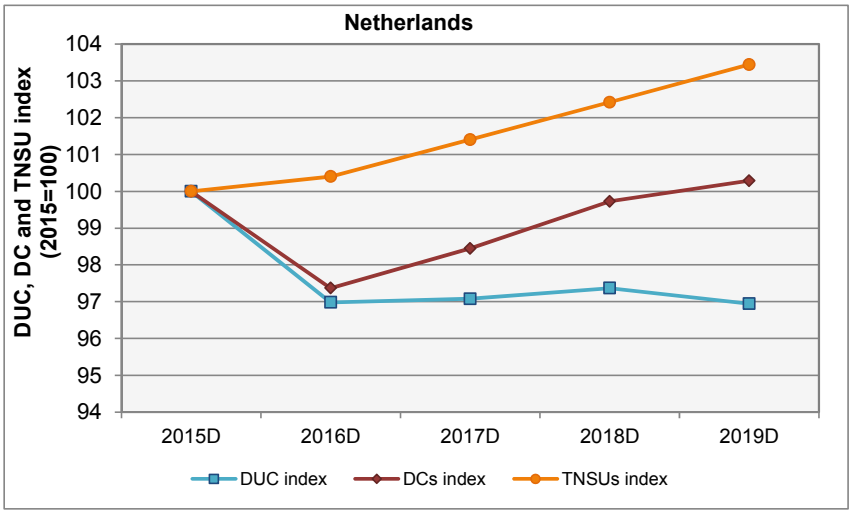


Figure 81: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Netherlands		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	59.2	58.4	59.9	61.6	62.9	1.5%
Inflation rate	annual % change	1.0%	1.2%	1.4%	1.5%	1.5%	1.4%
Inflation index	2009=100	112.5	113.9	115.5	117.2	119.0	
Determined costs	EUR m (2009)	52.7	51.3	51.8	52.5	52.8	0.1%
Terminal service units	'000s	355	356	359	363	367	0.8%
Determined unit cost	EUR (2009)	148.56	144.07	144.22	144.65	144.02	-0.8%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	148.56	144.07	144.22	144.65	144.02	-0.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 68: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for the Dutch charging zone (-0.8% p.a.) is well below the SES aggregated DUC trend (-2.2% p.a.). The decrease in the Dutch terminal DUC mainly reflects the fact that terminal DCs are expected to remain fairly constant (+0.1% p.a.) while the number of terminal SUs is planned to increase by +0.8% per year on average.

On the other hand, the average level of terminal DUC planned for the Netherlands TCZ over RP2 (145 €$_{2009}$) is much lower than that of Belgium TCZs (250 €$_{2009}$) which operate in a relatively similar economic and operational environments.

The year 2013 is the latest for which actual terminal cost data is available. The DCs used to compute the Netherlands TCZ DUC for the year 2015 (52.7 M€$_{2009}$) are +7.0% higher than 2013 actual terminal costs (49.2 M€$_{2009}$). The Netherlands terminal DCs are then expected to remain fairly constant until 2019 (+0.1% p.a.), a trend similar to that observed for en-route ANS (+0.4% p.a.).

As for en-route, the PRB considers that it is important to take LVNL particular context (no equity prior to RP1, relatively low ratio of current assets to current liabilities in 2013) into account when assessing the Netherlands terminal cost-efficiency targets for RP2.

Based on this analysis, the Netherlands terminal charging zone is assessed as <u>not</u> passing this check with reservations.

Cost of Capital

The WACC rates used to compute the cost of capital for the Netherlands TCZ over the 2015-2019 period are in the same order of magnitude as those used to compute the cost of capital for the en-route charging zone.

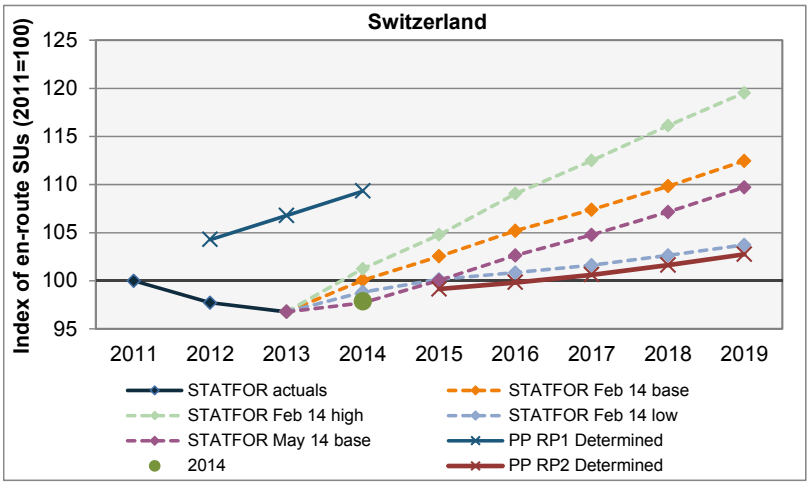
Based on this analysis, the Netherlands terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. On the other hand, although the Netherlands indicates in the Performance Plan that over RP2 LVNL will reduce its commercial loans and contract loans from the Ministry of Finance, no quantitative information is provided on the interest rates for these loans. The Performance Plan specifies that for the Netherlands some adjustments were made beyond the provisions of IAS. These adjustments mainly relate to a departure from IFRS 19 in the context of the early retirement arrangements of LVNL operational staff. **Based on this analysis, the Netherlands terminal charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
The Performance Plan does not comprise specific information on the following items for RP2: new costs items required by law; unforeseen changes in taxation law; and international agreement. **Based on this analysis, the Netherlands terminal charging zone is assessed as passing this check.**

Switzerland: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		1 492	1 528	1 565							
Actuals, 2014, PP RP2 Determined	1 431	1 399	1 385	1 401	**1 419**	**1 429**	**1 440**	**1 454**	**1 470**	**0.3%**	**0.9%**
STATFOR Feb 14 base				**1 432**	**1 468**	**1 506**	**1 537**	**1 572**	**1 609**	**1.5%**	**2.3%**
STATFOR Feb 14 high				1 449	1 500	1 561	1 610	1 662	1 711	2.3%	3.3%
STATFOR Feb 14 low				1 414	1 433	1 443	1 454	1 469	1 484	0.5%	0.9%
STATFOR May 14 base				1 398	1 432	1 469	1 499	1 533	1 570	1.2%	2.3%
PP RP2 vs STATFOR Feb 14 base (%)					-3.3%	-5.1%	-6.3%	-7.5%	-8.6%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 82: En-route TSU forecasts

Comments:

The planned growth of en-route SUs provided for Switzerland en-route charging zone over the period 2015-2019 (+0.9% p.a.) is in line with STATFOR February 2014 low scenario (+0.9% p.a.).

This implies that if the outturn traffic over RP2 is in line with STATFOR base case scenario, then through the traffic risk sharing arrangements, Switzerland would receive additional cumulative revenues amounting to some 14.2 M€$_{2009}$. Similarly, airspace users would receive an additional amount of 13.5 M€$_{2009}$ over RP2.

It should be noted that the planned number of SUs provided in the Performance Plan for the year 2014 (1,400,594) is -1.0% lower than the figure reported in STATFOR database for the low scenario (1,414,457). The Performance Plan indicates that Switzerland used its own forecast to plan for the number of TSUs over RP2 in order to reflect local circumstances such as the outcome of the first quarter of 2014 in terms of traffic growth.

However, information from the CRCO's monthly monitoring of traffic indicates that for Switzerland actual traffic in the first eight months of 2014 is +2.8% higher compared to the same period in 2013. This is significantly higher than the planned increase in SUs reported in the Performance Plan for 2014 (+1.1%) and than STATFOR low case forecast for 2014 (+2.1%).

Based on this analysis, Switzerland en-route charging zone is assessed as not passing this check.

Economic assumptions

Inflation: Switzerland		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	-0.7%	0.1%	0.2%	0.5%	1.0%	1.0%	1.0%	1.0%
Eurostat/IMF avg	annual % change		0.1%	0.2%	0.5%	1.0%	1.0%	1.0%	1.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	100.0	100.1	100.3	100.8	101.8	102.8	103.9	104.9
Eurostat/IMF avg	2009=100	100.0	100.1	100.3	100.8	101.8	102.8	103.9	104.9
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 83: Economic assumptions

Comments:

The inflation forecasts submitted for Switzerland en-route charging zone over the 2014-2019 period are in line with the IMF average inflation forecasts.

Based on this analysis, Switzerland en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	CHF m (nom)	185.2	195.8	157.4	157.3	148.6	153.9	155.4	156.8	158.8	159.1	160.9
Inflation rate	annual % change		0.6%	0.1%	-0.7%	0.1%	0.2%	0.5%	1.0%	1.0%	1.0%	1.0%
Inflation index	2009=100	100.0	100.6	100.7	100.0	100.1	100.3	100.8	101.8	102.8	103.9	104.9
Determined costs	CHF m (2009)	185.2	194.6	156.3	157.3	148.5	153.5	154.1	154.0	154.4	153.2	153.4
Service units	'000s	1 396	1 409	1 431	1 399	1 385	1 401	1 419	1 429	1 440	1 454	1 470
Determined unit cost	CHF (2009)	132.67	138.11	109.23	112.49	107.20	109.58	108.64	107.82	107.24	105.36	104.32
Exchange rate	CHF:EUR	1.51										
Determined unit cost	EUR (2009)	87.92	91.53	72.39	74.55	71.04	72.62	72.00	71.45	71.07	69.82	69.13

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	CHF m (nom)	-1.4%	0.3%	0.9%	0.9%
Inflation	CAGR %	0.5%	0.5%	0.9%	1.0%
Determined costs	CHF m (2009)	-1.9%	-0.2%	0.0%	-0.1%
Service units	'000s	0.5%	0.3%	1.0%	0.9%
Determined unit cost	CHF (2009)	-2.4%	-0.6%	-1.0%	-1.0%
Exchange rate					
Determined unit cost	EUR (2009)	-2.4%	-0.6%	-1.0%	-1.0%

Table 69: Determined unit cost trend

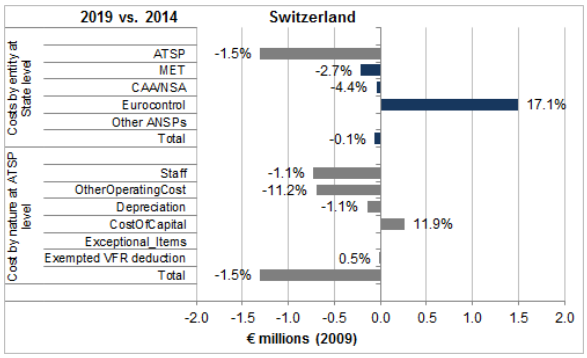


Figure 84: Planned cost category changes over RP1 and RP2

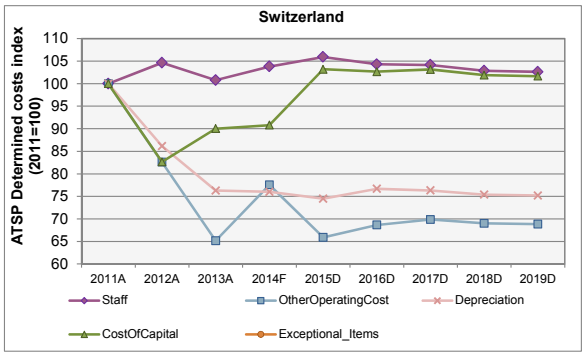


Figure 85: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Note: In the Performance Plan for RP1, the data provided for the breakdown of determined costs per category (i.e. staff costs, non-staff operating costs, depreciation and the cost of capital) comprises the Swiss ATSP (Skyguide) total en-route costs i.e. including the costs relating to the provision of ATC services in the French airspace.

In order to ensure that the determined costs reported in the Performance Plan over the 2009-2014 period only included costs relating to the provision of ATC services in the Swiss FIR, Switzerland reported a negative amount under "exceptional items" which was mainly relating to the revenues arising from the delegation of ATC services in the French airspace (i.e. some CHF 50 million per year). From 2011 onwards, the "exceptional items" also include the costs relating to services provided in the context of the delegation of ATC (in Germany, Austria and Italy) which are borne by Switzerland and therefore not charged to airspace users.

In the Performance Plan for RP2, the data provided for the breakdown of determined costs per category exclusively relate to the costs associated with the provision of ATC services in the Swiss FIR. Therefore, in order to ensure consistency in time series, the breakdown of costs per category reported for the years 2009-2014 was amended by removing the negative exceptional costs and allocating them into the different cost categories. The allocation key that was used to carry out this adjustment is the share of each cost category in the total costs, excluding the exceptional costs.

Switzerland forecasts a -1.0% annual en-route DUC decrease over the 2014-2019 period which is significantly below the Union-wide cost-efficiency target (i.e. -3.3% p.a.). Similarly, when assessed over the 2011-19 period which covers RP1 and RP2, Switzerland's en-route DUC planned reduction (-0.6% p.a.) is below the Union-wide target (i.e. -1.7% p.a.).

Over the 2009-2019 period, the planned reduction in Switzerland DUC (-2.4% p.a.) is in line with the Union-wide cost-efficiency target (-2.5% p.a.). This profile is affected by changes in the reporting of en-route costs over the period. Indeed, in 2009 Switzerland en-route cost-base comprised costs (some €20 million) relating to ATC services provided by Skyguide in Germany, Italy and Austria. Following a revision of the Swiss Federal Aviation Act, from 2011 onwards and until 2019, these costs are borne by the Swiss Confederation and therefore not charged to airspace users. If these costs were deducted from the en-route costs disclosed in 2009, then the "adjusted" profile for Switzerland would be around -0.6% p.a. over 2009-2019 which is well below the Union-wide cost-efficiency target (-2.5% p.a.).

The planned DUC reduction observed over the 2014-2019 period (-1.0% p.a.), is expected to be entirely achieved through the (low) traffic growth (+1.0% p.a.) while DCs are planned to remain constant. Switzerland states in the Performance Plan that a more ambitious en-route DCs profile over RP2 would severely affect the quality of service provided by Skyguide. This statement is not supported by detailed quantitative analysis, evidence or justifications.

As highlighted above, the planned growth of en-route SUs provided in Switzerland Performance Plan for the period 2014-2019 is in line with STATFOR February 2014 low scenario (+1.0% p.a.). If STATFOR February 2014 base case forecasts were used to compute the Swiss planned DUC, then the adjusted profile over the 2011-2019 period would be -1.7% p.a. which is in line with the Union-wide cost-efficiency target (-1.7% p.a.). Similarly, the adjusted profile over the 2014-2019 period would be -2.3% p.a. which is closer to the Union-wide cost-efficiency target (-3.3% p.a.) than the DUC reduction provided in the Performance Plan (-1.0% p.a.).

Amongst the different accountable entities, the larger decreases in DUC between 2014 and 2019 are observed for the Swiss NSA (-1.9% p.a.) and for the MET provider (-1.5% p.a.). Skyguide DUC is planned to decrease by -1.3% p.a. over the 2014-2019 period. In the meantime, the DUC reported for the EUROCONTROL Agency is expected to rise (+2.2% p.a.).

For Skyguide, the decrease in the en-route DUC planned over 2014-2019 (-1.3% p.a.) is due to the fact that DCs are planned to slightly decrease (-0.3% p.a.) while SUs are forecast to increase by +1.0% p.a. The lower en-route DCs mainly reflects reductions in other operating costs (-2.4% p.a.) while staff costs (-0.2% p.a.) and depreciation costs (-0.2% p.a.) are expected to remain fairly constant over RP2.

Other operating costs planned to substantially reduce over the 2014-2019 period (-2.4% p.a.). This trend mainly reflects the fact that 2014 other operating costs are expected to be +19.0% higher than 2013 actuals. Indeed, when the 2013-2019 period is considered, other operating costs are planned to slightly increase (+0.9% p.a.).

Skyguide cost of capital is expected to increase by +2.3% p.a. over the 2014-2019 period. This partly reflects the use of a slightly higher weighted average cost of capital (WACC, 2.2% in 2014 compared to 2.5% in 2015).

Skyguide planned capex over RP2 amounts to 106.1 MCHF. Around 14% of this amount relates to investments associated with the Virtual Centre project. It is understood that the overall aim of this project is to establish (in the course of RP3) a single “virtual ACC” covering the operations of Geneva and Zurich ACCs. The Performance Plan does not provide detailed information on the quantitative impact of this project on Skyguide planned cost-efficiency performance over RP2.

The PRB 2013 monitoring analysis indicates that Skyguide actual en-route costs for 2013 were substantially lower than planned (-8.2 M€$_{2009}$). This was sufficient to compensate for the impact of the lower traffic than planned (-9.4%) on Skyguide revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, Skyguide generated a net gain of 5.5 M€$_{2009}$ in 2013 on the en-route activity. When estimating Skyguide economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 2.3 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 7.8 M€$_{2009}$, which implies an ex-post rate of return on equity of 7.3% (compared to 2.2% as initially planned in the NPP). This contrasts with the relatively smaller gains generated by Skyguide in 2012 (0.2 M€$_{2009}$ or 0.2% of en-route revenues leading to an ex-post rate of return on equity of 0.2%).

The starting point in terms of DCs used by Switzerland for 2014 (101.7 M€$_{2009}$) is slightly higher than 2013 actual en-route costs (98.4 M€$_{2009}$) but lower than 2012 actuals (104.3 M€$_{2009}$). This tends to indicate that the cost-efficiency performance improvements achieved in the first years of RP1 were taken into account when setting the profile of determined costs. However, the profile planned for the 2015-2019 period shows that no genuine reductions in DCs are foreseen over RP2.

Based on this analysis, Switzerland en-route charging zone is assessed as not

passing this check.

En-route Determined Unit Cost level

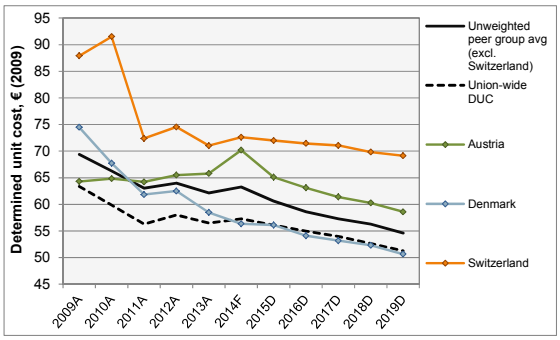


Figure 86: Determined unit cost level

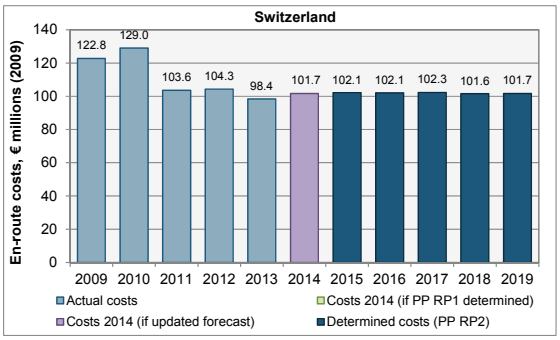


Figure 87: Determined costs 2009-2019

Comments:

In 2019, Switzerland's en-route DUC is planned to amount to 69.13 €$_{2009}$ per SU which is +26.6% higher than the average of the comparator group (54.62 €$_{2009}$). Switzerland en-route DUC is well above the comparator group average for each year of RP2.

The reductions in the en-route DUC forecast by Switzerland over 2011-2019 (-0.6% p.a.) and 2014-2019 (-1.0% p.a.) are lower than those planned by Denmark (-2.5% p.a. and -2.1% p.a., respectively) and Austria (-1.1% p.a. and -3.5%, respectively).

In Switzerland, the Swiss Franc appreciated by some 25% between 2009 and 2012, and the cost of living tends to be substantially higher than in Austria. When combining these different factors and adjusting for differences in cost of living (PPPs) and exchange rates, the DUC planned by Switzerland is still higher than the average of the comparator group for each year of RP2 (a difference ranging from 8% in 2015 to 15% in 2019).

As highlighted above, the determined cost base used by Switzerland to compute the starting point for the year 2014 (101.7 M€$_{2009}$) is +3.4% higher than 2013 actual en-route costs (98.4 M€$_{2009}$). Switzerland en-route DCs are expected to remain fairly constant between 2015 and 2019. As a result, at the end of RP2, Switzerland en-route DCs are expected to amount to 101.7 M€$_{2009}$ which is +3.3% higher than 2013 actuals.

Based on this analysis, Switzerland en-route charging zone is assessed as not passing this check.

Cost of Capital

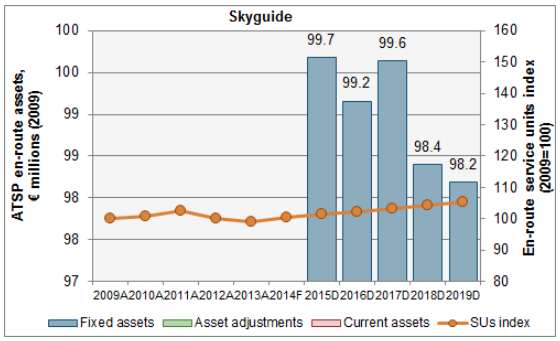


Figure 88: Breakdown of ATSP en-route asset base (2009-2019)

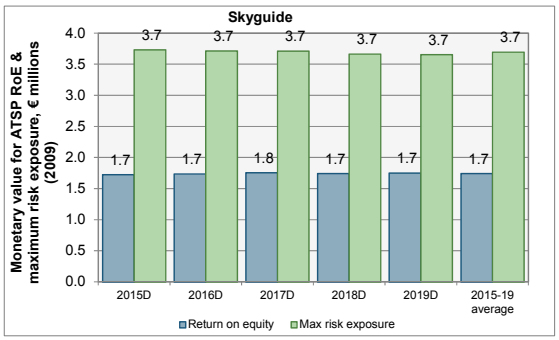


Figure 89: ATSP RoE vs maximum traffic risk exposure

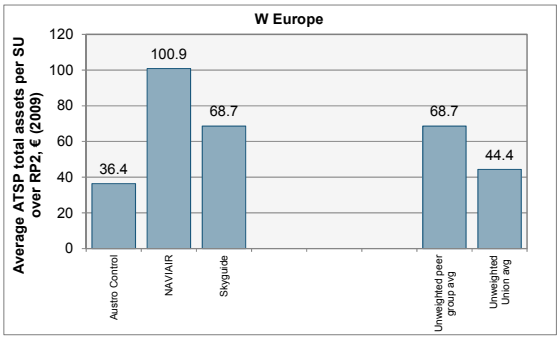


Figure 90: Average en-route asset base per SU over RP2

Comments:

Note: Figure 10 above does not include the values of Skyguide asset base for the years 2009-2014 since these figures comprised data relating to the provision of ATC services in the French, Italian, German and Austrian airspaces. This is not consistent with the asset base figures reported for RP2 which only include data relating to the provision of ATC services in the Swiss FIR.

Switzerland explains in the Performance Plan that Skyguide WACC (originally computed at 4.0-4.1% using the CAPM methodology) has been capped at 2.5% for each year of RP2. This is below the lower bound of the range of values (after tax) calculated with the methodology laid down in Annex C guidance.

Taking into account Skyguide capital structure and the amount of total assets used to compute the cost of capital allows computing the monetary value of the RoE which amounts to some 1.7 M€$_{2009}$ p.a. over RP2. This is significantly lower than the maximum traffic risk exposure which will be borne by Skyguide over RP2 (around 3.7 M€$_{2009}$ p.a.).

Over RP2, the average value of Skyguide en-route asset base per SU (68.7 €$_{2009}$) is expected to be in line with the comparator group average which is the combination of an ANSP with a relatively low asset base (Austro Control, 36.4 €$_{2009}$) and one with a relatively high asset base (NAVIAIR 100.9 €$_{2009}$).

Based on this analysis, Switzerland en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for the defined contributions pension scheme that was established by Skyguide. Similarly, information is provided on the interest rates on the loan contracted by Skyguide (200 MCHF or 165 M€ using an exchange rate of 1 Euro = 1.21 CHF) in order to partly finance the provision of en-route and terminal ANS. The average interest rate for this loan is in line with the interest rate on debt (2.2%) used to compute Skyguide cost of capital for en-route ANS. The Performance Plan indicates that for Skyguide no adjustments were made beyond the provisions of IAS. **Based on this analysis, Switzerland en-route charging zone is assessed as passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
The Performance Plan comprises information on the level and composition of costs exempt from risk sharing for 2012 and 2013. These amounts will be considered eligible (or not eligible) only after the EC verification of the information provided in the Swiss NSA report on costs exempt from risk sharing. The outcome of verification is expected to be available during the fall of 2014. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. Three cost categories among the five reported in Article 14.2(a) of the common charging regulation have been identified for Switzerland in the Performance Plan: • Unforeseen changes in national pension laws, pension accounting law or pension costs resulting from unforeseen financial market condition; • Significant changes in interest rates on loans, which finance costs are arising from the provision of air navigation services; and, • Unforeseen changes in costs or revenues stemming from international agreements. As for RP1, these amounts will be considered eligible (or not eligible) only after the EC verification process. **Based on this analysis, Switzerland en-route charging zone is assessed as passing this check.**

Switzerland: Assessment of terminal charging zone

Overview of terminal charging zones in Switzerland:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Switzerland. This charging zone comprises two airports (Geneva and Zurich) which are above 70,000 movements per year. The TCZ is the same as for RP1 in terms of airports scope.

Total TNSUs for the TCZ accounted for 96.2% of the TNSUs in Switzerland in 2013. On average, the total costs for the TCZ account for 38.9% of Switzerland "gate-to-gate" activity subject to SES in RP2.

The harmonized SES formula for computing terminal SUs ((MTOW/50)^0.7) was not applied in the Swiss TCZ during RP1.

All the airports in the TCZ will be subject to traffic risk sharing over RP2.

Traffic forecast assumptions

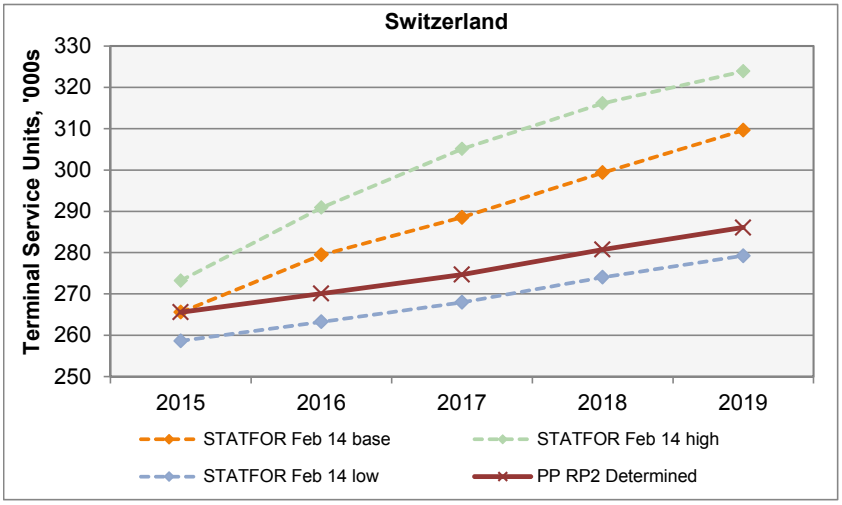


Figure 91: TNSU forecast 2015-2019

The planned growth of terminal SUs provided for Switzerland TCZ over the period 2015-2019 (+1.9% p.a.) is in line with STATFOR February 2014 low scenario (+1.9% p.a.).

The planned number of SUs provided in the Performance Plan for the year 2015 (265,598) is in the same order of magnitude as the figure reported in STATFOR database for the base case scenario and +2.7% higher than the number of SUs forecast in STATFOR low scenario (258,660).

Based on this analysis, Switzerland terminal charging zone is assessed as passing this check with reservations.

Economic assumptions

Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and terminal charging zones.

Based on this analysis, Switzerland terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

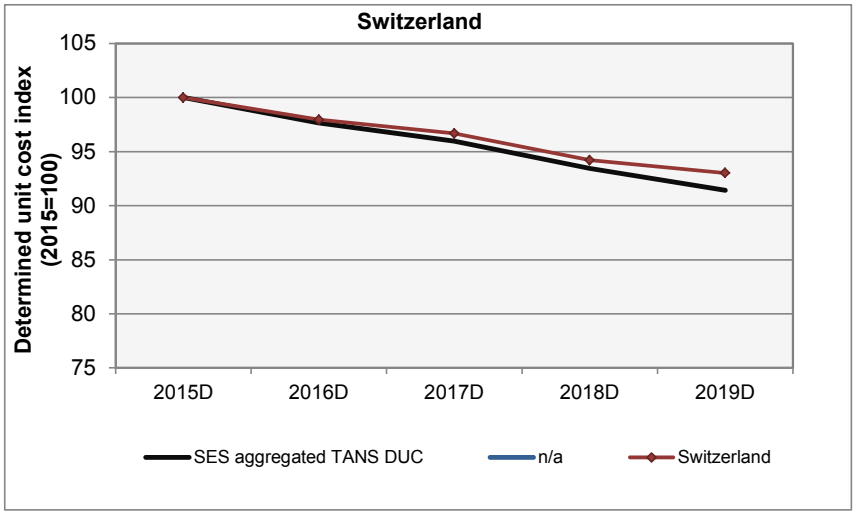


Figure 92: Terminal DUC index, 2015-2019

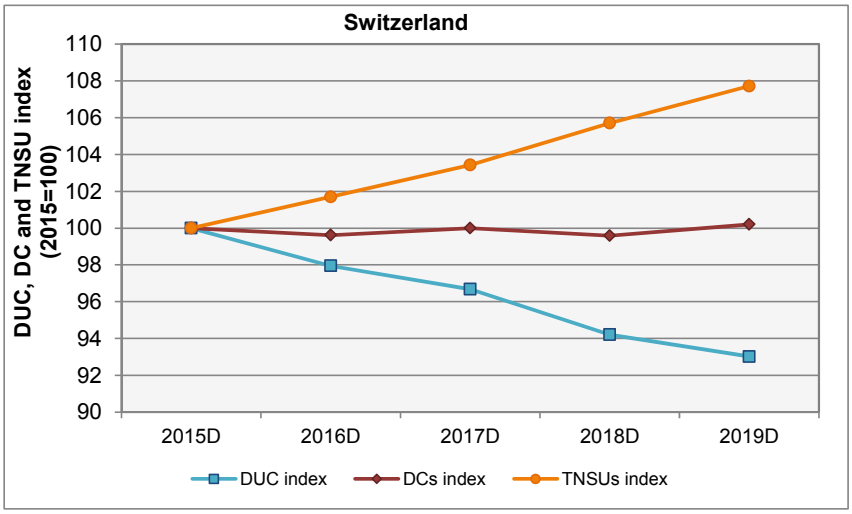


Figure 93: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Switzerland		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	CHF m (nom)	98.9	99.5	100.9	101.5	103.1	1.1%
Inflation rate	annual % change	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%
Inflation index	2009=100	100.8	101.8	102.8	103.9	104.9	
Determined costs	CHF m (2009)	98.1	97.8	98.1	97.7	98.3	0.1%
Terminal service units	'000s	266	270	275	281	286	1.9%
Determined unit cost	CHF (2009)	369.47	361.91	357.22	348.09	343.71	-1.8%
Exchange rate	CHF:EUR (2009)	1.51					
Determined unit cost	EUR (2009)	244.85	239.84	236.73	230.68	227.77	-1.8%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 70: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for the Swiss charging zone (-1.8% p.a.) is below the SES aggregated DUC trend (-2.2% p.a.). The decrease in the Swiss terminal DUC mainly reflects the fact that terminal DCs are expected to remain fairly constant (+0.1% p.a.) while the number of terminal SUs is planned to increase by +1.9% per year on average.

Switzerland 2015 terminal DCs (65.0 M€$_{2009}$) are higher than in 2012 (+6.7%) and 2013 (+3.7%), indicating that the cost base used to set the starting point for RP2 terminal cost-efficiency targets is relatively high compared to the level of actual costs.

Over the 2015-2019 period, the planned profile in terminal DUC (-1.8% p.a.) is better than that of the en-route DUC (-1.0% p.a.). This mainly reflects the fact that, all else equal, the number of terminal SUs is expected to increase faster (i.e. +1.9%) than en-route SUs (+0.9% p.a.). Indeed, both en-route and terminal DCs are planned to remain fairly constant between 2015 and 2019 (i.e. -0.1% p.a. and +0.1% p.a., respectively).

Based on this analysis, Switzerland terminal charging zone is assessed as not passing this check.

Cost of Capital

The RoE and WACC rates used to compute the cost of capital for Switzerland's TCZ over the 2015-2019 period are in line with those used to compute the cost of capital for the en-route charging zone.

Based on this analysis, Switzerland terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The Performance Plan comprises information about the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template. Details are provided for the defined contributions pension scheme that was established by Skyguide.

Similarly, information is provided on the interest rates on the loan contracted by Skyguide (200 MCHF or 165 M€ using an exchange rate of 1 Euro = 1.21 CHF) in order to partly finance the provision of en-route and terminal ANS. The average interest rate for this loan is in line with the interest rate on debt (2.2%) used to compute Skyguide cost of capital for terminal ANS.

The Performance Plan indicates that for Skyguide no adjustments were made beyond the provisions of IAS.

Based on this analysis, Switzerland terminal charging zone is assessed as passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. Two cost categories among the five reported in Article 14.2(a) of the common charging regulation have been identified for Switzerland in the Performance Plan:

- Unforeseen changes in national pension laws, pension accounting law or pension costs resulting from unforeseen financial market condition; and,
- Significant changes in interest rates on loans, which finance costs are arising from the provision of air navigation services.

These amounts will be considered eligible (or not eligible) only after the EC verification process.

Based on this analysis, Switzerland terminal charging zone is assessed as passing this check.

References

[1] Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Source: European Economic Forecast (Spring 2014).

[3] Source: International Monetary Fund, World Economic Outlook Database, April 2014.

[4] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[5] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[6] FABEC RP2 Consultation, 23rd May 2014

[7] Performance Plan RP2- Annex D.2 - IAA Investment Plan summary, page 3/7

[8] Stakeholder consultation meeting on BELUX RP2 PP, page 8/11

[9] IATA and AEA letter to Belgium CAA on the RP2 Cost-efficiency consultation, 23 June 2013

[10] En-route charges reporting – June 2014, Additional Information 4- item 1.3, page 12/34

[11] IATA / AEA Comments on DSNA Strategic Plan 2014-2016, 23 May 2014

[12] Airlines consultation regarding RP2 cost-efficiency and terminal services, 6 June 2014, item 1 (Cost-efficiency)

[13] En-route charges reporting, June 2014, Additional information 1, item 1.3 , page 5/19

[14] IATA letter on French RP2 Cos- Effectiveness/ 10 June 2014

[15] Annex A of the FABEC Performance Plan RP2, DFS Investment Programme Consultation, 26 Feb.2014

[16] Annex A of the FABEC Performance Plan for RP2, Consultation meeting #2, 24 March 2014, page 13

[17] Annex A to chapter 1.3 for Belgium and Luxembourg, item 9 (ANA), page 9/11

[18] Annex A of the FABEC Performance Plan for RP2, Consultation meeting #2, 24 March 2014, page 13

[19] Stakeholder consultation meeting, LVNL May 6th, 2014

[20] En-route charges reporting, June 2014, Additional information 1, RP1 Monitoring, page 9/25

[21] “CAPEX Effect”= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[22] “Costs Effect”= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

[23] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

NEFAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

NEFAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the NEFAB was received on 27 June 2014 in English. It was co-signed by

- the Deputy Secretary General for Transport of the Ministry of Economic Affairs and Communications of Estonia;
- the Director General of the Ministry of Transport and Communications of Finland;
- the Director of Aviation of the Ministry of Transport of Latvia; and
- the Director General of the Ministry of Transport and Communications of Norway.

1.1.2 The Finnish Transport Safety Agency (Trafi) was reported in the FAB Performance Plan as the sole NSA responsible for drawing it up and coordinating its elaboration within the FAB. While only one NSA was expected to be in charge of the coordination, all NSAs involved in the drafting of the FAB Performance Plan should have been listed.

1.1.3 The FAB Performance Plan provides performance targets set at local level as defined in the performance Regulation[1] for the following accountable entities:

- [EE] Estonian Civil Aviation Administration (ECAA) as the nominated NSA;
- [EE] Estonian Air Navigation Service Provider (EANS) as the designated ANS provider;
- [EE] Ministry of Economic Affairs and Communications as the Regulatory Authority;
- [EE] Estonian Aviation Academy, which is a state-owned education institution providing aviation diplomas and training aviation specialists;
- [EE] Ministry of the interior, for Search and Rescue services;
- [FI] Finnish Transport Safety Agency (Trafi) as the nominated NSA;
- [FI] *Finavia* as the designated ANS provider;
- [FI] Finnish Meteorological Institute as the designated MET service provider;
- [LV] State agency Civil Aviation Authority as the nominated NSA;
- [LV] *Latvijas Gaisa Satiksme* as the designated ANS provider;
- [LV] *Latvijas Vides, Geologijas un Meteorologijas Centrs* as the designated MET service provider;
- [LV] Ministry of Transport as the Regulatory Authority;
- [NO] Civil Aviation Authority as the nominated NSA;
- [NO] *Avinor AS* as the designated ANS provider;
- [NO] *Oslo Lufthavn AS* as the designated terminal ANS provider;
- [NO] *Meteorologisk Institutt* (Met.no) as the designated MET service provider.

1.1.4 The FAB Performance Plan covers Estonia, Finland, Latvia and Norway. No mention to specific Flight Information or Upper Information Regions (FIR/UIRs) was

made but it is assumed all FIR/UIRs are included, namely Tallinn FIR, Finland FIR/UIR, Bodo Oceanic FIR, Norway FIR and Riga FIR.

1.1.5 As far as terminal services are concerned, it covers two airports in Estonia, one in Finland, four in Norway and three in Latvia, for a total of 10 airports spread over the 4 countries. Nevertheless, it is specified that Liepaja and Ventspils airports are included in the Latvian terminal cost efficiency target but not for the other KPIs. This appears to be in contradiction with the clarification provided by the European Commission on the correct application of Article 1(3) of the performance Regulation and Article 1(5) of the charging Regulation[2] concerning the consistent application of the performance and charging schemes to terminal air navigation services.

1.1.6 According to Article 14 of the performance scheme Regulation[1], the PRB has assessed this plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

ESTONIA

1.2.1 Real GDP growth dropped to 0.8% in 2013 from 3.9% in 2012. It is expected to regain some momentum to reach 1.9% in 2014[3].

1.2.2 The FAB Performance Plan contains GDP figures for Estonia substantially more optimistic than those of the European Economic Forecast, as it presents an increase of 1.5% in 2013 and 3.6% in 2014.

1.2.3 The macroeconomic data and forecasts for Estonia were not sourced.

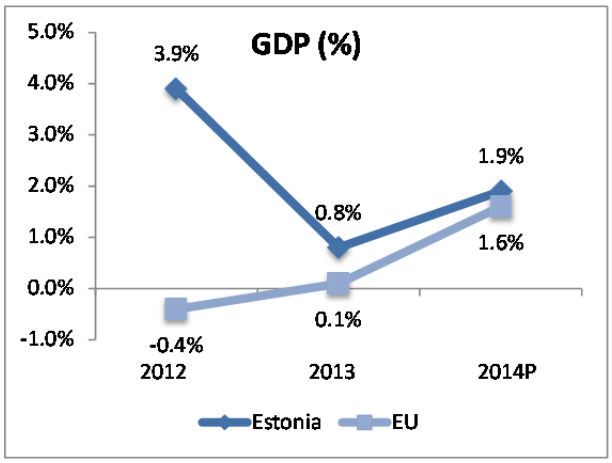


Figure 1: Gross domestic product for Estonia, volume (percentage change on preceding year)[3]

1.2.4 After the sharp decline of 2009, IFR traffic in Estonian airspace experienced constant evolution until 2013, where traffic figures are still above the 2008 levels.

1.2.5 As shown in Figure 2, the February 2014 STATFOR baseline scenario foresees traffic demand in Estonia to increase at a slower pace than what was predicted in 2009. A four-year shift in traffic demand is foreseen, as the traffic levels expected in 2009 for 2015 should now only be reached in 2019.

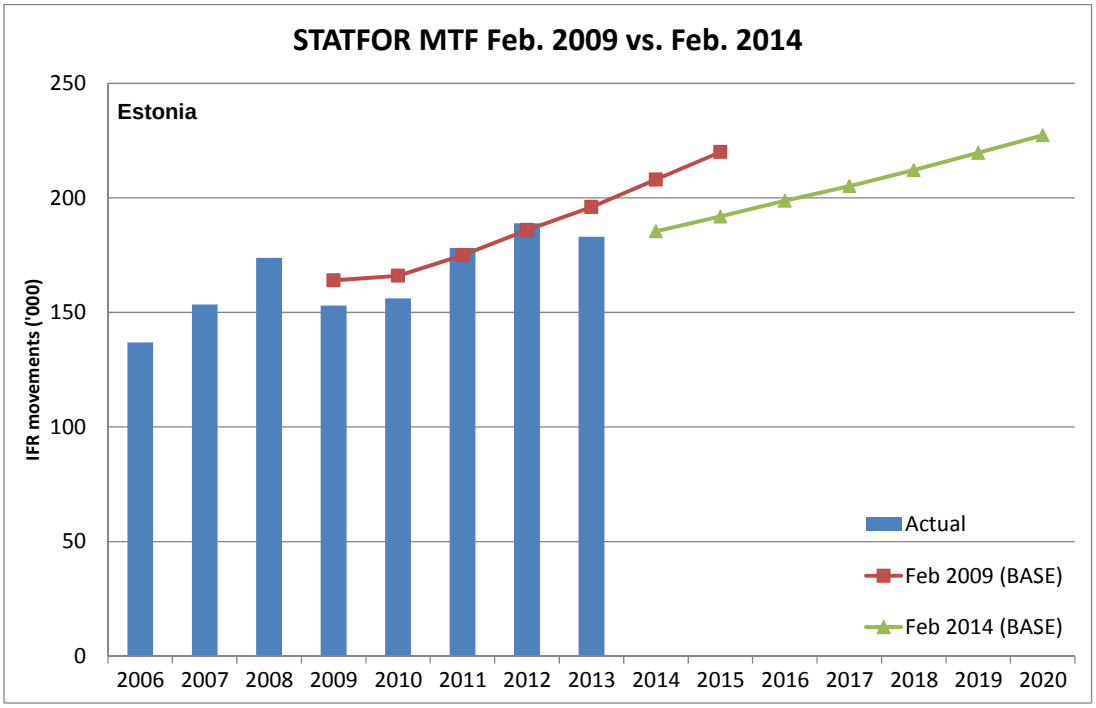


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Estonia

1.2.6 Although the FAB Performance Plan mentions that Estonia decided to use the February 2014 STATFOR base case scenario for RP2, it is unclear whether this applies to traffic forecast, Service Units forecast or both.

FINLAND

1.2.7 After a negative GDP of −1% in 2012 and −1.4% in 2013, Finland's recession is foreseen to come to an end in 2014. Nevertheless, growth is expected to pick up only gradually[3].

1.2.8 The FAB Performance Plan contains macroeconomic data and forecasts for Finland sourced from the Ministry of Finance and Finavia's business plan. The GDP figures are substantially more optimistic for 2014 than the figures presented here.

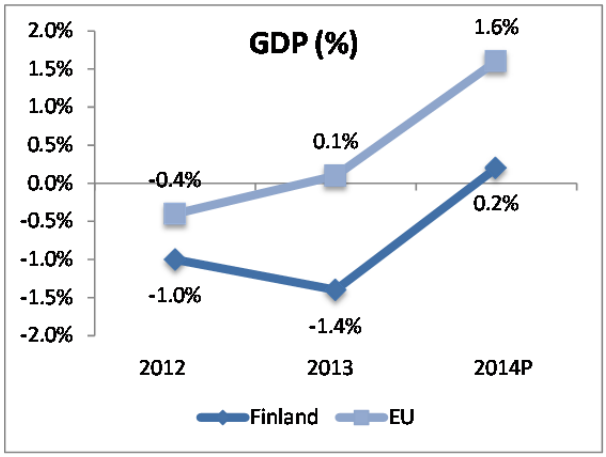


Figure 3: Gross domestic product for Finland, volume (percentage change on preceding year)[3]

1.2.9 IFR traffic in Finnish airspace also experienced a sharp decline in 2009, but unlike Estonia it did not recover. Indeed, despite an isolated increase in 2011, traffic levels in 2013 are close to those of 2009.

1.2.10 The February 2014 STATFOR baseline scenario foresees traffic demand in Finland to increase at a slower pace than what was predicted in 2009. The prediction made in 2009 concerning the traffic levels of 2013 are now only expected in 2020, which

represents a seven-year shift in traffic demand.

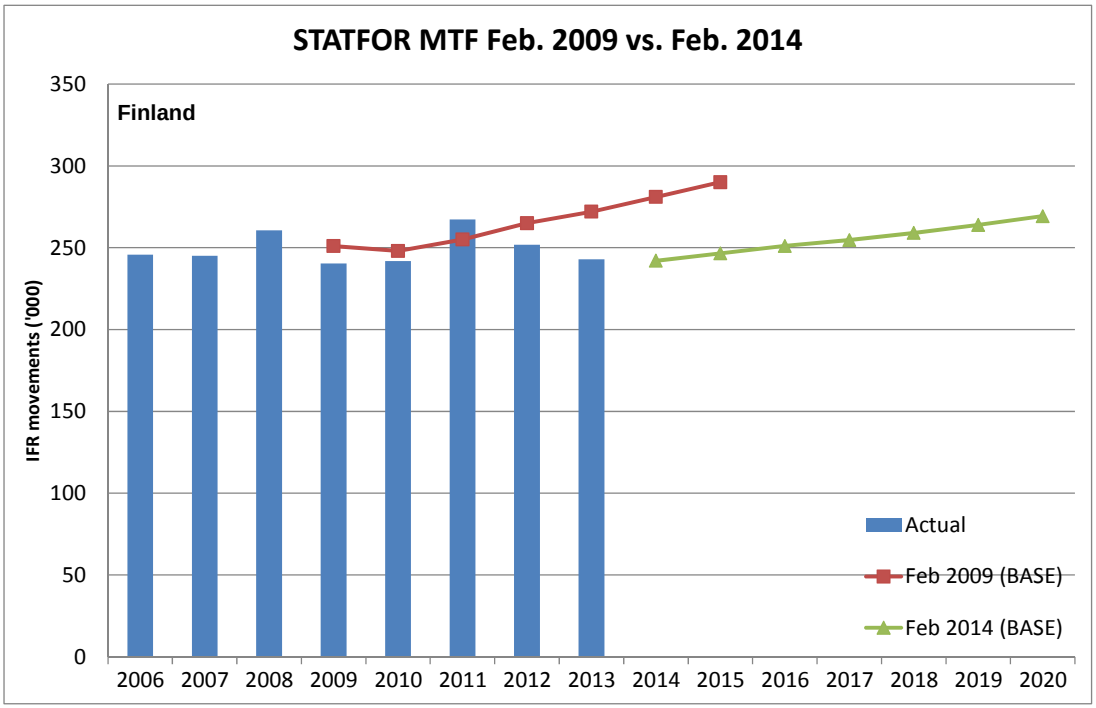


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Finland

1.2.11 Although the FAB Performance Plan mentions that traffic expectations for Finland follow the February 2014 STATFOR baseline scenario for 2015-2019, it is unclear whether this applies to traffic forecast, Service Units forecast or both.

LATVIA

1.2.12 Although growth is expected to slow down further to 3.8% in 2014, Latvia's economy remains robust. The country is still projected to remain the fastest growing in the EU[3].

1.2.13 The GDP figures for Latvia contained in the FAB Performance Plan marginally differ from those presented here.

1.2.14 The macroeconomic data and forecasts for Latvia were not sourced.

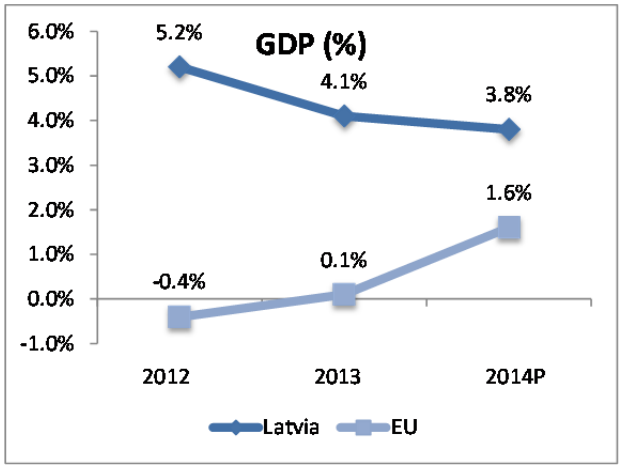


Figure 5: Gross domestic product for Latvia, volume (percentage change on preceding year)[3]

1.2.15 After the sharp declined of 2009, IFR traffic in Latvian airspace managed to recover and stabilise above the 2008 levels. Nevertheless, traffic could not follow the trend forecast in 2009 and the February 2014 STATFOR baseline scenario foresees traffic to increase at a slower pace. A five-year shift in traffic demand is foreseen, as the traffic levels expected in 2009 for 2015 should barely be reached in 2020.

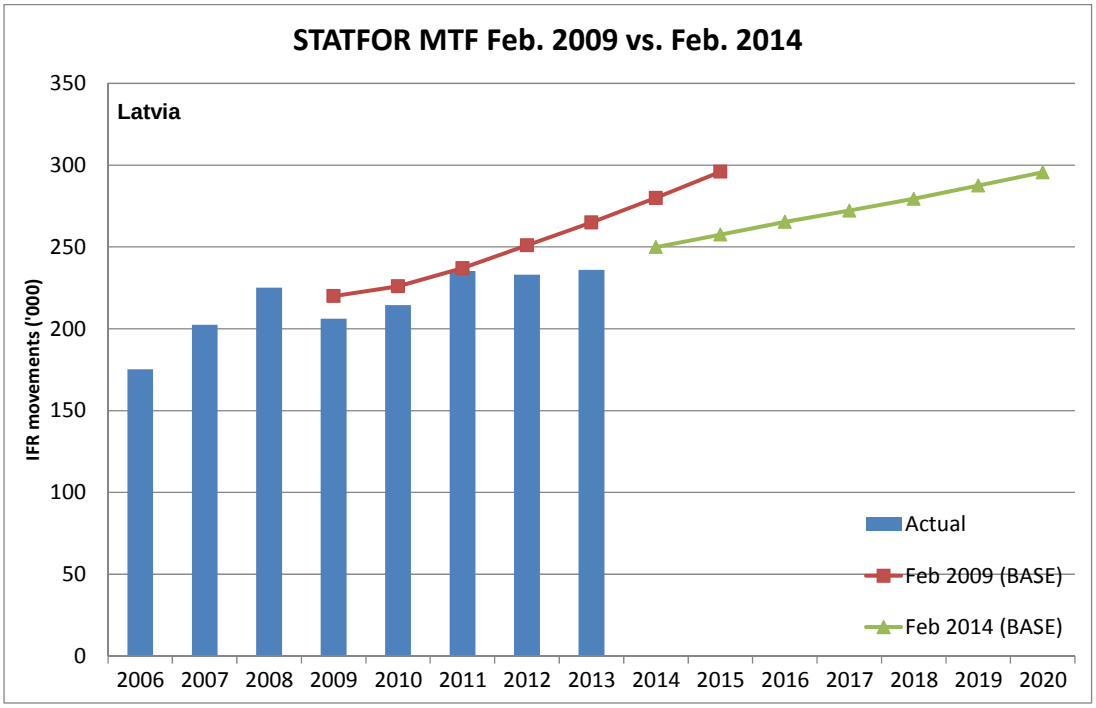


Figure 6: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Latvia

1.2.16 Although the FAB Performance Plan mentions that Latvia decided to use the February 2014 STATFOR base case scenario for RP2, it is unclear whether this applies to traffic forecast, Service Units forecast or both.

NORWAY

1.2.17 GDP growth fell from 2.8% in 2012 to 0.8% in 2013, before being expected to increase again to 1.8% in 2014[4].

1.2.18 The FAB Performance Plan presents macroeconomic data sourced from the report "Economic trends for Norway and abroad - Upturn to start in 2015" published by Statistics Norway on the 6th of December 2013.

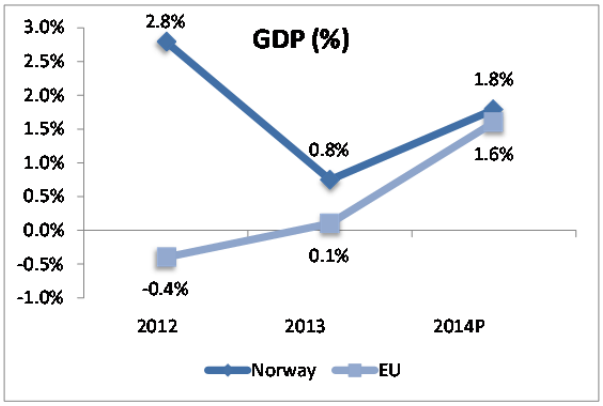


Figure 7: Gross domestic product for Norway, volume (percentage change on preceding year)[3&4]

1.2.19 Unlike the other countries of the NEFAB after the sharp decline of 2009, Norway experienced constant growth in IFR traffic in line with the STATFOR 2009 forecast. The February 2014 STATFOR baseline scenario foresees traffic to continue increasing along the same lines and has been revised upwards as the traffic levels expected in 2009 for 2015 should already be met in 2014.

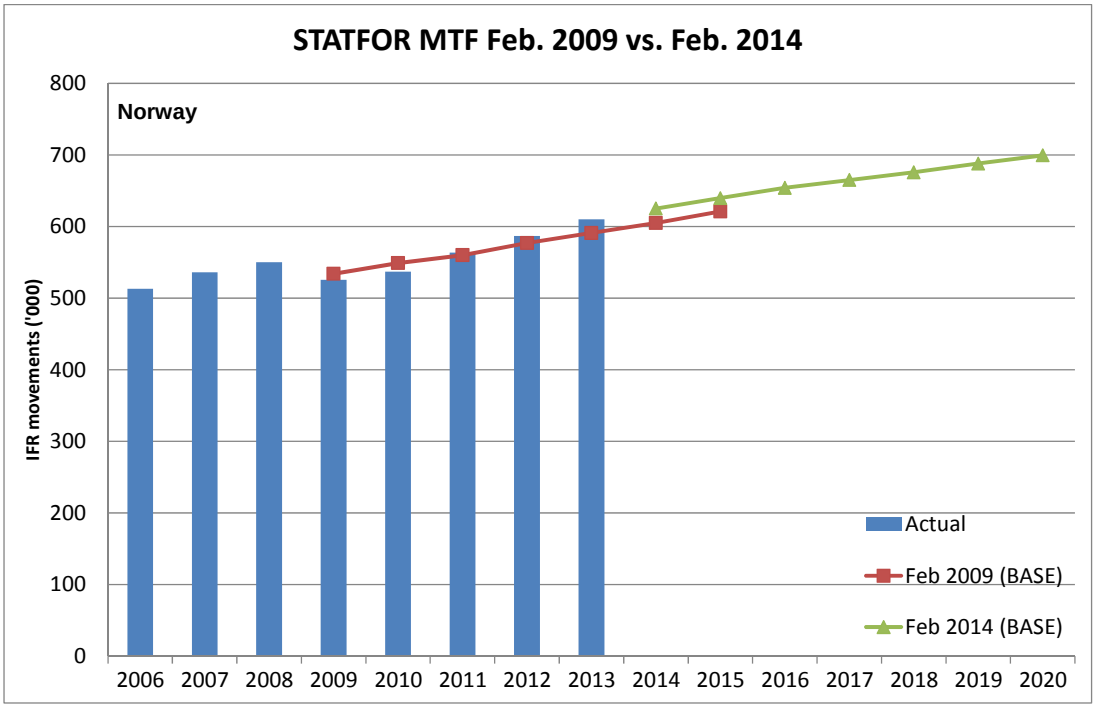


Figure 8: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Norway

1.2.20 For the purpose of drawing up the FAB Performance Plan, Norway specified that the used Service Unit forecast sits between the February 2014 STATFOR base and high scenarios. Nevertheless, no specific mention is made regarding the used traffic assumptions.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Estonia	A
	Finland	B
	Latvia	B
	Norway	A
	FAB minimum level	*A*
ANSP level	Estonia for Safety Culture MO	C
	Finland for Safety Culture MO	D
	Latvia for Safety Culture MO	C
	Norway for Safety Culture MO	D
	FAB minimum level	*C*
	Estonia for all other MOs	B
	Finland for all other MOs	C
	Latvia for all other MOs	B
	Norway for all other MOs	C
	FAB minimum level	*B*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

RAT application current performance (2013)		EE	FI	LV	NO	FAB
Separation Minima Infringements (SMIs)	ATM Ground	96%	100%	100%	49%	86%
	ATM Overall	96%	100%	100%	0%	74%
Runway Incursions (RIs)	ATM Ground	100%	100%	100%	35%	84%
	ATM Overall	100%	100%	0%	0%	50%
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	7%	100%	0%	52%

Table 2: Severity classification using the RAT methodology

1.3.3 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[5].

ENVIRONMENT

1.3.4 Current performance shows improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.11 percentage points (from 1.47% in the first half of 2013 to 1.36% in the first half of 2014).

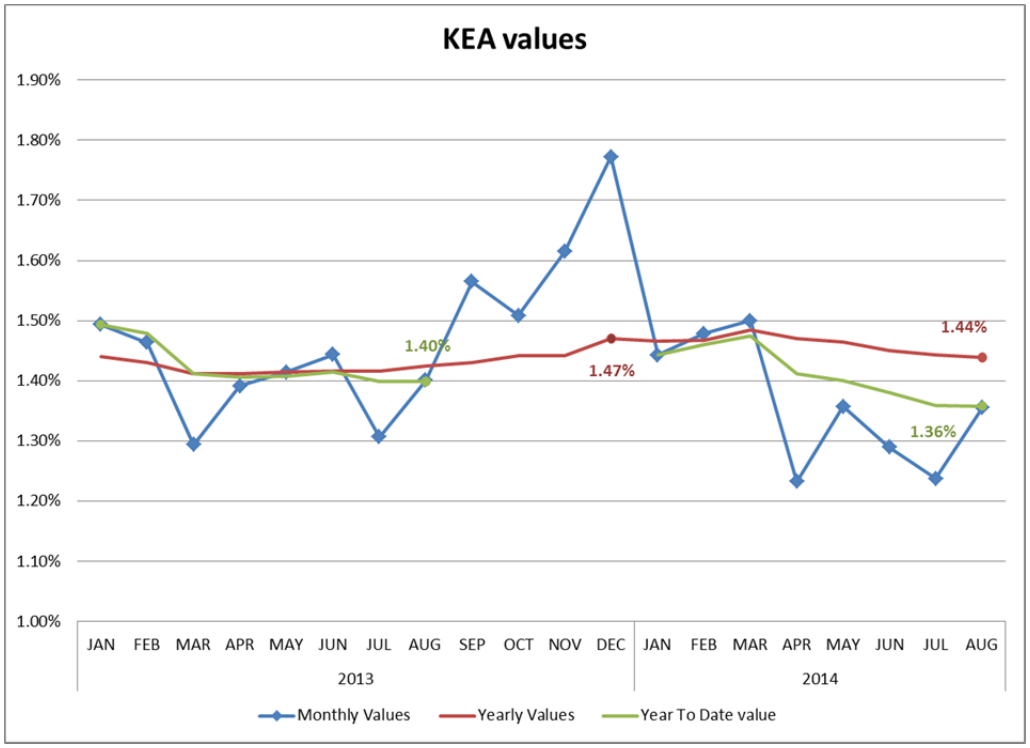


Figure 9: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.5 Current performance shows a slight improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of .04 percentage points (from 1.40% in the first eight months of 2013 to 1.36% in the corresponding period of 2014).

CAPACITY

1.3.6 The NEFAB has provided excellent capacity performance in recent years.

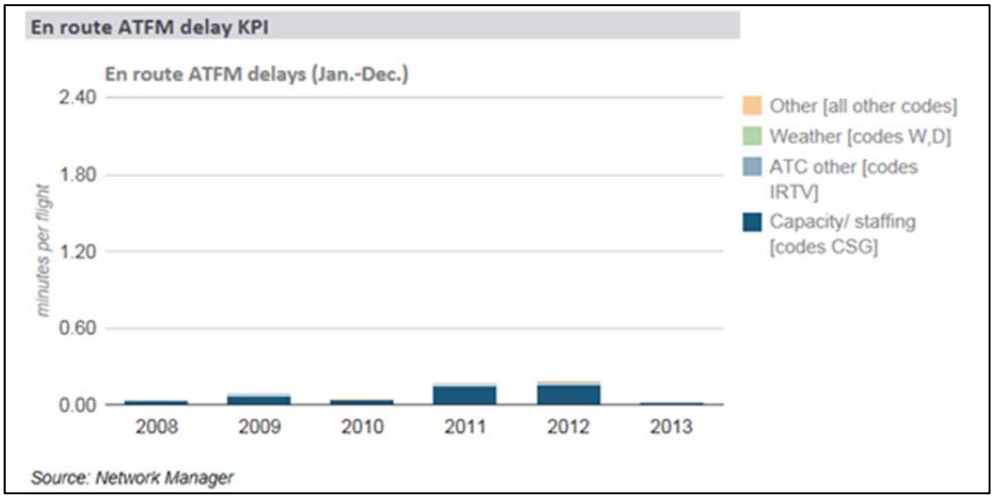


Figure 10: En-route ATFM delay

1.3.7 In terms of arrival ATFM delay, weather represents a major reported cause for imposed restrictions at NEFAB airports across the last five years. Across Europe, the NEFAB performance with respect to arrival ATFM delay is better than the European average.

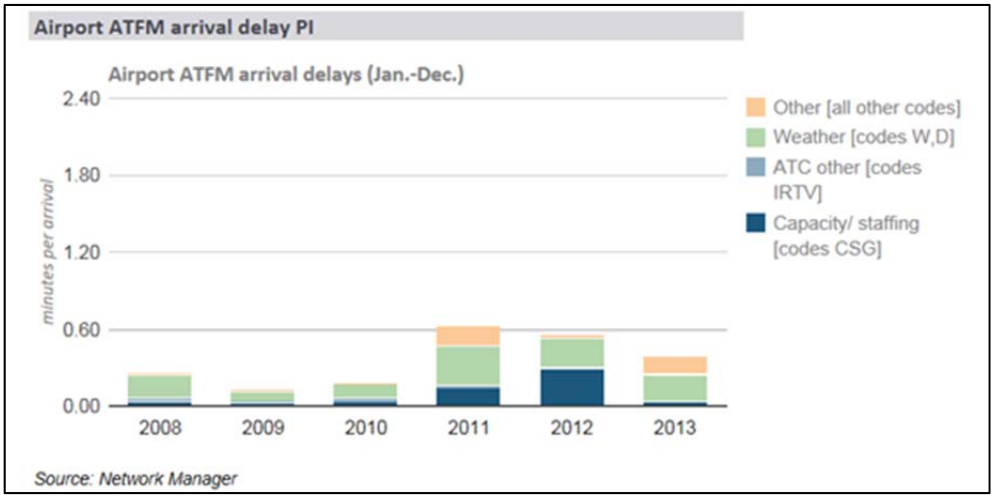


Figure 11: Airport ATFM arrival delay

COST EFFICIENCY

1.3.8 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.2 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the NEFAB to complement the missing and/or incomplete elements as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in section "1.3 - Stakeholder consultation" of the Performance Plan. The relevant papers are attached to the Performance Plan as "ANNEX A. PUBLIC CONSULTATION MATERIAL".

1.5.2 Six consultation meetings were held at FAB and national level:

- Meeting #1, 26 March 2014 NEFAB consultation, involving Airspace users, including Military, IATA, ANSP and Unions.
- Meeting #2, 24 April 2014, National consultation of Finland.
- Meeting #3, 20 March 2014, National consultation of Latvia.
- Meeting #4, 19 March 2014, National consultation of Norway.
- Meeting #5, 15 April 2014, National consultation of Estonia (only including Airspace users - IATA, Lufthansa).

- Meeting #6, 16 April 2014, National consultation of Latvia (only including IATA and MET).

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Some information on the outcome of the consultation has been made available to the PRB, although points of disagreement and reasons are not always unambiguously identified.
- The full list of invited stakeholders is not attached to Annex A. Only the list of stakeholders who attended the FAB consultation has been made available to the PRB.
- The information provided under section 3.3 of the FAB performance plan is not complemented with the minutes for meeting #2, 3, 4, 5 and 6.
- There is no indication that the materials for the meeting were provided well in advance.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*A*	*A*	*B*	*B*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The NEFAB EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 The declared current EoSM performance at State level of two out of four FAB States (Estonia and Norway) is at the minimum Level 'A' (due to missing some core element of efficient Safety Oversight system). These two States however, still have not been visited by EASA.

2.1.3 Nevertheless, based on light verification of EoSM scores performed this year for Norway, in the area of 'Safety Risk Management' there seems to be some underestimation. In addition, Latvia has downgraded significantly its scores (in some cases from Level 'C' to 'B'). Moreover, it seems that some underestimations exist especially related to elements of national secondary regulations.

2.1.4 Based on the results of the EASA audit and the corrective action plan, the review of EoSM showed that in Finland some parts of the 'State Safety Policy and Objectives' are slightly underrated.

2.1.5 Overall, based on the current performance (2013) and additional information provided in its Performance Plan, it seems realistic the NEFAB will be able to meet these targets by end of 2019.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	95%	95%	95%	97.5%	100%	✓
	RIs	95%	95%	95%	97.5%	100%	✓
	ATM-S	50%	62.5%	85%	87.5%	100%	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	90%	90%	90%	95%	100%	✓
	RIs	80%	85%	90%	95%	100%	✓
	ATM-S	30%	47.5%	80%	85%	100%	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The NEFAB severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 However, the NEFAB has reported different figures for the RAT methodology application for ATM-S for ATM Ground and ATM Overall. This should not be the case as these values should be the same (i.e. the ANSP target established for 'ATM Ground' severity should be identical to the NSAs/States target established for 'ATM Overall' severity). Therefore, the PRB expresses concern as it appears some NEFAB States may not be aware of how classification of ATM-S occurrences should be performed. Furthermore, the PRB recommends that the NEFAB clarifies this information.

2.2.3 The target figures for the RAT methodology application in 2015 and 2016 seem to be realistic as, according to the NEFAB Performance Plan, both the Norwegian Civil Aviation Authority and Estonian Civil Aviation Administration will start using the RAT methodology in 2014 and 2015 respectively. The PRB will be closely monitoring the introduction of the RAT methodology at State level (especially for ATM-S), which is necessary to meet the Union-wide target in 2017.

2.2.4 Based on the current performance, and the information provided in its Performance Plan, the PRB believes that the NEFAB is on the right track to meet these targets.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The NEFAB indicates in its Performance Plan that, at State level, a common FAB approach in certain areas for Just Culture improvements **has not been established**. However, the NEFAB ANSPs specify that there is a common approach at ANSP level and indicate there are plans to further develop common basic ANS staff training to cover the introduction to Safety Management System, which would also include Just Culture principles to be used by the NEFAB ANSPs.

2.3.3 The NEFAB States indicate individually that overall the level of performance regarding the level of Just Culture is good and also identify certain areas for improvement, including the introduction of a requirement to have Just Culture training for NSA and ANSP staff. The PRB also notes the actions to be taken by NEFAB ANSPs to optimise Just Culture.

2.3.4 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has not been set**. It also notes that some information explaining the basic elements in place to promote the application of Just Culture is provided, however it is not clear what is planned for the future at FAB level.

2.4 Key points

2.4.1 The PRB is confident the NEFAB will be able to meet Union-wide EoSM and RAT application targets.

2.4.2 The NEFAB has reported different targets for the RAT methodology application for ATM-S for ATM Ground and ATM Overall (while it should not be the case). The PRB recommends that this information is clarified.

2.4.3 In addition, the PRB suggests that improvements and progress in ATM Overall severity assessment should be closely monitored.

2.4.4 The local/FAB target for the level of presence or absence of just culture has not been set (State level).

2.4.5 In addition, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	1.35%	1.32%	1.29%	1.26%	1.22%
FAB Target	*1.35%*	*1.32%*	*1.29%*	*1.26%*	*1.22%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The NEFAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 ANSPs have been given non-financial incentives (as per Article 12.4 of the performance Regulation[1]) to reinforce their commitment towards the FAB adopted targets.

3.4 Key points

3.4.1 The NEFAB has adopted annual targets which are consistent with the reference values and non-financial incentives to reinforce the commitment towards the adopted targets.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.12	0.12	0.13	0.13	0.13
FAB Target	*0.12*	*0.12*	*0.13*	*0.13*	*0.13*
Consistency check	✓	✓	✓	✓	✓

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The NEFAB targets are **consistent** with the respective FAB reference value.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.2 The NEFAB has adopted capacity targets that, although consistent with the Union-wide capacity target, do not provide a performance surplus that could be of benefit to the network.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.3 The Network Operations Plan 2014-2019 (June 2014 edition) shows how the NEFAB ANSPs' can provide a significant positive contribution to network performance simply by implementing the existing capacity plans. Such a positive contribution could benefit airspace users within the NEFAB and other FABs in meeting the overall network target of 0.5 minutes per flight.

Year	2015	2016	2017	2018	2019
Annual reference value	0.12	0.12	0.13	0.13	0.13
Delay forecast full year	0.04	0.02	0.02	0.02	0.03

Table 7: Extract from Network Operations Plan 2014-2019

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.4 The contribution expected from the individual ANSPs is consistent with the overall FAB targets for en-route capacity performance.

Year		2015	2016	2017	2018	2019
FAB reference value		0.12	0.12	0.13	0.13	0.13
ANSP contribution	EANS	0.12	0.12	0.13	0.13	0.13
	Finavia	0.08	0.08	0.08	0.08	0.08
	LGS	0.04	0.04	0.04	0.04	0.04
	Avinor	0.08	0.08	0.08	0.08	0.08
Aggregated ANSP contribution		**0.10**	**0.10**	**0.10**	**0.10**	**0.10**

Figure 12: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.5 Section 5 of the NEFAB Performance Plan outlines how the FUA legislation is being applied within the NEFAB. However, the only specific reference to improving capacity performance is by “more efficient SUA booking” and “timely release of [previously] allocated SUA”. The Performance Plan does not provide evidence of how such performance indicators will provide additional capacity for GAT since they do not refer to the impact that the SUA allocation has on GAT traffic.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.6 Overall, there has been excellent capacity performance within the NEFAB area. Specifically:

- Norway’s capacity performance, after being impacted by social issues in 2012, showed a considerable improvement in 2013 to 0.04 minutes delay per flight;
- Estonia’s capacity performance has been consistent with the Union-wide target and surpassed that level in 2013 to achieve an excellent 0.02 minutes per flight;
- Finland & Latvia have consistently achieved excellent capacity performance levels with virtually no delay in either 2012, or 2013.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Estonia	*0*	*0*	*0*	*0*	*0*
Finland	*0.13*	*0.13*	*0.14*	*0.14*	*0.14*
Latvia	*0.04*	*0.04*	*0.04*	*0.04*	*0.04*
Norway	*0.60*	*0.60*	*0.60*	*0.60*	*0.60*

Table 8: National target on average arrival ATFM delays [minutes per arrival]

4.2.1 The scope of the NEFAB Performance Plan comprises the terminal air navigation services at two airports in Estonia, one airport in Finland, one airport in Latvia, and four airports in Norway.

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay for each of the States with an associated breakdown per airport for each of the years of the reference period for Estonia, Finland, and Latvia. No breakdown is provided for Norway.

4.2.3 In all cases, the description and explanation of the target, and the contribution to improvement of performance is very limited. The targets are kept constant across the reference period and frame the projected growth of air traffic. Finland adjusts the target only marginal for the period 2017-2019.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.4 For all States, the national target on arrival ATFM delay is broadly consistent with the observed historical performance. Considering the share of accrued arrival ATFM delay over the last 5 years for Latvia, the target provides a conservative buffer to cater for variations in terms of arrival ATFM delay and projected traffic growth. On the other hand, Finland sets a challenging target at about 50% of the observed historical performance over the last five years.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.5 The national target for Finland and Latvia represents the contribution of the respective only airport subject to RP2.

4.2.6 Given the overall traffic situation at the Estonian airports, no airport capacity-related impact is expected. Both airports can be considered as non-congested.

4.2.7 For Norway, the national target is not further broken down per airport nor does the plan provide evidence how each airport contributes to the national target.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.8 The historical performance for the Estonian and Latvian airports in terms of arrival ATFM delay signals no prevailing airport capacity constraints at the time being. In that respect the performance is in line with other non-congested airports.

4.2.9 The operational ANS performance of Helsinki ranges consistently under the European average and shows good results when compared to airports with a similar share of air traffic.

4.2.10 The performance of ENGM (Oslo/Gardermoen) is consistent with the observed performance at other European airports with a similar traffic level showing a strong seasonal / weather dependency of arrival ATFM delay ranging within 1 – 1.5 minutes per arrival. The contribution of the other Norwegian airports is in line with the performance observed at other airports with similar traffic shares and non-congested traffic conditions.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.11 The plan does not list or discuss anticipated benefits from planned initiatives and how these activities may positively impact the performance.

Primary check:

- *Other justifications provided*

4.2.12 The FAB NE Performance Plan provides no further relevant justification for ATFM delay attributable to terminal or aerodrome ANS.

4.3 Additional indicators

EN-ROUTE

4.3.1 The NEFAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The NEFAB Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 9 lists the Incentives for the en-route included in the Performance Plan which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation.

Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance	Notes
Finavia	No	Yes	Yes	Yes	Yes	
LGS	No	Yes	Yes	Yes	Yes	
Avinor AS	No	No (significant gap from bonus to dead-band)	Yes	Yes	No	The dead-band does not match the formula.
EANS	No	No (penalties accrue faster than bonuses)	Yes	Yes	Yes	Reason for change 2017-2019 not explained.

Table 9: Incentives on en-route Capacity

4.4.2 The following list gathers the comments on the en-route capacity incentive schemes presented in the FAB Performance Plan:

- A review of FAB targets- towards a more stringent capacity performance would necessitate a review of the par values for the incentive schemes;
- The incentive schemes are not linked to FAB performance, but are purely local;
- The incentive scheme for Avinor AS has a gap from 0.03-0.05 minutes per flight.

AIRPORT

4.4.3 The NEFAB Performance Plan presents incentive schemes for the national targets on arrival ATFM delay for all four States.

4.4.4 The incentive schemes are aligned and meet the requirements of Article 12 of the performance Regulation.

4.4.5 For Estonia, Finland, and Norway, the non-discriminatory and proportional character has been established through a “dead band” catering for pragmatic variations of the achieved performance in respect to

- (Finland and Norway): the historical performance observed, including strong dependency on weather-related causes;
- (Estonia): a zero-delay target;

and thus induces performance-oriented behaviour to meet the target.

4.4.6 The Latvian target of 0.04 minutes per arrival is conservative and supported by a staged incentive scheme kicking in with a low threshold for activation (i.e. bonus threshold 0.3 minutes per arrival or better). This may not induce high-level of performance per se.

4.4.7 The incentive schemes for the national targets on arrival ATFM delay are consistent with the principles of Article 15 of the charging Regulation. Strictly speaking, the schemes are not fully symmetrical, however, given the applied “dead bands” and target values an appropriate balance has been established. Neither of the States makes adjustments for certain ATFM causes.

4.5 Key points

EN-ROUTE

4.5.1 The NEFAB capacity targets are consistent with the FAB reference values for each year in RP2.

4.5.2 The Network Operations Plan 2014-2019 (June 2014 edition) shows how the NEFAB ANSPs can provide a significant positive contribution to network performance simply by implementing the existing capacity plans. Such a positive contribution could benefit airspace users within the NEFAB and other FABs in meeting the overall network target of 0.5 minutes per flight.

4.5.3 The en-route capacity performance of NEFAB ANSPs has been excellent in recent years with sufficient capacity to meet traffic requirements, and to provide a positive contribution to the network capacity performance.

AIRPORT

4.5.4 The plan sets national targets on arrival ATFM delay for all Member States. In the case of Norway no breakdown per airport is provided for each of the years of RP2.

4.5.5 The national targets are consistent with the observed historical performance. The traffic assumptions are balanced against the level of traffic at the airports.

4.5.6 For Estonia, Latvia and Finland, national targets on arrival ATFM delay are realistic and consistent with the requirements under the performance Regulation, and therefore acceptable. In the case of Norway, the national target is in line with the observed historical performance, however, the plan lacks the evidence of how each airport contributes to the national target.

4.5.7 No evidence is provided concerning the justification or anticipated benefits from planned activities that may positively influence the level of performance.

5 COST-EFFICIENCY

5.1 Estonia: Setting the scene for RP2 cost-efficiency target assessment

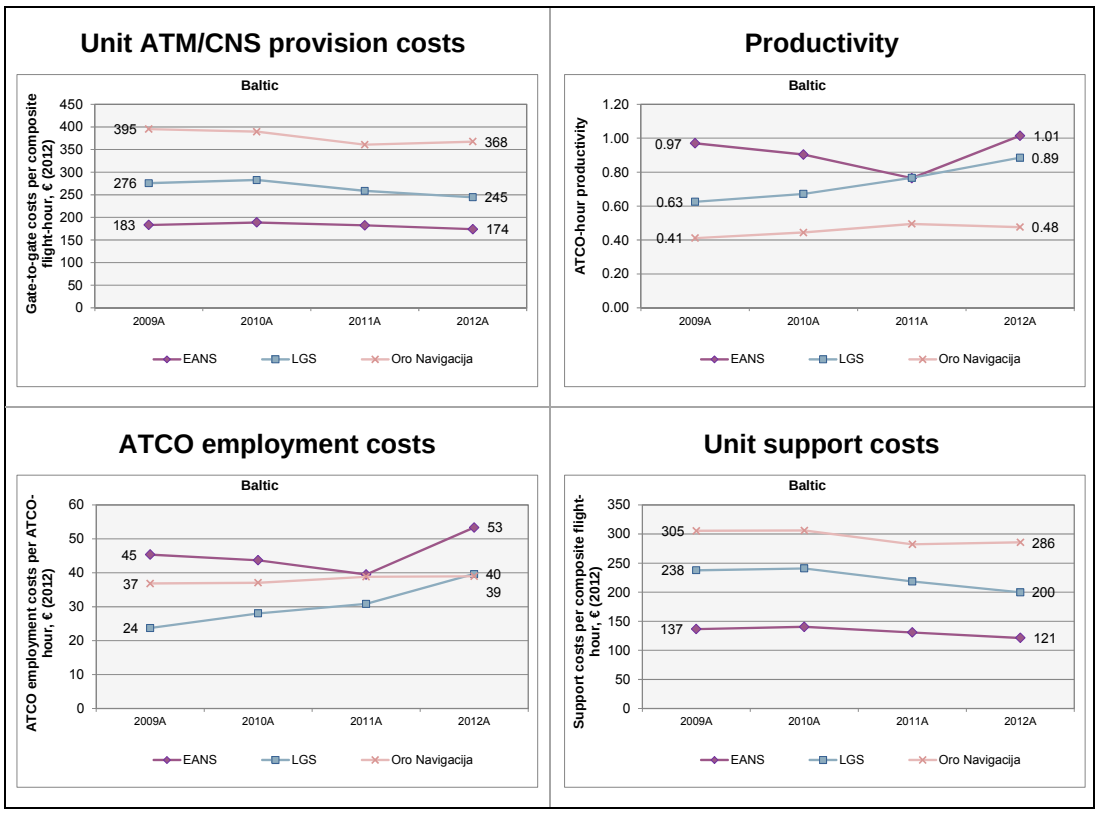
5.1.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on EANS, the main ATSP in Estonia, which represented 0.2% of the European system ATM/CNS provision costs in 2012.

5.1.2 In the ACE Benchmarking reports, ATSPs are considered in a context of a group including other ATSPs (comparators) operating in relatively similar economic and operational characteristics. EANS is part of the Baltic ATSPs comparator group, also including Oro Navigacija (Lithuania) and LGS (Latvia).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- EANS productivity (1.01) is +49.1% higher than the comparator group average (0.68);
- Employment costs per ATCO-hour (53 €$_{2012}$) are +35.7% higher than the comparator group average (39 €$_{2012}$); and,
- Support costs per composite flight-hour (121 €$_{2012}$) are -50.0% lower than the comparator group average (243 €$_{2012}$).

5.1.4 As a result, EANS unit ATM/CNS provision costs (174 €$_{2012}$) were -43.2% lower than the comparator group average in 2012 (306 €$_{2012}$).



5.1.5 The PRB 2013 monitoring analysis indicates that EANS actual en-route costs for 2013 were -7.6% lower than planned (-0.9 M€$_{2009}$). On the other hand, traffic was also lower than planned (-6.4%) causing a loss in respect of traffic risk sharing of -0.4 M€$_{2009}$. Overall, EANS generated a net gain of +0.5 M€$_{2009}$ in 2013 on the en-route activity.

5.1.6 When estimating EANS economic surplus, it is also important to account for the profit embedded in the cost of capital through the return on equity (+1.4 M€$_{2009}$). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +1.9 M€$_{2009}$, which implies an ex-post rate of return on equity of 12.2% (compared to 8.9% as initially planned in the NPP). This adds to the overall surplus generated by EANS in 2012 (+1.3 M€$_{2009}$ or +10.8% of en-route revenues in 2012, leading to an ex-post rate of return on equity of +14.4% in 2012).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	11,977	12,178
Actual costs for the ATSP	11,161	11,256
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	815	922
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**815**	**922**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-4.77%	-6.35%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-332**	**-394**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	483	**528**

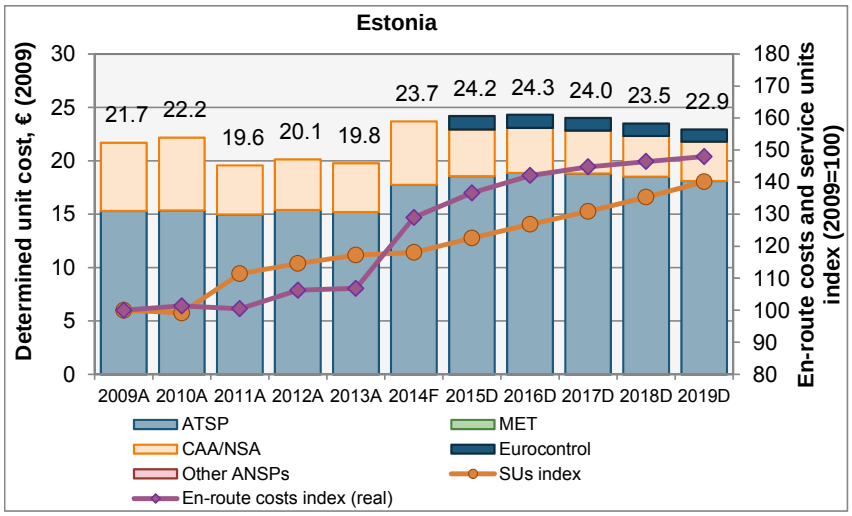
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	778	1,406
Overall estimated surplus (+/-) for the en-route activity	1,261	1,934
Revenue/costs for the en-route activity	11,644	11,784
Estimated surplus (+/-) in percent of en-route revenue/costs	**10.8%**	**16.4%**
Estimated ex-post RoE pre-taxe rate (in %)	**14.4%**	**12.2%**

Table 10: ATSP estimated surplus 2012 & 2013

5.2 Estonia: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	15.30	15.34	14.98	15.40	15.19	17.74	18.56	18.87	18.82	18.51	18.11	2.4%	0.4%
MET	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
CAA/NSA	EUR (2009)	6.40	6.83	4.59	4.71	4.58	5.95	4.37	4.21	4.00	3.81	3.68	-2.7%	-9.1%
Eurocontrol	EUR (2009)	-	-	-	-	-	-	1.26	1.22	1.19	1.16	1.12	-	-
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**21.70**	**22.17**	**19.57**	**20.11**	**19.77**	**23.70**	**24.19**	**24.30**	**24.00**	**23.48**	**22.92**	**2.0%**	**-0.7%**

Figure 13: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	13.7	14.3	14.9	16.4	17.1	21.2	23.1	24.8	26.0	27.1	28.2
Inflation rate	annual % change		3.0%	5.1%	4.2%	3.2%	2.8%	3.0%	3.1%	3.0%	3.0%	3.0%
Inflation index	2009=100	100.0	103.0	108.3	112.8	116.4	119.7	123.3	127.1	130.9	134.8	138.9
Determined costs	EUR m (2009)	13.7	13.9	13.8	14.6	14.6	17.7	18.7	19.5	19.9	20.1	20.3
Service units	'000s	632	627	704	725	741	746	775	802	827	855	886
Determined unit cost	EUR (2009)	21.70	22.17	19.57	20.11	19.77	23.70	24.19	24.30	24.00	23.48	22.92
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	21.70	22.17	19.57	20.11	19.77	23.70	24.19	24.30	24.00	23.48	22.92

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	7.5%	8.3%	5.9%	5.1%
Inflation	CAGR %	3.3%	3.2%	3.0%	3.0%
Determined costs	EUR m (2009)	4.0%	5.0%	2.8%	2.0%
Service units	'000s	3.4%	2.9%	3.5%	3.4%
Determined unit cost	EUR (2009)	0.5%	2.0%	-0.7%	-1.3%
Exchange rate					
Determined unit cost	EUR (2009)	0.5%	2.0%	-0.7%	-1.3%

Table 11: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

En-route TSU and cost forecasts provided in the RP2 Performance Plan for the year 2014 have been adjusted compared to RP1 Performance Plan:

- Total en-route costs (in nominal terms) for 2014 are expected to be +10.3% higher than the RP1 Determined Costs (DCs); and
- TSUs for 2014 are expected to be -9.6% lower than in the RP1 Performance Plan, reflecting STATFOR February 2014 base case forecast.

Because of these updates, the latest forecast for the 2014 unit cost (in €$_{2009}$) is +19.3% higher than the unit cost published in RP1 Performance Plan. This issue affects the en-route Determined Costs (DCs) and Determined Unit Costs (DUCs) trends when calculated over the 2014-2019 period, hence greater focus on the trend analysis is given to the 2011-2019 and 2015-2019 periods.

The PRB also notes that the planned 2014 DCs are +20.7% (+3.0 M€$_{2009}$) higher than the 2013 actuals, mainly due to changes in the following cost items:

- NSA costs are planned to increase by +30.9% in real terms (+1.0 M€$_{2009}$), mainly due to an increase in Other State costs.
- The ATSP other operating costs are planned to rise by +56.9% in real terms (+1.1 M€$_{2009}$).
- The ATSP staff costs are planned to rise by +12.1% in real terms (+0.8 M€$_{2009}$).

Additional Information to the en-route Reporting Tables do not provide any explanation on the drivers of the planned increases mentioned above.

Based on these preliminary considerations, the PRB recommends the Commission to request Estonia to complete the Additional Information to the en-route Reporting Tables so that full transparency can be achieved on the forecast level of costs in 2014, and the changes against 2014 DCs (and 2013 actuals) can be explained.

Key points for Estonia en-route charging zone	
1. Traffic forecast assumptions:	**Passed**
The forecast en-route TSUs are in line with STATFOR base case forecasts published in February 2014 for every year of RP2.	
2. Economic assumptions:	**Not passed**
Inflation forecasts are not equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2. Estonia has used the inflation forecasts of the Estonian Ministry of Finance, which are substantially higher than those of IMF. By 2019, the impact on the inflation index is relatively large (i.e. +3.3 index point difference). All else equal, this difference contributes to showing a better trend in the en-route DUC than if IMF forecasts had been used.	

3. En-route DUC trend:	**Not passed**

Estonia forecasts a -0.7% annual en-route DUC decrease over the 2014-2019 period, which is worse than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). The planned decrease of the DUC results from the combination of a +2.8% p.a. increase in DCs in real terms with a forecast increase in traffic of +3.5% per year. This 2014-2019 trend should be seen in the light of a 2014 starting point which is +19.3% higher than the unit cost published in RP1 Performance Plan because of the upward revision of costs and downward revision of traffic.

When looking at RP1 and RP2 combined (2011-2019) and excluding EUROCONTROL costs from Estonian DCs to ensure a consistent time series, the PRB calculates that the DUC is planned to rise by +1.4% p.a., which is significantly worse than the Union-wide target for the same period (-1.7% p.a.).

Finally, when considering the 2015-2019 period, the PRB notes that the DCs are planned to increase by +2.0% p.a. and the DUC is planned to decrease by -1.3% p.a., which worse than the Union-wide DUC target over this period (i.e. -3.5%).

At ATSP level, the changes in en-route DCs between 2011 and 2019 are mainly due to the following factors:

- Staff costs are planned to rise by +6.7% p.a. in real terms (+3.8 M€$_{2009}$). Estonia does not provide detailed information in its Performance Plan on the underlying assumptions and mainly justifies the planned increases by a relatively low starting point and pressure from the unions to get similar benefits as employees from Western Europe.
- Other operating costs are planned to rise by +5.3% p.a. in real terms (1.1 M€$_{2009}$), mainly due to a very large increase planned for the year 2014, which is not explained in the Additional Information to the en-route Reporting Tables.
- Depreciation costs are planned to rise by +5.1% p.a. in real terms (+0.8 M€$_{2009}$) and the cost of capital is planned to fall by -2.2% p.a. in real terms (-0.2 M€$_{2009}$).

4. En-route DUC level:	**Passed**

Estonia en-route DUC in 2019 is planned to amount to €22.92, which is -25.0% lower than the average of the comparator group (€30.55), and is also planned to be the lowest of the reporting States, -55.3% below the Union-wide average.

5. En-route cost of capital:	**Passed with reservations**

The Weighted Average Cost of Capital (WACC) rate used to calculate the cost of capital of EANS (typically around 8.0% over RP2) is towards the higher bound of the range of values calculated with the methodology laid down in Annex C guidance. Underlying assumptions to the calculation of the WACC are not fully transparent.

The pre-tax rate of return on equity (RoE) that will be used by EANS over RP2 amounts to 8.9% per year. Taking into account EANS capital structure and the amount of total assets used to calculate the cost of capital, the PRB calculates that over RP2 the monetary value of the aggregate RoE is +68.0% higher than the maximum traffic risk exposure for EANS.

The average asset base per SU for EANS is significantly lower than its comparators (averaging 29.5 €$_{2009}$ over RP2). On the other hand, the PRB notes that the share of current assets in the en-route asset base is higher than the Union-wide average.

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The PRB considers that the level of details provided in Annex C of the Performance Plan is not sufficient.	
7. Costs exempt from risk sharing:	**Passed**
Estonia has not reported costs exempt from risk sharing in 2012 and 2013. Estonia highlighted the following specific items for costs exempt from risk sharing for RP2: Pensions costs and interest rate on loans assumptions. No specific items were reported against each of the following items: new costs items required by law; unforeseen changes in taxation law; and international agreement**.**	

Overall consistency assessment of Estonia en-route cost-efficiency KPIs

Taking into account these key points, in particular point 4, the NEFAB Performance Plan, and in particular Estonia's en-route cost-efficiency target, is assessed as being consistent with and making an adequate contribution to the Union-wide cost-efficiency target over RP2.

However, the PRB advises the Commission to issue a Recommendation to the NEFAB to adopt a revised Performance Plan and, in particular for Estonia to revise its en-route cost-efficiency target, including, to:

a) **Provide more detailed information on the assumptions underlying the cost forecasts for the year 2014 (Additional Information 1(k)) so that full transparency can be achieved on the planned level of DCs for that year.**

b) **Provide information relating to the ATSP gearing assumptions over RP2, to clarify how the WACC is derived from the RoE and the interest rates on debt (Additional Information 1(e)) (key point 5).**

c) **Provide more detailed information on the interest costs planned over RP2 (Additional Information 4(c)) (key point 6).**

5.3 Estonia: Overview of terminal charging zones assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this terminal KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the Performance Plan, there is a single Terminal Charging Zone (TCZ) "Estonia", comprising 2 airports (Tallinn and Tartu). These airports represent 99.5% of TNSUs in Estonia.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing applies in this TCZ.

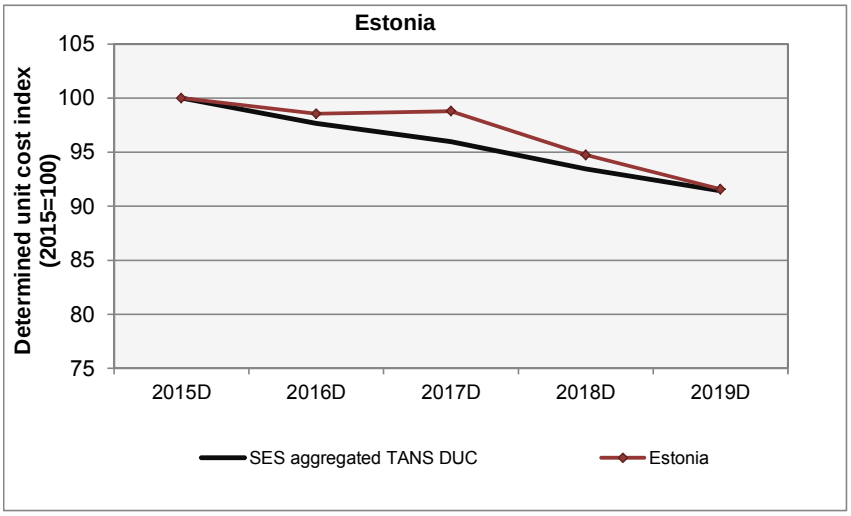


Figure 14: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	2.1	2.2	2.4	2.5	2.6	5.6%
Inflation rate *	annual % change	3.0%	3.1%	3.0%	3.0%	3.0%	3.0%
Inflation index *	2009=100	123.3	127.1	130.9	134.8	138.9	
Determined costs	EUR m (2009)	1.7	1.8	1.8	1.8	1.9	2.5%
Terminal SUs	'000s	15.4	16.6	17.2	17.7	18.6	4.8%
Determined unit cost	EUR (2009)	108.51	106.94	107.19	102.80	99.35	-2.2%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	108.51	106.94	107.19	102.80	99.35	-2.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 12: Terminal DUC breakdown

Key points for the Estonia terminal charging zone

1. Traffic forecast assumptions:	Passed

The forecast TNSUs are in line with STATFOR base case forecasts published in February 2014 for every year of RP2.

2. Economic assumptions:	**Not passed**
For the years 2015-2019, a consistent rate of inflation has been used for all charging zones, en-route and terminal. However, inflation forecasts are not equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2. See en-route assessment for more details.	
3. Terminal ANS DUC trend:	**Passed**
Over the 2015-2019 period, the profile of terminal ANS DUC (-2.2% p.a.) is in line with the SES aggregated TANS DUC trend (-2.2% p.a.).	
4. Terminal cost of capital:	**Passed with reservations**
Estonia's TCZ is subject to traffic risk sharing. The return on equity used to calculate the cost of capital of the ATSP for the TCZ is the same as for the en-route charging zone (8.9%). See the en-route assessment.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Estonia terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular point 3, the NEFAB Performance Plan, and in particular the Estonia terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

However, the PRB advises the Commission to issue a Recommendation to the NEFAB to adopt a revised Performance Plan, and in particular for Estonia to:

a) Provide the same additional information for Terminal ANS as requested for en-route ANS.

5.4 Finland: Setting the scene for RP2 cost-efficiency target assessment

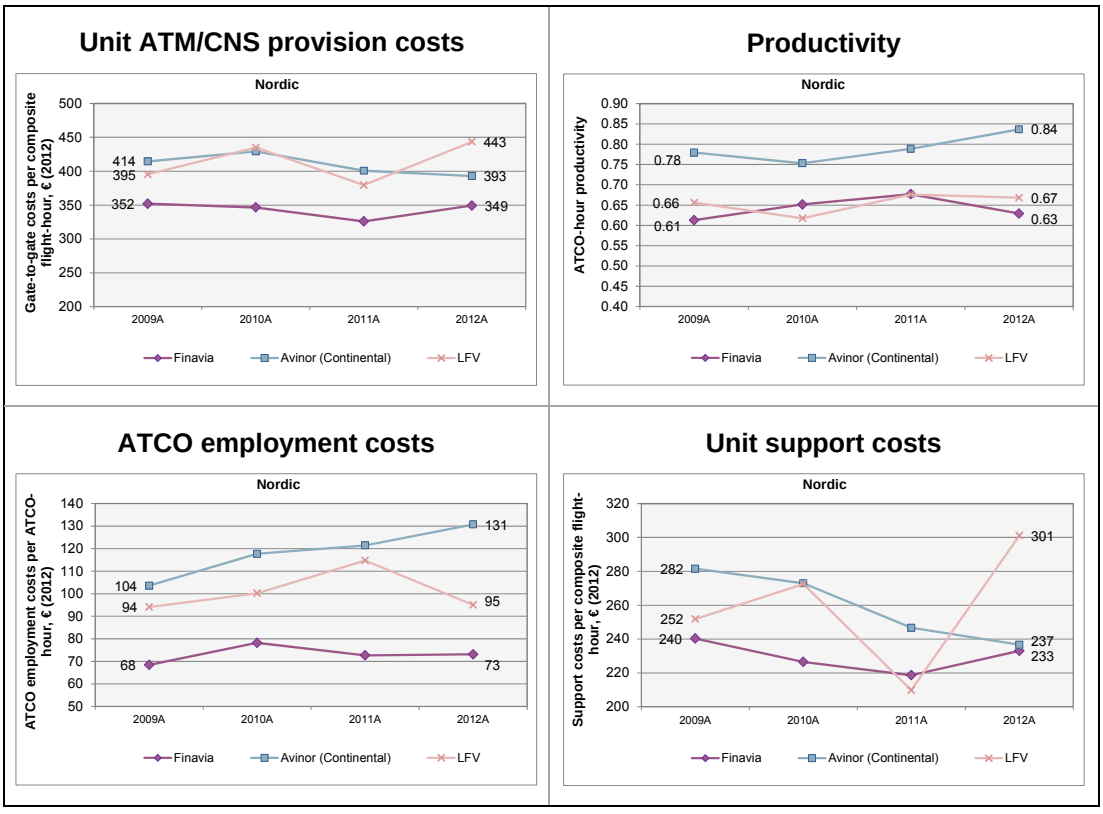
5.4.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report and from the PRB 2012 and 2013 monitoring analysis. It focuses on Finavia, the main ATSP in Finland, which represented 0.9% of the European system ATM/CNS provision costs in 2012.

5.4.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Finavia is part of the Nordic ANSPs comparator group, also including Avinor (Continental) (Norway) and LFV (Sweden).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- Finavia's productivity (0.63) is -16.6% lower than the comparator group average (0.76);
- Employment costs per ATCO-hour (73 €$_{2012}$) are -35.4% lower than the comparator group average (113 €$_{2012}$); and,
- Support costs per composite flight-hour (233 €$_{2012}$) are -13.4% lower than the comparator group average (269 €$_{2012}$).

5.4.4 As a result, Finavia's unit ATM/CNS provision costs (349 €$_{2012}$) were -16.5% lower than the comparator group average in 2012 (418 €$_{2012}$).



5.4.5 The PRB 2013 monitoring analysis indicates that Finavia's actual en-route costs for 2013 were substantially lower than planned (-2.6 M€$_{2009}$). This was more than sufficient to compensate for the impact of the lower traffic than planned (-15.2%) on Finavia's revenues. Indeed, taking into account the traffic risk sharing arrangements, Finavia generated a net gain of +1.0 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Finavia's economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity

(some +0.7 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +1.7 M€$_{2009}$, which implies an ex-post rate of return on equity of 14.3% (compared to 5.9% as initially planned in the NPP). This sharply contrasts with the small return generated by Finavia in 2012 (+0.05 M€$_{2009}$ leading to an ex-post rate of return on equity of 0.4%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	35,349	35,734
Actual costs for the ATSP	34,504	33,129
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	845	2,604
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**845**	**2,604**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-9.99%	-15.15%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-1,534**	**-1,552**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	-689	1,053

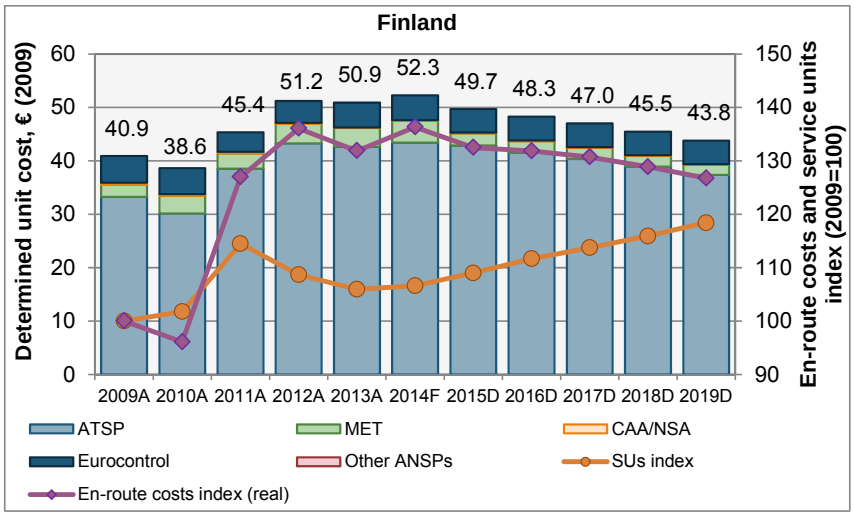
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	740	738
Overall estimated surplus (+/-) for the en-route activity	51	1,791
Revenue/costs for the en-route activity	33,815	34,182
Estimated surplus (+/-) in percent of en-route revenue/costs	**0.1%**	**5.2%**
Estimated ex-post RoE pre-taxe rate (in %)	**0.4%**	**14.3%**

Table 13: ANSP estimated surplus 2012 & 2013

5.5 Finland: Overview of en-route charging zone assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	33.30	30.14	38.55	43.28	42.60	43.42	42.89	41.54	40.35	38.92	37.36	-0.4%	-3.0%
MET	EUR (2009)	2.20	3.32	2.87	3.64	3.54	4.04	2.24	2.15	2.07	1.99	1.91	-5.0%	-13.9%
CAA/NSA	EUR (2009)	0.38	0.31	0.28	0.21	0.13	0.15	0.15	0.14	0.14	0.14	0.14	-8.4%	-1.8%
Eurocontrol	EUR (2009)	5.02	4.84	3.66	4.07	4.63	4.67	4.43	4.45	4.44	4.41	4.37	2.3%	-1.3%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**40.90**	**38.61**	**45.35**	**51.20**	**50.89**	**52.28**	**49.70**	**48.28**	**47.00**	**45.46**	**43.78**	**-0.4%**	**-3.5%**

Figure 15: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	29.7	29.1	39.7	43.9	43.4	45.7	45.1	45.6	46.1	46.4	46.5
Inflation rate	annual % change		1.7%	3.3%	3.2%	2.2%	1.7%	1.5%	1.7%	1.9%	2.0%	2.0%
Inflation index	2009=100	100.0	101.7	105.1	108.4	110.8	112.7	114.4	116.4	118.6	121.0	123.4
Determined costs	EUR m (2009)	29.7	28.6	37.8	40.5	39.2	40.5	39.4	39.2	38.9	38.3	37.7
Service units	'000s	727	740	832	790	770	775	793	812	827	843	861
Determined unit cost	EUR (2009)	40.90	38.61	45.35	51.20	50.89	52.28	49.70	48.28	47.00	45.46	43.78
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	40.90	38.61	45.35	51.20	50.89	52.28	49.70	48.28	47.00	45.46	43.78

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	4.6%	2.0%	0.4%	0.8%
Inflation	CAGR %	2.1%	2.0%	1.8%	1.9%
Determined costs	EUR m (2009)	2.4%	0.0%	-1.4%	-1.1%
Service units	'000s	1.7%	0.4%	2.1%	2.1%
Determined unit cost	EUR (2009)	0.7%	-0.4%	-3.5%	-3.1%
Exchange rate					
Determined unit cost	EUR (2009)	0.7%	-0.4%	-3.5%	-3.1%

Table 14: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The determined costs and planned TSU reported for the year 2014 in the RP2 Performance Plan have been updated. According to the supporting information to the Performance Plan:

"Finland has decided to define the starting point for ANSP's exactly as proposed by the Commission. Thus, the expected improvements in cost-efficiency for the RP2 should be measured against determined costs for 2014 adjusted by the expected effect of the traffic risk sharing. That means that the nominal starting point for 2014 is about 45,7 M€. That also means that Finland's DUC in real terms (€2009) will be 52,28 €. That is 5,81 € below Union-wide average. Although Finavia has been cutting costs in order to respond to the lower traffic volume, the traffic downturn has been so huge that actual costs are expected to be significantly higher than this starting point. For this reason costs for 2014 in this template are not forecasted actuals because they are adjusted by the expected effect of the traffic risk sharing."

As a result, the reported DCs for 2014 are materially below the RP1 NPP value (40.5 M€$_{2009}$ versus 41.9 M€$_{2009}$) and only marginally higher than 2013 in €$_{2009}$ terms (2014: 40.5 M€$_{2009}$ vs 2013: 39.2 M€$_{2009}$).

The 2014 forecast of en-route TSUs has been revised downwards by -17.5% from 940 ('000) TSUs in the RP1 NPP to 775 in the RP2 Performance Plan. As the values are based on current performance this forms a good basis for assessment of RP2 forecast performance.

Key points for Finland en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

Over the RP2 period the TSU traffic forecast in the Performance Plan is in line with the May 2014 STATFOR base case for the short-term, lying between the February 2014 low and base case for 2014 and 2015, and in line with the February 2014 base case for the long-term (2016, 2017, 2018 and 2019).

2. Economic assumptions:	**Passed**

The inflation assumptions submitted in Finland's Performance Plan over the RP2 period for the en-route cost-efficiency target are in line with the IMF average inflation forecasts.

3. En-route DUC trend:	**Passed with reservations**

Finland's planned profile for en-route DUC reduction over RP2 (-3.5% decrease between 2014 and 2019) is better than the Union-wide target (-3.3% p.a.). DC trends over the period (-1.4% pa) are lower than assumptions underpinning the Union-wide targets (-2.1% p.a).

However between 2011 and 2019 the en-route DUC trend (-1.7%) is significantly worse than the Union-wide trend (-2.5% p.a.) and similarly for 2009-2019 it is significantly worse at +0.7% than the Union-wide trend (-2.5% p.a.). This is impacted by the traffic in 2012 and 2013 being cumulatively -15% less than projected (STATFOR high case used in RP1) and the increase in costs in 2011, due to reallocation from terminal to en-route, to 38.7 M€$_{2009}$ from 28.6 M€$_{2009}$ in 2010 resulting in the trend in DUC between 2009 and 2014.

The DC in 2019 is predicted to be similar to DC in 2011 (€$_{2009}$ terms).	
4. En-route DUC level:	**Passed**
Finland's en-route DUC is planned to be 43.78 €$_{2009}$ per SU which is +0.7% higher than the average of the comparator group (excluding Finland) (43.46 €$_{2009}$) and lower than the Union-wide average. It should be noted that over the period 2015-2018 Finland's DUC is expected to be at a similar level to the comparator group average.	
5. En-route cost of capital:	**Passed**
The pre-tax Weighted Average Cost of Capital rate used to calculate Finavia's cost of capital (5.1%) is lower than the range in notional "efficient" WACC calculated by the PRB according to the methodology developed in Annex C guidance The monetary value of the return on equity ranges from 1.0 to 1.1 M€$_{2009}$ over the years of RP2 is significantly lower than the maximum risk exposure which will be borne by Finavia over RP2 (1.4-1.5 M€$_{2009}$). By 2019 Finavia's en-route asset base per service unit is forecast to be 34 €$_{2009}$. This is expected to remain slightly above the comparator group average of 33 €$_{2009}$.	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The Performance Plan should be updated with additional information supporting the value of the average cost of debt for both RP1 and RP2 contained in the AI template.	
7. Costs exempt from risk sharing:	**Passed**
The Performance Plan includes information on the costs exempt from risk sharing, using the tables in FAB template and by entity (Finavia, FMI, Finnish Transport Safety Agency), however as noted above, further information is requested to provide transparency for the basis of the average cost of debt for RP1 and RP2.	

Overall consistency of Finland's en-route cost efficiency KPIs

Taking into account these key points, in particular 1, 3, 4, and 5, Finland's en-route cost-efficiency target is assessed as being consistent with and making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2.

In addition, the PRB advises the Commission to issue a provision of information request to Finland to:

a) provide information on the underlying interest rates on loans in line with the requirements of the FAB Performance Plan template (based on key point 6).

5.6 Finland: Overview of terminal charging zones assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Finland: Helsinki. This is the only airport with more than 70,000 IFR movements and it is subject to traffic risk sharing. The number of airports included in the TCZ has not changed between 2014 and 2015.

This TCZ represents 76.9% of Terminal SUs in Finland.

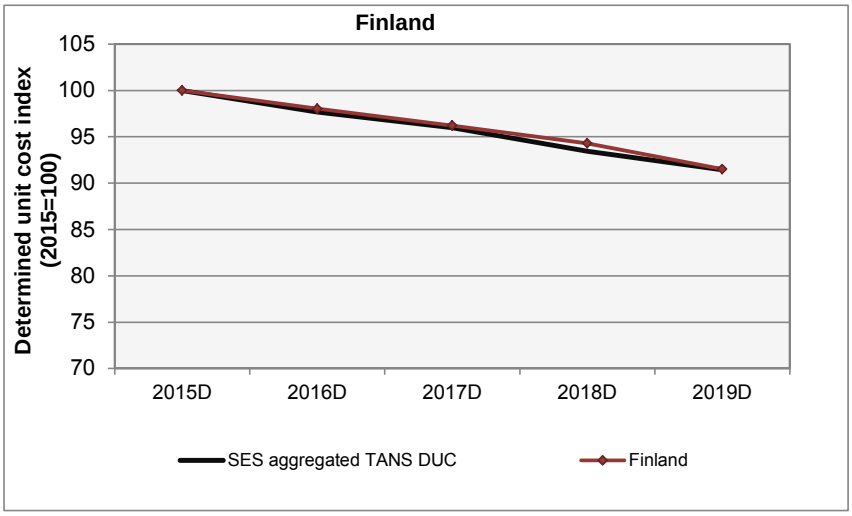


Figure 16: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	14.9	15.2	15.5	15.8	16.1	2.0%
Inflation rate *	annual % change	1.5%	1.7%	1.9%	2.0%	2.0%	1.9%
Inflation index *	2009=100	114.4	116.4	118.6	121.0	123.4	
Determined costs	EUR m (2009)	13.0	13.0	13.0	13.0	13.0	0.1%
Terminal SUs	'000s	98.7	101.0	103.0	105.1	108.3	2.3%
Determined unit cost	EUR (2009)	131.49	128.90	126.51	123.98	120.34	-2.2%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	131.49	128.90	126.51	123.98	120.34	-2.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 15: Terminal DUC breakdown

Key points for Finland's terminal charging zone

1. Traffic forecast assumptions:	Passed

Over the 2015-2019 period the traffic growth forecasts in the plan for Finland's TCZ is in the range between the STATFOR February base and low cases.

2. Economic assumptions:	**Passed**
A consistent inflation rate has been used in the Performance Plan for en-route charging and terminal charging zones.	
3. Terminal ANS DUC trend:	**Passed with reservations**
Over the 2015-2019 period, the profile of terminal ANS DUC for Finland is similar to the SES TANS aggregated DUC (-2.2%). It is also noted that Finland's annual avg. % change in local Terminal ANS DCs is worse than the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (Finland TANS +0.1%, en-route -1.1%) and the 2014-2019 period (Finland -0.6%, en-route -1.4%). There are reservations about the trend in the DC for RP2.	
4. Terminal cost of capital:	**Passed**
The RoE and WACC rates used to calculate the cost of capital for Finavia's TCZ is the same as used for the en-route charging zone.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided in the Performance Plan for the description economic assumptions is the same as for en-route. Please refer to section on economic assumptions in the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to section on cost exempt from risk sharing for RP2 in the en-route detailed assessment.	

Overall consistency of Finland's terminal ANS cost-efficiency KPI
Taking into account these key points, in particular 1, 2, 3 and 4, Finland's terminal charging zone ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation. **In addition, the PRB advises the Commission to issue a provision of information request to Finland to:** **a) provide information on the underlying interest rates on loans in line with the requirements of the FAB Performance Plan template (based on key point 5).**

5.7 Latvia: Setting the scene for RP2 cost-efficiency target assessment

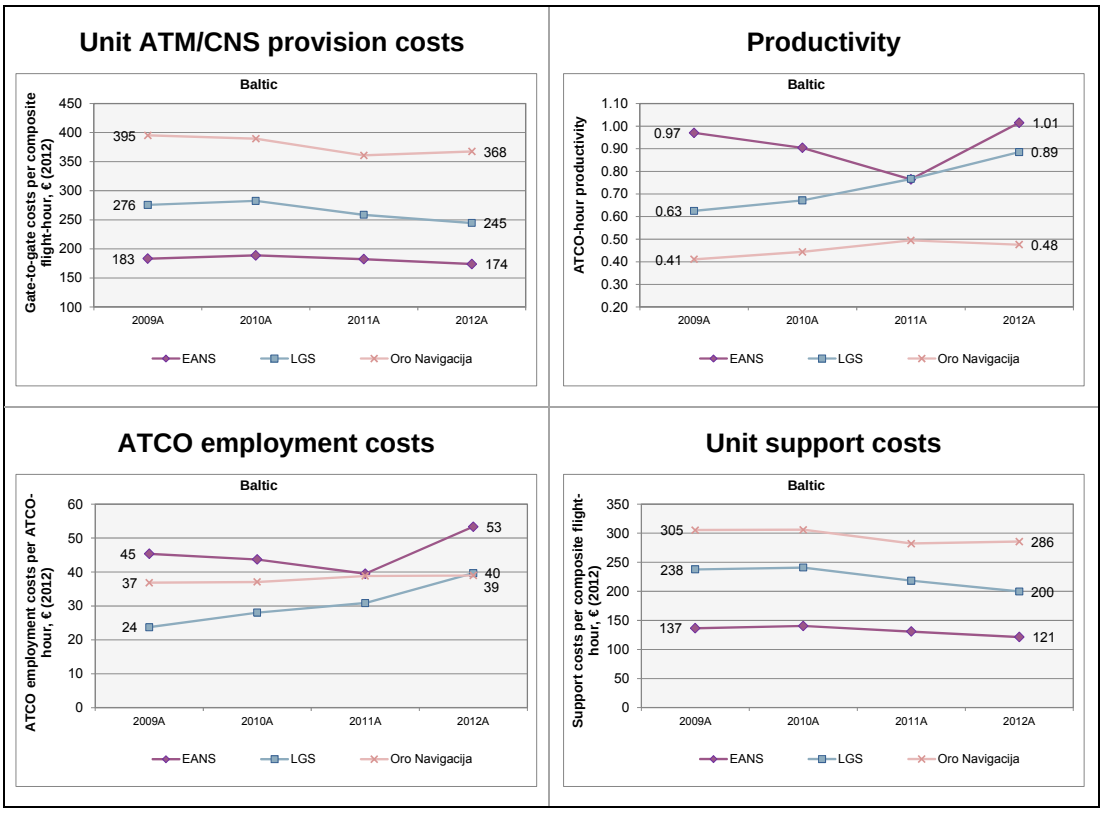
5.7.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on LGS, the main ATSP in Latvia, which represented 0.3% of the European system ATM/CNS provision costs in 2012.

5.7.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. LGS is part of the Baltic comparator group, also including EANS (Estonia) and Oro Navigacija (Lithuania).

5.7.3 The ACE 2012 benchmarking analysis shows that:

- LGS' productivity (0.89) is +18.8% higher than the comparator group average (0.75);
- Employment costs per ATCO-hour (40 €$_{2012}$) are -14.1% lower than the comparator group average (46 €$_{2012}$); and,
- Support costs per composite flight-hour (200 €$_{2012}$) are -1.8% lower than the comparator group average (204 €$_{2012}$).

5.7.4 As a result, LGS' unit ATM/CNS provision costs (245 €$_{2012}$) were -9.7% lower than the comparator group average in 2012 (271 €$_{2012}$).



5.7.5 The PRB 2013 monitoring analysis indicates that LGS actual en-route costs for 2013 were lower than planned (-0.5 M€$_{2009}$). Traffic was slightly higher than planned (+0.36%), resulting in a gain of +0.06 M€$_{2009}$ as a result of the traffic risk sharing mechanism. Indeed, taking into account the traffic risk sharing arrangements, LGS generated a net gain of +0.6 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating LGS economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (+0.9 M€$_{2009}$). As a result, the

estimated economic surplus for the en-route activity in 2013 amounts to 1.5 M€$_{2009}$, which implies an ex-post rate of return on equity of 9.7% (compared to 5.8% as initially planned in the NPP). This adds to the gains generated by LGS in 2012 (+1.3 M€$_{2009}$ or +7.4% of en-route revenues leading to an ex-post rate of return on equity of +7.8% in 2012).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	16,883	16,882
Actual costs for the ATSP	16,878	16,344
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	6	537
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**6**	**537**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	0.87%	0.36%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**147**	**62**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	153	**599**

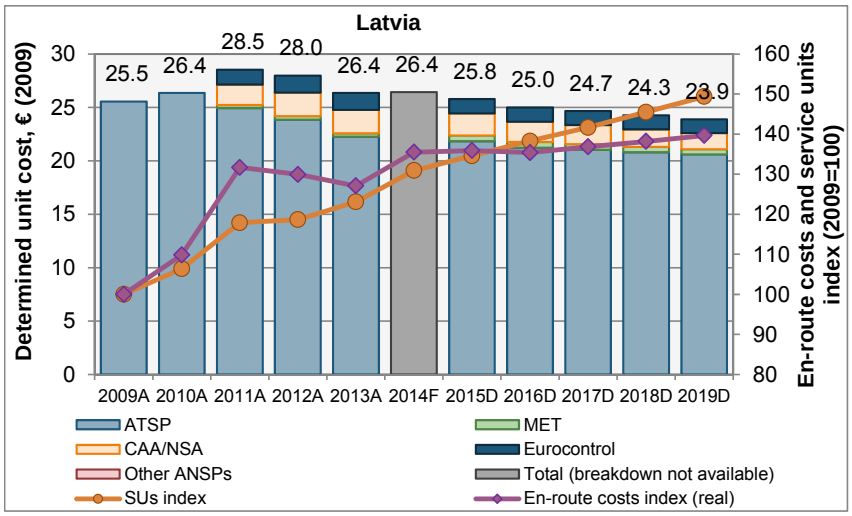
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	1,115	898
Overall estimated surplus (+/-) for the en-route activity	1,268	1,497
Revenue/costs for the en-route activity	17,030	16,943
Estimated surplus (+/-) in percent of en-route revenue/costs	**7.4%**	**8.8%**
Estimated ex-post RoE pre-taxe rate (in %)	**7.8%**	**9.7%**

Table 16: ANSP estimated surplus 2012 & 2013

5.8 Latvia: Overview of en-route charging zone assessment

5.8.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	25.54	26.37	24.95	23.87	22.28	-	21.84	21.22	21.03	20.80	20.59	-2.4%	-
MET	EUR (2009)	-	-	0.28	0.32	0.30	-	0.53	0.53	0.53	0.51	0.48	7.0%	-
CAA/NSA	EUR (2009)	-	-	1.90	2.20	2.18	-	2.07	1.92	1.79	1.65	1.53	-2.6%	-
Eurocontrol	EUR (2009)	-	-	1.40	1.59	1.60	-	1.34	1.34	1.32	1.30	1.28	-1.1%	-
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**25.54**	**26.37**	**28.53**	**27.97**	**26.36**	**26.44**	**25.79**	**25.00**	**24.67**	**24.25**	**23.88**	**-2.2%**	**-2.0%**

Figure 17: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	15.2	16.5	20.7	20.9	20.4	22.1	22.7	23.1	23.9	24.7	25.5
Inflation rate	annual % change		-1.1%	4.2%	2.3%	0.0%	1.5%	2.5%	2.3%	2.3%	2.3%	2.3%
Inflation index	2009=100	100.0	98.9	103.1	105.4	105.4	107.0	109.7	112.2	114.8	117.4	120.1
Determined costs	EUR m (2009)	15.2	16.7	20.0	19.8	19.3	20.6	20.7	20.6	20.8	21.0	21.3
Service units	'000s	596	634	702	707	734	780	802	824	844	867	890
Determined unit cost	EUR (2009)	25.54	26.37	28.53	27.97	26.36	26.44	25.79	25.00	24.67	24.25	23.88
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	25.54	26.37	28.53	27.97	26.36	26.44	25.79	25.00	24.67	24.25	23.88

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	5.3%	2.7%	3.0%	3.0%
Inflation	CAGR %	1.9%	1.9%	2.3%	2.3%
Determined costs	EUR m (2009)	3.4%	0.7%	0.6%	0.7%
Service units	'000s	4.1%	3.0%	2.7%	2.6%
Determined unit cost	EUR (2009)	-0.7%	-2.2%	-2.0%	-1.9%
Exchange rate					
Determined unit cost	EUR (2009)	-0.7%	-2.2%	-2.0%	-1.9%

Table 17: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The determined costs (DCs) and planned TSU for the year 2014 in the RP2 Performance Plan have been updated in the light of the latest traffic and cost level context.

The updated TSU forecast for 2014 is 780 ('000s), or +2.0% higher than planned in the RP1 NPP.

The updated costs forecast for 2014 is 22.1 M€, -0.7% lower than planned in the RP1 NPP, but +6.6% higher than the actual 2013 value.

Key points for Latvia en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

Forecast total en-route TSUs per en-route charging zone is equivalent to the STATFOR September 2013 base case forecast for RP2, which is slightly lower than the STATFOR February 2014 base case forecast.

2. Economic assumptions:	**Passed**

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

3. En-route DUC trend:	**Passed, with reservations**

Annual average % changes in DUCs are worse than the Union-wide target for the period 2014-2019 (-2.0% compared to -3.3% p.a.). However over the period 2011-2019, Latvia DUC is planned to reduce at -2.2% p.a., which is better than the Union-wide target (-1.7% p.a.).

Annual average percentage changes in DCs are worse than the DCs trends underpinning the Union-wide targets for all periods analysed. Over 2014-2019 Latvia plans a DCs increase of +0.6% p.a. compared to Union-wide DCs trend of -2.1%, over 2011-2019 Latvia plans +0.7% p.a. compared to -0.8%.

The DCs increases are primarily driven by staff costs, which are forecast to increase +21.3% over the period 2011-2019 (approximately +2.0 M€$_{2009}$). In the Performance Plan, Latvia states that real en-route costs in RP2 will increase slightly due to "*the need to increase staff costs due to significant differences in salary levels and other social guarantees when compared to other ANSPs in EU*".

The PRB notes that the estimated economic surplus for the en-route activity in 2013 for LGS amounts to 1.5 M€$_{2009}$, which implies an ex-post rate of return on equity of 9.7% (compared to 5.8% as initially planned in the NPP). This adds to the gains generated by LGS in 2012 (+1.3 M€$_{2009}$ or +7.4% of en-route revenues leading to an ex-post rate of return on equity of +7.8% in 2012). It does not appear that these gains have been reflected in the updated forecast for 2014 or in RP2.

4. En-route DUC level:	**Passed**
Latvia's en-route charging zone DUC level in 2019 is planned to amount to 23.88 €$_{2009}$, which is -20.6% lower than the average of the comparator group en-route charging zones excluding Latvia (30.07 €$_{2009}$), and -53.4% lower than the Union-wide average for that year. The PRB notes that despite a downwards revision of its 2014 costs, the level of the starting point for DCs in 2014 is +6.6% higher than the actual 2013 value.	
5. En-route cost of capital:	**Passed**
The Weighted Average Cost of Capital (WACC) rate used to calculate the cost of capital of LGS (6.5% - 6.6% over RP2) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values. No gearing is planned in the capital structure of the Latvian en-route ATSP (LGS) for RP2. The pre-tax rate of return on equity (RoE) that is set for LGS over RP2 is 6.6% p.a. The monetary value of the RoE for LGS decreases from 1.0 M€$_{2009}$ in 2015 to 0.8 M€$_{2009}$ in 2019, higher than the maximum traffic risk exposure which will be borne by LGS over RP2 (approximately 0.8 M€$_{2009}$ in each year of RP2). In 2015, Latvia's en-route asset base per service unit (19 €$_{2009}$) is lower than the comparator group average of ATSPs excluding Latvia (32 €$_{2009}$). This is expected to reduce over RP2 to 13 €$_{2009}$ per SU in 2019 which is -50.4% lower than the group average (27 €$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
Latvia states that there are no pension payments made to staff (only social security payments, for which no information on the rate was provided), so no assumptions of pensions costs was provided in the Performance Plan. Similarly, there are no loans planned for RP2, therefore no information on loans is required.	
7. Costs exempt from risk sharing:	**Passed**
From the information presented in the Performance Plan, it is assumed that Latvia does not consider any factors as costs exempt from risk sharing for RP2. The table in the AI section 4 (h) is either blank or refers to sections in the AI relating to pensions costs or interest rates on loans, which as described in the section above are considered to be not relevant by Latvia.	

Overall consistency assessment of Latvia's en-route cost-efficiency KPIs

Taking into account these key points, in particular 1, 2, 4, and 5, the NEFAB Performance Plan, and in particular Latvia's en-route cost-efficiency target is assessed as being consistent with, and making an adequate contribution to, the achievement of the en-route Union-wide cost-efficiency target over RP2.

However, there is a significant increase in DCs between the latest actuals in 2013 and the 2014 and 2015 forecasts, so the PRB advises the Commission to issue a recommendation to the NEFAB, in particular to Latvia, to:

a) to justify how the improvements seen in 2012 and 2013 actual costs have been considered in the planning for RP2 (based on key point 3); and

b) provide further information on the social security payments.

5.9 Latvia: Overview of terminal charging zones assessment

5.9.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Latvia for RP2.

This TCZ comprises three airports: Riga, Liepaja and Ventspils. Only Riga has close to 70,000 IFR movements per annum (RP1 average was 69,000 per annum) and the other two airports are not submitted to the Performance and Charging Regulations (according to the Performance Plan). There has been no change in the TCZ scope between 2014 and 2015.

The Latvia TCZ covers 100% of terminal traffic in Latvia.

Traffic risk sharing does not apply in this TCZ.

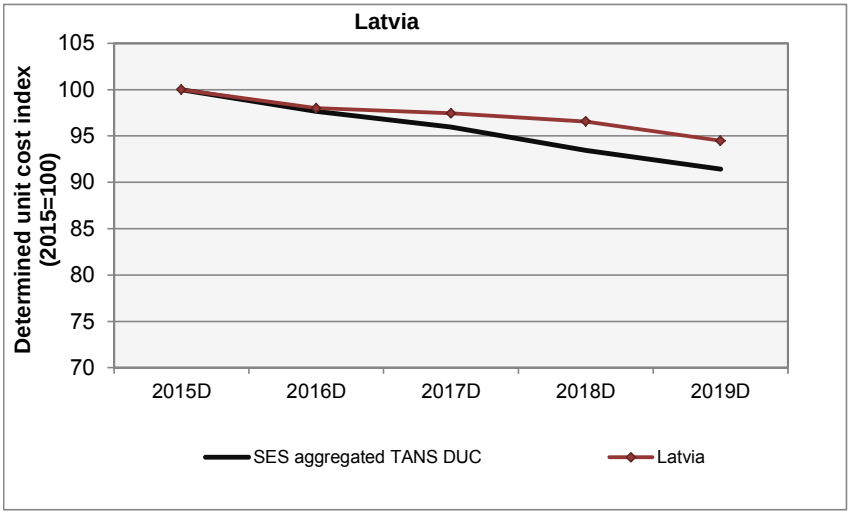


Figure 18: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	7.6	7.7	7.9	8.1	8.3	2.2%
Inflation rate *	annual % change	2.5%	2.3%	2.3%	2.3%	2.3%	2.3%
Inflation index *	2009=100	109.7	112.2	114.8	117.4	120.1	
Determined costs	EUR m (2009)	6.9	6.9	6.9	6.9	6.9	-0.1%
Terminal SUs	'000s	32.2	32.6	32.9	33.3	33.9	1.3%
Determined unit cost	EUR (2009)	214.76	210.46	209.29	207.37	202.91	-1.4%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	214.76	210.46	209.29	207.37	202.91	-1.4%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 18: Terminal DUC breakdown

Key points for Latvia's terminal charging zone	
1. Traffic forecast assumptions:	**Passed with reservation**
Forecast total Terminal Navigation Service Units (TNSUs) for the Latvia TCZ is similar to, but not equivalent to the STATFOR low case forecast published in February 2014. In 2015, the Latvian TNSU forecast is -3.3% lower than the STATFOR February 2014 low case. The Latvian forecast then increases at +1.3% p.a. over RP2 and in 2019 it is +4.3% higher than the STATFOR February 2014 low case value (the low case annual average growth over RP2 is -0.6%).	
2. Economic assumptions:	**Passed**
The inflation data provided for the Latvia TCZ is in line with the en-route assumptions and IMF forecasts for RP2.	
3. Terminal ANS DUC trend:	**Not passed**
The annual avg. % change in the Latvia Terminal ANS DUC over RP2 is -1.4% p.a., which is worse than the profile corresponding to the SES aggregated Terminal ANS DUC (-2.2% p.a.). Latvia plans an average annual decrease in its Terminal ANS DCs of -0.1% over the period 2015-2019, which is better than the profile corresponding to its en-route ANS DCs for the 2015-2019 period (+0.7% p.a.). Latvia forecast TCZ DCs in 2015 to be 6.9 M€$_{2009}$, which is +11.9% higher than 2012 actuals and +20.8% higher than 2013 actuals. This is a significantly larger proportional increase than that seen in the en-route DCs, +6.6%. It is not clear from the Performance Plan what the costs drivers for this increase are, although the PRB notes that the justification for cost category changes over RP2 is similar to that provided for the en-route cost base. The PRB notes that in 2015, Latvia plans a TANS DUC of 214.76 €, +22.8% higher than the SES aggregated TANS DUC.	
4. Terminal cost of capital:	**Passed**
The traffic risk sharing mechanism is not applied in the Latvia TCZ for RP2. The pre-tax WACC proposed for the TCZ over RP2 is lower in all years than that proposed for the en-route charging zone (Latvia plans for no gearing in its capital structure over RP2).	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Latvia's terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1 and 3, the NEFAB FAB Performance Plan, and in particular the Latvia terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation, but with reservations.

However the PRB advises the Commission to issue a recommendation to the NEFAB to adopt a revised Performance Plan, and in particular for Latvia to:

a) **Reconsider the 2015 increase seen in terminal DCs, or provide additional justifications in support of it (based on key point 3).**

5.10 Norway: Setting the scene for RP2 cost-efficiency target assessment

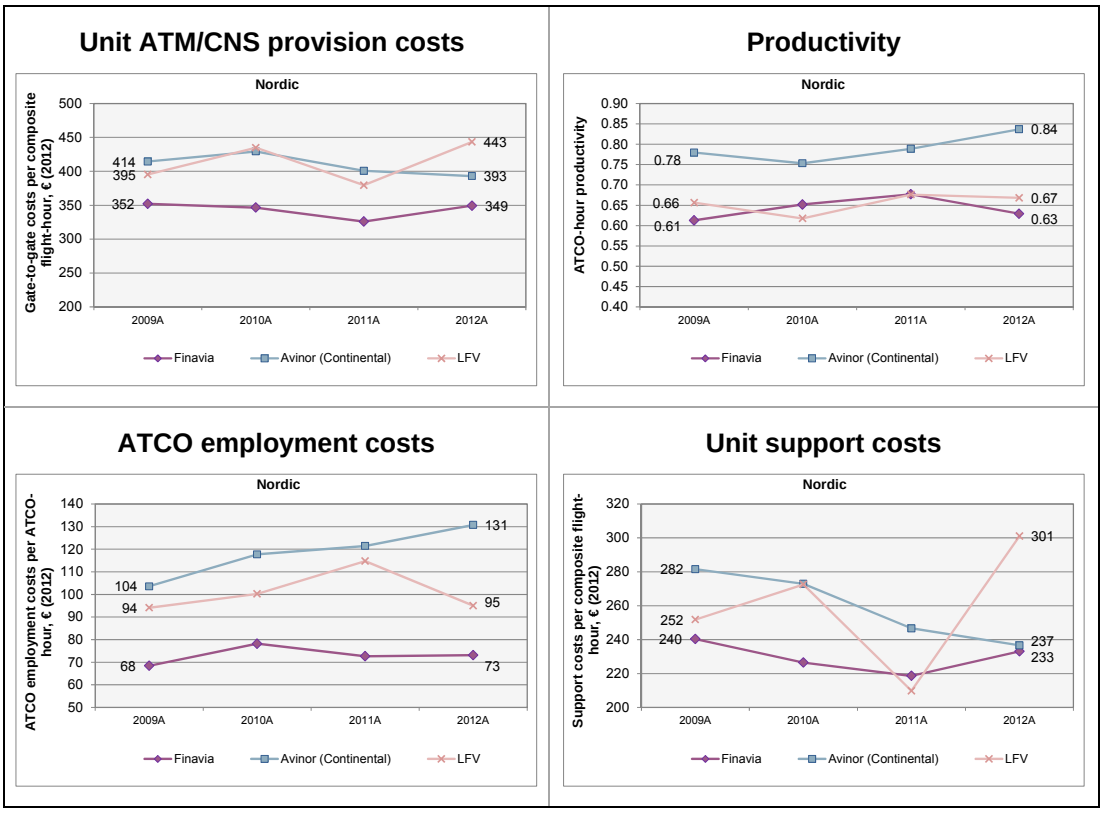
5.10.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report and from the PRB 2012 and 2013 monitoring analysis. It focuses on Avinor, the main ATSP in Norway, which represented 2.8% of the European system ATM/CNS provision costs in 2012.

5.10.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Avinor is part of the Nordic Group comparator group, also including Finavia (Finland) and LFV (Sweden).

5.10.3 The ACE 2012 benchmarking analysis shows that:

- Avinor's productivity (0.84) is +28.4% higher than the comparator group average (0.66);
- Employment costs per ATCO-hour (131 €$_{2012}$) are +56.0% higher than the comparator group average (84 €$_{2012}$); and,
- Support costs per composite flight-hour (237 €$_{2012}$) are -11.2% lower than the comparator group average (267 €$_{2012}$).

5.10.4 As a result, Avinor's unit ATM/CNS provision costs (393 €$_{2012}$) were slightly lower than the comparator group average in 2012 (396 €$_{2012}$).



5.10.5 The PRB 2013 monitoring analysis indicates that Avinor's actual en-route costs for 2013 were substantially higher than planned (+9.2 M€$_{2009}$). This was in the context of much higher traffic than planned (+14.1%) with a resultant impact on Avinor's revenues. Indeed, taking into account the traffic risk sharing arrangements, Avinor generated a net loss of -5.3 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Avinor's economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some +2.8 M€$_{2009}$ in

2013). As a result, the estimated economic loss for the en-route activity in 2013 amounts to -2.5 M€$_{2009}$, which implies an ex-post rate of return on equity of -2.7% (compared to 11.0% as initially planned in the NPP). This contrasts to the gains generated by Avinor in 2012 (+8.1 M€$_{2009}$ or 9% of en-route revenues leading to an ex-post rate of return on equity of 40.5%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	88,749	88,027
Actual costs for the ATSP	85,453	97,240
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	3,295	-9,213
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**3,295**	**-9,213**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	5.23%	14.09%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**2,667**	**3,904**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	5,963	**-5,309**

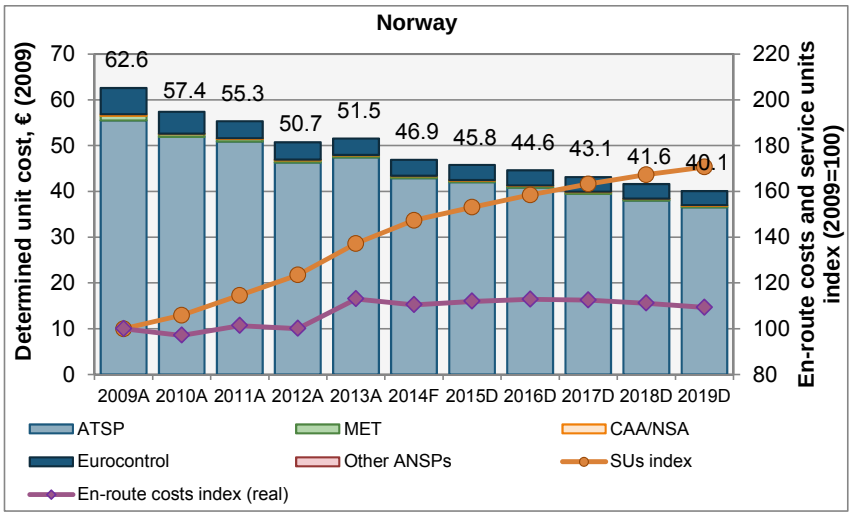
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	2,220	2,849
Overall estimated surplus (+/-) for the en-route activity	8,183	-2,460
Revenue/costs for the en-route activity	91,416	91,931
Estimated surplus (+/-) in percent of en-route revenue/costs	**9.0%**	**-2.7%**
Estimated ex-post RoE pre-taxe rate (in %)	**40.5%**	**-9.5%**

Table 19: ANSP estimated surplus 2012 & 2013

5.11 Norway: Overview of en-route charging zone assessment

5.11.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	55.51	51.87	50.88	46.30	47.41	42.87	41.98	40.84	39.47	37.97	36.52	-4.1%	-3.2%
MET	EUR (2009)	0.97	0.59	0.55	0.50	0.43	0.40	0.39	0.38	0.36	0.36	0.35	-5.5%	-2.9%
CAA/NSA	EUR (2009)	0.35	0.16	0.15	0.14	0.12	0.12	0.11	0.11	0.10	0.10	0.10	-5.3%	-2.9%
Eurocontrol	EUR (2009)	5.75	4.77	3.74	3.77	3.57	3.51	3.27	3.25	3.21	3.15	3.11	-2.3%	-2.4%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**62.58**	**57.39**	**55.33**	**50.71**	**51.54**	**46.90**	**45.76**	**44.57**	**43.14**	**41.58**	**40.08**	**-3.9%**	**-3.1%**

Figure 19: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	NOK m (nom)	816	806	851	844	972	972	1,001	1,026	1,045	1,058	1,066
Inflation rate	annual % change		1.7%	1.2%	0.4%	2.0%	2.3%	1.6%	1.7%	2.1%	2.5%	2.5%
Inflation index	2009=100	100.0	101.7	102.9	103.3	105.4	107.8	109.5	111.4	113.7	116.6	119.5
Determined costs	NOK m (2009)	816	793	827	817	923	901	914	921	918	907	892
Service units	'000s	1,495	1,583	1,713	1,846	2,051	2,202	2,288	2,368	2,439	2,500	2,550
Determined unit cost	NOK (2009)	546.20	500.94	482.90	442.61	449.82	409.33	399.35	389.05	376.54	362.93	349.83
Exchange rate	NOK:EUR	8.73										
Determined unit cost	EUR (2009)	62.58	57.39	55.33	50.71	51.54	46.90	45.76	44.57	43.14	41.58	40.08

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	NOK m (nom)	2.7%	2.9%	1.9%	1.6%
Inflation	CAGR %	1.8%	1.9%	2.1%	2.2%
Determined costs	NOK m (2009)	0.9%	0.9%	-0.2%	-0.6%
Service units	'000s	5.5%	5.1%	3.0%	2.7%
Determined unit cost	NOK (2009)	-4.4%	-3.9%	-3.1%	-3.3%
Exchange rate					
Determined unit cost	EUR (2009)	-4.4%	-3.9%	-3.1%	-3.3%

Table 20: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes
The determined costs (DCs) and planned TSUs reported for the year 2014 in the RP2 Performance Plan have been updated. Norway is predicting TSUs that are some +19.5% higher than expected in the RP1 NPP, total DCs are also predicted to be higher by +9.1% compared to the NPP. The DC is lower than in 2013 recognising the current cost base (901.3 M€$_{2009}$ in 2014 vs 922.5 M€$_{2009}$ in 2013). The 2014 starting point reflecting the current trends in costs and traffic provide a good starting point for assessing trends in RP2 projections.	

Key points for Norway's en-route charging zone	
1. Traffic forecast assumptions:	**Not passed, but reasonable**
The forecast en-route TSUs lies between the STATFOR base and high case for all years of RP2. The difference between Norway's TSU Performance Plan forecast and the STATFOR February 2014 base case ranges from between +2.0% and +3.7% p.a. The higher growth rate is justified by trends in growth in 2012, 2013 and the first eight months of 2014 and the trends between actual and forecasts observed over that period. As traffic projections are higher than the STATFOR base case, greater emphasis on comparisons using normalised traffic takes place for checks 3 and 4 below.	
2. Economic assumptions:	**Not passed**
The inflation forecasts used by Norway in RP2 are not equivalent to (within 0.1% of) IMF average inflation rate forecast published in April 2014. Instead, forecasts from Statistics Norway have been applied. As inflation projections are different to IMF, greater emphasis on comparisons using normalised inflation rates takes place for checks 3 and 4 below.	
3. En-route DUC trend:	**Passed with reservations**
Norway's planned profile of en-route DUC reduction over RP2 (-3.1%) (-2.9% normalised for traffic and inflation), is below the Union-wide target of -3.3%. Over the 2011-2019 period, benefitting from high traffic growth in the earlier years, the reduction in the DUC forecast by Norway (-3.9% pa) is significantly better than the Union-wide target (-1.7% pa). DCs are planned to reduce by -0.2% p.a. over the 2014-2019 period as compared to the assumptions underpinning the Union-wide target of -2.1% p.a. Similarly, DCs are expected to increase by +0.9% p.a. between 2011-2019 and 2009-2019 compared to the assumptions underpinning the Union-wide target of -0.8% and -1.1% respectively. All these trends over the RP1 and RP2 period need to be placed in the context of very high traffic growth, with some cost increases required to accommodate it. For RP2 there are indications in the FAB Performance Plan of organisational changes in the delivery of services within Avinor with the expected split between ANS and Airport services (confirmed by a press release on 19 June 2014 reporting that Avinor has demerged its Air	

Navigation Services Division, establishing it as a wholly owned subsidiary of Avinor).
4. En-route DUC level: **Passed**
Norway's en-route DUC in 2019 is planned to be 40.08 €$_{2009}$ per SU which is -11.5% lower than the average of the comparator group (45.31 €$_{2009}$), and lower than the Union-wide average. It should be noted that Norway's en-route DUC is expected to remain below the comparator group average over the whole 2015-2019 period.
5. En-route cost of capital: **Passed**
The pre-tax Weighted Average Cost of Capital (WACC) rate used to calculate the Avinor en-route cost of capital (7.65%) lies within (but towards the top end) the range of the calculated values in line with the methodology presented in the Annex C guidance. The monetary value of the RoE ranges from 3.8 M€$_{2009}$ to 4.0 M€$_{2009}$ over RP2 and is slightly lower than the maximum traffic risk exposure which will be borne by Avinor over RP2 (4.1 M€$_{2009}$ to 4.2 M€$_{2009}$). By 2019 Avinor's asset base per service unit is expected to be slightly higher (34 €$_{2009}$) than the comparator group average (32 €$_{2009}$).
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan: **Not passed**
The Performance Plan should be updated to reflect the requirements of the FAB Performance Plan template with respect to information about the underlying pension cost assumptions, average interest on loans, and asset base to apply to the WACC.
7. Costs exempt from risk sharing: **Passed**
Norway highlighted the following specific items for costs exempt from risk sharing for RP2: Pensions: defined benefit scheme cost assumptions, interest rate on loans assumptions, a potential change in the law related regional support which may affect remuneration for some of its staff. No specific items were reported against: unforeseen changes in taxation law and international agreements.

Overall consistency of Norway's en-route cost-efficiency KPI
Taking into account these key points, in particular 1, 3, 4, and 5, Norway's en-route cost-efficiency target is assessed as being consistent with and making an adequate contribution to the achievement of the en-route Union-wide cost-efficiency target over RP2. **In addition, the PRB advises the Commission to issue a request for information to Norway to:** **a) provide information the underlying pension costs assumptions, average interest on loans, and asset base to apply to the WACC assumptions in line with the requirements of the FAB Performance Plan template (based on key point 6).**

5.12 Norway: Overview of terminal charging zones assessment

5.12.1 The summary results of each of the checks are provided below, along with the key points for this Terminal KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in Norway's RP2 Performance Plan, there is one terminal charging zone (TCZ) for Norway, which covers four airports: Oslo, Bergen, Trondheim and Stavanger. This has remained the same definition over 2014 and 2015. The airports are subject to traffic risk sharing.

The TCZ represents 67.9% of the total Terminal SUs in Norway.

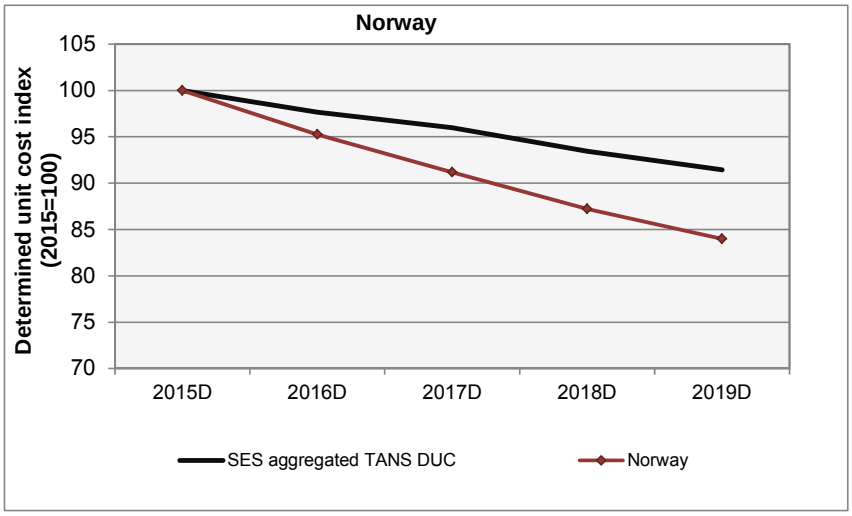


Figure 20: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	NOK m (nom)	498.0	496.0	500.8	505.6	510.3	0.6%
Inflation rate *	annual % change	1.6%	1.7%	2.1%	2.5%	2.5%	2.2%
Inflation index *	2009=100	109.5	111.4	113.7	116.6	119.5	
Determined costs	NOK m (2009)	454.6	445.2	440.3	433.6	427.0	-1.6%
Terminal SUs	'000s	260.5	267.8	276.7	284.9	291.3	2.8%
Determined unit cost	NOK (2009)	1,745.18	1,662.22	1,591.21	1,522.12	1,465.74	-4.3%
Exchange rate	NOK:EUR (2009)	8.73					
Determined unit cost	EUR (2009)	199.95	190.45	182.31	174.39	167.93	-4.3%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 21: Terminal DUC breakdown

Key points for the Norway terminal charging zone

1. Traffic forecast assumptions:	Passed

Over the 2015-2019 period, the traffic growth forecast in the Performance Plan for Norway's TCZ is within the range between the STATFOR base case and low case forecasts published in February 2014.

2. Economic assumptions:	**Not passed**
The same inflation rate has been used in the Performance Plan for the en-route and terminal charging zones. However the inflation used is not from IMF, but from Statistics Norway.	
3. Terminal ANS DUC trend:	**Passed**
Over the 2015-2019 period the profile of Norway's terminal ANS DUC (-4.3%) is better than that of the SES TANS aggregated DUC of -2.2% and, at -1.6%, the % change in Terminal ANS DCs over the 2015-2019 period is larger than that projected for en-route (-0.6%). A similar trend is found over the 2014-19 period: -1.4% for terminal ANS vs -0.2% for en-route.	
4. Terminal cost of capital:	**Passed**
The RoE and WACC used for the TCZ is the same as applied for the en-route charging zone.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The Performance Plan should be updated to reflect the requirements of the FAB Performance Plan template with respect to information about the underlying pension costs assumptions, average interest on loans, and asset base to apply to the WACC.	
6. Costs exempt from risk sharing:	**Passed**
Norway highlighted the following specific items for costs exempt from risk sharing for RP2: Pensions: defined benefit scheme cost assumptions, interest rate on loans assumptions, a potential change in the law related regional support which may affect remuneration for some of its staff. No specific items were reported against: unforeseen changes in taxation law and international agreements.	

Overall consistency assessment of Norway's terminal ANS cost-efficiency KPI

Taking into account the above key points, in particular 1, 2, 3 and 4, Norway's TCZ's terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

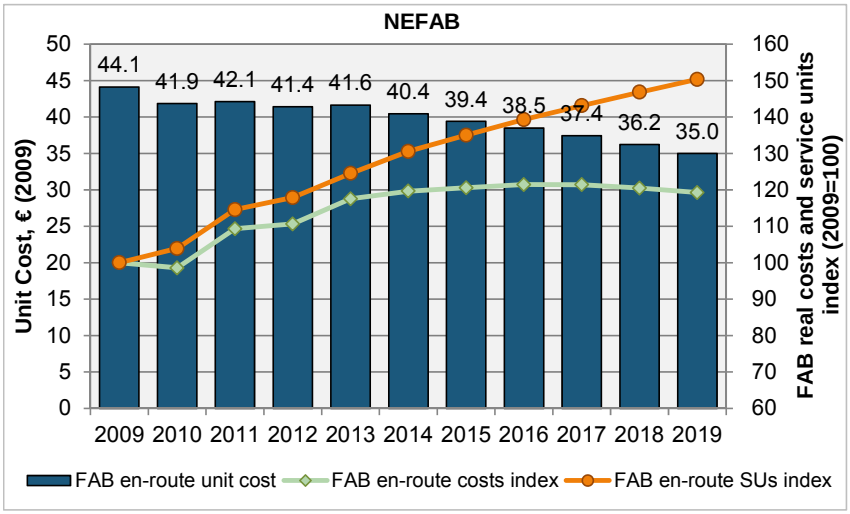
In addition, the PRB advises the Commission to issue a request for information to Norway to:

a) provide information the underlying pension costs assumptions, average interest on loans, and asset base to apply to the WACC assumptions in line with the requirements of the FAB Performance Plan template (based on key point 5); and,

b) provide further details on the costs exempt from risk sharing planned for RP2 (based on key point 6).

5.13 NEFAB: Aggregated en-route trend at FAB level

Overview



Key figures: NEFAB		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	152.2	150.0	166.3	168.4	178.9	182.1	183.5	184.8	184.8	183.4	181.4
FAB en-route service units	'000s	3,450	3,584	3,952	4,068	4,296	4,504	4,657	4,806	4,937	5,065	5,187
FAB en-route unit cost	EUR (2009)	44.12	41.87	42.09	41.40	41.64	40.44	39.40	38.46	37.42	36.20	34.98

Key figures: NEFAB CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	1.8%	1.1%	-0.1%	-0.3%
FAB en-route service units	'000s	4.2%	3.5%	2.9%	2.7%
FAB en-route unit cost	EUR (2009)	-2.3%	-2.3%	-2.9%	-2.9%

Figure 21: FAB en-route unit cost trend overview

Key points for NEFAB

Note: *the following comments on the aggregated FAB en-route trend should not be seen as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level (en-route and terminal) as for RP2 there are no FABs with a common charging zone and a single unit rate.*

Norway en-route DCs represent 57% of the total en-route costs for the NEFAB over RP2, and Finland represents 21%. The trend of the en-route unit costs aggregated at FAB level is therefore significantly impacted by Norway and Finland's contribution. Estonia and Latvia each represent approximately 11%.

In 2013, the FAB en-route costs (178.9 M€$_{2009}$) represent 3.0% of the total SES en-route costs. By 2019, FAB en-route costs (181.4 M€$_{2009}$) are planned to be 2.9%.

The en-route unit cost trend for the NEFAB over RP2 (-2.9% p.a. between 2014-2019) is worse than the Union-wide cost-efficiency target trend (-3.3%).

However, when reviewed over RP1 and RP2 combined (i.e. 2011-2019), the en-route unit cost trend for the NEFAB (-2.3% p.a.) is better than the Union-wide target (-1.7% p.a.).

In addition, the PRB notes that by 2019 NEFAB unit cost (34.98 €$_{2009}$) is -31.7% lower than the Union-wide aggregated DUC (51.26 €$_{2009}$).

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

ESTONIA

6.1.1 There are 6 planned projects described in the Performance Plan and its information and description are sufficient and complete, with however some observations:

- 5 out of the 6 projects provide links to the ATM MP or IOP Regulations. For CAPEX 1 (Communication) and CAPEX 3 (Surveillance), the information is not readable and so the completeness of the links to ATM Master Plan should be checked.
- 3 out of the 6 projects are linked to PCP ATM functionalities. Those functionalities are, however, not specified for any of the projects. Therefore it is recommended to provide the details of the applicable ATM functionality.
- The names of the CAPEX projects are too general especially on CAPEX 1, 2, 3 and 4 (Communication, Navigation, Surveillance and Data Processing respectively).
- Also, no dates of entry into operation have been provided for any of the projects.
- Finally, projects included in the 2013 ATM Master Plan reporting process such as Tallinn A-CDM project could be considered to be listed on the Performance Plan if considered as main investment.

FINLAND

6.1.2 Finavia described 8 CAPEX projects in the Performance Plan, however the information provided in the tables of Section 2 is poor in general. There is almost no description of the projects, which makes it very difficult to make a good and complete assessment. The justification of the cost, nature and contribution is almost not existent for most of the projects.

6.1.3 There is no indication of the links with the Master Plan, ESSIP objectives neither with the ATM Functionalities of the PCP. PCP needs/activities do not seem to have been fully considered when developing the investment plan. Project CAPEX 4 (Controller Pilot data link) and CAPEX 8 (FRA implementation) are related to the PCP.

LATVIA

6.1.4 There are 4 planned projects described in the Performance Plan. The information and description provided are considered barely sufficient, justifying the following observations:

- In 2 out of the 4 projects, consistent links to the ATM MP Level 2 and/or Level 3 have been provided. In the case of CAPEX 2 (Communication General) no links have been included whilst ESSIP Objective COM10 has to be considered. In the case of CAPEX 3 (A-SMGCS modernisation) the description could be improved.

Also, it is recommended to re-assess the links since the ones provided are the same than for CAPEX 4 (A-CDM) and are purely related to A-CDM.

- No links to the PCP functionalities have been provided for any of the projects. However, Tallinn airport is not in the scope of applicability according to the PCP regulations. Nevertheless, some synergies with PCP functionalities are observed and could be indicated if considered.
- Finally, no dates of entry into operation have been provided for any project.

NORWAY

6.1.5 Avinor describes 13 CAPEX projects in the Performance Plan, however the information provided in the tables of Section 2 and the investment plan provided as Annex D is in general poor. There is almost no description of the projects, which makes it very difficult to make a good and complete assessment. The justification of the cost, nature and contribution is almost not existent for most of the projects. There is however a fairly good description of the expected benefits for KPA.

6.1.6 There is no indication of the links with the ATM Master Plan, ESSIP objectives neither with the ATM Functionalities of the PCP. PCP needs/activities do not seem to have been fully considered when developing the investment plan. Only Project CAPEX 3 (FS 108 New ATM infrastructure) seems to be related with the PCP.

6.2 FAB and/or Regional dimension

FAB level project

6.2.1 Free Route Airspace implementation is reported by Avinor and Finavia as achieving synergies at FAB level**.** However no other NEFAB State reports it. The level of details for other CAPEX projects reporting synergies at FAB level does not allow a complete analysis.

6.2.2 **Finland:** Finavia reports Controller Pilot Data link as directly linked as Deployment Baseline to Key Feature "Moving from Airspace to 4D Trajectory Management". This project and CAPEX 8 (FRA implementation) are indicated as having synergies at FAB level and are joint investments. However, there is no indication of the partners participating and if there is a common procurement

6.2.3 **Norway:** Avinor also reports CAPEX 3 (FS 108 New ATM infrastructure) and CAPEX 11 (FS 500 MET General) with synergies at FAB level but the information provided is not complete enough to assess the nature of those synergies. In general, descriptions are not sufficient to make a meaningful assessment and there is no indication of any joint investment.

6.2.4 **Estonia:** EANS reports CAPEX 2 (Navigation) as being part of the NEFAB Airspace 2015 concept but it does not specify any agreement at FAB level. EANS also reports CAPEX 1, 3 and 4 (Communication, Surveillance and Data processing) as showing synergies at FAB/Regional level but no details are provided

6.2.5 **Latvia:** LGS does not report any project at FAB level.

Regional projects

6.2.6 **Norway:** Avinor reports FS 212 BOAS: OLDI connections with Iceland will be established which reduces the risk of coordination errors.

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 The planned investment average for RP2 is foreseen to be 43% higher than the average for the previous five years (planned annual average: 36.9M€$_{2009}$ per year in RP2 vs. 25.7M€$_{2009}$ updated annual average for 2010-14).

6.3.2 Planned RP2 CAPEX is higher in the first years of the period.

NEFAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	53.5	37.9	35.5	30.5	27.1	184.3	36.9

Table 22: RP2 NEFAB CAPEX

NEFAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	30.2	34.8	45.3	30.5	31.5	172.2	34.4
Total Updated Planned	24.1	21.3	24.4	21.1	37.7	128.5	25.7
U-P (M€2009, real terms)	-6.1	-13.5	-21.0	-9.3	6.2	-43.7	-8.7
U/P (%)	-20.1%	-38.8%	-46.3%	-30.7%	19.7%	-25.4%	-48.6%

Table 23: 2010-14 NEFAB CAPEX

6.3.3 This FAB level assessment does not reflect different situations at National level, as described below:

ESTONIA ANSP

6.3.4 Estonia's ANSP investments are planned to be on average 42% lower in RP2 than for the period 2010-14 (2.2 M$_{€2009}$ RP2 yearly average vs. 3.9 M$_{€2009}$ updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	**Planned**	4.1	2.1	1.7	1.7	1.5	11.2	2.2
MAIN	**Planned**	4.1	2.1	1.7	1.7	1.5	11.2	2.2
MAIN versus TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%

Table 24: RP2 Estonia ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	5.0	5.7	3.4	1.7	1.2	17.0	3.4
	Updated Plan	4.9	4.8	4.6	1.2	3.9	19.4	3.9
	U-P (M€2009, real terms)	-0.2	-0.9	1.3	-0.5	2.7	2.4	0.5
	U/P (%)	-3.5%	-16.0%	37.6%	-29.3%	229.3%	14.3%	43.6%
MAIN	Planned	5.0	5.7	1.2	1.7	1.2	14.8	3.0
	Updated Plan	4.8	4.4	1.6	0.1	2.8	13.7	2.7
	U-P (M€2009, real terms)	-0.2	-1.3	0.4	-1.6	1.6	-1.1	-0.2
	U/P (%)	-3.9%	-22.4%	32.8%	-94.9%	131.2%	-7.5%	8.5%
MAIN versus TOTAL (Planned)		100.0%	100.0%	36.9%	100.0%	100.0%	87.5%	87.4%
MAIN versus TOTAL (Updated Plan)		99.6%	92.3%	35.6%	7.1%	70.2%	70.8%	61.0%

Table 25: 2010-14 Estonia ANSP CAPEX (Actual vs. Planned)

6.3.5 All main projects planned for RP2 are linked to RP1. It is noted that for the EANS most important project, *"Data Processing (ATM systems) - Upgrade of ATM System (TAC13) and AMIE"*, 5.7M€$_{2009}$ are planned for RP2 in addition to 5.5M€$_{2009}$ already planned for RP1. It is noted that only 700k€$_{2009}$ was spent over RP1, so it is assumed that the planned amount for RP2 is a catch-up from RP1. It is a joint and common project (Free Route Airspace) foreseen to have an impact on all the 4 KPAs during RP2 and beyond.

6.3.6 Another important project in continuation of RP1 is referring to Surveillance (Tallinn Airport SMR-MLAT infrastructure and Tallinn FIR WAM system), a common project, part of "NEFAB Airspace 2015", which amounts to 1.3 M€$_{2009}$ over RP2 (in addition to 2.3M€$_{2009}$ planned for RP1). It is assumed to be a catch-up from RP1 since only 600k€$_{2009}$ is foreseen to be spent over RP1.

6.3.7 Planned commissioning dates are not provided for any of the projects. However, an increase in depreciation is foreseen for RP2 (total depreciation costs are foreseen to be 60% higher in RP2 vs. 2010-14 updated depreciation costs). Estonia has explained in this respect that "*lots of new requirements have to be fulfilled adding additional costs (Datalink, implementing rules etc.)*"[6]

6.3.8 During the consultation with stakeholders, additional qualitative details were requested as regards the planned operational dates (not detailed in the plan), depreciation timeline, allocation between en-route and terminal. It was mentioned that "*data-link is mentioned as a cost driver in RP2 though the related investment is not included in the plan.*"[7]

FINLAND ANSP

6.3.9 Finland's ANSP investments are planned to be on average 15% lower in RP2 than for the period 2010-14 (6.2M€$_{2009}$ RP2 yearly average vs. 7.3M€$_{2009}$ updated average over the past five years).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	11.3	6.9	4.6	4.2	4.1	31.1	6.2
MAIN	Planned	8.9	4.1	1.8	2.4	2.4	19.6	3.9
MAIN versus TOTAL		78.3%	59.5%	40.0%	57.4%	57.4%	62.9%	62.9%

Table 26: RP2 Finland ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	12.3	11.8	14.1	11.1	9.2	58.4	11.7
	Updated Plan	10.9	5.1	5.1	2.9	12.5	36.5	7.3
	U-P (M€2009, real terms)	-1.4	-6.7	-9.0	-8.2	3.3	-21.9	-4.4
	U/P (%)	-11.4%	-56.9%	-63.9%	-73.9%	36.2%	-37.6%	-34.0%
MAIN	Planned	12.3	10.6	7.0	6.7	3.1	39.7	7.9
	Updated Plan	10.9	5.1	4.2	2.1	6.7	28.9	5.8
	U-P (M€2009, real terms)	-1.4	-5.6	-2.8	-4.6	3.6	-10.9	-2.2
	U/P (%)	-11.4%	-52.3%	-40.3%	-69.1%	116.1%	-27.3%	-11.4%
MAIN versus TOTAL (Planned)		100.0%	90.4%	49.9%	60.7%	33.5%	68.0%	66.9%
MAIN versus TOTAL (Updated Plan)		100.0%	100.0%	82.4%	71.9%	53.1%	79.2%	81.5%

Table 27: 2010-14 Finland ANSP CAPEX (Actual vs. Planned)

6.3.10 It is observed that 6.2M€$_{2009}$ (32% from main investments) are planned for "MSSR-renewal" for several airports, in addition to 2.7M€$_{2009}$ planned for RP1. No amounts are expected to be spent over RP1, so it is assumed to be a catch-up from the previous period. "WAM/ADS-B", is also continuing from RP1, planned for 1.9M€$_{2009}$ over RP2 (in addition to 6.9M€$_{2009}$ planned for RP1). It is considered to be a catch-up from RP1 since only 1.6M€$_{2009}$ is expected to be spent over this timeframe. These projects are not joint investments, but are linked to the interoperability EU requirement.

6.3.11 "Controller Pilot Datalink" is also linked to RP1, planned for 4.6M€$_{2009}$ over RP2 in addition to 2.2M€$_{2009}$ planned in RP1. Only 1.4M€$_{2009}$ is expected to be spent in RP1, so a catch-up effect is also assumed here. It is also noted that this project will be commissioned and expected to bring benefits as of 2015. It is claimed to bring synergies at FAB level.

6.3.12 During the consultation with stakeholders, the issue about double charging for these investments was raised and also the issue about the planned lifecycle used for the depreciation calculation. FINAVIA admitted that the WAM project is delayed and they adjusted the depreciation timeline. ILS/DME is planned CAPEX for RP2.

6.3.13 For FINAVIA the percentage of main versus total investments is significantly lower for each year in RP2 than it is foreseen for 2010-14 (62.9% on average in RP2 vs. 81.5% on average for 2010-14).

6.3.14 Most of the projects are planned to be commissioned over RP2 generating an increase in depreciation in RP2 (total depreciation costs are foreseen to be 38% higher in RP2 vs. 2010-14 updated depreciation costs). It is noted that updated depreciation for 2010-14 is expected to be on average 21% lower than it was initially planned, "*because of delayed investments*".[8]

LATVIA ANSP

6.3.15 Latvia's ANSP investments are planned to be on average 49% higher in RP2 than for the period 2010-14 (5.7M€$_{2009}$ RP2 yearly average vs. 3.9M€$_{2009}$ updated average over the past five years).

6.3.16 "A-SMGCS Modernization", one important project linked to RP1, is planned for 7.7M€$_{2009}$ in addition to 800k€$_{2009}$ already spent over RP1. It is described as impacting all four KPAs. The other project linked to RP1 is "PBN Implementation Project", planned for 6M€$_{2009}$ over RP2, on top of 2.5M€$_{2009}$ planned for RP1. It is noted that only 800k€$_{2009}$ is expected to be spent over RP1, so it can be assumed to be a catch-up from RP1.

6.3.17 It is observed that 12.8M€$_{2009}$ (45% from total RP2 CAPEX) is planned for CDM, a project not shared at FAB level or with other partners and not linked to RP1 projects. The commissioning date is not provided so the impact on depreciation costs is not possible to be determined.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	5.5	5.7	5.5	5.5	6.6	28.7	5.7
MAIN	Planned	5.5	5.7	5.5	5.5	6.6	28.7	5.7
MAIN versus TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 28: RP2 Latvia ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	2.9	3.5	6.1	5.6	5.7	23.6	4.7
	Updated Plan	1.8	3.0	4.2	4.4	5.8	19.3	3.9
	U-P (M€2009, real terms)	-1.0	-0.4	-1.9	-1.1	0.1	-4.3	-0.9
	U/P (%)	-36.4%	-12.7%	-30.9%	-20.3%	2.5%	-18.4%	-19.6%
MAIN	Planned	2.7	3.2	4.4	3.1	2.6	16.0	3.2
	Updated Plan	1.8	3.0	2.0	2.3	3.0	12.1	2.4
	U-P (M€2009, real terms)	-0.8	-0.2	-2.5	-0.8	0.4	-3.9	-0.8
	U/P (%)	-31.7%	-7.6%	-55.8%	-25.6%	16.5%	-24.6%	-20.8%
MAIN versus TOTAL (Planned)		92.8%	94.0%	73.3%	55.1%	45.6%	67.8%	72.2%
MAIN versus TOTAL (Updated Plan)		99.8%	99.6%	46.9%	51.4%	51.8%	62.6%	69.9%

Table 29: 2010-14 Latvia ANSP CAPEX (Actual vs. Planned)

6.3.18 For LGS the percentage of main versus total investments is significantly higher for each year in RP2 than it was for 2010-14 (100% on average in RP2 vs 69.9% in 2010-14) as no "other" investments are foreseen over RP2.

6.3.19 During the consultation with stakeholders, it was observed that "*some of the investments reflect more opex instead of capex (PBN Implementation). On the projects for Communication (Enhance AMS capability and CDM) we expect to see further details from the underlying business case and the expected benefits."* LGS explained that PBN is a result of the national airline pressure for shortening their routes.[9]

6.3.20 Deployment dates are not provided for any of the projects. However depreciation costs are foreseen to slightly increase over RP2 in average by 0.5% due to an

increase in the asset base (see below).

6.3.21 Due to lower expenditure over 2011 - 2013, actual depreciation is 21% lower for this timeframe but it is expected to increase in 2014 (+60% actual vs. planned) due to "*ATM system upgrade that has been commissioned in late 2013."*[10]

NORWAY ANSP

6.3.22 Norway's ANSP investments are planned to be on average 112% higher in RP2 than for the period 2010-14 (22.7M€$_{2009}$ RP2 yearly average vs. 10.7M€$_{2009}$ updated average over the past five years).

6.3.23 It is noted that 55.3M€$_{2009}$ (49%) from the total RP2 CAPEX are planned for "Natcon Target Concept Implementation", a project that will extend the current life of the ATM system (including Data Link and Free route). The amounts planned for ATM systems over RP1 (35.6M€$_{2009}$) could be connected to the same project. For this project 16.5M€$_{2009}$ was spent so far (over 2012 and 2013). It is presented as a joint FAB project, meant to create Free Route Airspace across the NEFAB and Denmark-Sweden area. It is expected to impact all the 4 KPAs as of 2018.

6.3.24 During the consultation with stakeholders, IATA requested access to the CBA for the new ATM system. Avinor stated that a CBA will be performed in 2015 and users will be consulted. It was also stated that "*the costs currently in the cost base are based on experience and professional judgement*." In reference to the same project, the depreciation timeline was also considered not justifiable (10 years) but it was explained that this is in accordance with the national accounting standards.[11]

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	32.6	23.2	23.7	19.0	14.8	113.3	22.7
MAIN	Planned	32.6	23.2	23.7	19.0	14.8	113.3	22.7
MAIN versus TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 30: RP2 Norway ANSP Planned CAPEX

6.3.25 During the second reference period Avinor's main investments are also linked to the Norwegian Wide Area Multilateration (NORWAM) (18.1M€$_{2009}$) and 10.3M€$_{2009}$ for Communication, projects not linked to RP1.

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	10.0	13.9	21.8	12.1	15.4	73.2	14.6
	Updated Plan	6.6	8.4	10.4	12.6	15.4	53.5	10.7
	U-P (M€2009, real terms)	-3.4	-5.5	-11.4	0.5	0.0	-19.8	-4.0
	U/P (%)	-34.3%	-39.3%	-52.1%	3.8%	0.0%	-27.0%	-24.4%
MAIN	Planned	10.0	13.9	18.7	12.1	15.4	70.2	14.0
	Updated Plan	3.5	8.4	10.4	12.6	15.4	50.4	10.1
	U-P (M€2009, real terms)	-6.5	-5.5	-8.3	0.5	0.0	-19.8	-4.0
	U/P (%)	-64.8%	-39.3%	-44.2%	3.8%	0.0%	-28.2%	-28.9%
MAIN versus TOTAL (Planned)		100.0%	100.0%	85.9%	100.0%	100.0%	95.8%	97.2%
MAIN versus TOTAL (Updated Plan)		53.5%	100.0%	100.0%	100.0%	100.0%	94.3%	90.7%

Table 31: 2010-14 Norway ANSP CAPEX (Actual vs. Planned)

6.3.26 All projects are foreseen to be commissioned over RP2, generating an increase in depreciation by 4.1%.

6.3.27 It is noted that depreciation is foreseen to increase by 1.3% over the past five years though the actual vs. planned deprecation costs have been significantly lower (-8% for 2012, -21% for 2013 and -9% foreseen for 2014). This is due to lower levels for actual capital expenditures in 2012 generated by "*lack of project resources*" and to "*delayed capitalisation of large investments*."[12]

6.4 Total investments vs Total ANS costs

ESTONIA

6.4.1 Over RP2, on average total CAPEX is foreseen to represent 9.6% of gate-to-gate costs with a peak in 2015 (reaching 25.7%). This is due to the large amount planned for total CAPEX for this year (4.1M€$_{2009}$, 36% of total RP2 planned CAPEX), of which 2.1M€$_{2009}$ are foreseen for Estonia main project (*"Data Processing (ATM systems) - Upgrade of ATM System).*

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	25.7%	12.9%	9.9%	10.1%	8.8%	9.6%

Table 32: % RP2 Estonia ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.2 For the period 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 31.6% (vs. 27.3% planned), due to +43.6% "CAPEX effect" and -3.7% due to "Costs effect".

FINLAND

6.4.3 The percentage of total CAPEX into gate-to-gate costs for FINAVIA is foreseen to be 8.8% in average over RP2 with a peak in 2015 (22.6%). For this year (2015) we note that total CAPEX accounts for 36% from the total planned amounts for RP2, important amounts being planned for FRA, WAM and VHF radio-stations (1.9M€$_{2009}$ for each of them).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	22.6%	13.8%	9.2%	8.6%	8.6%	8.8%

Table 33: % RP2 Finland ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 16.4% (vs. 18.4% planned), due to -61.2% "CAPEX effect" and -30.1% due to "Costs effect".

LATVIA

6.4.5 The percentage of total CAPEX into gate-to-gate costs for LGS is foreseen to be 24.3% on average over RP2 with a peak in 2019 (27%) (see comment in 6.3.17).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	23.3%	24.1%	23.1%	22.7%	27.1%	24.3%

Table 34: % RP2 Latvia ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.6 For the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 16.5% (vs. 20.5% planned), due to -40.1% "CAPEX effect" and +1.1% due to "Costs effect".

NORWAY

6.4.7 The percentage of total CAPEX into gate-to-gate costs for Avinor is foreseen to be 15.6% on average over RP2, with a peak in 2015 (22%) when the CAPEX level will be very high compared to the other RP2 years (32.6M€$_{2009}$ in 2015 vs. 14.8M€$_{2009}$ in 2019).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	22.1%	15.8%	16.2%	13.2%	10.4%	13.3%

Table 35: % RP2 Norway ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.8 For the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 7.8% (vs. 8.3% planned), due to -24.4% "CAPEX effect" and -21.4% due to "Costs effect".

6.5 Ancillary assessments

6.5.1 In accordance with the Performance Regulation, additional reporting requirements were included in the RP2 Performance Plans by the States/ANSPs. This information ensures the transparency of the investment policy at ANSP level, details the impact on expected benefits per KPA and also on the synergies achieved at FAB level.

6.5.2 The information provided by the NEFAB is detailed in the table below.

Ancillary assessments	Estonia ANSP (EANS)	Finland ANSP (FINAVIA)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	All main projects planned for RP2 are linked to RP1. "Data Processing (ATM systems) - Upgrade of ATM System (TAC13) and AMIE" and Surveillance projects are assumed to be a catch-up from RP1.	Several main projects are linked to RP1, i.e. "MSSR-renewal", "Controller Pilot Datalink", and "WAM/ADS-B". All three are assumed to be a catch-up from RP1.
Overview, impact and date of expected benefits per KPA.	Most of the projects are expected to bring benefits starting with 2019. Data processing, Navigation and Communication projects are described as bringing benefits to all the 4 KPAs.	Most of the projects (except MSSR renewal) are expected to bring benefits starting with RP2.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Decision for investment is made by the EANS Supervisory Board. No CBA available. Consultation with stakeholders at FAB level – documentation provided (see details in 6.3.8).	According to ANSP Internal process, except for FAB common projects. Consultation with stakeholders at FAB level – documentation provided (see details in 6.3.12).
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Annex D not available.	Annex D provided. Finland Investment plan is broken-down only per domains (ATM, COM, DAT, NAV and SUR). Consistency assessment is not possible.

Table 36: Ancillary assessments for NEFAB – Estonia and Finland

Ancillary assessments	Latvia ANSP (LGS)	Norway ANSP (Avinor)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	"A-SMGCS Modernisation" and "PBN Implementation Project" are linked to RP1. The second one is assumed to be a catch up from RP1. Several other projects are not in continuation of RP1.	None of the projects are linked to RP1, except for "Natcon Target Concept Implementation" connected to the ATM system upgrade
Overview, impact and date of expected benefits per KPA.	Most of the projects are expected to bring benefits starting with RP2. A-SMGCS is described as having influence to an increase in revenues and a reduction in unit rates.	All projects are expected to bring benefits starting with RP2.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	The decision is taken by the LGS Board after consultation with stakeholders. Consultation with stakeholders at FAB level – documentation provided, see details in 6.3.19.	According to Avinor Management Board decision, for some projects after consultation with stakeholders. Consultation with stakeholders at FAB level – documentation provided, see details in 6.3.24.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Annex D provided, structured as the RP2 Performance Plan template.	Annex D provided, structured as the RP2 Performance Plan template.

Table 37: Ancillary assessments for NEFAB – Latvia and Norway

6.5.3 Further to the consultation meeting at FAB level with IATA and AEA, the following conclusions related to investments were drawn:

- Overall the link between planned costs for investments compared to related capacity growth is not clear;
- Further transparency is required for the investments in order to understand the relation and necessity of the investments planned;
- No Business case with CBA and NPV was provided, so "the airspace user community cannot support these investments";
- The total amount of investments planned for RP2 seems not to be "feasible" based on the experience made in RP1. "Only 50% of all investments in RP1 were realised, and already in the first year of RP2 the planned investments are higher than the total amount for RP1. […] We therefore urge PANSA to re-consider their investment plans and allocate the appropriate time for implementation."
- "We are concerned by the investments paid by the users in RP1 through depreciation and cost of capital according to the Performance Plan, which have not been realised and are now included again in RP2. This issues needs to be considered carefully and the costs excluded from the plan."
- The lack of PCP elements in the CAPEX plan is not supported;
- The asset life for many projects is "*unacceptably*" short for radars (10 years), VOR/DME, ILS/DME, VHF communication equipment and Towers (5 years).[13]

6.6 PCP Prerequisites view

PCP	ESSIP	Estonia	Finland	Latvia	Norway
AF1	ATC15	2017	2000	2017	2017
	ATC07.1	NA	2005	2015	2011
	NAV03	2013	2005	2014	2012
AF2	AOP05	2015	2012	NA	2015
	AOP04.1	2011	2011	2007	2012
	AOP04.2	2011	2017	2008	2012
AF3	AOM19	2015	2015	2016	2015
	AOM21	2015	2015	2015	2015
	ATC12	2012	2009	2008	
AF4	FCM04	NA	NA	NA	NA
	FCM05	2014	2016	2016	2015
AF5	COM09	2014	2014	2014	2014
AF6	ITY-AGDL	2015	2015	2015	2016

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 38: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: The planned investment average for RP2 is foreseen to be 43% higher than the average for the previous five years (planned annual average: 36.9M€$_{2009}$ per year in RP2 vs. 25.7M€$_{2009}$ updated annual average for 2010-14).

6.7.2 **FAB / Regional approach**: "Natcon Target Concept Implementation" is presented as a joint FAB project, meant to create Free Route Airspace across the NEFAB and Denmark-Sweden area, but this project is not mentioned in the DK-SE Performance Plan.

6.7.3 Beyond this, there is no genuine FAB approach to investment. A significant number of projects are reported as achieving synergy at FAB/Regional level, but there is no coherence in names, dates, descriptions and expected benefits from these projects.

6.7.4 The investment plans of ANSPs seem to have been developed in isolation and responding mostly to their individual needs.

6.7.5 **Consultation:** There was a documented consultation at FAB level, but no indication that the individual investment decisions for the main projects was submitted to consultation. There is no information given about the existence of CBAs.

LINK WITH MASTER PLAN

6.7.6 The main investments of Estonia and Latvia are provided with sufficient information to allow concluding that they are compatible and coherent with the ATM Master Plan requirements. They are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

6.7.7 The main investments of Finland and Norway are not linked to any ATM Master Plan requirement. It is therefore impossible to assess their eligibility for recovery through ANS charges in application of Article 6(4) of the charging Regulation.

6.7.8 Generally speaking, for all NEFAB States, the description of the main investment is too basic or general to allow for a genuine assessment. For those RP1 investments continuing in RP2, there is no clarity about a possible catch-up effect possibly generating double charging of airspace users

6.7.9 Furthermore, Finland, Latvia and Norway have not earmarked any investment with reference to the relevant ATM functionalities of the PCP. The ability for these States to deploy the required PCP technology within RP2 and the determined costs that will be approved for the period is therefore at risk.

ESTONIA

6.7.10 Estonia's ANSP investments are planned to be on average 42% lower in RP2 than for the period 2010-14.

6.7.11 All main projects planned for RP2 are linked to RP1. The EANS most important project, *"Data Processing (ATM systems) - Upgrade of ATM System (TAC13) and AMIE"* and Surveillance projects are assumed to be a catch-up from RP1.

6.7.12 Planned commissioning dates are not provided for any of the projects, though an increase in depreciation is foreseen in RP2.

6.7.13 Over RP2, on average total CAPEX is foreseen to represent 9.6% of gate-to-gate costs with a peak in 2015 (reaching 25.7%), whilst for 2010-14 it is foreseen to be 31.6%.

FINLAND

6.7.14 Finland's ANSP investments are planned to be on average 15% lower in RP2 than for the period 2010-14.

6.7.15 "MSSR-renewal" for several airports and "WAM/ADS-B" are continuing from RP1 and they are assumed to be a catch-up from RP1.

6.7.16 Most of the projects are planned to be commissioned over RP2, generating an increase in depreciation in RP2 (total depreciation costs are foreseen to be 38% higher in RP2 vs. 2010-14 updated depreciation costs). It is noted that updated depreciation for 2010-14 is expected to be on average 21% lower than it was initially planned.

6.7.17 The percentage of total CAPEX into gate-to-gate costs for FINAVIA is foreseen to be 8.8%, whilst for the 2010-2014, is foreseen to be 16.4%.

LATVIA

6.7.18 Latvia's ANSP investments are planned to be on average 49% higher in RP2 than for the period 2010-14.

6.7.19 A-SMGCS Modernization" and "PBN Implementation Project" are linked to RP1. The latter one can be assumed to be a catch-up from RP1.

6.7.20 Deployment dates are not provided for any of the projects. However, depreciation costs are foreseen to slightly increase over RP2 in average by 0.5%, whilst due to lower expenditure over 2011 - 2013, actual depreciation is 21 % lower for this timeframe but it is expected to increase in 2014.

6.7.21 The percentage of total CAPEX into gate-to-gate costs for LGS is foreseen to be 24.3% on average over RP2, whilst for the 2010-2014 it is foreseen to be 16.5%.

NORWAY

6.7.22 Norway's ANSP investments are planned to be on average 112% higher in RP2 than for the period 2010-14.

6.7.23 "Natcon Target Concept Implementation", a main project for RP2, could be in continuation of "ATM systems" from RP1.

6.7.24 All projects are foreseen to be commissioned over RP2, generating an increase in depreciation by 4.1%, whilst for the previous five years is expected to increase by 1.3%.

6.7.25 The percentage of total CAPEX into gate-to-gate costs for Avinor is foreseen to be 15.6% on average over RP2, whilst for the 2010-2014 it is foreseen to be 7.8%.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Performance Plan clearly describes which entities are responsible, at FAB and national levels, for the monitoring and reporting (including military performance) in "Section 7 - Implementation of the performance plan".

7.1.2 A description of the measures applied to monitor and report has been included.

7.1.3 There is no indication of how the situation would be addressed, in practical terms, if targets were not met during the reference period. Similarly, no information could be found regarding the detailed working arrangements between FAB and national levels, or the separate national process which should manage the implementation of the corrective measures.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 Section 5 of the NEFAB Performance Plan contained information on how the FUA legislation is implemented at the NEFAB. It also introduced several additional indicators, on military mission effectiveness, which are discussed below.

8.2 Additional indicators

8.2.1 Percentage of SUA capacity requested: This indicator is not consistent with the indicators and targets of the performance scheme.

8.2.2 Effectiveness of booking procedures: already documented in the performance Regulation and not required in Performance Plan.

8.2.3 Time planned vs time used by GAT for available SUA: This indicator is not consistent with the indicators and targets of the performance scheme.

8.2.4 Optimum SUA dimensions vs allocated SUA structure: This indicator is not consistent with the indicators and targets of the performance scheme.

8.2.5 Average allocated transit time: This indicator is not consistent with the indicators and targets of the performance scheme.

8.2.6 Percentage of SUA time released to GAT prior to the allocated start time: This indicator is not consistent with the indicators and targets of the performance scheme.

8.2.7 Released SUA time used by GAT: This indicator is not consistent with the indicators and targets of the performance scheme.

9 CONCLUSION

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, the section identifies the relevant deficient Key Performance Areas.
- In section 9.2 the PRB identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.3 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the NEFAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the NEFAB Performance Plan is consistent with and does adequately contribute to the Union-wide targets.

9.2 Compliance issues

Nevertheless, the PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.2.1 The NEFAB should harmonise the list of airports submitted to, and exempted from, the performance and charging schemes, as their current application to terminal air navigation services are not in compliance with the clarification provided by the European Commission.

9.2.2 The NEFAB should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, In particular:

- The NEFAB should clearly list the points and reasons of disagreement related to the consultation meetings held;
- The NEFAB should provide the list of invited stakeholders and the list of actual participants to all its consultation meetings;
- The NEFAB should provide the minutes for meeting #2, 3, 4, 5 and 6 as listed in the FAB Performance Plan;
- The NEFAB should provide the dates on which the material for each of the consultation meetings were sent to stakeholders.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.2.3 The NEFAB should revise the RAT methodology application target for ATM-S, as the values for ATM Ground and ATM Overall scores should be the same.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.2.4 The NEFAB should provide for Norway the breakdown per airport for the national target on arrival ATFM delay.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.2.5 Estonia should:

- provide more detailed information on the interest costs planned over RP2 in line with the requirements of the FAB Performance Plan template.
- provide clarification regarding pension costs, and whether Estonia considers these social security costs paid by EANS as being subject to cost sharing or not. If so, Estonia should amend the Performance Plan and provide the assumptions underlying such costs.

9.2.6 Finland should:

- provide information on the underlying interest rates on loans in line with the requirements of the FAB Performance Plan template.

9.2.7 Latvia should:

- provide information on the underlying social security scheme cost assumptions.

~~9.2.9~~9.2.8 Norway should:

- provide information on the underlying pension costs assumptions, the average interest on loans, and on the asset base used to compute the cost of capital.

COMPLIANCE ISSUES FOR THE INVESTMENTS

~~9.2.10~~9.2.9 Finland and Norway should provide appropriate links between their main investments and the ATM Master Plan requirements, so as to allow their eligibility for recovery through ANS charges to be assessed, in application of Article 6(4) of the charging Regulation.

COMPLIANCE ISSUES FOR THE MILITARY DIMENSION OF THE PLAN

~~9.2.11~~9.2.10 Since the additional indicators relating to Military Mission Effectiveness are not consistent with the targets and indicators of the SES performance scheme, they should be removed from the FAB Performance Plan.

9.3 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.3.1 The NEFAB has provided details of the measures put in place to monitor and report on the implementation of the Performance Plans. It should however include a description of how the situation would be addressed if targets are not reached during the reference period.

9.3.2 The NEFAB should specify, in the FAB Performance Plan, which traffic assumptions were used, and establish a clear distinction between traffic and Service Unit forecasts.

OBSERVATIONS FOR THE SAFETY KPA

9.3.3 The NEFAB should closely monitor improvements and progress in the RAT methodology severity classification.

9.3.4 The NEFAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE CAPACITY KPA

9.3.5 Although the FAB en-route capacity targets are consistent with the FAB reference values, the PRB considers the NEFAB is in a position to adopt more stringent capacity targets, and to provide a positive contribution to Network en-route Capacity performance.

9.3.6 Latvia should review the conservative target value of 0.04 minutes per arrival and the bonus activation threshold.

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.3.7 Estonia should:

- provide more detailed information on the assumptions underlying the en-route and terminal cost forecasts for the year 2014 so that full transparency can be achieved on the planned level of DCs for that year,
- provide information relating to the ATSP gearing assumptions over RP2, to clarify how the WACC is derived from the RoE and the interest rates on debt.

9.3.8 Latvia should:

- justify how the improvements seen in 2012 and 2013 actual costs have been considered in the planning for RP2;
- revise downwards 2015 terminal DCs, or provide additional justifications on the main drivers for the significant increase observed compared to 2012 actuals.

9.3.9 The NEFAB should ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

OBSERVATIONS FOR THE INVESTMENTS

9.3.10 Finland, Latvia and Norway should update the field “Common Project” with adequate reference to the proper PCP ATM functionalities.

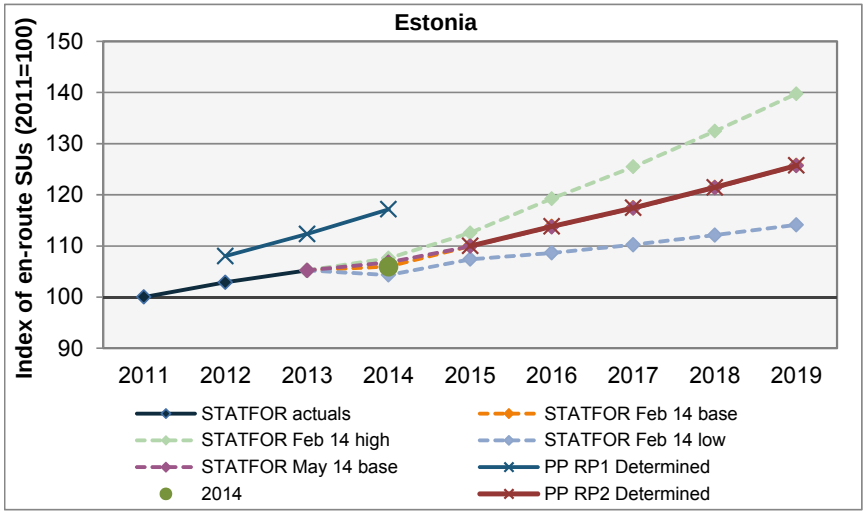
9.3.11 The NEFAB States should better describe and/or justify the cost, nature and contribution of their investments in a more detailed, less generic way, allowing proper understanding of the importance and need for such investments.

9.3.12 The NEFAB States should provide evidence of the existence of CBAs for their planned main investments.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Estonia: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		761	791	825							
Actuals, 2014, PP RP2 Determined	704	725	741	746	**775**	**802**	**827**	**855**	**886**	**2.9%**	**3.4%**
STATFOR Feb 14 base				**746**	**775**	**802**	**827**	**855**	**886**	**2.9%**	**3.4%**
STATFOR Feb 14 high				758	793	840	884	933	984	4.3%	5.6%
STATFOR Feb 14 low				735	756	765	776	790	804	1.7%	1.5%
STATFOR May 14 base				752	774	801	827	855	885	2.9%	3.4%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	0.0%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 22: En-route TSU forecasts

Comments:

The forecast en-route TSUs are in line with STATFOR base case forecasts published in February 2014 for every year of RP2.

The traffic forecast adopted by Estonia for the year 2014 (also STATFOR February 2014 base case scenario) implies a +0.7% increase in TSUs compared to 2013. This trend is significantly lower than the evolution observed to date (+4.0% for the period January to August 2014).

Based on this analysis, Estonia en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Estonia		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	4.2%	3.2%	2.8%	3.0%	3.1%	3.0%	3.0%	3.0%
Eurostat/IMF avg	annual % change		3.2%	3.2%	2.8%	2.5%	2.4%	2.3%	2.2%
Difference	p.p. difference		0.0%	-0.4%	0.2%	0.6%	0.6%	0.7%	0.8%
PP RP2	2009=100	112.8	116.4	119.7	123.3	127.1	130.9	134.8	138.9
Eurostat/IMF avg	2009=100	112.8	116.4	120.1	123.5	126.6	129.6	132.6	135.5
Difference	index difference	0.0	0.0	-0.5	-0.2	0.5	1.3	2.2	3.3

Figure 23: Economic assumptions

Comments:

Inflation forecasts are not equivalent to IMF average inflation rate forecast published in April 2014 for every year of RP2. Estonia has used the inflation forecasts of the Estonian Ministry of Finance, which are substantially higher than those of IMF. By 2019, the impact on the inflation index is relatively large (i.e. +3.3 index point difference). All else equal, this difference contributes to showing a better trend in the en-route DUC than if IMF forecasts had been used.

Based on this analysis, Estonia en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	13.7	14.3	14.9	16.4	17.1	21.2	23.1	24.8	26.0	27.1	28.2
Inflation rate	annual % change		3.0%	5.1%	4.2%	3.2%	2.8%	3.0%	3.1%	3.0%	3.0%	3.0%
Inflation index	2009=100	100.0	103.0	108.3	112.8	116.4	119.7	123.3	127.1	130.9	134.8	138.9
Determined costs	EUR m (2009)	13.7	13.9	13.8	14.6	14.6	17.7	18.7	19.5	19.9	20.1	20.3
Service units	'000s	632	627	704	725	741	746	775	802	827	855	886
Determined unit cost	EUR (2009)	21.70	22.17	19.57	20.11	19.77	23.70	24.19	24.30	24.00	23.48	22.92
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	21.70	22.17	19.57	20.11	19.77	23.70	24.19	24.30	24.00	23.48	22.92

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	7.5%	8.3%	5.9%	5.1%
Inflation	CAGR %	3.3%	3.2%	3.0%	3.0%
Determined costs	EUR m (2009)	4.0%	5.0%	2.8%	2.0%
Service units	'000s	3.4%	2.9%	3.5%	3.4%
Determined unit cost	EUR (2009)	0.5%	2.0%	-0.7%	-1.3%
Exchange rate					
Determined unit cost	EUR (2009)	0.5%	2.0%	-0.7%	-1.3%

Table 39: Determined unit cost trend

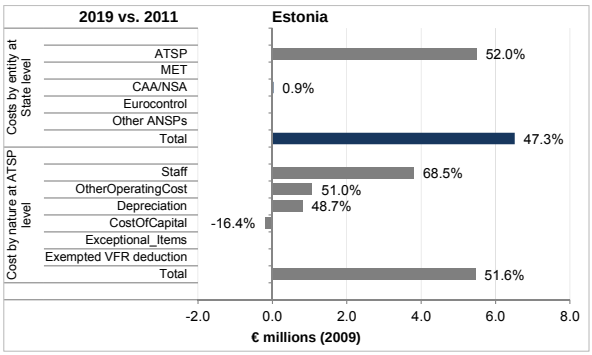


Figure 24: Planned cost category changes over RP1 and RP2

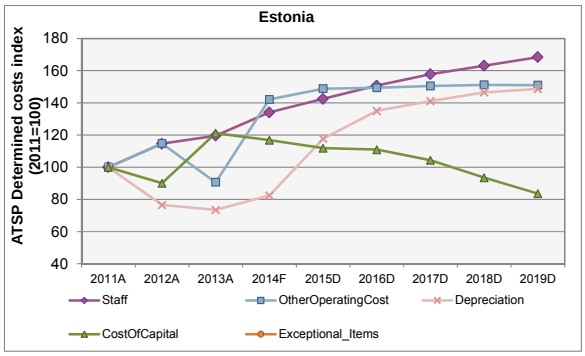


Figure 25: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Note: Due to the planned accession of Estonia to EUROCONTROL on the 1st of January 2015, the NSA DCs for RP2 include EUROCONTROL costs (some 1.0 M€2009 per year) while such costs were not comprised in Estonia DCs prior to 2015. This has a significant impact on the trend measured at State level between 2011 and 2019. Given the level of NSA Other State costs planned for the year 2014, it may be the case that Estonia reported EUROCONTROL-related costs for 2014 also. This issue deserves clarification from Estonia.

Estonia forecasts a -0.7% annual en-route DUC decrease over the 2014-2019 period, which is worse than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). The planned decrease of the DUC results from the combination of a +2.8% p.a. increase in DCs in real terms with a forecast increase in traffic of +3.5% per year. This 2014-2019 trend should be seen in the light of a 2014 starting point which is +19.3% higher than the unit cost published in RP1 Performance Plan because of the upward revision of costs and downward revision of traffic.

The planned 2014 DCs are also +20.7% (+3.0 M€2009) higher than the 2013 actuals, mainly due to changes in the ATSP costs (not including EUROCONTROL costs) and the NSA costs. Annex C of the Performance Plan does not provide any explanation on the drivers of these planned increases.

When looking at RP1 and RP2 combined (2011-2019) and excluding EUROCONTROL costs from Estonian DCs to ensure a consistent time series, the PRB calculates that the DUC is planned to rise by +1.4% p.a., which is significantly worse than the Union-wide target for the same period (-1.7% p.a.). The trend in DCs between 2011 and 2019 (excluding EUROCONTROL costs) is +4.3% p.a. which is also significantly worse than the expected Union-wide trends (-0.8% over 2011-2019). This trend is mainly driven by changes in the ATSP (EANS) DCs.

Finally, when considering the 2015-2019 period, the PRB notes that the DCs are planned to increase by +2.0% p.a. and the DUC is planned to decrease by -1.3% p.a., which worse than the Union-wide DUC target over this period (i.e. -3.5% p.a.).

The 2014 starting point for RP2 and the cost base increase for Estonia are highlighted by airspace users as a concern.

At ATSP level, the increase in the en-route DUC planned over 2011-2019 (+2.4% p.a.) is due to the fact that DCs are planned to rise by +5.4% p.a. while TSUs are forecast to increase by +2.9% p.a. The changes in en-route DCs between 2011 and 2019 are mainly due to the following factors:

- Staff costs are planned to rise by +6.7% p.a. in real terms (+3.8 M€2009 over RP1 and RP2 combined). Estonia does not provide detailed information in its Performance

Plan on the underlying assumptions (e.g. no distinction between changes in staff number and average employment costs) and mainly justifies the planned increases by a relatively low starting point and pressure from the unions to get similar benefits as employees from Western Europe. The PRB notes, however, that the planned increase for EANS staff costs (+68% between 2011 and 2019) is much higher than LGS (Latvia) and Oro Navigacija (Lithuania), +21% and +19% respectively, although these two ATSPs operate in a similar economic environment and had quite similar average employment costs in 2011.

- Other operating costs are planned to rise by +5.3% p.a. in real terms (1.1 M€$_{2009}$ over RP1 and RP2 combined). This is mainly due to a very large increase planned for the year 2014, which is not explained in the Additional Information to the en-route Reporting Tables. From 2014 onwards, other operating costs are planned to rise by +1.3% p.a. in real terms. According to the information provided in the Performance Plan, changes in other operating costs are mainly driven by inflation and by new costs arising from fulfilment of implementing rules.
- Depreciation costs are planned to rise by +5.1% p.a. in real terms (+0.8 M€$_{2009}$ over RP1 and RP2 combined), mainly due to a large increase (+42.8%) between 2014 and 2015. It is understood from the Performance Plan that the implementation of "Datalink" in 2015 is the main driver for this increase.
- The cost of capital is planned to fall by -2.2% p.a. in real terms (-0.2 M€$_{2009}$ over RP1 and RP2 combined).

For RP2, there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within EANS or in collaboration with other ATSPs.

The PRB 2013 monitoring analysis indicates that EANS actual en-route costs for 2013 were -7.6% lower than planned (-0.9 M€$_{2009}$). On the other hand, traffic was also lower than planned (-6.4%) causing a loss in respect of traffic risk sharing of -0.4 M€$_{2009}$. Overall, EANS generated a net gain of +0.5 M€$_{2009}$ in 2013 on the en-route activity.

When estimating EANS economic surplus, it is also important to account for the profit embedded in the cost of capital through the return on equity (+1.4 M€$_{2009}$). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +1.9 M€$_{2009}$, which implies an ex-post rate of return on equity of 12.2% (compared to 8.9% as initially planned in the NPP). This adds to the overall surplus generated by EANS in 2012 (+1.3 M€$_{2009}$ or +10.8% of en-route revenues in 2012, leading to an ex-post rate of return on equity of +14.4% in 2012).

Based on this analysis, Estonia en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

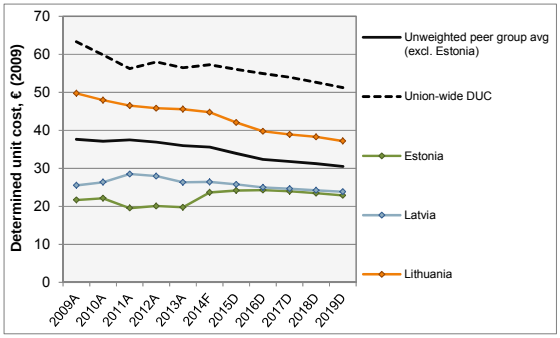


Figure 26: Determined unit cost level

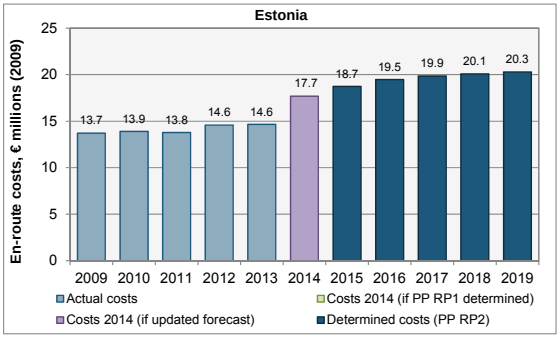


Figure 27: Determined costs 2009-2019

Comments:

Estonia en-route DUC in 2019 is planned to amount to 22.92 €$_{2009}$, which is -25.0% lower than the average of the comparator group (30.55 €$_{2009}$) and is also planned to be the lowest of the SES States, -55.3% below the Union-wide average.

Nevertheless, the gap is planned to gradually decrease over RP1 and RP2 (from -47.9% in 2011 to -25.0% in 2019).

Finally, the planned trend in Estonia's DUC over the 2011-2019 period (+1.4% p.a. after excluding the EUROCONTROL costs planned for 2019) is worse than the comparator group average (-2.5% p.a.).

Based on this analysis, Estonia en-route charging zone is assessed as passing this check.

Cost of Capital

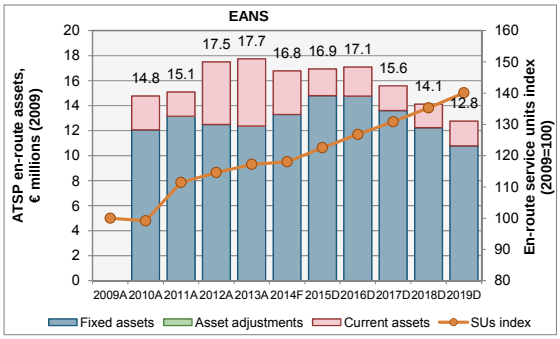


Figure 28: Breakdown of ATSP en-route asset base (2009-2019)

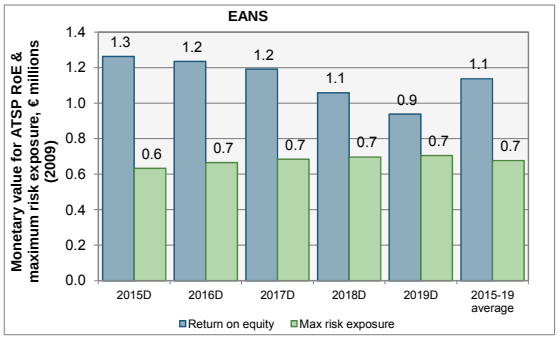


Figure 29: ATSP RoE vs maximum traffic risk exposure

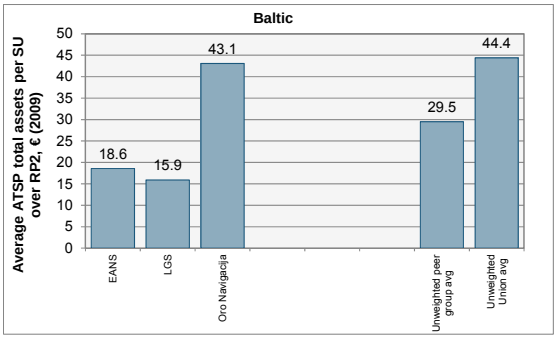


Figure 30: Average en-route asset base per SU over RP2

Comments:

The WACC rate used to calculate the cost of capital of EANS (typically around 8.0% over RP2) is towards the higher bound of the range of values calculated with the methodology laid down in Annex C guidance.

The pre-tax rate of return on equity (RoE) that will be used by EANS over RP2 amounts to 8.9% per year. Taking into account EANS capital structure and the amount of total assets used to calculate the cost of capital allows to compute the monetary value of the RoE which ranges between 0.9 M€$_{2009}$ and 1.3 M€$_{2009}$ per year over RP2. This is higher than the maximum traffic risk exposure which will be borne by EANS over RP2 (some 0.7 M€$_{2009}$ per year). Over RP2, the PRB calculates that the monetary value of the aggregate RoE is +68.0% higher than the maximum traffic risk exposure for EANS. When considering this coverage of the traffic risk, it is important to remember that Estonia used STATFOR base case traffic forecasts.

In the Additional Information to the Reporting Tables, Estonia explains that the State decided to cap the RoE at 8.9%, although an estimate of 9.96% had been calculated in first instance.

The average asset base per SU for EANS is significantly lower than its comparators (averaging 29.5 €$_{2009}$ over RP2). On the other hand, the PRB notes that the share of current assets in the en-route asset base is higher than the Union-wide average.

Based on this analysis, Estonia en-route charging zone is assessed as passing this check with reservations.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan indicates that pension costs are part of social security taxes (33%) included in the staff costs but does not provide information about the underlying pension costs assumptions (annual amounts and % contribution rate relating to pensions as part of social security costs).

Since the Performance Plan indicates that the provision of information relating to pension costs is not applicable to Estonia, it is understood that these costs we will not be treated as costs exempt from cost-sharing.

The Performance Plan indicates that the interest rate of existing loans is 3.65% and that a

similar rate is assumed for future loans. However, Estonia does not report information according to the Performance Plan template and no information is available for the annual amounts of debt and interest costs. The rate of 3.65% is consistent with the information reported in the Reporting Tables for the calculation of the WACC.

The Performance Plan mentions that EANS applies IAS and does not mention any adjustments beyond IAS.

As a general comment, the PRB considers that the level of details provided in the Additional Information to the en-route Reporting Tables is not sufficient.

Based on this analysis, Estonia en-route charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Estonia has not reported costs exempt from risk sharing in 2012 and 2013. Estonia highlighted the following specific items for costs exempt from risk sharing for RP2: Pensions costs and interest rate on loans assumptions. No specific items were reported against each of the following items: new costs items required by law; unforeseen changes in taxation law; and international agreement. **Based on this analysis, Estonia's en-route charging zone is assessed as passing this check.**

Estonia: Assessment of terminal charging zones

Overview of terminal charging zones in Estonia:

Based on the information provided in the Performance Plan, there is a single Terminal Charging Zone (TCZ) "Estonia", comprising 2 airports (Tallinn and Tartu). These airports represent 99.5% of TNSUs in Estonia.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing applies in this TCZ.

Traffic forecast assumptions

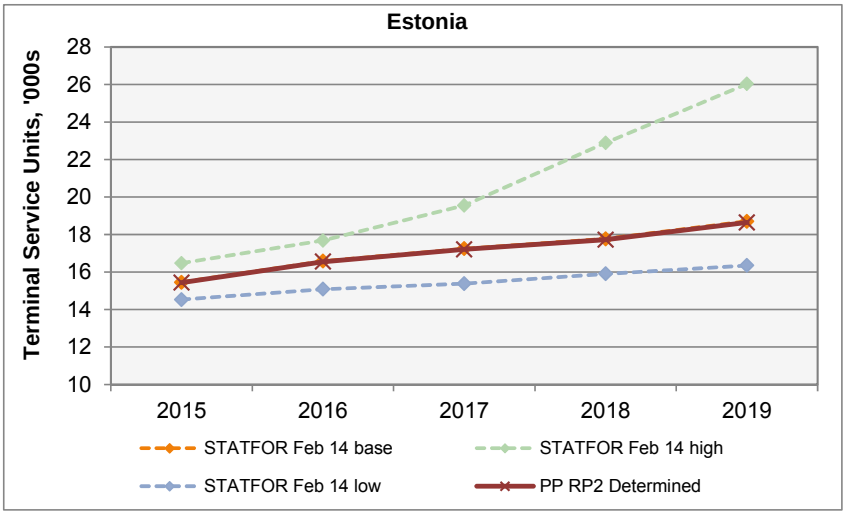


Figure 31: TNSU forecast 2015-2019

The forecast TNSUs are in line with STATFOR base case forecasts published in February 2014 for every year of RP2.

Based on this analysis, Estonia TCZ is assessed as passing this check.

Economic assumptions

For the years 2015-2019, a consistent rate of inflation has been used for all charging zones, en-route and terminal. See en-route assessment for more details.

Based on this analysis, Estonia TCZ is assessed as not passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

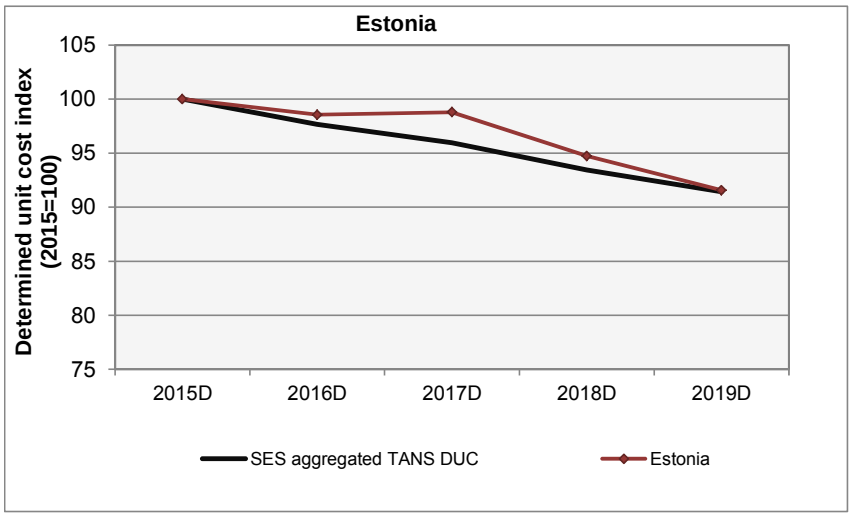


Figure 32: Terminal DUC index, 2015-2019

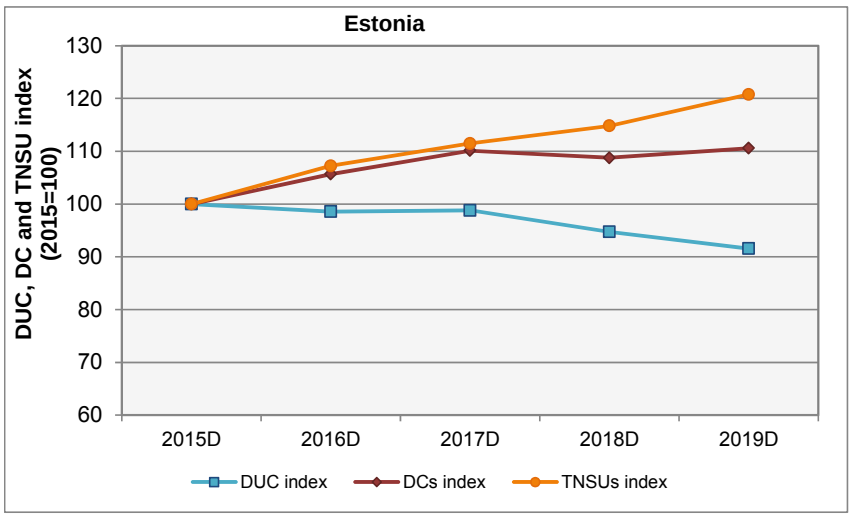


Figure 33: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Estonia		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	2.1	2.2	2.4	2.5	2.6	5.6%
Inflation rate	annual % change	3.0%	3.1%	3.0%	3.0%	3.0%	3.0%
Inflation index	2009=100	123.3	127.1	130.9	134.8	138.9	
Determined costs	EUR m (2009)	1.7	1.8	1.8	1.8	1.9	2.5%
Terminal service units	'000s	15	17	17	18	19	4.8%
Determined unit cost	EUR (2009)	108.51	106.94	107.19	102.80	99.35	-2.2%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	108.51	106.94	107.19	102.80	99.35	-2.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 40: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC (-2.2% p.a.) is in line with the SES aggregated DUC trend (-2.2% p.a.).

Estonia's terminal DCs are planned to increase by +2.5% p.a. between 2015 and 2019, which is worse than the average % increase of Estonia's en-route ANS DCs over the same period (+2.0% p.a.).

It is also noted that there is significant volatility in the TANS DCs since the level of 2015 DCs is +19% higher than the 2014 forecast, but -6% lower than 2013 actuals.

Based on this analysis, Estonia TCZ is assessed as passing this check.

Cost of Capital

Estonia's TCZ is subject to traffic risk sharing. The return on equity used to calculate the cost of capital of the ATSP for the TCZ is the same as for the en-route charging zone (8.9%).

On the other hand, the WACC used to calculate the cost of capital for terminal ANS (7% on average) is lower than that used to calculate the en-route cost of capital for EANS. Since the same interests rates on debts and the RoE are reported, this implies that a different implicit gearing assumption is used for terminal ANS.

Based on this analysis, Estonia TCZ is assessed as passing this check with reservations.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Estonia's TCZ is assessed not as passing this check.

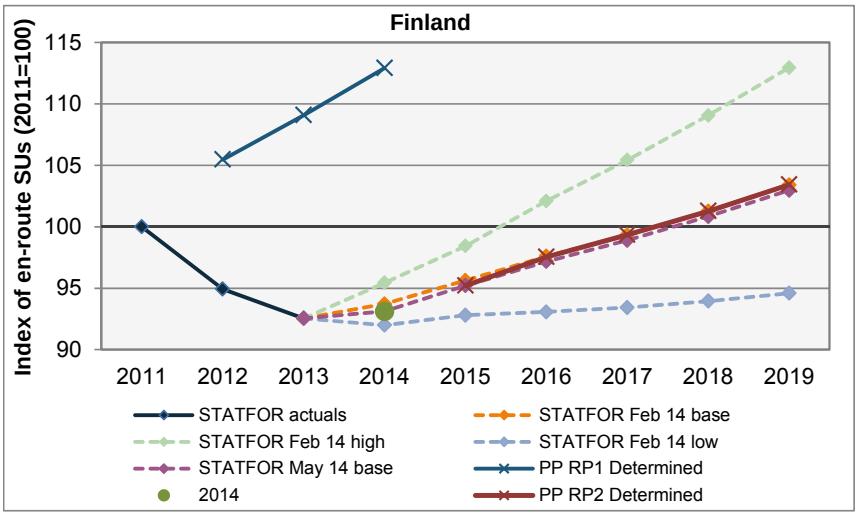
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Estonia's TCZ is assessed as passing this check.

Finland: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		878	908	940							
Actuals, 2014, PP RP2 Determined	832	790	770	775	**793**	**812**	**827**	**843**	**861**	**0.4%**	**2.1%**
STATFOR Feb 14 base				**780**	**796**	**812**	**827**	**843**	**861**	**0.4%**	**2.0%**
STATFOR Feb 14 high				795	820	850	878	908	940	1.5%	3.5%
STATFOR Feb 14 low				766	773	775	778	782	787	-0.7%	0.5%
STATFOR May 14 base				775	793	809	823	839	857	0.4%	2.0%
PP RP2 vs STATFOR Feb 14 base (%)					-0.4%	-0.1%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 34: En-route TSU forecasts

Comments:

The forecast total en-route TSUs per en-route charging zone are in the range between the STATFOR low and base case forecasts published in February 2014, for every year 2015-2019.

Finland has used the short-term May 2014 base case forecast, which for Finland has a projection which is between the February 2014 low and base case for 2014 and 2015. For the long-term forecast (2016, 2017, 2018 and 2019) Finland has used the February 2014 base case.

For the first eight months of 2014, there has been a +1.8% growth in TSUs compared to 2013, this is better than forecast by STATFOR, but not by a large margin.

By 2014 Finland expects to be -17.5% compared to the RP1 Performance Plan. This is in part due to Finland's RP1 NPP using the STATFOR high case but also due to the poor economic performance of Finland and a number of failures of airlines based in Finland and reduction in routes flying to other parts of Europe.

Based on this analysis, Finland's en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Finland		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	3.2%	2.2%	1.7%	1.5%	1.7%	1.9%	2.0%	2.0%
Eurostat/IMF avg	annual % change		2.2%	1.7%	1.5%	1.7%	1.9%	2.0%	2.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	108.4	110.8	112.7	114.4	116.4	118.6	121.0	123.4
Eurostat/IMF avg	2009=100	108.4	110.8	112.7	114.4	116.4	118.6	121.0	123.4
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 35: Economic assumptions

Comments:

The inflation forecasts used by Finland are equivalent to the IMF average inflation rate forecast published in April 2014 for every year 2014-19 and equivalent to EUROSTAT HICP for 2013.

Based on this analysis, Finland's en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	29.7	29.1	39.7	43.9	43.4	45.7	45.1	45.6	46.1	46.4	46.5
Inflation rate	annual % change		1.7%	3.3%	3.2%	2.2%	1.7%	1.5%	1.7%	1.9%	2.0%	2.0%
Inflation index	2009=100	100.0	101.7	105.1	108.4	110.8	112.7	114.4	116.4	118.6	121.0	123.4
Determined costs	EUR m (2009)	29.7	28.6	37.8	40.5	39.2	40.5	39.4	39.2	38.9	38.3	37.7
Service units	'000s	727	740	832	790	770	775	793	812	827	843	861
Determined unit cost	EUR (2009)	40.90	38.61	45.35	51.20	50.89	52.28	49.70	48.28	47.00	45.46	43.78
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	40.90	38.61	45.35	51.20	50.89	52.28	49.70	48.28	47.00	45.46	43.78

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	4.6%	2.0%	0.4%	0.8%
Inflation	CAGR %	2.1%	2.0%	1.8%	1.9%
Determined costs	EUR m (2009)	2.4%	0.0%	-1.4%	-1.1%
Service units	'000s	1.7%	0.4%	2.1%	2.1%
Determined unit cost	EUR (2009)	0.7%	-0.4%	-3.5%	-3.1%
Exchange rate					
Determined unit cost	EUR (2009)	0.7%	-0.4%	-3.5%	-3.1%

Table 41: Determined unit cost trend

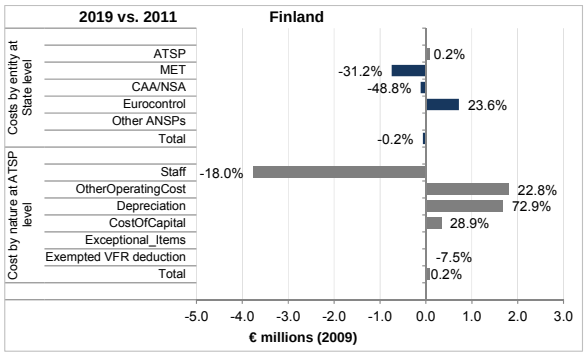


Figure 36: Planned cost category changes over RP1 and RP2

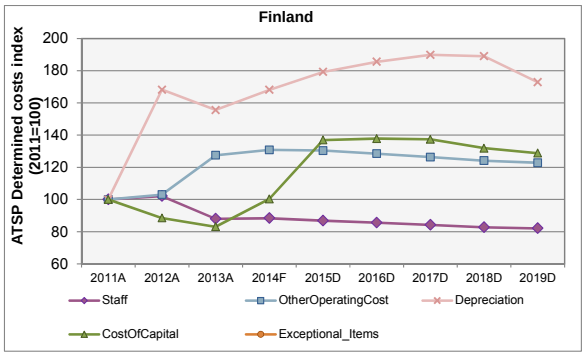


Figure 37: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Finland plans for a -3.5% decrease in the DUC over the period 2014-2019 which is better than the Union-wide target (-3.3% p.a). DC trends over the period (-1.4% pa) are lower than assumptions underpinning the Union-wide targets (-2.1% p.a).

Between 2011 and 2019 the en-route DUC trend (-1.7%) is worse than the Union-wide trend (-2.5% p.a.) and similarly for 2009-2019 it is significantly worse than the Union-wide trend (+0.7% compared to target of -2.5% p.a.). This is impacted by the traffic in 2012 and 2013 being cumulatively -15% less than projected and the increase in costs, due to a reallocation of costs from terminal to en-route from 28.6 M€$_{2009}$ in 2010 to 38.7 M€$_{2009}$ in 2011 resulting in the trend in DUC between 2009 and 2014.

Over the 2015-19 period, the trend in DCs is -1.1% p.a. and DUC -3.1% p.a.

In 2014, the DC is forecast to be slightly higher than for 2013. After applying traffic projections the DUC is forecast to be higher than 2013 as a result of traffic risk sharing and actual traffic being -15.1% lower than planned in the NPP for RP1.

Amongst the accountable entities, the ATSP, Finavia, and MET provider plan for material decreases in DUC over RP2. Finavia plan a decrease of -3.0% p.a. over 2014-2019, however taking into account adverse traffic trends this reduces to -0.4% p.a. over the 2011-2019 period. The en-route DUC of the MET provider is expected to reduce by -13.9% p.a. over 2014-2019, and -5.0% p.a. over the 2011-2019 period. The Finnish NSA is expected to reduce costs by -1.8% p.a. over the 2014-19 period.

At State level there are large variations in the individual costs by nature over the 2011-2019 period:

- The largest variation in proportional terms is in depreciation (+60% or +1.5 M€$_{2009}$).
- By 2019, staff costs are planned to be -19% lower than in 2011 (-4.3 M€$_{2009}$), reflecting efforts to match staffing to reduced traffic flows.
- The cost of capital is planned to increase by +26% (+0.3 M€$_{2009}$) over the period.
- Other operating costs are also planned to increase by +23% (+2.7 M€$_{2009}$).

The trend in EUROCONTROL costs is mainly driven by the one-off reduction "IFRS Budgeting" accounted for in 2011 (-0.4 M€$_{2009}$) for Finland. Without this one-off reduction, the EUROCONTROL costs for Finland would show a decrease of -0.3 M€$_{2009}$ or -2.8% over RP1 and RP2.

The PRB 2013 monitoring analysis indicates that Finavia's actual en-route costs for 2013 were substantially lower than planned (-2.6 M€$_{2009}$). This was more than sufficient to

compensate for the impact of the lower traffic than planned (-15.2%) on Finavia's revenues. Indeed, taking into account the traffic risk sharing arrangements, Finavia generated a net gain of +1.0 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Finavia's economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some +0.7 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to +1.7 M€$_{2009}$, which implies an ex-post rate of return on equity of 14.3% (compared to 5.9% as initially planned in the NPP). This sharply contrasts with the small return generated by Finavia in 2012 (+0.05 M€$_{2009}$ leading to an ex-post rate of return on equity of 0.4%).

The changes in the proportion of costs allocated to en-route/ terminal do not significantly influence the trend in en-route DUC planned for Finland's en-route charging zone over RP2.

Airspace users have identified a large reduction in capex in 2012 and 2013 as compared to the NPP and are concerned about double paying in RP2.

For RP2 there are no indications in the FAB Performance Plan for significant structural and organisational changes in the delivery of services within Finavia or amongst other ATSPs.

Based on this analysis, Finland's en-route charging zone is assessed as passing this check with reservations about the trend in DCs during RP2.

En-route Determined Unit Cost level

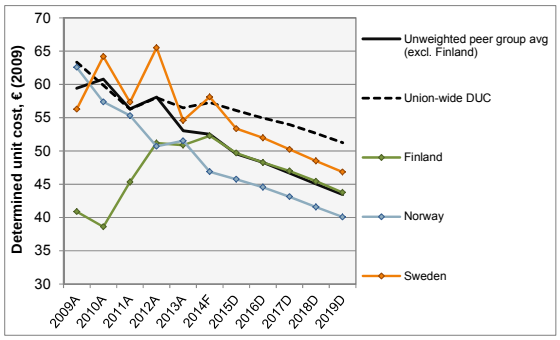


Figure 38: Determined unit cost level

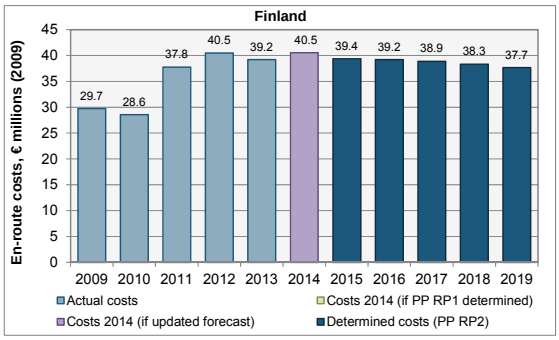


Figure 39: Determined costs 2009-2019

Comments:

Finland's en-route DUC in 2019 is planned to be 43.78 €$_{2009}$ per SU which is +0.7% higher than the average of the comparator group (excluding Finland) (43.46 €$_{2009}$) and lower than the Union-wide average. The PRB notes that over the period 2014-2019 Finland's DUC is expected to be at a similar level to the comparator group average.

The planned reduction in Finland's DUC over the 2009-2019 period is much worse that other States (+0.7%), in part reflecting lower than expected traffic over the 2010-2013, period but also significant cost increases in 2011 relating to the reallocation of costs from the terminal to en-route businesses.

Based on this analysis, Finland's en-route charging zone is assessed as passing this check.

Cost of Capital

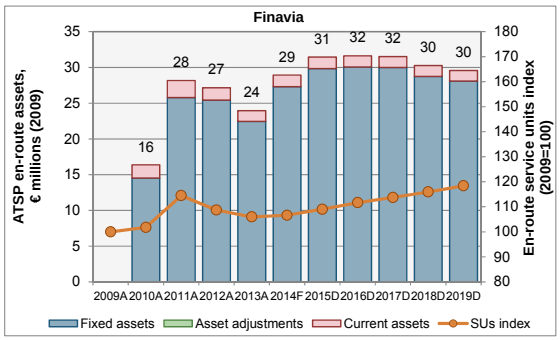


Figure 40: Breakdown of ATSP en-route asset base (2009-2019)

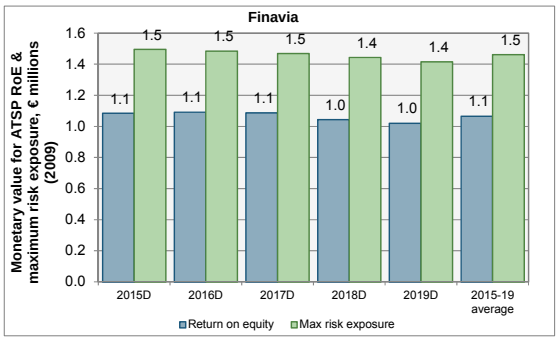


Figure 41: ATSP RoE vs maximum traffic risk exposure

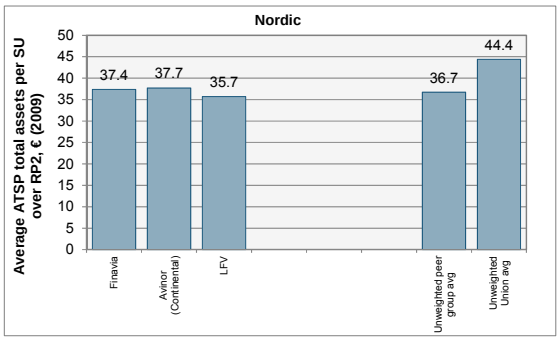


Figure 42: Average en-route asset base per SU over RP2

Comments:

The notionally "efficient" pre-tax WACC reported for Finavia in the Performance Plan is 5.0%. The assumptions used to compile this figure are not fully in line with the methodology laid down in Annex C guidance, with the risk free rate slightly lower and risk premium slightly higher than the guidance.

The WACC which is used to calculate Finavia's en-route cost of capital is 5.0%, which is lower than the range for notional "efficient" pre-tax WACC using methodology laid down in Annex C.

The pre-tax rate of return on equity (RoE) that will be used by Finavia over RP2 amounts to 8.6% p.a. Taking into account Finavia's capital structure and the amount of total assets used to calculate the cost of capital enables the calculation of the monetary value of the RoE which ranges from 1.0 to 1.1 M€$_{2009}$ over the years of RP2. This is lower than the maximum risk exposure which will be borne by Finavia over RP2 (1.4-1.5 M€$_{2009}$).

On average over RP2, Finavia's en-route asset base per service unit (37.4 €$_{2009}$) is expected to be slightly higher (+3.6%) than the comparator group average (36.7 €$_{2009}$).

Based on this analysis, Finland's en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan (AI 4b) provides information about the pension scheme in Finavia. A description of the pensions scheme and tables describing the features of the pensions scheme are provided. The tables show an escalation in the % contribution of Finavia to the Defined Contributions State pension scheme assumed over the RP2 period and the text provides supporting assumptions which could be checked in any analysis of costs exempt from risk sharing. Information on the cost of debt is provided in Finland's Performance Plan (AI 1(e)), however the basis is Swedbank's assessment of Finavia's rating and their comparison to Avinor and Swedavia. No information is provided to reconcile that actual cost of debt with this projection. The 2.6% calculated for RP2 is based upon the weighted average of all Finavia's loans. Finavia does not have ANS-specific (or en-route specific) loans. However, no supporting information on a breakdown of these loans is provided. During RP1 the average interest on debt is reported at 1.9%, however no supporting breakdown of the average cost of debt is provided. The Performance Plan reports (AI 1D) explains that the accounts are prepared on the basis of Finnish Accounting Standards, which with the exception of assets valuation are described as very similar to International Accounting Standards (IAS). **Based on this analysis, Finland's en-route charging zone is assessed as <u>not</u> passing this check.** **Further information is requested to provide transparency for the basis of the average cost of debt for RP1 and RP2.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Finland describes in AI 4 (g) that similar variations in EUROCONTROL costs (experienced in the years of RP1) are not anticipated or reflected in RP2. The information provided in the Performance Plan (AI 4h) is presented in the format of the FAB template for each of Finavia, FMI and the Finnish Transport Agency. • For pensions, the submissions describe the assumptions as to the level of contribution and the likelihood that it will be affected by reform due to take place in 2017. • For interest rates, they highlight the potential for changes in interest rate on variable rate loans; • For costs required by changes to law or new law they highlight the risk of changes taking place. The Performance Plan indicates that an amount of €0.36M will be carried forwards to RP2, exclusively for EUROCONTROL costs (for 2012 and 2013). **Based on this analysis, Finland's en-route charging zone is assessed as passing this check, however as noted above, further information is requested to provide transparency for the basis of the average cost of debt for RP1 and RP2.**

Finland: Assessment of terminal charging zones

Overview of terminal charging zones in Finland:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Finland: Helsinki. This is the only airport with more than 70,000 IFR movements and it is subject to traffic risk sharing. The number of airports included in the TCZ has not changed between 2014 and 2015.

This TCZ represents 76.9% of Terminal SUs in Finland.

Traffic forecast assumptions

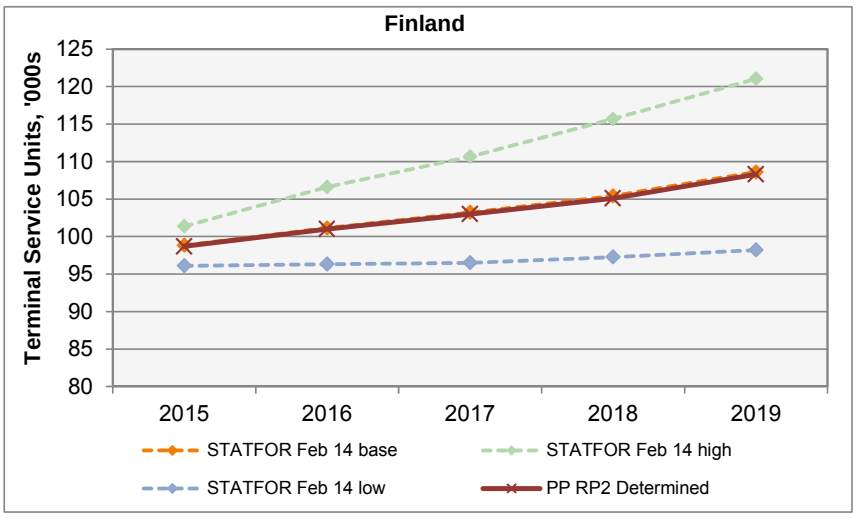


Figure 43: TNSU forecast 2015-2019

The forecast Terminal Navigation Service Units (TNSUs) are in line with the STATFOR February Base Case published in February 2014 for every year 2015-2019.

Based on this analysis, Finland's terminal charging zones is assessed as passing this check.

Economic assumptions

Over the 2013-2019 period, the inflation for Finland's terminal charging zone is identical to en-route and in line with IMF/Eurostat HICP.

Based on this analysis, Finland's terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

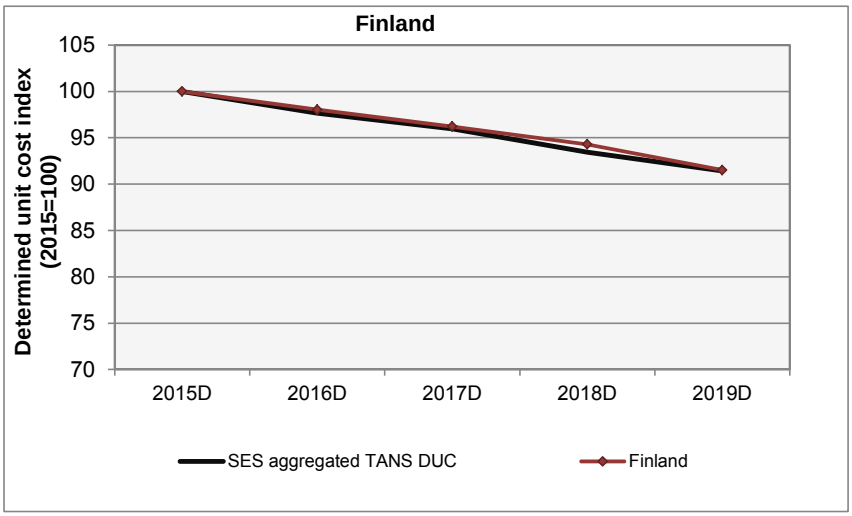


Figure 44: Terminal DUC index, 2015-2019

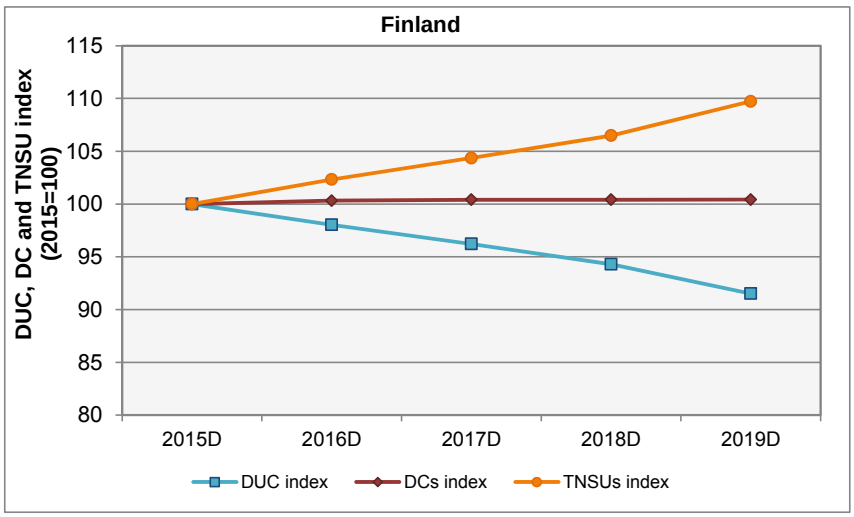


Figure 45: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Finland		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	14.9	15.2	15.5	15.8	16.1	2.0%
Inflation rate	annual % change	1.5%	1.7%	1.9%	2.0%	2.0%	1.9%
Inflation index	2009=100	114.4	116.4	118.6	121.0	123.4	
Determined costs	EUR m (2009)	13.0	13.0	13.0	13.0	13.0	0.1%
Terminal service units	'000s	99	101	103	105	108	2.3%
Determined unit cost	EUR (2009)	131.49	128.90	126.51	123.98	120.34	-2.2%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	131.49	128.90	126.51	123.98	120.34	-2.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 42: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for Finland is similar to the SES TANS aggregated DUC (-2.2%).

Finland's annual avg. % change in local Terminal ANS DCs is worse than the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (Finland +0.1%, en-

route -1.1%) and the 2014-2019 period (Finland -0.6%, en-route -1.4%).

Finland's 2015 TANS DC is -3.2% lower than in 2013.

The annual average % change in "gate-to-gate" ANS DCs is worse than the profile corresponding to the Union-wide en-route ANS DCs for the 2015-2019 period (Finland -0.8%, Union-wide -2.3%) and 2014-2019 period (Finland -1.2%, Union-wide -2.1%).

Based on this analysis, Finland's terminal charging zone is assessed as passing this check with reservations about the trend in the DCs for RP2.

Cost of Capital

The TCZ applies traffic risk sharing. The Return on Equity use to calculate the cost of capital for the terminal charging zone is the same as used for en-route.

Based on this analysis, Finland's terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to section on economic assumptions in the en-route detailed assessment.

Based on this analysis, Finland's terminal charging zone is assessed as <u>not</u> passing this check.

Further information is requested to provide transparency for the basis of the average cost of debt for RP2.

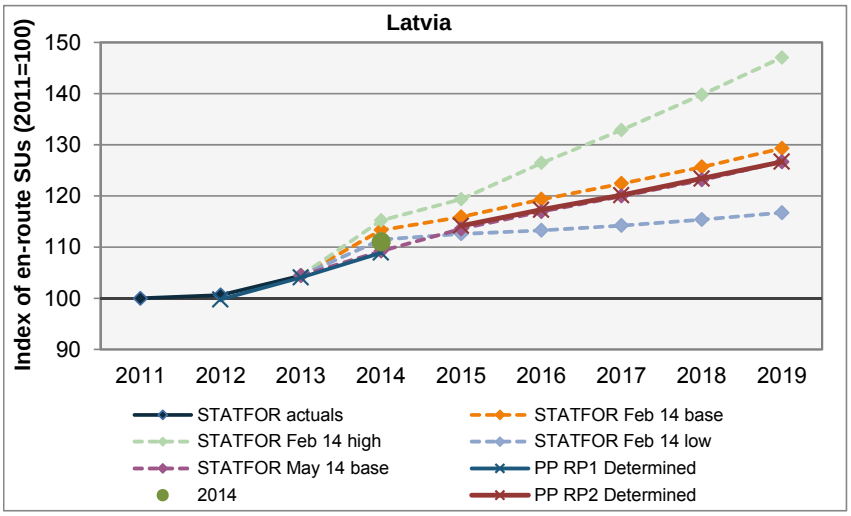
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to section on costs exempt from risk sharing for RP2 in the en-route detailed assessment.

Based on this analysis, Finland's terminal charging zone is assessed as passing this check.

Latvia: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		701	731	765							
Actuals, 2014, PP RP2 Determined	702	707	734	780	**802**	**824**	**844**	**867**	**890**	**3.0%**	**2.6%**
STATFOR Feb 14 base				**796**	**814**	**838**	**860**	**883**	**908**	**3.3%**	**2.8%**
STATFOR Feb 14 high				809	838	888	933	982	1,033	4.9%	5.4%
STATFOR Feb 14 low				783	791	796	802	811	820	2.0%	0.9%
STATFOR May 14 base				767	798	821	843	865	890	3.0%	2.8%
PP RP2 vs STATFOR Feb 14 base (%)					-1.5%	-1.7%	-1.9%	-1.8%	-2.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 46: En-route TSU forecasts

Comments:

Forecast total en-route TSUs per en-route charging zone is equivalent to the STATFOR September 2013 base case forecast for RP2, which is slightly lower than the STATFOR February 2014 base case forecast.

The updated traffic forecast for 2014 provided by Latvia is 780('000s) SUs, +2.0% higher than the STATFOR February 2014 base case forecast. Over RP2, traffic is forecast to increase at +2.7% p.a., which is equivalent to the increases forecast in the STATFOR February 2014 base case.

If the February 2014 base case forecast was delivered, under the traffic risk sharing mechanisms, the following gains would be retained by the State and airspace users respectively:

- The net potential gains to be retained by the State/ANSP are +1.6 M€$_{2009}$ or 1.8% of the total costs subject to traffic risk sharing for RP2.
- The net potential gains to be retained by airspace users are +0.06 M€$_{2009}$ or 0.01% of the total costs subject to traffic risk sharing for RP2.

Based on this analysis, the Latvia en-route charging zone is assessed as passing this check.

Economic assumptions

Inflation: Latvia		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.3%	0.0%	1.5%	2.5%	2.3%	2.3%	2.3%	2.3%
Eurostat/IMF avg	annual % change		0.0%	1.5%	2.5%	2.3%	2.3%	2.3%	2.3%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	105.4	105.4	107.0	109.7	112.2	114.8	117.4	120.1
Eurostat/IMF avg	2009=100	105.4	105.4	107.0	109.7	112.2	114.8	117.4	120.1
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 47: Economic assumptions

Comments:

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

Based on this analysis, the Latvia en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	15.2	16.5	20.7	20.9	20.4	22.1	22.7	23.1	23.9	24.7	25.5
Inflation rate	annual % change		-1.1%	4.2%	2.3%	0.0%	1.5%	2.5%	2.3%	2.3%	2.3%	2.3%
Inflation index	2009=100	100.0	98.9	103.1	105.4	105.4	107.0	109.7	112.2	114.8	117.4	120.1
Determined costs	EUR m (2009)	15.2	16.7	20.0	19.8	19.3	20.6	20.7	20.6	20.8	21.0	21.3
Service units	'000s	596	634	702	707	734	780	802	824	844	867	890
Determined unit cost	EUR (2009)	25.54	26.37	28.53	27.97	26.36	26.44	25.79	25.00	24.67	24.25	23.88
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	25.54	26.37	28.53	27.97	26.36	26.44	25.79	25.00	24.67	24.25	23.88

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	5.3%	2.7%	3.0%	3.0%
Inflation	CAGR %	1.9%	1.9%	2.3%	2.3%
Determined costs	EUR m (2009)	3.4%	0.7%	0.6%	0.7%
Service units	'000s	4.1%	3.0%	2.7%	2.6%
Determined unit cost	EUR (2009)	-0.7%	-2.2%	-2.0%	-1.9%
Exchange rate					
Determined unit cost	EUR (2009)	-0.7%	-2.2%	-2.0%	-1.9%

Table 43: Determined unit cost trend

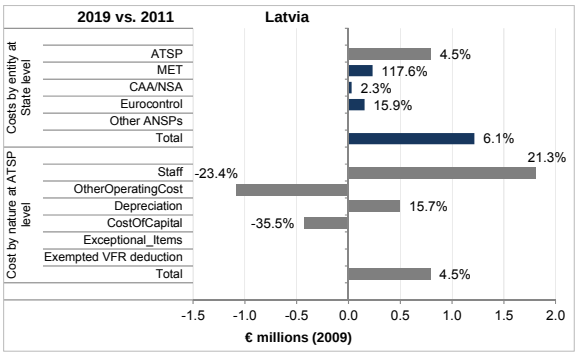


Figure 48: Planned cost category changes over RP1 and RP2

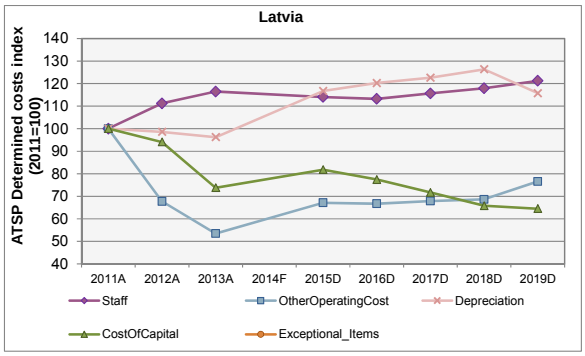


Figure 49: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Annual average % changes in DUCs are worse than the Union-wide target for the period 2014-2019 (-2.0% compared to -3.3% p.a.). However over the period 2011-2019, Latvia DUC is planned to reduce at -2.2% p.a., which is better than the Union-wide target (-1.7% p.a.).

Annual average percentage changes in DCs are worse than the planned changes in DCs underpinning the Union-wide targets for all periods analysed:

- 2014-2019: Latvia plans DC increases of +0.6% p.a. compared to Union-wide DCs trend of -2.1%;
- 2011-2019: Latvia plans +0.7% p.a. compared to -0.8%.

(Comparisons over the 2009-2019 period are not relevant as Latvia became a member of EUROCONTROL in 2011).

The PRB notes that a traffic forecast that is slightly lower than the STATFOR February 2014 base case forecast has been applied and that updated costs and traffic data for 2014 are provided in the RP2 Performance Plan. The updated 2014 value for TSUs is +6.3% higher than 2013 actual, and the updated 2014 value for en-route costs is +6.6% higher than the 2013 actual. This results in an updated DUC that is approximately equivalent (+0.3%) to the 2013 actual.

The estimated economic surplus for the en-route activity in 2013 for LGS amounts to 1.5 M€$_{2009}$, which implies an ex-post rate of return on equity of 9.7% (compared to 5.8% as initially planned in the NPP). This adds to the gains generated by LGS in 2012 (+1.3 M€$_{2009}$ or +7.4% of en-route revenues leading to an ex-post rate of return on equity of +7.8% in 2012). It does not appear that these gains have been reflected in the updated forecast for 2014 or in RP2.

Looking at the contribution of each accountable entity over the 2011-2019 period, the PRB notes that all entities plan increases in DCs:

- LGS' (the ATSP) costs increase at +0.6% p.a. and the CAA/NSA's costs at 0.3%;
- EUROCONTROL costs are planned to increase at +1.9% p.a. The increase in EUROCONTROL costs (+0.2 M€$_{2009}$) is mainly driven by a one-off reduction ""IFRS Budgeting" accounted for in 2011, Latvia's first year of EUROCONTROL membership.; and
- The most significant increases are planned for DCs associated with the provision of en-route MET services: +10.9% p.a.

As a result, all entities contribute towards a reduction in the DUC over 2011-2019 apart from MET, where the DUC increases at +7.0% p.a.

Over the 2011-2019 period, there are significant variations in costs by nature at ATSP (LGS) level:

- Staff costs are forecast to increase +21.3%. Latvia notes in the Additional Information to the Reporting Tables that staff costs have been under pressure for some time due to their low levels in comparison to the rest of the SES States. In 2012, trade unions negotiated higher salaries for ATCOs which had resulted in an +11.2% increase in that year. Despite this increase, Latvia's ATCO employment cost per ATCO–hour was -59.7% lower than the Union-wide average (ACE 2012). In the Performance Plan, Latvia states that real en-route costs in RP2 will increase slightly due to "*the need to increase staff costs due to significant differences in salary levels and other social guarantees when compared to other ANSPs in EU*".
- Other operating costs are forecast to decrease -23.4% over 2011-2019. This is in part due to unusually high levels in 2011 due to a credit institution bankruptcy and training costs for new ATCOs. Over RP2 other operating costs are expected to increase (+3.3% p.a. over 2015-2019).
- Depreciation costs are forecast to increase +15.7% over 2011-2019, primarily due to a significant increase of +21.2% from 2013 actuals to the 2015 forecast (2014 was not available) due to the ATM system upgrade, commissioned in late 2013. Over RP2, Latvia notes that capital expenditure is forecast to stay at approximately 2014 levels, and depreciation costs will decrease at -0.2% p.a. in real terms over the period 2015-2019 (see section 6 for further analysis of RP1 and planned investments).
- Cost of capital is forecast to decrease -35.5%, primarily due to postponement of capital investment in RP1 (see section 6 for further analysis of RP1 and planned investments).

For RP2 there are no indications in the FAB Performance Plan that significant structural or organisational changes are planned in the delivery of services within LGS or amongst other ATSPs.

Based on this analysis, the Latvia en-route charging zone is assessed as passing this check with reservations.

En-route Determined Unit Cost level

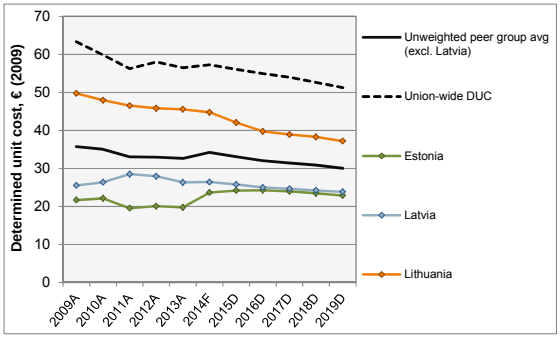


Figure 50: Determined unit cost level

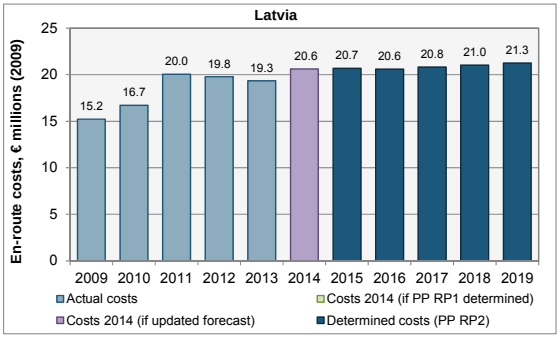


Figure 51: Determined costs 2009-2019

Comments:

Latvia's en-route charging zone DUC level in 2019 is planned to amount to 23.88 €$_{2009}$, which is -20.6% lower than the average of the comparator group en-route charging zones excluding Latvia (30.07 €$_{2009}$) and -53.4% lower than the Union-wide average for that year.

The PRB also notes that the proportion of gate-to-gate ANS costs allocated to en-route in Latvia's cost base is approximately 75% over RP2, which is significantly less than its comparator group states (Lithuania: 82% and Estonia: 92%). However this does not impact the level of the en-route DUCs in 2019 relative to the comparator group States.

Based on this analysis, the Latvia en-route charging zone is assessed as passing this check.

Cost of Capital

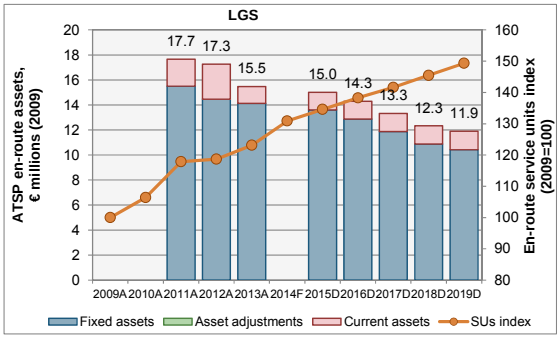


Figure 52: Breakdown of ATSP en-route asset base (2009-2019)

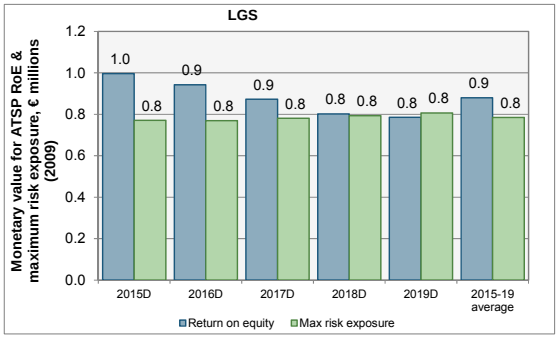


Figure 53: ATSP RoE vs maximum traffic risk exposure

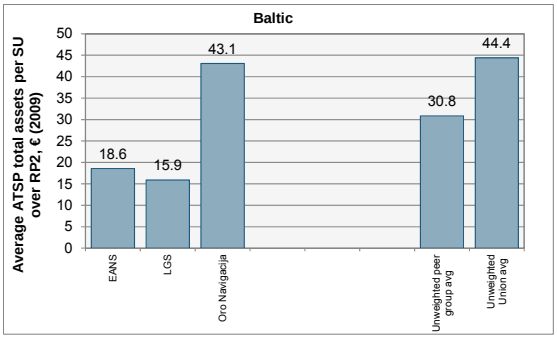


Figure 54: Average en-route asset base per SU over RP2

Comments:

The WACC rate used to calculate the cost of capital of LGS (6.5% - 6.6% over RP2) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although a number of assumptions used for the different components of the WACC calculation are outside the range of recommended values.

The PRB notes that no gearing is planned in the LGS capital structure for RP2.

The pre-tax rate of return on equity (RoE) that is set for LGS over RP2 amounts to some 6.6% per annum. The monetary value of the RoE for LGS is calculated by taking the relevant components of LGS' capital structure and the total assets used to determine the cost of capital into account. For LGS this decreases from 1.0 M€$_{2009}$ in 2015 to 0.8 M€$_{2009}$ in 2019, slightly higher than the maximum traffic risk exposure which will be borne by LGS over RP2 (approximately 0.8 M€$_{2009}$ in each year of RP2).

In 2015, Latvia's en-route asset base per service unit (19 €$_{2009}$) is lower than the comparator group average of ATSPs excluding Latvia (32 €$_{2009}$). This is expected to reduce over RP2 to 13 €$_{2009}$ per SU in 2019 which is -50.4% lower than the group average (27 €$_{2009}$).

Based on this analysis, the Latvia en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

Latvia states that there are no pension payments made to staff (only social security payments for which no information on the rate was provided) so no assumptions of pensions costs was provided in the Performance Plan. Nevertheless it would be helpful for the PRB to understand some of the parameters of the social security scheme, such as rate of payment.

There are no loans planned for RP2 therefore no information on loans is required.

No assumptions beyond IAS are proposed.

Based on this analysis, the Latvia en-route charging zone is assessed as passing this check.

The PRB requests that Latvia provide further information on the social security payments made to staff.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Latvia has reported costs exempt from cost sharing in 2012 and 2013 (of -0.02 M€$_{2009}$ and +0.02 M€$_{2009}$ respectively) to be reimbursed to/recovered from users for the en-route activity, corresponding to the difference between the planned and actual values for EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions. From the information presented in the Performance Plan, it is assumed that Latvia does not consider any factors as costs exempt from risk sharing for RP2. The table in AI section 4 (h) is either blank or refers to sections in the AI relating to pensions costs or interest rates on loans, which as described in the section above are considered to be not relevant by Latvia. **Based on this analysis, the Latvia en-route charging zone is assessed as passing this check.**

Latvia: Assessment of terminal charging zones

Overview of terminal charging zone in Latvia:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Latvia for RP2. This TCZ comprises three airports: Riga, Liepaja and Ventspils. Only Riga has close to 70,000 IFR movements per annum (RP1 average was 69,000 per annum) and the other two airports are not submitted to the Performance and Charging Regulations (according to the Performance Plan). There has been no change in the TCZ scope between 2014 and 2015.

Traffic risk sharing does not apply in the Latvia TCZ. The Latvia TCZ covers 100% of terminal traffic in Latvia.

Traffic forecast assumptions

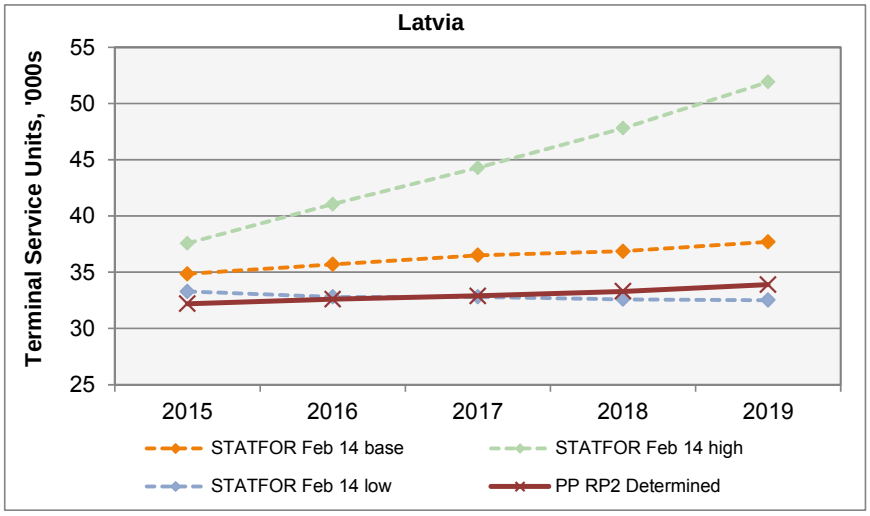


Figure 55: TNSU forecast 2015-2019

Forecast total Terminal Navigation Service Units (TNSUs) for the Latvia TCZ is similar to, but not equivalent to the STATFOR February 2014 low case forecast. In 2015, the Latvian TNSU forecast is -3.3% lower than the STATFOR February 2014 low case. The Latvian forecast then increases at +1.3% p.a. over RP2 and in 2019 is +4.3% higher than the STATFOR February 2014 low case value (the low case annual average growth over RP2 is -0.6%).

Based on this analysis, the Latvia terminal charging zone is assessed as passing this check, with reservations.

Economic assumptions

The inflation data provided for the Latvia TCZ is in line with the en-route assumptions and IMF forecasts for RP2.

Based on this analysis, the Latvia terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

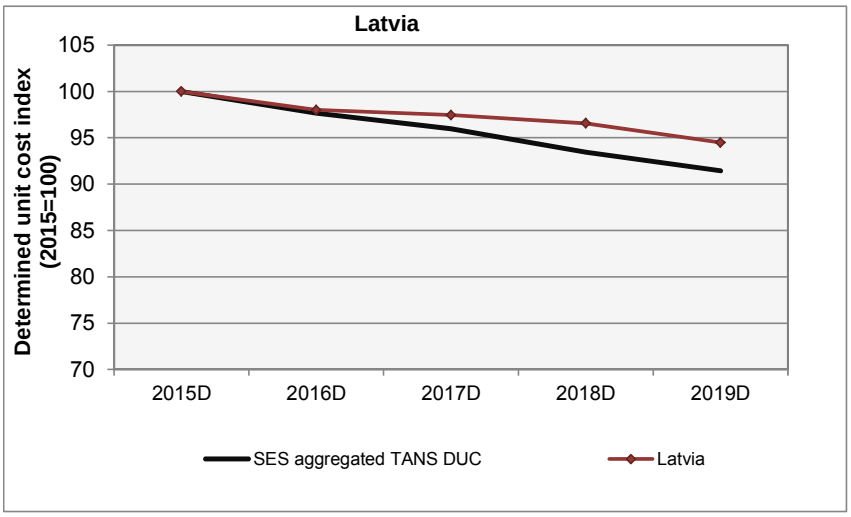


Figure 56: Terminal DUC index, 2015-2019

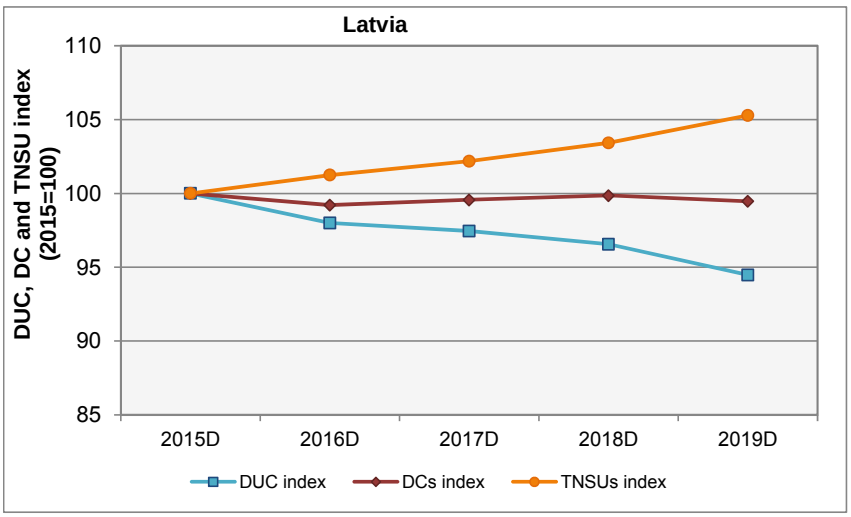


Figure 57: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Latvia		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	7.6	7.7	7.9	8.1	8.3	2.2%
Inflation rate	annual % change	2.5%	2.3%	2.3%	2.3%	2.3%	2.3%
Inflation index	2009=100	109.7	112.2	114.8	117.4	120.1	
Determined costs	EUR m (2009)	6.9	6.9	6.9	6.9	6.9	-0.1%
Terminal service units	'000s	32	33	33	33	34	1.3%
Determined unit cost	EUR (2009)	214.76	210.46	209.29	207.37	202.91	-1.4%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	214.76	210.46	209.29	207.37	202.91	-1.4%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 44: Terminal DUC, DC and TNSU trends, 2015-2019

The annual avg. % change in the local Latvia Terminal ANS DUC over RP2 is -1.4% p.a., which is worse than the profile corresponding to the SES aggregated Terminal ANS DUC (-2.2% p.a., sum of total DCs divided by sum of TNSU, taken from RP2 Performance Plans).

Latvia plans an average annual decrease in local Terminal ANS DCs of -0.1% over the period 2015-2019, which is better than the profile corresponding to the local en-route ANS

DCs for the 2015-2019 period (+0.7% p.a.).

Latvia forecast TCZ DCs in 2015 to be 6.9 M€$_{2009}$, which is +11.9% higher than 2012 actuals and +20.8% higher than 2013 actuals. This is a larger proportional increase than that seen in the en-route DCs, +6.6%. It is not clear from the Performance Plan what the reasoning behind this increase is, although the PRB notes that the justification for cost category changes over RP2 is similar to that provided for the en-route cost base.

Based on this analysis, the Latvia terminal charging zone is assessed as not passing this check.

Cost of Capital

The traffic risk sharing mechanism is not applied in the Latvia TCZ for RP2. No RoE value is supplied in the Performance Plan, however the lack of gearing in the LGS capital structure implies that the WACC should be equivalent to the RoE. The pre-tax WACC proposed for the TCZ over RP2 is lower in all years than that proposed for the en-route charging zone.

Based on this analysis, the Latvia terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer the en-route detailed assessment.

Based on this analysis, the Latvia terminal charging zone is assessed as passing this check.

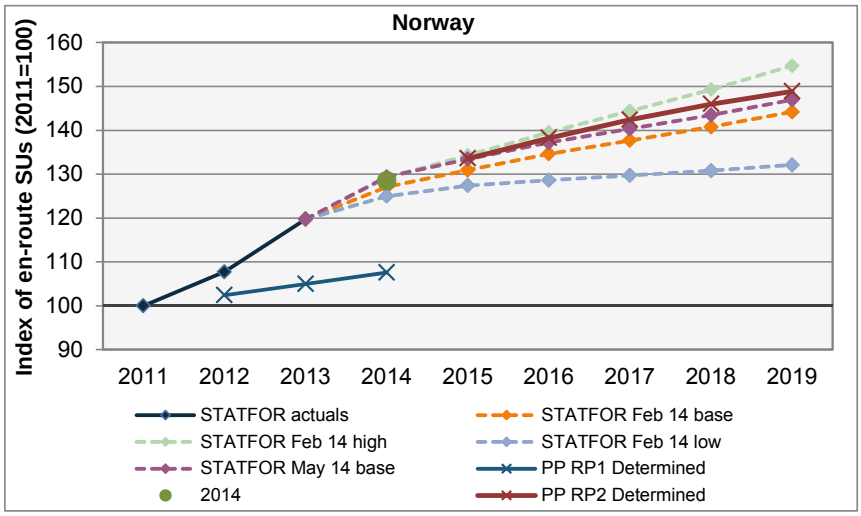
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment

Based on this analysis, the Latvia terminal charging zone is assessed as passing this check.

Norway: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		1,754	1,798	1,843							
Actuals, 2014, PP RP2 Determined	1,713	1,846	2,051	2,202	**2,288**	**2,368**	**2,439**	**2,500**	**2,550**	**5.1%**	**2.7%**
STATFOR Feb 14 base				**2,177**	**2,243**	**2,306**	**2,358**	**2,411**	**2,470**	**4.7%**	**2.4%**
STATFOR Feb 14 high				2,213	2,300	2,390	2,474	2,556	2,650	5.6%	3.6%
STATFOR Feb 14 low				2,141	2,183	2,203	2,222	2,241	2,263	3.5%	0.9%
STATFOR May 14 base				2,216	2,286	2,350	2,404	2,457	2,517	4.9%	2.4%
PP RP2 vs STATFOR Feb 14 base (%)					2.0%	2.7%	3.4%	3.7%	3.2%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 58: En-route TSU forecasts

Comments:

The forecast en-route TSUs lies between the STATFOR base and high case for all years 2015-2019. The difference between Norway's TSNU Performance Plan forecast and the STATFOR February 2014 base case ranges between +2.0% and +3.7% in each year of RP2.

In its Performance Plan, Norway explains its approach to the traffic forecast submitted, in the context of STATFOR underestimating TSUs during RP1. Their explanation for using a higher traffic forecast is repeated below:

"*In the first reference period Norway saw a higher increase in traffic than what was projected in the performance plan. Norway expects that the growth rate in traffic will be approximately at the same level in RP2. It is our understanding that there is a correlation between the economic growth (GDP) and the growth in traffic. It is expected that the economic growth will continue in the RP2, among other things as a result of an increase in household consumption. As a result of growth in en-route flights as well as a trend towards heavier aircraft, contributes to growth beyond the expected growth in aircraft movements. Avinor's internal reviews and consultation with airspace users, landed on utilizing a forecast that is above the base scenario as presented in the EUROCONTROL Seven-Year Forecast February 2014 (Final). This represents an annual average growth rate of 3% per year in the period 2015-2019, but instead of a steady annual growth will be more slower in later period.*"

The PRB notes that for the first eight months of 2014, there has been a +9.3% growth in TSUs compared to 2013, this is higher than the STATFOR February 2014 high case. It is

also noted that for 2014, traffic is expected to end up +21.7% higher than that planned in RP1.

The PRB calculates that, all else being equal, if the STATFOR baseline scenario published in February 2014 materialises, net potential losses to be retained by the Norwegian State/ANSP are -10.8 M€$_{2009}$ or -2.4% of the total costs subject to traffic risk sharing for RP2. Net potential losses to be borne by airspace users are -3.1 M€$_{2009}$ or -0.6% of the total costs subject to traffic risk sharing for RP2.

Furthermore Norway presents evidence that TSUs have grown by a multiple of the value of the increases in flights. This reflects the increase in the wide-body fleet of Norwegian (now flying long-haul to North America) as reflected in larger aircraft and higher average MTOW of flights and potentially some rerouting on journeys to the far East (however the evidence is not conclusive).

The higher growth rate used by Norway is justified by trends in growth in 2012, 2013 and the first 6 months of 2014 and difference between actual and STATFOR forecasts over that period.

Based on this analysis, Avinor's en-route charging zone is assessed as not passing this check but the forecast used is reasonable based on evidence.

As traffic projections are higher than the STATFOR base case, greater emphasis on Normalised check 3 and 4 has taken place.

Economic assumptions

Inflation: Norway		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	0.4%	2.0%	2.3%	1.6%	1.7%	2.1%	2.5%	2.5%
Eurostat/IMF avg	annual % change		2.0%	2.0%	2.0%	2.2%	2.3%	2.5%	2.5%
Difference	p.p. difference		0.0%	0.3%	-0.4%	-0.5%	-0.2%	0.0%	0.0%
PP RP2	2009=100	103.3	105.4	107.8	109.5	111.4	113.7	116.6	119.5
Eurostat/IMF avg	2009=100	103.3	105.4	107.5	109.7	112.1	114.6	117.5	120.5
Difference	index difference	0.0	0.0	0.3	-0.1	-0.7	-0.9	-0.9	-0.9

Figure 59: Economic assumptions

Comments:

The inflation forecasts used by Norway are not equivalent to (within 0.1% of) IMF average inflation rate forecast published in April 2014 for every year 2014-19.

The 2013 inflation value provided is equivalent to EUROSTAT HICP.

Norway has used forecasts provided by the Economic Survey from Statistics Norway published 13 March 2014. Its explanation for using this information is provided below:

"*…..Statistics Norway has first-hand knowledge of national conditions and has a good credibility. Source: http://www.ssb.no/en/forside. Inflation is usually measured in terms of the rise in consumer prices, as measured in Statistics Norway's consumer price index. According to the Monetary Policy Regulation, the objective of monetary policy is annual consumer price inflation of approximately 2½ per cent over time. Source: http://www.norges-bank.no/en/faq/monetary-policy/.*"

Based on this analysis, Norway's en-route charging zone is assessed as not passing this check. As different forecasts are used greater emphasis on comparisons using

normalised traffic is applied to checks 3 and 4.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	NOK m (nom)	816	806	851	844	972	972	1,001	1,026	1,045	1,058	1,066
Inflation rate	annual % change		1.7%	1.2%	0.4%	2.0%	2.3%	1.6%	1.7%	2.1%	2.5%	2.5%
Inflation index	2009=100	100.0	101.7	102.9	103.3	105.4	107.8	109.5	111.4	113.7	116.6	119.5
Determined costs	NOK m (2009)	816	793	827	817	923	901	914	921	918	907	892
Service units	'000s	1,495	1,583	1,713	1,846	2,051	2,202	2,288	2,368	2,439	2,500	2,550
Determined unit cost	NOK (2009)	546.20	500.94	482.90	442.61	449.82	409.33	399.35	389.05	376.54	362.93	349.83
Exchange rate	NOK:EUR	8.73										
Determined unit cost	EUR (2009)	62.58	57.39	55.33	50.71	51.54	46.90	45.76	44.57	43.14	41.58	40.08

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	NOK m (nom)	2.7%	2.9%	1.9%	1.6%
Inflation	CAGR %	1.8%	1.9%	2.1%	2.2%
Determined costs	NOK m (2009)	0.9%	0.9%	-0.2%	-0.6%
Service units	'000s	5.5%	5.1%	3.0%	2.7%
Determined unit cost	NOK (2009)	-4.4%	-3.9%	-3.1%	-3.3%
Exchange rate					
Determined unit cost	EUR (2009)	-4.4%	-3.9%	-3.1%	-3.3%

Table 45: Determined unit cost trend

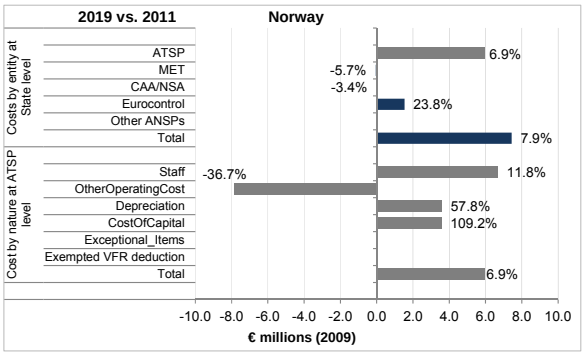


Figure 60: Planned cost category changes over RP1 and RP2

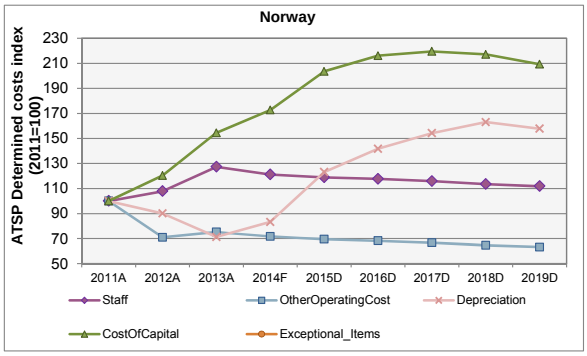


Figure 61: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Norway forecasts a -3.1% (-2.9% normalised) annual en-route DUC decrease over the 2014-2019 period which is slightly lower than the Union-wide cost efficiency target (i.e. -3.3% p.a.). The higher than base case traffic forecasts reported above need to be considered in this assessment.

When assessed between 2011 and 2019, the DUC decrease forecast by Norway (-3.9% p.a.) is much better than that expected at Union-wide level (-1.7% pa), and a similar trend is found over the 2009-2019 period where Norway's planned reduction (-4.4% pa) is materially higher than the Union-wide target (-2.5% pa).

Norway has experienced high traffic growth over the period so it is also important to check the trends in DCs. DCs are planned to reduce by -0.2% p.a. over the 2014-2019 period as compared to the assumptions underpinning the Union-wide target of -2.1% p.a. Similarly, DCs are expected to increase by +0.9% p.a. between 2011-2019 and 2009-2019 compared

to the assumptions underpinning the Union-wide target of -0.8% and -1.1% respectively.

All these trends over the RP1 and RP2 period need to be placed in the context of very high traffic growth, with some cost increases required to accommodate it.

Amongst the different accountable entities, Norway's ATSP Avinor provides the largest decrease over RP2 (-3.2% p.a.), followed by MET and NSA (both -2.9% p.a.) and EUROCONTROL (-2.4% p.a.).

For Avinor, the trend in DUC over RP2 is primarily driven by growth in traffic as DCs are forecast to reduce by -0.3% p.a. over the period and traffic (+2.9% p.a.) contributes the remaining.

The exceptional growth in EUROCONTROL costs of +23.4% between 2011 and 2019, is mainly driven by the one-off reduction "IFRS Budgeting" accounted for in 2011 (-0.9 M€$_{2009}$ for Norway). Without this one-off reduction, the EUROCONTROL costs for Norway would show a smaller increase of +0.6 M€$_{2009}$ or +8.6% over RP1 and RP2.

At State level there are large variations in the individual costs by nature over the 2011-2019 period:

- The largest variation in proportional terms is cost of capital, where the driver is a growing asset base (+109% or +3.6 M€$_{2009}$).
- By 2019, staff costs are planned to be +12% or +6.6 M€$_{2009}$ higher than in 2011 reflecting higher staff numbers and pensions costs escalation.
- Other operating costs are planned to reduce by -23% or -6.3 M€$_{2009}$.
- Depreciation costs are planned to increase by +58% or +3.6 M€$_{2009}$.

Norway's DCs for 2014 are similar to 2013 actuals. There was a large increase in costs in 2013, from 94 M€$_{2009}$ in 2912 to 106 M€$_{2009}$, largely driven by staff costs (increase in staff to cope with traffic, IAS19 pensions adjustments and overtime payments related to capacity disruption). Even following these changes the 2013 monitoring finds a negative economic surplus.

Changes in the costs allocated to en-route/ terminal do not significantly influence the en-route DUC trend over RP2.

Airspace users were concerned about the 2014 starting point, and the assumed elasticity of growth in costs related to growth in traffic.

For RP2 there are indications in the FAB Performance Plan of organisational changes in the delivery of services within Avinor with the expected split between ANS and Airport services (confirmed by a press release on 19 June 2014 reporting that Avinor has demerged its Air Navigation Services Division, establishing it as a wholly owned subsidiary of Avinor).

Based on this analysis, Norway's en-route charging zone is assessed as passing this check with reservations on trends in DCs linked to high traffic growth.

En-route Determined Unit Cost level

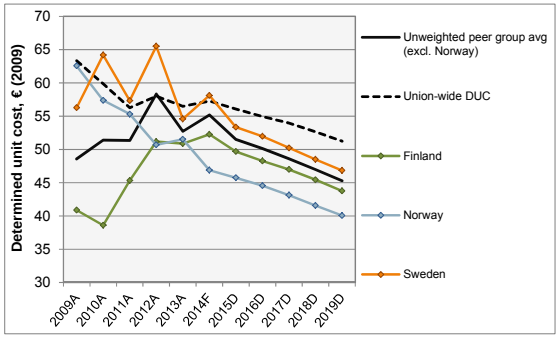


Figure 62: Determined unit cost level

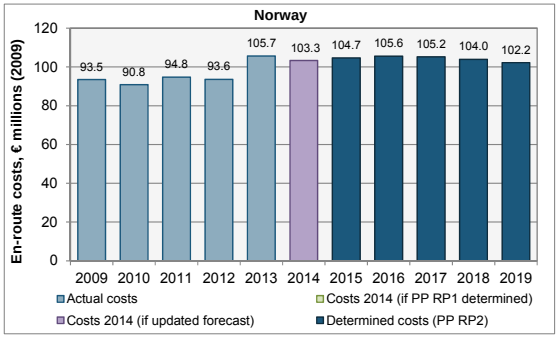


Figure 63: Determined costs 2009-2019

Comments:

Norway's en-route DUC in 2019 is planned to be 40.08 €$_{2009}$ per SU which is -11.5% lower than the average of the comparator group (45.31 €$_{2009}$) and lower than the Union-wide average. It should be noted that Norway's en-route DUC is expected to remain below the comparator group average over the whole 2015-2019 period.

After applying normalised traffic and inflation rates the gap is reduced to -5.0% lower than the comparator group.

The proportion of en-route costs of total ANS costs for Avinor at 75% is significantly below that of Finland (91%), and as a consequence the comparator group average of 83%. Applying the comparator group average would change the conclusions of the analysis.

Based on this analysis, Norway's en-route charging zone is assessed as passing this check.

Cost of Capital

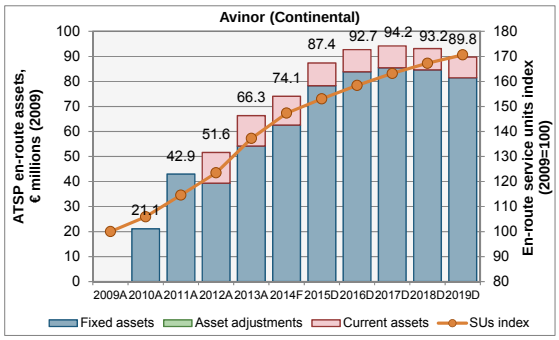


Figure 64: Breakdown of ATSP en-route asset base (2009-2019)

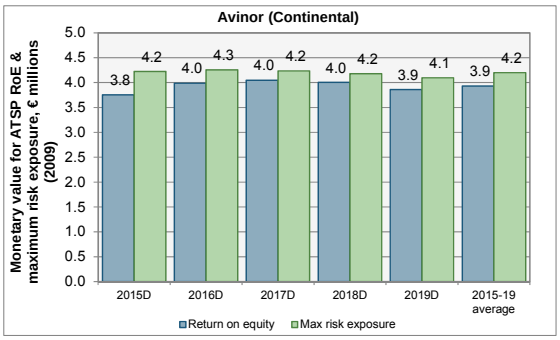


Figure 65: ATSP RoE vs maximum traffic risk exposure

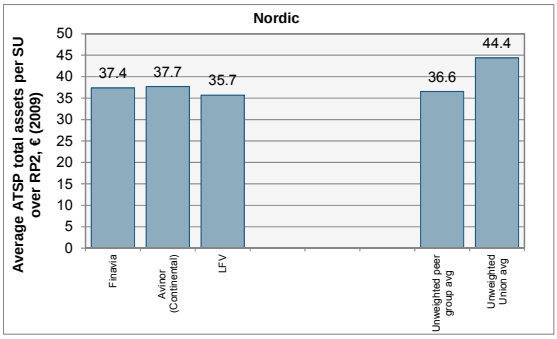


Figure 66: Average en-route asset base per SU over RP2

Comments:

The WACC which is used to calculate Avinor's en-route cost of capital is 7.65% - which lies within, but towards the top end, of the range of the Annex C calculated values. The assumptions used to calculate the figure are not fully in line with the methodology laid down in Annex C guidance, with the risk free rate, risk premium debt premium and tax rate outside the range recommended.

The pre-tax rate of RoE that will be used by Avinor over RP2 amounts to some 11.0% per annum. Taking into account Avinor's capital structure and the amount of total assets used to calculate the cost of capital allows the calculation of the monetary value of the RoE which ranges from 3.8 M€$_{2009}$ to 4.0 M€$_{2009}$ over RP2 (see Figure 65). This is slightly lower than the maximum traffic risk exposure which will be borne by Avinor over RP2 (4.1 M€$_{2009}$ to 4.2 M€$_{2009}$).

As Avinor has used a high traffic growth assumption, there is a material risk that this will not happen and that the risk exposure might not be properly covered. This analysis provides some form of justification for using a WACC towards to the high end of the Annex guidance range.

In 2014, Avinor's en-route asset base per service unit (37 €$_{2009}$) is lower than the comparator group average of ATSPs (44 €$_{2009}$). By 2019 the trend reverses with Avinor expected to be slightly higher (34 €$_{2009}$) than the comparator group average (32 €$_{2009}$).

Based on this analysis, Avinor en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan comprises:

- Pensions costs (AI 4b): Very limited information on Avinor's pensions costs are presented and the breakdown requested for Defined Benefits pensions schemes is not provided. The Performance Plan explains that Avinor is in the process of separating its ANS and airports services and more information will be available when this is completed. More information is required to meet the requirements of the Annex C template.

- Average interest on loans (AI 4c): No information is provided by Avinor for the same reason mentioned elsewhere (that it is in the process of separating ANS and airports).
- WACC (AI 1e): No information on the asset base applied to the WACC is provided.
- Adjustments beyond IAS (AI 1c): This is flagged as not applicable.

Based on this analysis, Norway's en-route charging zone is assessed as <u>not</u> passing this check.

Additional information on pensions, average interest on loans, and asset base to apply to the WACC consistent with the requirements of the FAB Performance Plan template should be provided.

Description, level, composition and justification of costs exempt from risk sharing
Comments:

Norway provides no description in in AI 4 (g) about how costs exempt from risk sharing in RP1 have been reflected in RP2 projections. However the PRB notes that the only claims made during RP1 relate to EUROCONTROL costs.

Norway's Performance Plan indicates that an amount of -0.3 M€ is reported as costs exempt from cost sharing covering 2012 and 2013 EUROCONTROL costs. However, Norway did not submit an NSA report on costs exempt from risk sharing to the Commission.

Norway highlighted the following specific items for costs exempt from risk sharing for RP2: Pensions: defined benefit scheme cost assumptions, interest rate on loans assumptions, a potential change in the law related regional support which may affect remuneration for some of its staff. No specific items were reported against: unforeseen changes in taxation law and international agreements.

Based on this analysis, Norway's en-route charging zone is assessed as passing this check.

Norway: Assessment of terminal charging zones

Overview of terminal charging zone in Norway

Based on the information provided in Norway's RP2 Performance Plan, there is one terminal charging zone (TCZ) for Norway which covers four airports: Oslo, Bergen, Trondheim and Stavanger. This has remained the same definition over 2014 and 2015. The TCZ is subject to traffic risk sharing.

The TCZ represents 67.9% of the total Terminal SUs in Norway.

Traffic forecast assumptions

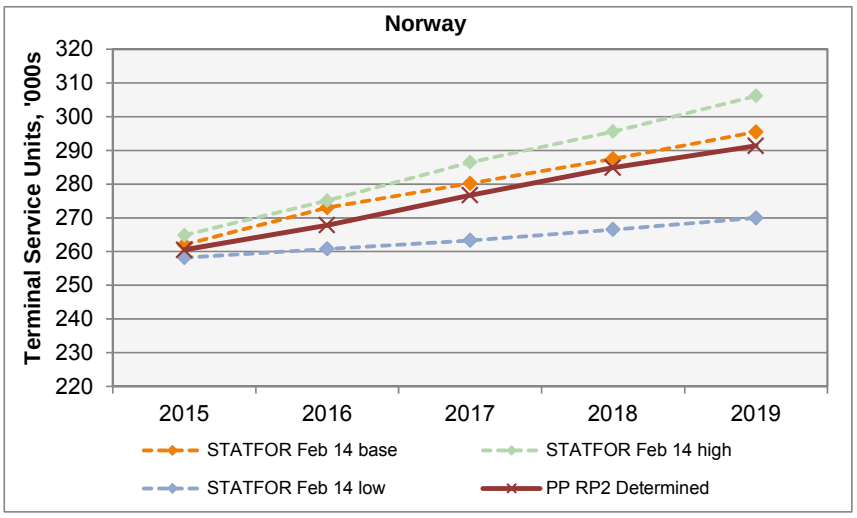


Figure 67: TNSU forecast 2015-2019

The forecast total Terminal Navigation Service Units (TNSUs) for Norway's TCZ are within the range between the STATFOR base case and low forecasts published in February 2014, for every year 2015-2019.

We also note the apparent difference in view of traffic growth between the terminal and en-route businesses. The higher traffic growth forecast for en-route is driven by more overflight with larger aircraft.

Based on this analysis, Norway's terminal charging zone is assessed as passing this check.

Economic assumptions

Over the 2014-2019 period, a consistent inflation rate has been used in the Performance Plan for Norway's en-route charging zone and TCZ. However the assumptions used are from Statistics Norway, not IMF

Based on this analysis, Norway's terminal charging zone is assessed as not passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

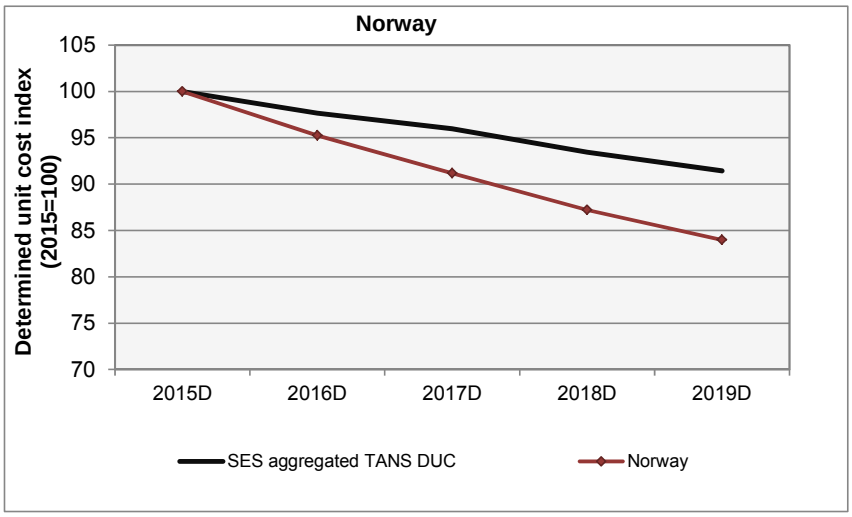


Figure 68: Terminal DUC index, 2015-2019

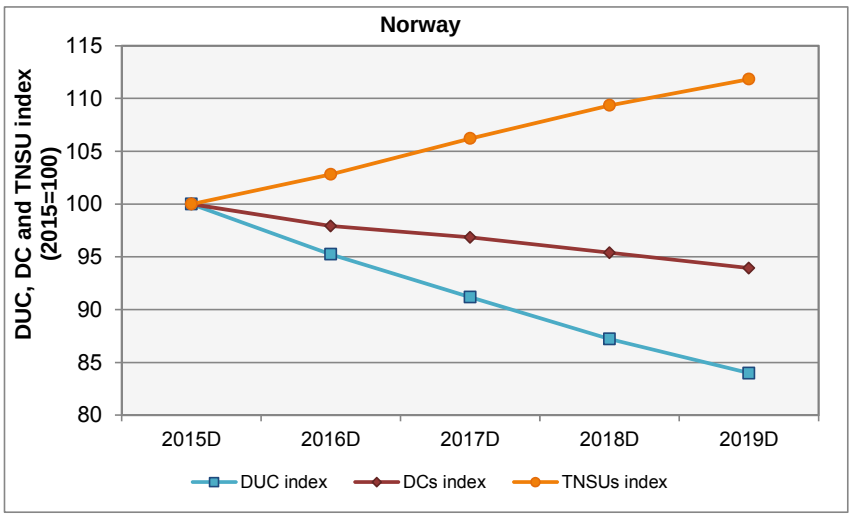


Figure 69: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Norway		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	NOK m (nom)	498.0	496.0	500.8	505.6	510.3	0.6%
Inflation rate	annual % change	1.6%	1.7%	2.1%	2.5%	2.5%	2.2%
Inflation index	2009=100	109.5	111.4	113.7	116.6	119.5	
Determined costs	NOK m (2009)	454.6	445.2	440.3	433.6	427.0	-1.6%
Terminal service units	'000s	261	268	277	285	291	2.8%
Determined unit cost	NOK (2009)	1,745.18	1,662.22	1,591.21	1,522.12	1,465.74	-4.3%
Exchange rate	NOK:EUR (2009)	8.73					
Determined unit cost	EUR (2009)	199.95	190.45	182.31	174.39	167.93	-4.3%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 46: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period the profile of Norway's terminal ANS DUC (-4.3% p.a.) is better than that of the SES TANS aggregated DUC of -2.2% p.a.

The % change in Terminal ANS DCs at -1.6% p.a. over the 2015-2019 period is larger than that projected for en-route at -0.6% p.a.

The DC in 2015 of 52.1 M€$_{2009}$ is slightly below the value of 2013 53.1 M€$_{2009}$.

The profile of Norway's gate-to-gate ANS DCs is worse than the Union-wide en-route DCs target trend over the 2015-2019 period (Norway -0.9% p.a., Union-wide -2.3%p.a.) and the 2014-2019 period (Norway -0.6%, Union-wide -2.1%).

Based on this analysis, Norway's terminal charging zone is assessed as passing this check.

Cost of Capital

Risk sharing applies to Norway's TCZ. The RoE and WACC used for the TCZ is the same as applied for the en-route charging zone.

Based on this analysis, Norway's terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided for the description of the economic assumptions is the same as for en-route costs and therefore the same conclusions follow.

Based on this analysis, Norway's terminal charging zone is assessed as <u>not</u> passing this check.

Additional information on pensions, average interest on loans, and asset base to apply to the WACC consistent with the requirements of the FAB Performance Plan template should be provided.

Description, level, composition and justification of costs exempt from risk sharing

The information provided for the description of the economic assumptions is the same as for en-route costs and therefore the same conclusions follow.

Based on this analysis, Norway's terminal charging zone is assessed as passing this check.

References

[1] Commission Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Commission Implementing Regulation (EU) No 391/2013 of 3 May 2013 laying down a common charging scheme for air navigation services.

[3] Source: European Economic Forecast (Spring 2014).

[4] Source: International Monetary Fund, World Economic Outlook Database, April 2014.

[5] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[6] En-route charging reporting (June 2014) – Estonia, Additional information 4 – paragraph a), page 10/28 and Additional information 4, page 20/28

[7] IATA letter following NEFAB consultation meeting (26 March 2014)

[8] En-route charging reporting (June 2014) – Finland, Additional information 1 – paragraph a), page 15/23

[9] IATA letter following NEFAB consultation meeting (26 March 2014)

[10] En-route charging reporting (June 2014) – Latvia, Additional information 1 – paragraph k) Year 2014, page 5/12

[11] IATA letter following NEFAB consultation meeting (26 March 2014)

[12] En-route charging reporting (June 2014) – Norway, Additional information 1 – paragraph k) Year 2012, page 4/15

[13] Annex A to the Performance Plan for RP2 – FAB Consultation (page 7)

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

SW FAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

SW FAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the South West (SW) FAB was received on 1st July 2014 in English. It was signed by the Chairman of the Board of the Portuguese Civil Aviation Authority and the Director of the Aviation Safety and Security Agency of Spain.

1.1.2 The NSAs responsible for drawing up the Performance Plan are the Portuguese *Instituto Nacional de Aviaçao Civil* (INAC) and the Spanish *Agencia Estatal de Seguridad Aérea* (AESA).

1.1.3 The NSA responsible for the coordination within the FAB is the Spanish *Agencia Estatal de Seguridad Aérea* (AESA).

1.1.4 The FAB Performance Plan provides performance targets set at local level as defined in the performance Regulation[1] for the following accountable entities:

- [PT] The *Instituto Nacional de Aviaçao Civil* (INAC) as the nominated NSA;
- [PT] NAV Portugal as the designated en-route and terminal ANS provider;
- [PT] The *Instituto Português do Mar e da Atmosfera* (IPMA) as the designated MET service provider;
- [PT] SAR, as the Search and Rescue service provider;
- [ES] The *Agencia Estatal de Seguridad Aérea* (AESA) as the nominated NSA;
- [ES] Aena as the designated en-route and terminal ANS provider;
- [ES] The *Agencia Estatal de Meteorología* (AEMET) as the designated MET service provider;
- [ES] ANSP-EA (*Ejército del Aire*), as the service provider for Spanish Air Forces;
- [ES] NSA-EA (*Ejército del Aire*), as the nominated NSA for Spanish Air Forces;
- [ES] The *Autoridad Nacional de Supervisión Meteorológica* (ANSMET) as the nominated NSA for METservices.

1.1.5 The FAB Performance Plan covers the Lisboa FIR, the Madrid FIR/UIR, the Barcelona FIR/UIR and the Canary Islands FIR/UIR. The Santa Maria Oceanic FIR, which belongs to the ICAO North Atlantic Region (NAT), is considered outside the scope of the SES legislation.

1.1.6 As far as terminal services are concerned, the plan covers all 6 airports in the FAB with an average, over the period 2011-2013, of more than 70,000 instrument flight rules (IFR) movements per annum. Besides, Portugal included 8 additional airports, which are below the 70,000 threshold. No airport has been explicitly listed as exempted from the performance and charging Regulations.

1.1.7 According to Article 14 of the Performance Scheme Regulation[1], the PRB has assessed this plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

PORTUGAL

1.2.1 As depicted in Figure 1, Portugal's real GDP declined by 3.2% in 2012 and 1.4% in 2013. Nevertheless, clear signs of recovery are appearing and the GDP is foreseen to rise by 1.2% in 2014[2].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Portugal sourced from Eurostat HICP and the International Monetary Fund (IMF). GDP figures are in line with those presented here.

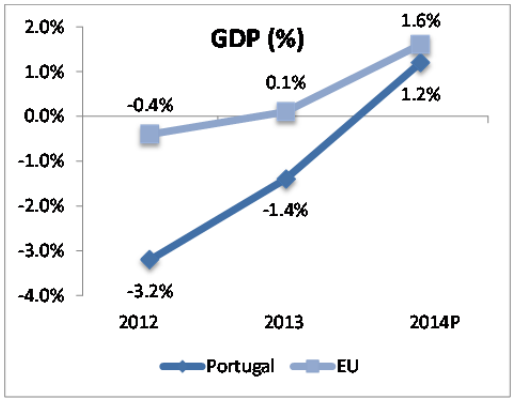


Figure 1: Gross domestic product for Portugal, volume (percentage change on preceding year)[2]

1.2.3 Figure 2 shows that IFR traffic in Portuguese airspace decreased in 2012. Nevertheless, the February 2014 STATFOR baseline scenario is fairly in line with the traffic prediction made in 2009, roughly showing less than a year shift in traffic demand.

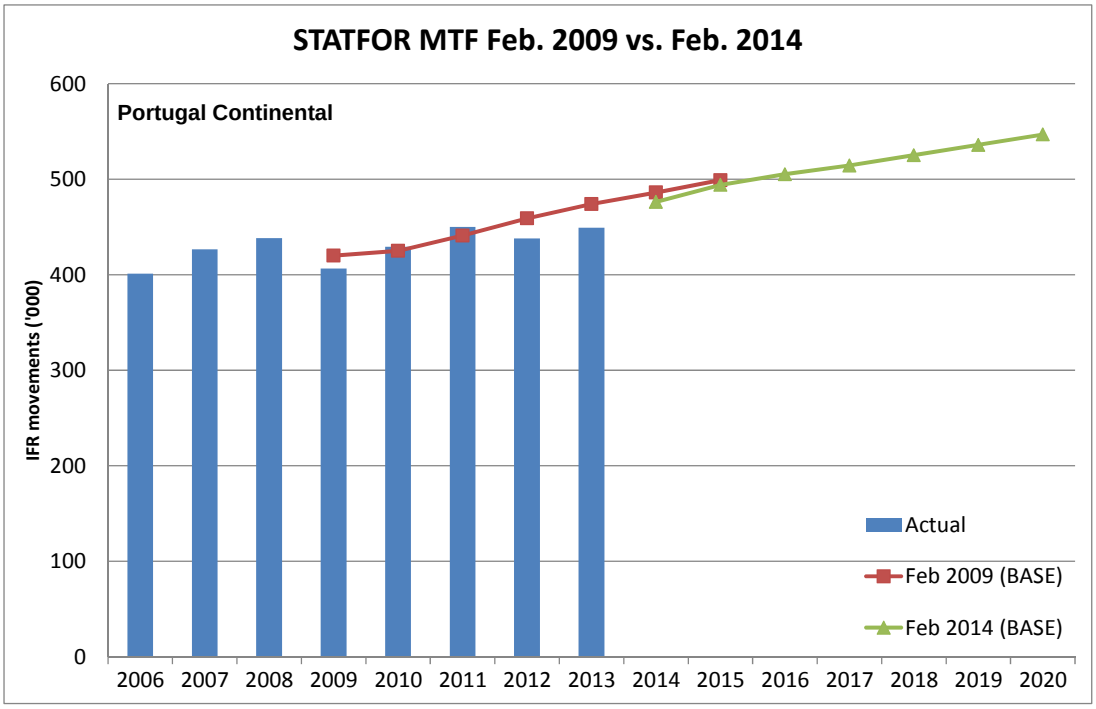


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Portugal

1.2.4 The traffic forecast used in the Performance Plan for Portugal is the one published by STATFOR in the February 2014 base scenario.

SPAIN

1.2.5 After two years of recession, economic activity in Spain is expected to accelerate during 2014, which should lead to an average GDP growth of 1.1%[2].

1.2.6 The FAB Performance Plan contains macroeconomic data and forecasts for Spain sourced from Eurostat HICP and the International Monetary Fund (IMF). GDP figures included in the Performance Plan are in line with those presented here, except for 2014 which are less optimistic.

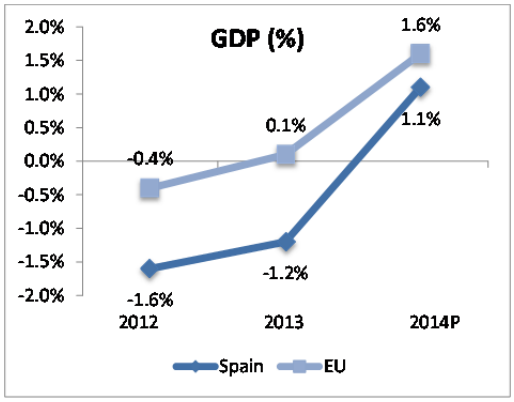
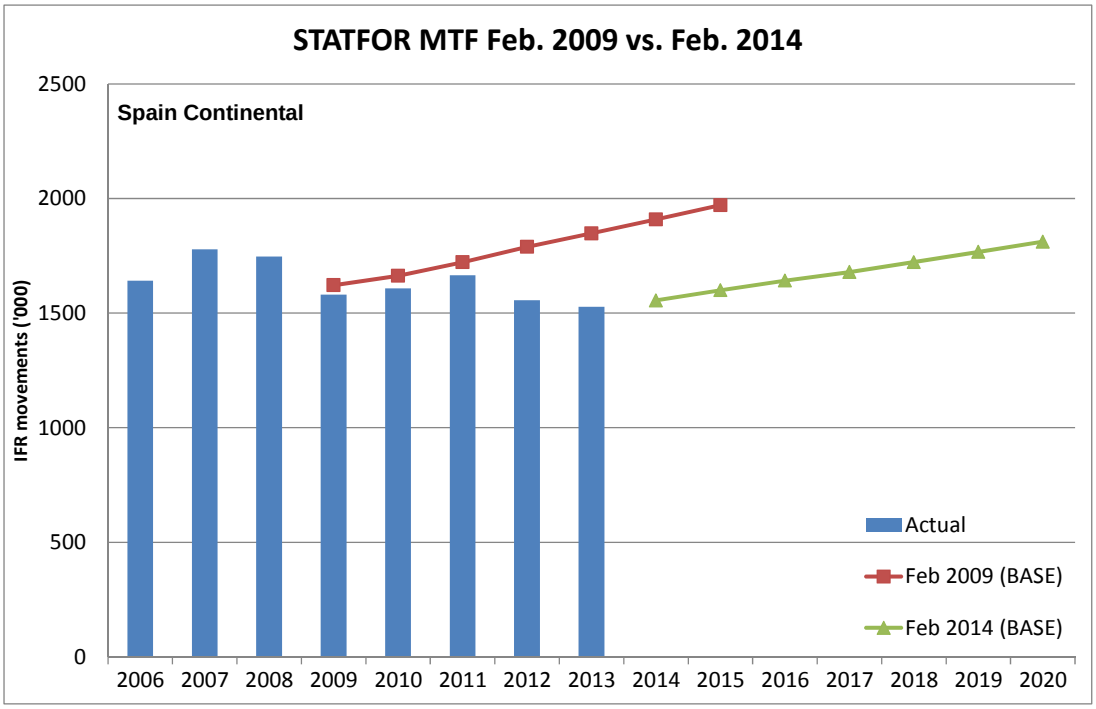


Figure 3: Gross domestic product for Spain, volume (percentage change on preceding year)[2]

1.2.7 As depicted in Figure 4, IFR traffic in Spanish airspace decreased in 2012 and 2013. According to the February 2014 STATFOR baseline scenario, traffic levels will not return to those experienced in 2007 before 2016 for Spain Canarias and 2020 for Spain Continental, therefore showing a shift in traffic demand of 9 and 13 years respectively.



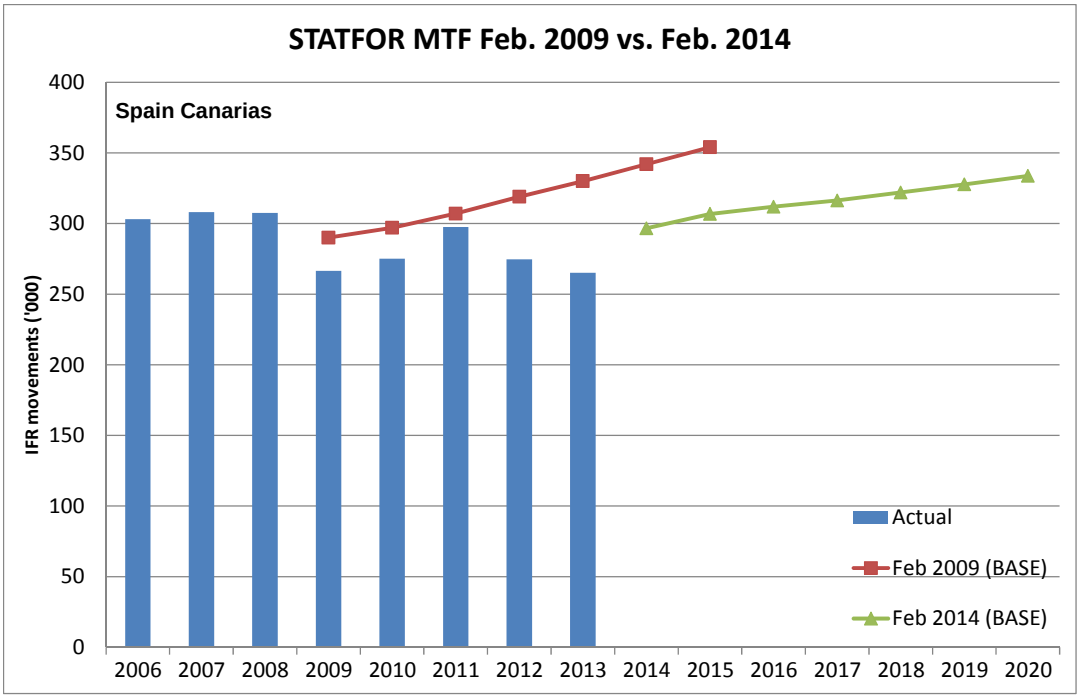


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Spain Continental and Canarias

1.2.8 The traffic figures used in the FAB Performance Plan for the overall Spanish airspace (Continental and Canarias) are those estimated by Aena under the assumption that traffic will evolve following the trend of February 2014 STATFOR low scenario for Spain Continental.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Spain	B
	Portugal	A
	FAB minimum level	*A*
ANSP level	Spain for Safety Culture MO	C
	Portugal for Safety Culture MO	D
	FAB minimum level	*C*
	Spain for all other MOs	C
	Portugal for all other MOs	C
	FAB minimum level	*C*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

RAT application current performance (2013)		Spain	Portugal	FAB
Separation Minima Infringements (SMIs)	ATM Ground	100%	31%	66%
	ATM Overall	0%	31%	16%
Runway Incursions (RIs)	ATM Ground	100%	2%	51%
	ATM Overall	33%	2%	18%
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	0%	50%

Table 2: Severity classification using the RAT methodology

1.3.3 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[3].

ENVIRONMENT

1.3.4 Current performance shows a notable improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 0.59 percentage points (from 4.12% in the first half of 2013 to 3.53% in the first half of 2014).

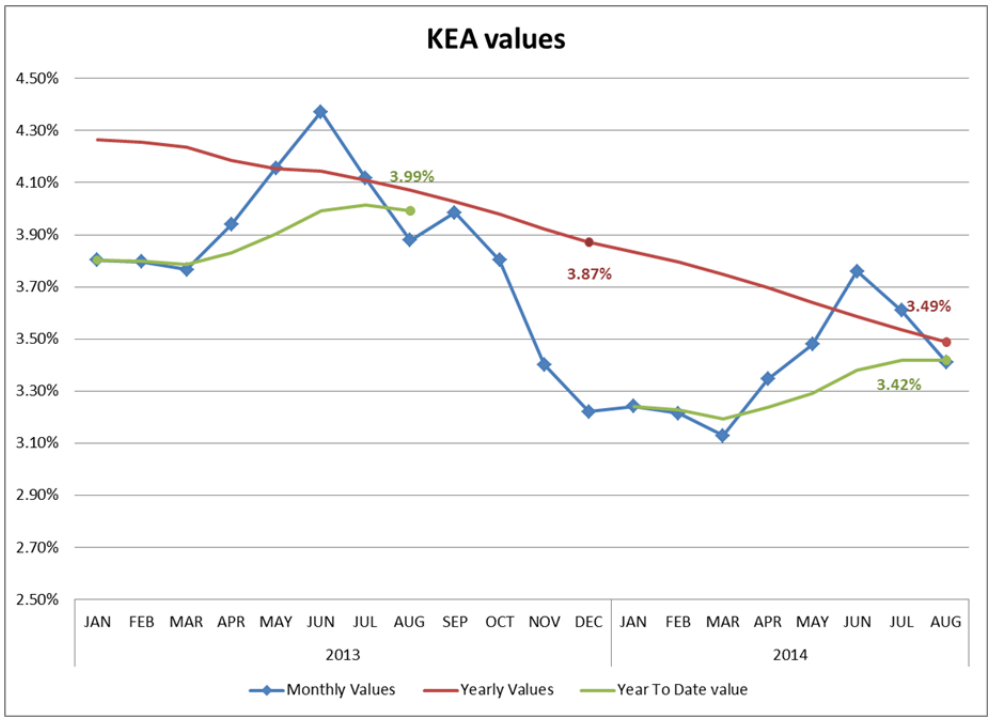


Figure 5: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.5 Current performance shows a notable improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of 0.57 percentage points (from 3.99% in the first eight months of 2013 to 3.42% in the corresponding period of 2014).

CAPACITY

1.3.6 Portugal had three years of capacity performance that was in line with the optimum values for Lisboa ACC, 2009, 2010 & 2011. According to the Network Manager, the deterioration in capacity performance in 2012 & 2013 were not due to structural issues, but were related to social issues between staff and management.

1.3.7 Spain has significantly improved capacity performance since 2010 but has not yet achieved optimum capacity levels.

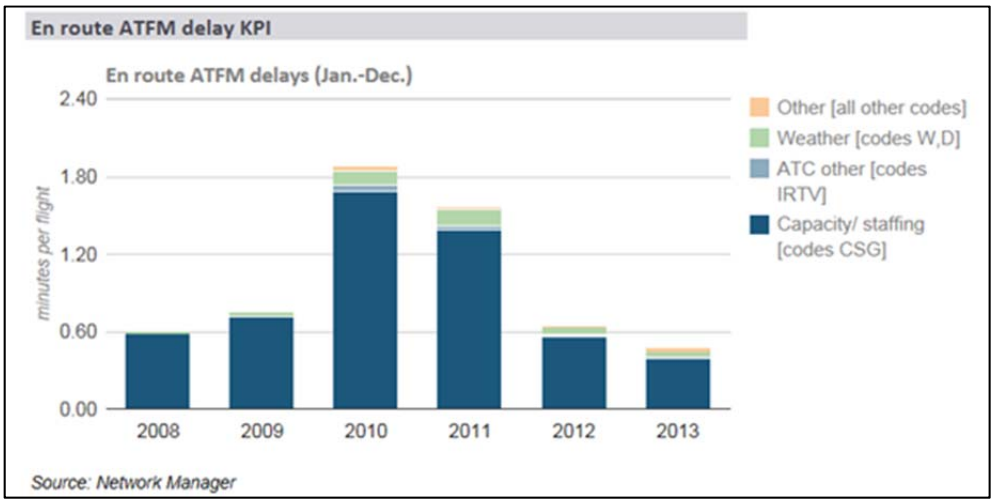


Figure 6: SW FAB en-route ATFM delay

1.3.8 In terms of arrival ATFM delay, the SW FAB significantly improved its performance over the last years and ranges now below the European average. The main reported causes for arrival ATFM restrictions are weather and capacity-related reasons. The SW FAB was able to reduce the impacts in both areas over the last two years.

Figure 7: SW FAB Airport ATFM arrival delay

COST-EFFICIENCY

1.3.9 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the SW FAB to complement the missing and/or incomplete elements as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in the section “11 Public consultation” of the FAB Performance Plan.

1.5.2 Some additional papers are attached to the Performance Plan, although not clearly labelled as “Annex A”:

- RP2 SOWEPP - Consultation Meeting Agenda 20th May 2014; and
- Draft RP2 South West FAB Performance Plan 2015-2019 SOWEPP (CONSULTATION DOCUMENT).

1.5.3 Complementary information is also provided in the “Annex E RP2 SOWEPP – PRB template version”.

1.5.4 Four consultation meetings were held at FAB and national level:

- Portugal RP2 cost-effectiveness stakeholder consultation, 10 April 2014.
- Spain RP2 cost-effectiveness bilateral meeting, 24 April 2014.
- Spanish Airport and ANSP National forum, 25 April 2014.
- RP2 SW FAB Performance Plan Consultation, 20 May 2014.

1.5.5 Based on the information contained in the Performance Plan, the following observations could be made:

- Some information on the outcome of the consultation (including points of disagreement and reasons) has been made available to the PRB;
- Although section 11 states that "*… attendance list, slides, minutes, written comments, etc.*" are available in Annex A, these elements couldn't be found in the submission, with the exception of some comments in a table at the end of the section 11 of the Performance Plan.
- There is no indication that material for the meeting was provided well in advance.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*B*	*B*	*B*	*B*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The SW FAB EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 Both States reported having deficiencies in some components (reported Levels 'A' and 'B'), which is reflected in their responses to the EoSM questionnaire in 2013. In addition, during EASA audits in 2013, results of both States have been verified (i.e. EoSM results provided by States were compared with the results of the audit via 'thorough' verification process). It was found that some of the elements scored as Level 'C' were overrated and did not correspond to what was found during the audit.

2.1.3 Nevertheless, should corrective actions be effectively implemented, it seems realistic for the SW FAB to meet these targets by 2019. Attention should be paid to long-term actions (e.g. changes in the national legal framework, recruitment of staff linked to financial crisis), hence close monitoring is recommended.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*90%*	*90%*	*90%*	*95%*	*100%*	✓
	RIs	*90%*	*90%*	*90%*	*95%*	*100%*	✓
	ATM-S	*90%*	*90%*	*90%*	*95%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*40%*	*60%*	*80%*	*80%*	*80%*	✓
	RIs	*25%*	*53%*	*80%*	*80%*	*80%*	✓
	ATM-S	*53%*	*65%*	*80%*	*85%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The SW FAB severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 However, the SW FAB has reported different figures for the RAT methodology application for ATM-S for ATM Ground and ATM Overall. This should not be the case as these values should be the same (i.e. the ANSP target established for 'ATM Ground' severity should be identical to the NSAs/States target established for 'ATM Overall' severity). Therefore, the PRB expresses concern that the SW FAB States may not be aware of how the classification of ATM-S occurrences is performed. The PRB recommends that the SW FAB clarifies this information.

2.2.3 Based on the current performance in 2012 and 2013, and information available in the FAB Performance Plan, the PRB is concerned how the SW FAB will improve the application of the RAT methodology given the current levels of performance and meet targets set for ATM Overall.

2.2.4 Therefore, although the PRB believes that the SW FAB is on the right track to meet these targets by 2017 and 2019, it suggests that improvements and progress in this area should be closely monitored.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 Based on information provided in their RP2 Performance Plan, the SW FAB has **not established** a common FAB approach in certain areas for Just Culture improvements. On NSA level, the SW FAB specifies the JC target as advancement on a common Just Culture enhancement plan and policy statement; and on ANSP level as development of a common Just Culture enhancement plan. However, information on content of the Just Culture enhancement plan on NSA level is not available.

2.3.3 The SW FAB indicates in its Performance Plan that qualitative targets on Just Culture **have been established** at FAB level. However, at the NSA level, the SW FAB only specifies that the Just Culture target is "to advance in a common Just Culture enhancement plan and policy statement"; while at the ANSP level it is the development of a "common Just Culture enhancement plan". Further detailed information on the content of a Just Culture enhancement plan at the NSA level is not available. As a result, the information provided seems to indicate that the establishment of a common SW FAB approach among the NSAs and their ANSPs on just culture is on-going process as part of the target for RP2.

2.3.4 In addition, it appears (at NSA level) that the SW FAB uses the terms Safety Culture and Just Culture interchangeably. In the SW FAB Performance Plan, section 2.3 states: *"Regarding the safety culture indicator, AESA and INAC plan to cooperate, in the FAB SW framework, in order to improve safety culture. A common policy will be established during this year (2014)."* Whilst Just Culture is an element of Safety Culture the SKPI addresses the reporting on the level of presence or absence of Just Culture. In that respect, the PRB notes the indication that training material on Just Culture will be produced

2.3.5 Based on information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has not been set** (although the intention exists) and in addition, only limited information explaining the basic elements in place to promote the application of just culture is provided.

2.4 Key points

2.4.1 The PRB is confident the SW FAB will be able to meet Union-wide EoSM and RAT application targets.

2.4.2 The SW FAB has reported different targets for the RAT methodology application for ATM-S for ATM Ground and ATM Overall (while it should not be the case). The PRB advises that this information is clarified.

2.4.3 In addition, the PRB suggests that improvements and progress in ATM Overall severity assessment should be closely monitored in the SW FAB.

2.4.4 The local/FAB target for the level of presence or absence of just culture are only formally set. There is no description of planned actions provided. Nevertheless, the intention to develop such plan and actions in 2014 exists.

2.4.5 In addition, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	3.85%	3.71%	3.57%	3.43%	3.28%
FAB Target	*3.85%*	*3.71%*	*3.57%*	*3.43%*	*3.28%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The SW FAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 No additional indicators have been adopted.

3.3 Incentives

3.3.1 No incentive has been adopted in the environment KPA.

3.4 Key points

3.4.1 The SW FAB has adopted annual targets which are consistent with the reference values.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.30	0.31	0.31	0.30	0.30
FAB Target	*0.52*	*0.52*	*0.52*	*0.52*	*0.52*
Consistency check	✘	✘	✘	✘	✘
Shortfall	**0.22**	**0.21**	**0.21**	**0.22**	**0.22**

Table 6: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The SW FAB target **is not consistent** with the respective FAB reference value.

4.1.2 The additional cost to airspace users from the additional delay is estimated at €30 million per year from 2015 – 2017; €33 million in 2018, and €34 million in 2019, a total of €157 million.

4.1.3 It is interesting to recall that the Spanish national target for RP1 was set at a greatly different level to the capacity performance that the ANSP actually delivered.

	2012	2013	2014
Reference Value	0.52	0.42	0.31
National Target	0.8	0.75	0.5
Actual Performance	0.48	0.41	

Table 7: Level of performance for Spain during RP1

4.1.4 It is the view of the PRB that this may have led the Spanish ANSP to believe that there was no need to provide much needed capacity: something that the PRB is keen to ensure does not happen in RP2.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.5 No other FAB has adopted capacity targets to ameliorate the significant capacity shortfall being proposed by the SW FAB.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.6 The latest ANSP capacity plans (from the NOP 2014-2019 June version) indicate that a capacity deficit is planned in three ACCs, Barcelona, Canarias and Madrid for the entire reference period. The PRB has previously noted, in the annual monitoring report for 2013, that the capacity performance/planning for the ANSPs in Spain and

Portugal needs remedial action. In both cases, existing plans for additional capacity have either been continuously postponed or have been downgraded.

Year	2015	2016	2017	2018	2019
Annual reference value	0.30	0.31	0.31	0.30	0.30
Delay forecast full year	0.50	0.53	0.58	0.60	0.64

Table 8: Extract from Network Operations Plan 2014-2019 (June version)

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.7 The FAB plan contained details of how the FUA legislation is being applied to provide additional capacity for general air traffic, including the implementation of new conditional routes and the revision of conditional routes availability to increase capacity.

4.1.8 The PRB considers civil military coordination and cooperation to be a key area where capacity performance could be significantly improved in the SW FAB.

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.9 The contributions of the respective ANSPs, especially Aena, are not consistent with the required level of capacity performance to meet the Union-wide target of 0.5 minutes of en-route delay. On average, they predict an annual delay of 0.52 minutes per flight, a 70% shortfall in capacity performance from what is required to meet the Union-wide target for RP2. Such a shortfall in capacity would result in an additional cost of almost €160 million to airspace users due to the additional delay.

Year		2015	2016	2017	2018	2019
FAB reference value		0.30	0.31	0.31	0.30	0.30
ANSP contribution	NAV Portugal	0.20	0.20	0.20	0.20	0.20
	Aena	0.48	0.48	0.48	0.48	0.48
Aggregated ANSP contribution		**0.52**	**0.52**	**0.52**	**0.52**	**0.52**

Table 9: Individual ANSP contributions to the FAB reference value

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.10 Portugal had three years of capacity performance that was in line with the optimum values for Lisboa ACC, 2009, 2010 & 2011. According to the Network Manager, the deterioration in capacity performance in 2012 & 2013 were not due to structural issues, but were related to social issues between staff and management.

4.1.11 Spain has significantly improved capacity performance since 2010 but has not yet achieved optimum capacity levels.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Spain	*0.80*	*0.80*	*0.80*	*0.80*	*0.80*
Portugal	*0.60*	*0.60*	*0.60*	*0.60*	*0.60*

Table 10: National target on average arrival ATFM delays [minutes per arrival]

4.2.1 The scope of the SW FAB Performance Plan comprises the terminal air navigation services at 5 Spanish airports and 9 airports in Portugal.

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay with a breakdown per airport for each of the years of the reference period for Spain. For Portugal, the breakdown is provided for two airports while the other 7 airports are aggregated into a third summary value.

4.2.3 The Spanish description and explanation of the national target and the contribution to the improvement of performance is supported by planned activities that may impact performance and ultimately support the national target.

4.2.4 A similar level of information is missing for the Portuguese target.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.5 The national target on arrival ATFM delay for Spain and Portugal is consistent with the observed historical performance and the performance at the beginning of the reference period.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.6 For Spain, the projected growth of air traffic is framed by a constant target throughout RP2. The contribution of each airport, including the reasoning behind performance impacts from planned activities, is listed. Operational benefits from planned activities across the airports, including the reasoning of the constraints at Barcelona, are described.

4.2.7 Portugal applies an identical approach (i.e. constant target throughout RP2). The aggregation of the ‘remaining airports’ into one value is motivated by the limited individual share of each airport. No further operational improvement activities are detailed for any of the airports.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.8 Arrival ATFM delay in the SW FAB shows seasonal variability and an improvement at the major aerodromes throughout the past two years. The contribution of the other airports is reasonable constant and in line with similar airports across Europe. Overall, the performance of the SW FAB in terms of arrival ATFM delay has significantly improved and ranges now below the European average.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.9 Please refer to paragraphs 4.2.6 and 4.2.7.

Primary check:

- *Other justifications provided*

4.2.10 The SW FAB Performance Plan provides no further specific airport capacity-related justifications.

4.3 Additional indicators

EN-ROUTE

4.3.1 The SW FAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The SW FAB Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 11 lists the incentive scheme for en-route capacity included in the FAB Performance Plan which have been assessed in line with the general principles as explained in Article 12 of the performance Regulation[1].

Incentive Name	FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance	Notes
En-route ATFM delay	Yes	yes	yes	yes	No	No independent verification of delay classification

Table 11: Incentives on en-route Capacity

4.4.2 The PRB has the following comments on the SW FAB en-route ATFM incentive scheme:

- Table 4.k in the Performance Plan refers to the FAB reference value although subsequently, only the FAB targets are used;
- The FAB targets are not consistent with the Union-wide capacity requirement, and are therefore not considered to be a 'high-level of performance';
- The full bonus would be paid out at a level of capacity performance that is inconsistent with the Union-wide capacity target;
- The incentive scheme refers to ATFM delay for all causes but then describes a system for removing certain delays from the performance calculations;
- There is no mention of an independent verifiable method of reconciling attributed delay to actual events, which raises the possibility of errors or gaming;

AIRPORT

4.4.3 The SW FAB Performance Plan presents no capacity incentive scheme for the national target on arrival ATFM delay for Spain or Portugal.

4.4.4 A clear case for the immaturity of establishing an incentive scheme on this indicator is provided by the Spanish NSA.

4.5 Key points

EN-ROUTE

4.5.1 The FAB targets for en-route capacity are inconsistent with the FAB reference values, and, hence, with the performance required to meet the Union-wide target for en-route capacity during the second reference period.

4.5.2 The individual ANSP contributions for en-route capacity are inconsistent with the level of performance required to meet the Union-wide targets.

4.5.3 The ANSP capacity plans for the SW FAB promise a significant capacity performance deficit during the second reference period, which will cost airspace users an additional €157 Million due to additional delays.

4.5.4 The proposed en-route ATFM incentive scheme is considered as being inconsistent with Article 12 of the performance Regulation in that it does not induce the entities to achieve a high level of performance.

AIRPORT

4.5.5 The national target on arrival ATFM delay for the Spain and Portugal is realistic and consistent with the requirements of Article 14.2 of the performance Regulation[1] and therefore acceptable.

4.5.6 The justification for the Spanish target comprises the contribution of each airport including the reasoning behind performance impacts/operational benefits from planned activities or associated constraints. Portugal separates between two major airports and aggregates the other airports into one single value per year, however, no presentation of potential operational improvement activities are detailed for any of the airports.

4.5.7 The SW FAB Performance Plan presents no capacity incentive scheme for the national target on arrival ATFM delay for Spain or Portugal.

5 COST-EFFICIENCY

5.1 Spain: Setting the scene for RP2 cost-efficiency target assessment

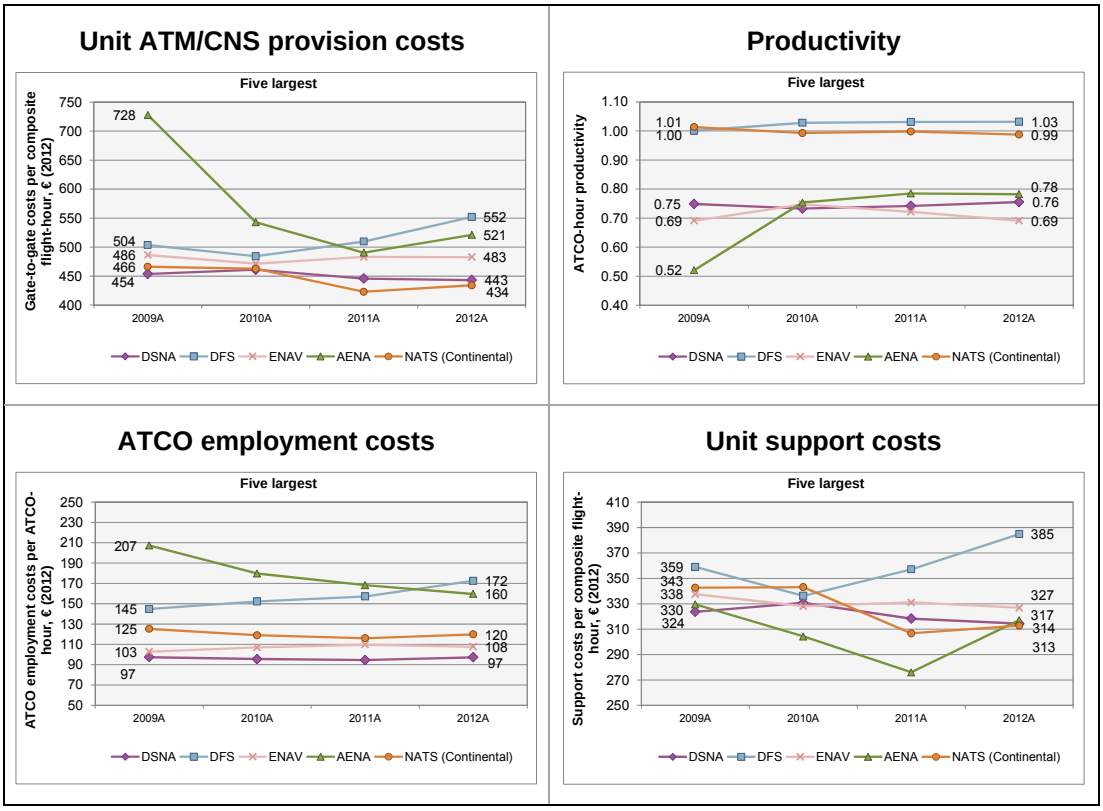
5.1.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on Aena, the main ATSP in the Spain, which represented 12.2% of the European system ATM/CNS provision costs in 2012.

5.1.2 In the ACE Benchmarking reports, ANSPs are considered in a context of a group including other ANSPs (comparators) operating in relatively similar economic and operational characteristics. Aena is part of the five largest ANSPs comparator group, also including DFS (Germany), DSNA (France), ENAV (Italy) and NATS (the United Kingdom).

5.1.3 The ACE 2012 benchmarking analysis shows that:

- Aena's productivity (0.78) is -9.7% lower than the comparator group average (0.87);
- Employment costs per ATCO-hour (160 €$_{2012}$) are +28.4% higher than the comparator group average (124 €$_{2012}$); and,
- Support costs per composite flight hour (317 €$_{2012}$) are -5.2% lower than the comparator group average (335 €$_{2012}$).

5.1.4 As a result, Aena's unit ATM/CNS provision costs (521 €$_{2012}$) were +9.0% higher than the comparator group average in 2012 (478 €$_{2012}$).



5.1.5 The PRB 2013 monitoring analysis indicates that Aena's actual en-route costs for 2013 were substantially lower than planned (-78.2 M€$_{2009}$). This compensated for the impact of the lower than planned traffic (-12.4%) on Aena revenues. Taking into account the amount of costs exempt from the cost sharing and the traffic risk

sharing arrangements, Aena generated a net gain of +63.1 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating Aena's economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (52.5 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for en-route activity in 2013 amounts to 115.7 M€$_{2009}$, which implies an ex-post rate of return on equity of 24.9% (compared to 11.3% as initially planned in the NPP). This adds to the gains generated by Aena in 2012 (+61.0 M€$_{2009}$ or 9.9% of en-route revenues leading to an ex-post rate of return on equity of 14.0%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	633,019	641,461
Actual costs for the ATSP	603,942	564,296
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	29,076	77,166
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	554	1,070
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**29,631**	**78,236**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-9.57%	-12.40%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-17,693**	**-15,110**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	11,938	**63,127**

ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	49,100	52,547
Overall estimated surplus (+/-) for the en-route activity	61,038	115,673
Revenue/costs for the en-route activity	615,880	627,422
Estimated surplus (+/-) in percent of en-route revenue/costs	**9.9%**	**18.4%**
Estimated ex-post RoE pre-taxe rate (in %)	**14.0%**	**24.9%**

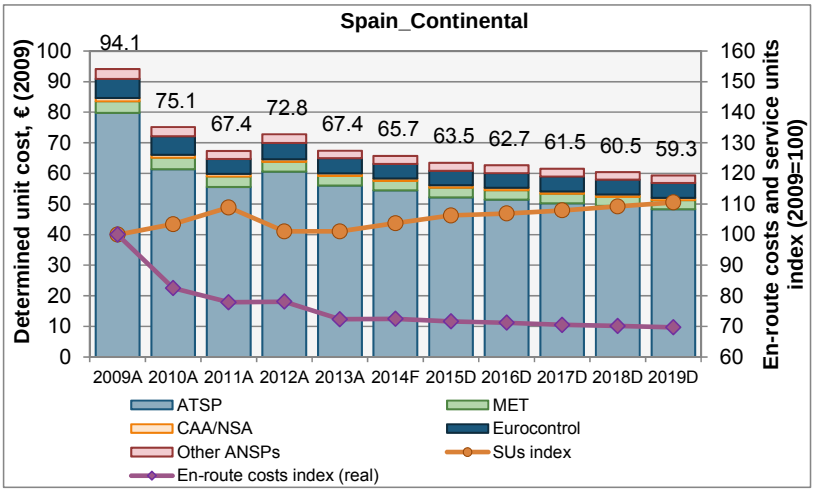
Table 12: ANSP estimated surplus 2012 & 2013

5.2 Spain: Overview of en-route charging zone assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

SPAIN CONTINENTAL

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	79.76	61.34	55.54	60.57	56.04	54.43	52.19	51.41	50.27	49.36	48.34	-1.7%	-2.3%
MET	EUR (2009)	3.86	3.80	3.46	3.22	3.15	3.12	3.19	3.13	3.07	3.00	2.93	-2.1%	-1.3%
CAA/NSA	EUR (2009)	1.02	0.97	0.85	0.85	0.83	0.81	0.79	0.77	0.75	0.72	0.71	-2.3%	-2.7%
Eurocontrol	EUR (2009)	6.23	5.99	4.88	5.30	4.92	4.72	4.64	4.78	4.86	4.91	4.96	0.2%	1.0%
Other ANSPs	EUR (2009)	3.25	3.04	2.61	2.84	2.44	2.65	2.64	2.58	2.53	2.47	2.41	-1.0%	-1.9%
Total	**EUR (2009)**	**94.11**	**75.14**	**67.35**	**72.78**	**67.37**	**65.74**	**63.46**	**62.67**	**61.49**	**60.46**	**59.33**	**-1.6%**	**-2.0%**

Figure 8: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	786.6	662.6	644.8	662.0	622.3	624.8	623.0	624.7	625.0	628.4	630.7
Inflation rate	annual % change		2.0%	3.1%	2.4%	1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Inflation index	2009=100	100.0	102.0	105.2	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Determined costs	EUR m (2009)	786.6	649.3	612.9	614.5	569.1	569.9	563.5	560.0	554.5	551.9	548.1
Service units	'000s	8,358	8,642	9,099	8,444	8,447	8,669	8,880	8,936	9,018	9,128	9,238
Determined unit cost	EUR (2009)	94.11	75.14	67.35	72.78	67.37	65.74	63.46	62.67	61.49	60.46	59.33
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	94.11	75.14	67.35	72.78	67.37	65.74	63.46	62.67	61.49	60.46	59.33

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	-2.2%	-0.3%	0.2%	0.3%
Inflation	CAGR %	1.4%	1.1%	1.0%	1.0%
Determined costs	EUR m (2009)	-3.5%	-1.4%	-0.8%	-0.7%
Service units	'000s	1.0%	0.2%	1.3%	1.0%
Determined unit cost	EUR (2009)	-4.5%	-1.6%	-2.0%	-1.7%
Exchange rate					
Determined unit cost	EUR (2009)	-4.5%	-1.6%	-2.0%	-1.7%

Table 13: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The determined costs (DCs) and planned TSU for the year 2014 in the RP2 Performance Plan have been updated in the light of the latest traffic and cost level context. The updated TSU forecast for 2014 is 8.67 million or -12.1% lower than planned in the NPP. The updated costs forecast is 624.8 M€, -13.4% lower than planned.

For the purposes of en-route DUC trend assessments, attention will therefore be given to the 2014-2019 (RP2), and 2011-2019 (RP1+RP2) periods. The 2009-2019 period is also considered given marked efforts to improve cost-efficiency performance in 2010 and 2011, as illustrated in Figure 8 above.

Key points for Spain Continental en-route charging zone	
1. Traffic forecast assumptions:	**Passed, with reservations**

Forecast total en-route TSUs per en-route charging zone is equivalent to the STATFOR February 2014 low forecast for RP2.

The updated TSU forecast for 2014 is +2.6% higher than 2013 actuals. However the latest actual traffic available for 2014 to date (January – August) shows that traffic in the Spain Continental charging zone is +4.4% higher than the equivalent period in 2013.

2. Economic assumptions:	**Passed**

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

3. En-route DUC trend:	**Passed**

Annual average % changes in DUC for Spain Continental is worse than the Union-wide target for the period 2014-2019, approximately equivalent to the Union-wide target over the period 2011-2019 and is significantly better than the Union-wide target over 2009-2019 (-4.5% vs -2.5% p.a.).

The PRB notes that Spain have significantly revised the 2014 traffic and DCs forecasts for Spain Continental downwards, resulting in a lower starting point for the analysis of the 2014-2019 period. If the STATFOR February 2014 base case scenario were applied, the DUC over RP2 would be -3.4% p.a.

Annual average percentage changes in DCs for both the period 2011-2019 (-1.4%) and 2009-2019 (-3.5%) are better than the trends underpinning the DUC Union-wide targets (-0.8% and -1.1% respectively). Over 2014-2019, the DCs reductions (-0.8%) are worse than the DCs trends underpinning the Union-wide DUC target (-2.1%). During this period the most significant reductions are seen in the depreciation (-3.8% p.a.) and cost of capital (-3.4% p.a.) categories. Staff costs are expected to remain relatively stable (-0.1% p.a.) and other operating costs are expected to increase slightly (+0.4% p.a.).

4. En-route DUC level:	**Passed**
Spain Continental's en-route charging zone DUC level in 2019 is planned to amount to 59.33 €$_{2009}$, -5.2% lower than the average of the comparator group en-route charging zones (62.57 €$_{2009}$). The planned reduction in Spain Continental's DUC over the 2009-2019 period (-4.5% p.a.) is much higher than the comparator group average (-1.2% p.a.).	
5. En-route cost of capital:	**Passed, with reservations**
The WACC rate used to calculate the cost of capital of Aena (5.7% - 5.9% over RP2) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although one assumption used for the different components of the WACC calculation is outside the range of recommended values. The monetary value of the RoE for Spain Continental decreases from 29.0 M€$_{2009}$ in 2015 to 27.7 M€$_{2009}$ in 2019, significantly higher than the maximum traffic risk exposure which will be borne by Aena for the Spain Continental charging zone over RP2 (approximately 20 M€$_{2009}$ in each year of RP2). The PRB notes that the choice of the STATFOR February 2014 low case forecast, the downside risk for Aena is significantly reduced. In 2015, Aena's en-route asset base per service unit for Spain Continental (63 €$_{2009}$) is lower than the comparator group average of ATSPs (XX €$_{2009}$ [update once DFS data available]). This is expected to reduce over RP2 (-3% p.a.) and to amount to 56 €$_{2009}$ per SU in 2019 which is [-xX%] than the group average (XX €$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed** **➔ Passed, with reservations**
The Performance Plan should be updated to reflect the requirements of the FAB Performance Plan template with respect to the information required on interest rates on loans (given the presence of 23% debt in the data provided on the cost of capital). ➔ During the fact verification process (16-09 until 26-09 2014) Spain has noted that the "debt" reflected does not correspond to bank debt, but mainly to a long term accounting provision for "active reserve" ATCO personnel salaries, which are reflected in the liability section of the balance sheet. ➔ The PRB amends its recommendation and requests that the Performance Plan should be updated with information that explains the relationship between the interest rate stated in the cost of capital table in the Additional Information to the Reporting Tables in Annex C and the long term provision for ATCO salaries. ➔ **Taking this information into account, Spain Continental's en-route charging zone is assessed as passing this check, with reservations.**	
7. Costs exempt from risk sharing:	**Passed**
Spain has reported costs exempt from cost sharing in 2012 and 2013. These costs will be	

eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

Regarding information for RP2, Spain has considered the following factors as costs exempt from risk sharing: pension costs relating to any defined contribution pension scheme, changes to interest rates, unforeseen cost items required by law, unforeseen changes in national taxation law, and EUROCONTROL costs.

The Performance Plan does includes limited quantitative information about costs exempt from risk sharing planned for RP2. The national authority responsible for the decision as to whether the costs are valid is not stated.

Overall consistency assessment of Spain Continental en-route cost-efficiency KPIs

Taking into account these key points, in particular 1, 2, 3 and 4, the FAB Performance Plan, and in particular Spain Continental's en-route cost-efficiency target, is assessed as being consistent with and making an adequate contribution to the Union-wide cost-efficiency target over RP2.

However, the PRB advises the Commission to issue a Recommendation to the SW FAB to adopt a revised Performance Plan and, in particular for Spain Continental to revise its en-route cost-efficiency target, including, to:

a) **revise its RP2 TSU forecasts in the light of the evolution of traffic in 2014 (based on key point 1);**

b) **revise downward their en-route RoE to reflect the revenue risk actually faced by Spain Continental (based on key point 5);**

c) **provide information the underlying assumptions regarding interest rates on loans in line with the requirements of the FAB Performance Plan template (based on key point 6).** → updated information provided and recommendation is now that the Performance Plan should be updated with information that explains the relationship between the interest rate stated in the cost of capital table in the Additional Information to the Reporting Tables in Annex C and the long term provision for ATCO salaries.

Additional clarifications/revised data provided in the fact verification process

During the fact verification process (16-09 until 26-09 2014) Spain has noted that the "debt" reflected does not correspond to bank debt, but mainly to a long term accounting provision for "active reserve" ATCO personnel salaries, which are reflected in the liability section of the balance sheet. The PRB amends its recommendation and requests that the Performance Plan should be updated with information that explains the relationship between the interest rate stated in the cost of capital table in the Additional Information to the Reporting Tables in Annex C and the long term provision for ATCO salaries.

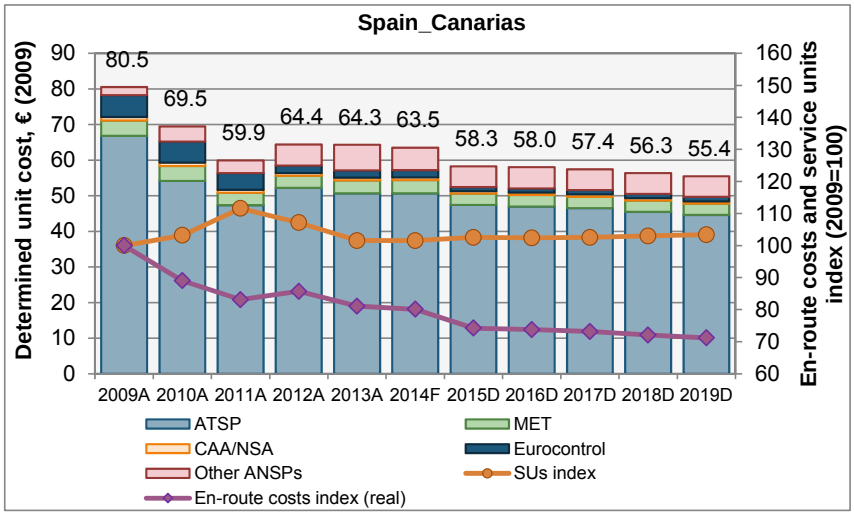
Key point 6 for Spain Continental has been updated to reflect the additional information provided by Spain (i.e. Passed with reservations).

This does not materially change the conclusions of the PRB assessment of Spain Continental en-route cost-efficiency target for RP2.

SPAIN CANARIAS

The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	66.79	54.14	47.33	52.22	50.66	50.65	47.42	46.98	46.52	45.45	44.61	-0.7%	-2.5%
MET	EUR (2009)	4.34	4.20	3.50	3.38	3.64	3.71	3.18	3.22	3.18	3.18	3.16	-1.3%	-3.2%
CAA/NSA	EUR (2009)	0.96	0.95	0.84	0.75	0.78	0.78	0.68	0.68	0.66	0.65	0.65	-3.2%	-3.5%
Eurocontrol	EUR (2009)	6.16	5.94	4.71	2.09	2.05	2.02	1.12	1.17	1.19	1.22	1.24	-15.4%	-9.3%
Other ANSPs	EUR (2009)	2.24	4.26	3.57	5.95	7.15	6.34	5.86	5.94	5.87	5.83	5.78	6.2%	-1.8%
Total	**EUR (2009)**	**80.49**	**69.48**	**59.95**	**64.39**	**64.27**	**63.50**	**58.26**	**57.99**	**57.43**	**56.33**	**55.44**	**-1.0%**	**-2.7%**

Figure 9: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	120.1	109.2	105.1	110.9	106.5	105.5	98.6	98.8	99.1	98.6	98.4
Inflation rate	annual % change		2.0%	3.1%	2.4%	1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Inflation index	2009=100	100.0	102.0	105.2	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Determined costs	EUR m (2009)	120.1	107.0	99.9	103.0	97.4	96.3	89.2	88.6	87.9	86.6	85.5
Service units	'000s	1,492	1,540	1,666	1,599	1,516	1,516	1,531	1,528	1,531	1,537	1,543
Determined unit cost	EUR (2009)	80.49	69.48	59.95	64.39	64.27	63.50	58.26	57.99	57.43	56.33	55.44
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	80.49	69.48	59.95	64.39	64.27	63.50	58.26	57.99	57.43	56.33	55.44

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	-2.0%	-0.8%	-1.4%	0.0%
Inflation	CAGR %	1.4%	1.1%	1.0%	1.0%
Determined costs	EUR m (2009)	-3.3%	-1.9%	-2.3%	-1.0%
Service units	'000s	0.3%	-1.0%	0.4%	0.2%
Determined unit cost	EUR (2009)	-3.7%	-1.0%	-2.7%	-1.2%
Exchange rate					
Determined unit cost	EUR (2009)	-3.7%	-1.0%	-2.7%	-1.2%

Table 14: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

The determined costs (DCs) and planned TSU for the year 2014 in the RP2 Performance Plan have been updated. The updated TSU forecast for 2014 is 1.5 million or -15.6% lower than planned in the NPP. The updated costs forecast is 105.5 M€, -5.4% lower than planned.

It appears that in its Performance Plan, Spain took into account recent information in order to set the starting point for its en-route DUC profile for Spain Canarias over RP2.

Key points for Spain Canarias en-route charging zone	
1. Traffic forecast assumptions:	**Not passed, with reservations**

Forecast total en-route TSUs for Spain Canarias are significantly lower than the STATFOR February 2014 low forecast for RP2. The updated TSU forecast for 2014 shows no growth compared to the 2013 value and is -6.1% lower than the STATFOR February 2014 low forecast (the PRB notes that does not align with any cases in the STATFOR May 2014 forecast either). In 2015 Spain Canarias' forecast is -8.1% lower than the STATFOR low case. For the 2016-2019 period the Spain Canarias forecast is consistent with the STATFOR February 2014 low case in terms of annual growth, however not in absolute value (due to it being based off a 2015 value that is significantly lower than the STATFOR February 2014 value).

The PRB notes that the most recent 2014 actual TSUs, covering January–August 2014, show that Spain Canarias actual 2014 traffic is -0.8% lower than 2013. STATFOR do not expect full-year 2014 outturn traffic to be lower by the same extent as compared to 2013 actuals, however the choice of a 2014 value that is level with 2013 actuals is not unrealistic.

2. Economic assumptions:	**Passed**

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

There is one consistent inflation rate in the Performance Plan, used for both the Spain Continental and Spain Canarias en-route charging zones, as well as the Spain Terminal Charging Zone.

3. En-route DUC trend:	**Passed**

Annual average % changes in DUC for Spain Canarias is worse than the Union-wide target for both the periods 2014-2019 and 2011-2019. However Spain Canarias' annual average % changes in the DUC over the period 2009-2019 is -3.7%, significantly better than the Union-wide target (-2.5% p.a.). The PRB notes this is in the context of a traffic forecast that is on average -8.1% lower than the STATFOR February 2014 base case scenario. If that were applied, the DUC over the period 2014-2019 would be -4.5% p.a., which is significantly better than the Union-wide target (-3.3%).

As far as the DCs are concerned, the annual average percentage changes in DCs for Spain

Canarias are better than the trends underpinning the Union-wide targets for all periods analysed.

All categories of cost by nature forecast decreases over RP2, ranging between -1.1% p.a. over the period 2014-2019 (staff costs and exceptional items) to -5.0% p.a. (depreciation).

4. En-route DUC level:	**Not passed, with reservations**

Spain Canarias' en-route charging zone DUC level in 2019 is planned to amount to 55.44 €$_{2009}$, which is significantly (+80.4%) higher than the average of the comparator group en-route charging zones (30.73 €$_{2009}$). It is also higher (+8.2%) than the Union-wide average of 51.26 €$_{2009}$.

The PRB notes, however, that Spain Canarias has been reducing its DCs since 2012, with the starting point planned for 2014 being -6.5% lower than the 2012 actual DCs, and -1.2% than actual DCs in 2013. This DCs reduction is planned to continue at an average annual rate of -2.3% p.a. over 2014-2019. In addition, the planned reduction in Spain Canarias' DUC over the 2009-2019 period (-3.7% p.a.) is higher than the comparator group average (-2.5% p.a.).

5. En-route cost of capital:	**Not passed, with reservations**

The WACC rate used to calculate the cost of capital of Aena (5.7% - 5.9% over RP2) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although one assumption used for the different components of the WACC calculation is outside the range of recommended values.

However, the monetary value of the RoE for Spain Canarias ranges from 5.6 M€$_{2009}$ in 2015 to 5.4 M€$_{2009}$ in 2019, higher than the maximum traffic risk exposure which will be borne by Aena over RP2 (just over 3 M€$_{2009}$ in each year of RP2). The PRB notes that with the choice of a traffic forecast for RP2 that is -8.1% lower than the STATFOR February 2014 low case forecast, the downside risk for Aena is significantly reduced and as a result a lower RoE should prevail, all other things being equal.

In 2015, Aena's en-route asset base per service unit for Spain Canarias (70 €$_{2009}$) is over four times the comparator group average of ATSPs (13 €$_{2009}$). This is expected to reduce over RP2 (-3% p.a.) and to amount to 64 €$_{2009}$ per SU in 2019 which is just over three times the forecast group average (15 €$_{2009}$).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed** ➔ **Passed with reservations**

For Spain Canarias, the information relating to economic assumptions provided in the Performance Plan is the same as that provided for Spain Continental. The comments on this component of the assessment are therefore provided under the Spain Continental assessment.

➔ During the fact verification process (16-09 until 26-09 2014) Spain provided additional information on this point (see Spain Continental assessment). **Taking this information into account, Spain Canarias' en-route charging zone is assessed as passing this**

check, with reservations.	
7. Costs exempt from risk sharing:	**Not passed** **➔ Passed**
For Spain Canarias, the information relating to the description, level, composition and justification of costs exempt from risk sharing provided in the Performance Plan is the same as that provided for Spain Continental. The comments on this component of the assessment are therefore provided under the Spain Continental assessment. ➔ During the fact verification process (16-09 until 26-09 2014) and following a comment from Spain, Key Point 7 for Spain Canarias has been updated to reflect the outcome of Key Point 7 for Spain Continental (i.e. Passed).	

Overall consistency assessment of Spain Canarias en-route cost-efficiency KPIs

Taking into account these key points, in particular 1 and 4, the FAB Performance Plan, and in particular Spain Canarias' en-route cost-efficiency target, is assessed as not being consistent with and not making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the SW FAB to adopt a revised Performance Plan and, in particular for Spain to revise the en-route cost-efficiency target for Spain Canarias, including, to::

a) revise its RP2 TSU forecasts (based on key point 1);

b) revise downward their en-route RoE to reflect the revenue risk actually faced by Spain Canarias (based on key point 4);

c) provide information the underlying pension costs assumptions and interest rates on loans in line with the requirements of the FAB Performance Plan template (based on key point 6); and → updated information provided and recommendation is now that the Performance Plan should be updated with information that explains the relationship between the interest rate stated in the cost of capital table in the Additional Information to the Reporting Tables in Annex C and the long term provision for ATCO salaries.

d) provide further details on the costs exempt from risk sharing planned for RP2 (based on key point 7). → **no longer required following update during the fact verification process**

Additional clarifications/revised data provided in the fact verification process

During the fact verification process (16-09 until 26-09 2014):

Key point 6 for Spain Continental has been updated to reflect the additional information provided by Spain (see Spain Continental) (i.e. Passed with reservations).

Key Point 7 for Spain Canarias has been updated to reflect the outcome of Key Point 7 for Spain Continental (i.e. Passed).

This does not materially change the conclusions of the PRB assessment of Spain Canarias en-route cost-efficiency target for RP2.

5.3 Spain: Overview of terminal charging zones assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Spain for RP2.

This charging zone includes five airports, all of which have more than 70,000 IFR per year: Adolfo Suárez Madrid-Barajas (LEMD), Barcelona (LEBL), Palma de Mallorca (LEPA), Málaga (LEMG) and Gran Canaria (GCLP).

This is a reduction on the number of airports included in the Spain TCZ between 2014 and 2015 (from 12, of which 11 had over 50,000 IFR per year, down to five).

Terminal traffic in the Spain TCZ is subject to traffic risk sharing. The Spanish TCZ covers 81.8% of terminal traffic in Spain.

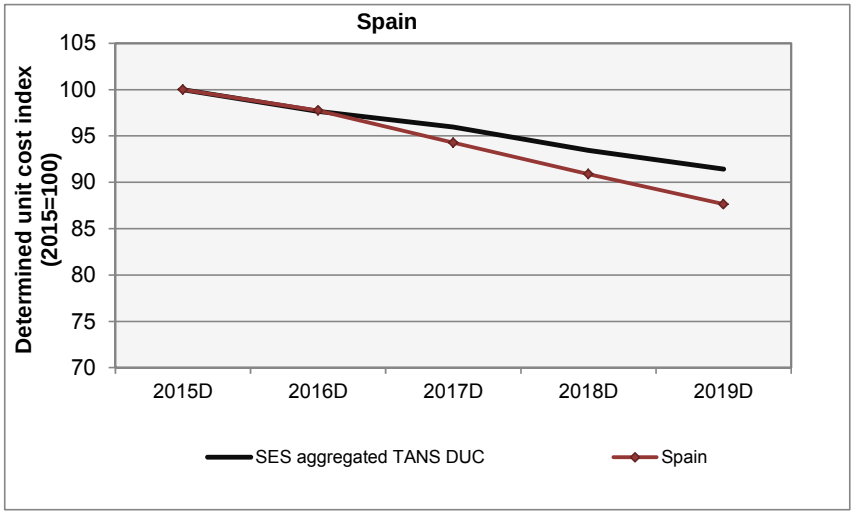


Figure 10: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	100.0	99.3	97.8	96.7	95.5	-1.1%
Inflation rate *	annual % change	0.8%	0.9%	1.0%	1.0%	1.1%	1.0%
Inflation index *	2009=100	110.6	111.6	112.7	113.9	115.1	
Determined costs	EUR m (2009)	90.4	89.0	86.8	84.9	83.0	-2.1%
Terminal SUs	'000s	642.0	646.4	653.6	663.4	672.0	1.1%
Determined unit cost	EUR (2009)	140.86	137.69	132.79	128.02	123.46	-3.2%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	140.86	137.69	132.79	128.02	123.46	-3.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 15: Terminal DUC breakdown

Key points for the Spain terminal charging zone	
1. Traffic forecast assumptions:	**Passed**
Forecast total Terminal Navigation Service Units (TNSUs) for the Spain TCZ lie within the STATFOR base case and low forecasts published in February 2014 for RP2.	
2. Economic assumptions:	**Passed**
The inflation data provided for the Spain TCZ is in line with the en-route assumptions for RP2.	
3. Terminal ANS DUC trend:	**Passed**
The annual average percentage change in Spain's local Terminal ANS DUC over 2015-2019 is -3.2%, better than the profile corresponding to the SES Union-wide aggregated Terminal ANS DUC taken from RP2 Performance Plans (-2.2%) – see Figure 10 above. Spain plans to reduce its terminal ANS DCs by -2.1% p.a. on average over the 2015-2019 period. This is better than the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (-0.7%).	
4. Terminal cost of capital:	**Passed**
The traffic risk sharing mechanism is applied in the Spain TCZ. The PRB notes that the return on equity used to calculate the cost of capital for Aena for the terminal charging zone is the same as that used to calculate the return on equity for en-route ANS and the WACC used to calculate the cost of capital for terminal ANS is the same as that used to calculate the en-route cost of capital for the main en-route ATSP.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed** **→ Passed with reservations**
The information provided in the RP2 Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment. → During the fact verification process (16-09 until 26-09 2014) Spain provided additional information on this point (see Spain Continental assessment). **Taking this information into account, Spain terminal charging zone is assessed as passing this check, with reservations.**	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the RP2 Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Spain terminal ANS cost-efficiency KPIs
Taking into account these key points, in particular 1, 2, 3 and 4 the FAB Performance Plan, and in particular the Spain terminal ANS cost-efficiency target is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

5.4 Portugal: Setting the scene for RP2 cost-efficiency target assessment

5.4.1 This section sets the scene for the RP2 cost-efficiency targets assessment. It summarises key findings resulting from the ACE 2012 Benchmarking Report, and from the PRB 2012 and 2013 monitoring analysis. It focuses on NAV Portugal, the main ATSP in Portugal, which represented 1.7% of the European system ATM/CNS provision costs in 2012.

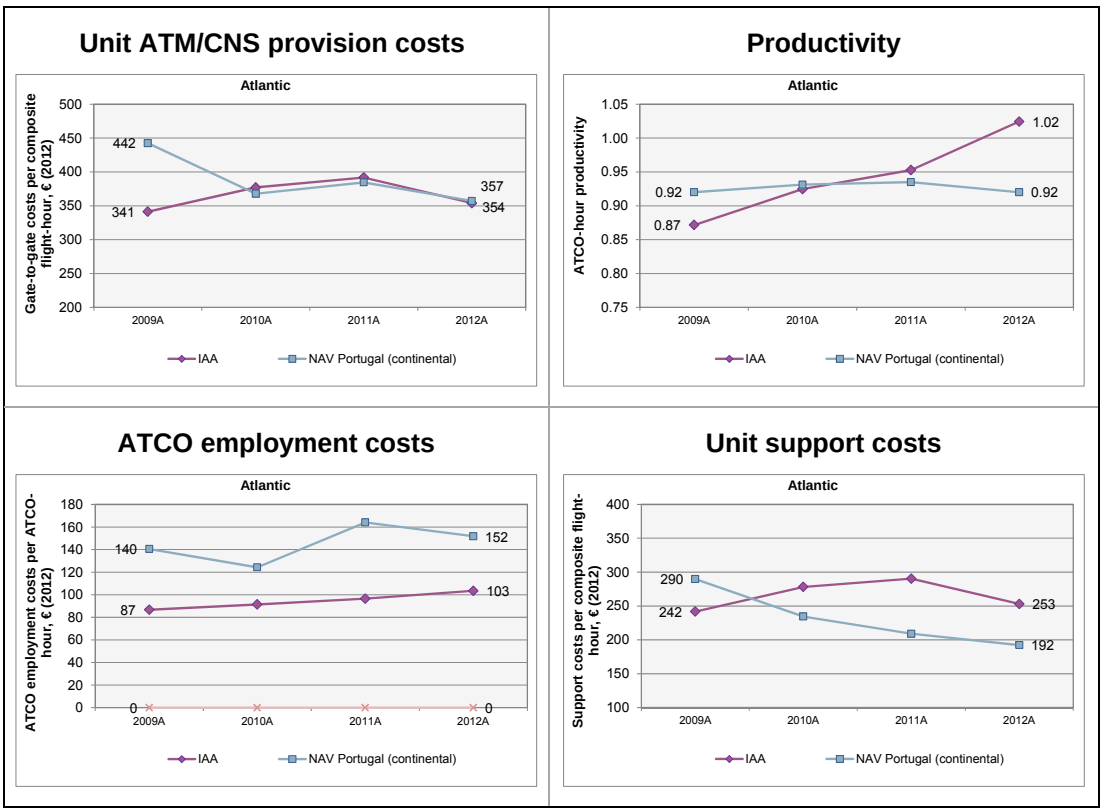
5.4.2 In the ACE Benchmarking reports, ATSPs are considered in a context of a group including other ATSPs (comparators) operating in relatively similar economic and operational characteristics. NAV Portugal is part of the Atlantic ATSP comparator group, also including IAA (Ireland).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- NAV Portugal's productivity (0.92) is -10.2% lower than for the IAA (1.02);
- Employment costs per ATCO-hour (152 €$_{2012}$) are +46.8% higher than for the IAA (103 €$_{2012}$); and,
- Support costs per composite flight-hour (192 €$_{2012}$) are -24.0% lower than for the IAA (253 €$_{2012}$).

5.4.4 As a result, NAV Portugal's unit ATM/CNS provision costs (357 €$_{2012}$) were comparable (+0.9%) with the figure for the IAA in 2012 (354 €$_{2012}$).

5.4.5 It is also important to note that reduction in NAV Portugal ATM/CNS provision costs between 2009 and 2010 is mainly driven by (a) the cost-containment measures implemented by NAV Portugal (in line with the "Growing and Stability Programme" of the Portuguese Government), and (b) the fact that the 2009 en-route cost-base included exceptional costs relating to the depreciation of pension costs arising from a change in actuarial assumptions in 2005.



5.4.6 The PRB 2013 monitoring analysis indicates that NAV Portugal actual en-route

costs for 2013 were -2.5% lower than planned (-2.1 M€$_{2009}$). On the other hand, traffic was also lower than planned (-3.6%) causing a loss in respect of traffic risk sharing of -2.1 M€$_{2009}$. Taking into account the amount of costs exempt from the cost sharing (5.6 M€$_{2009}$) in addition to traffic and cost risk sharing, NAV Portugal generated a net gain of +5.6 M€$_{2009}$ in 2013 on the en-route activity.

5.4.7 When estimating NAV Portugal economic surplus, it is also important to account for the profit embedded in the cost of capital through the return on equity (some 2.0 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 7.8 M€$_{2009}$, which implies an ex-post rate of return on equity of 27.3% (compared to 7.6% as initially planned in the NPP). This adds to the gains generated by NAV Portugal in 2012 (+7.7 M€$_{2009}$ or 7.9% of en-route revenues leading to an ex-post rate of return on equity of 26.1% in 2012). These results are to be confirmed as they depend on the eligibility, or not, to recover the costs exempt from risk sharing.

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	84,991	86,177
Actual costs for the ATSP	93,007	84,062
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-8,017	2,114
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	16,077	5,620
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**8,060**	**7,735**

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-5.70%	-3.62%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-2,565**	**-2,099**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	2012A	2013A
	5,495	**5,635**

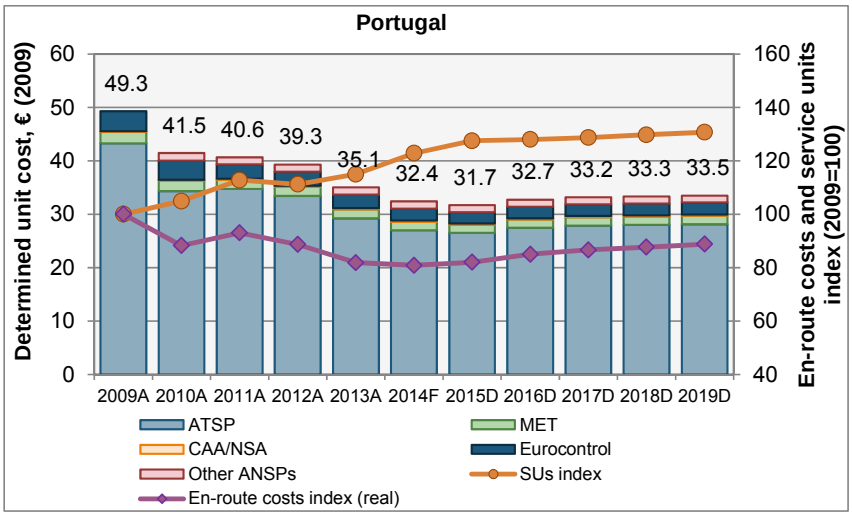
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	2,246	2,161
Overall estimated surplus (+/-) for the en-route activity	7,741	7,796
Revenue/costs for the en-route activity	98,502	89,698
Estimated surplus (+/-) in percent of en-route revenue/costs	**7.9%**	**8.7%**
Estimated ex-post RoE pre-taxe rate (in %)	**26.1%**	**27.3%**

Table 16: ATSP estimated surplus 2012 & 2013

5.5 Portugal: Overview of en-route charging zone assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route KPI assessment. The full assessment details are provided in Annex 1.

Overview



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	43.29	34.31	34.72	33.43	29.22	27.02	26.52	27.49	27.88	28.00	28.15	-2.6%	0.8%
MET	EUR (2009)	2.11	2.00	1.74	1.72	1.70	1.57	1.53	1.55	1.56	1.58	1.59	-1.1%	0.2%
CAA/NSA	EUR (2009)	0.13	0.14	0.19	0.21	0.23	0.23	0.22	0.22	0.22	0.22	0.22	2.0%	-1.3%
Eurocontrol	EUR (2009)	3.72	3.60	2.68	2.61	2.55	2.25	2.11	2.16	2.20	2.22	2.24	-2.2%	-0.1%
Other ANSPs	EUR (2009)	-	1.42	1.31	1.33	1.37	1.36	1.31	1.30	1.30	1.28	1.27	-0.3%	-1.3%
Total	**EUR (2009)**	**49.26**	**41.47**	**40.63**	**39.29**	**35.06**	**32.43**	**31.69**	**32.72**	**33.16**	**33.30**	**33.47**	**-2.4%**	**0.6%**

Figure 11: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	123.2	110.3	120.4	118.1	109.4	108.8	111.7	117.5	121.5	124.9	128.3
Inflation rate	annual % change		1.4%	3.6%	2.8%	0.4%	0.7%	1.2%	1.5%	1.5%	1.5%	1.5%
Inflation index	2009=100	100.0	101.4	105.1	108.0	108.4	109.2	110.5	112.2	113.8	115.5	117.3
Determined costs	EUR m (2009)	123.2	108.8	114.6	109.3	100.9	99.6	101.1	104.8	106.8	108.1	109.4
Service units	'000s	2,501	2,624	2,821	2,782	2,877	3,072	3,190	3,202	3,219	3,245	3,269
Determined unit cost	EUR (2009)	49.26	41.47	40.63	39.29	35.06	32.43	31.69	32.72	33.16	33.30	33.47
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	49.26	41.47	40.63	39.29	35.06	32.43	31.69	32.72	33.16	33.30	33.47

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	0.4%	0.8%	3.4%	3.5%
Inflation	CAGR %	1.6%	1.4%	1.4%	1.5%
Determined costs	EUR m (2009)	-1.2%	-0.6%	1.9%	2.0%
Service units	'000s	2.7%	1.9%	1.2%	0.6%
Determined unit cost	EUR (2009)	-3.8%	-2.4%	0.6%	1.4%
Exchange rate					
Determined unit cost	EUR (2009)	-3.8%	-2.4%	0.6%	1.4%

Table 17: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	Yes
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

En-route TSU and cost forecasts provided in the RP2 Performance Plan for the year 2014 have been updated compared to RP1 Performance Plan:

- Total en-route costs (in nominal terms) for 2014 are expected to be -2.0% lower than the RP1 determined costs (DCs); and
- TSUs for 2014 are expected to be +1.8% higher than in the RP1 Performance Plan, reflecting STATFOR February 2014 low case forecast, and +6.8% higher than 2013 actuals.

Because of these updates, the latest forecast for the 2014 unit cost and starting point for RP2 (in €$_{2009}$) is -5.0% lower than the DUC published in RP1 Performance Plan.

Key points for Portugal en-route charging zone	
1. Traffic forecast assumptions:	**Passed, with reservations**

The forecast en-route TSUs are in line with STATFOR low case forecast published in February 2014 over RP2.

The traffic forecast adopted by Portugal for 2014 is also in line with STATFOR low case forecast, which implies a +6.8% increase in TSUs compared to 2013. This trend is slightly lower than the evolution observed to date (+7.3% for the period January to August 2014).

The choice of the STATFOR February 2014 low forecast for the Portugal en-route charging zone is not necessarily consistent with the strong growth seen to date in 2014 traffic on 2013 actuals.

2. Economic assumptions:	**Passed**

The inflation forecasts are in line with IMF average inflation rate forecast published in April 2014 over RP2.

3. En-route DUC trend:	**Not passed**

Portugal forecasts a +0.6% annual en-route DUC increase over the 2014-2019 period, which is worse than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). The planned increase of the DUC is the result of an increase in DCs (+1.9% p.a.) and an increase in traffic (+1.2% p.a.).

When assessed over RP1 and RP2 (i.e. between 2011 and 2019), the DUC is planned to fall by -2.4% p.a., which is better than the expected decrease at Union-wide level (-1.7% p.a.).

Considering the trends in DCs, the PRB notes that DCs are planned to rise by +1.9% p.a. between 2014-2019 (fall by -0.6% p.a. between 2011-2019). These trends are worse than the DCs trends underpinning the Union-wide DUC target for both periods (-2.1% over 2014-2019 and -0.8% over 2011-2019).

The PRB notes that efforts made by the ATSP (NAV Portugal) to contribute to the EU-wide cost-efficiency target in RP1 are not pursued in RP2, especially in relation to staff costs (+1.7% p.a. over RP2) and depreciation costs (+13.3% p.a. over RP2). As discussed in the

Annex of this document, the rationale for the planned increases in staff costs and depreciation costs (given capex profile over RP1 and RP2) deserves further clarification.

➔ During the fact verification process (16-09 until 26-09 2014) Portugal submitted further rationale for the planned increases in staff costs and depreciation costs. Details are provided in the Annex of this document. There is no change to the outcome of this key point.

4. En-route DUC level:	**Passed, with reservations**

Portugal's en-route DUC in 2019 is planned to amount to 33.47 €$_{2009}$, which is -19.8% lower than the average of the comparator group (41.71 €$_{2009}$) and -34.7% lower than the Union-wide DUC (51.26 €$_{2009}$). However, it should also be noted that when compared to Ireland, Portugal's en-route DUC is +19.6% higher (and in fact +71.5% higher if adjusting to account for the differences in the cost of living through the Purchasing Power Parities).

When examining the 2014-2019 period, Portugal's DUC is expected to increase by +0.6% p.a., which is worse than the comparator group average (-2.1% p.a.).

5. En-route cost of capital:	**Passed**

The WACC rate used to calculate the cost of capital of NAV Portugal (6.3%) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although assumptions used for the different components of the WACC calculation are sometimes outside the range of recommended values.

The monetary value of the RoE for NAV Portugal ranges between 2.3 M€$_{2009}$ and 2.7 M€$_{2009}$ over RP2. This is lower than the maximum traffic risk exposure which will be borne by NAV Portugal over RP2 (3.7 - 4.0 M€$_{2009}$). Over RP2, the PRB calculates that the monetary value of the aggregate return on equity is -33.5% lower than the maximum traffic risk exposure for NAV Portugal. On the other hand, using STATFOR low case forecast significantly reduces the likelihood of experiencing this extreme scenario.

The PRB notes that the average asset base per SU for NAV Portugal is lower than its comparators. The PRB also notes that NAV Portugal's share of current assets in the asset base used to calculate the en-route cost of capital (between 36% and 30% over RP2) is significantly higher from that of its comparators (between 15% and 0% over RP2).

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**

The Performance Plan comprises information about the underlying pension costs assumptions, in line with the requirements of the FAB Performance Plan template.

Information is also provided on the interest rates on loans in line with the requirements of the FAB Performance Plan template. The average cost of debt used in the WACC calculation (0.45%) is also consistent with the information provided for individual loans.

7. Costs exempt from risk sharing:	**Passed**

The information provided in the Performance Plan on the level and composition of costs exempt from risk sharing for RP1 is consistent with the FAB template requirement. The Performance Plan also comprises information relating to the composition of costs exempt

from risk sharing for RP2.

Overall consistency assessment of Portugal en-route cost-efficiency KPIs

Taking into account these key points, in particular points 3 and 4, the SW FAB Performance Plan, and in particular Portugal's en-route cost-efficiency target, is assessed as not being consistent with and not making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the SW FAB to adopt a revised Performance Plan and, in particular for Portugal to revise its en-route cost-efficiency target, including, to:

a) Revise its RP2 TSU forecasts in the light of the evolution of traffic in 2014;

b) Revise downward the DCs in RP2, in particular in the light of the economic surplus being generated during the first years of RP1, and addressing the issue of ATCO employment costs being identified in the ACE 2012 benchmarking analysis.

c) Ensure that the RP1 depreciation costs relating to investments cancelled or postponed during RP1 are not charged again to airspace users in RP2, and provide detailed information in the Performance Plan on how this is ensured.

5.6 Portugal: Overview of terminal charging zones assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this terminal KPI assessment. The full assessment details are provided in Annex 1.

Overview

Based on the information provided in the Performance Plan, there is a single Terminal Charging Zone (TCZ) "Portugal", comprising 9 airports (Lisboa, Santa Maria, Flores, Faro, Horta, Madeira, Ponta Delgada, Porto, and Porto Santo).

There was no change in the composition of the TCZ between 2013-2014 and 2015, and for RP2 the traffic risk sharing applies in this TCZ.

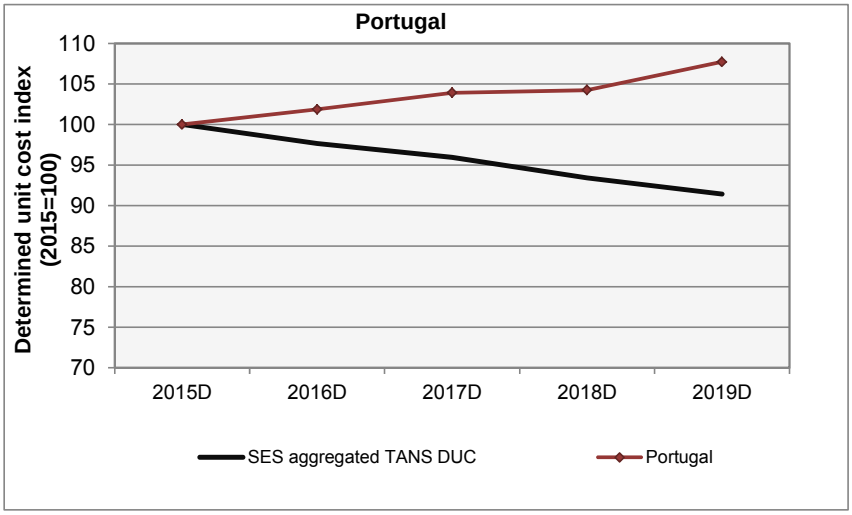


Figure 12: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	27.4	28.4	29.6	30.4	32.3	4.1%
Inflation rate *	annual % change	1.2%	1.5%	1.5%	1.5%	1.5%	1.5%
Inflation index *	2009=100	110.5	112.2	113.8	115.5	117.3	
Determined costs	EUR m (2009)	24.8	25.4	26.0	26.3	27.5	2.6%
Terminal SUs	'000s	186.7	187.2	188.0	189.7	192.1	0.7%
Determined unit cost	EUR (2009)	132.93	135.41	138.13	138.57	143.18	1.9%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	132.93	135.41	138.13	138.57	143.18	1.9%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 18: Terminal DUC breakdown

Key points for the Portugal terminal charging zones

1. Traffic forecast assumptions:	Passed

The forecast TNSUs for the Portugal TCZ are marginally lower than the STATFOR low case forecasts published in February 2014, for every year between 2015 and 2019. These correspond to a +0.7% p.a. increase over the 2015-2019 period.

2. Economic assumptions:	**Passed**
Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route charging zone and the TCZ.	
3. Terminal ANS DUC trend:	**Not passed**
Over the 2015-2019 period, the profile of terminal ANS DUC (+1.9% p.a.) is significantly worse than that of the SES aggregated DUC (-2.0% p.a.).	
4. Terminal cost of capital:	**Passed**
Portugal's TCZ is subject to traffic risk sharing. The return on equity used to calculate the cost of capital for the TCZ is the same as for the en-route charging zone.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Passed**
The information provided in the Performance Plan for the description of terminal ANS economic assumptions is the same as for en-route. Please refer to the en-route assessment.	
6. Costs exempt from risk sharing:	**Passed**
The information provided in the Performance Plan for the costs exempt from risk sharing for Terminal ANS is the same as for en-route. Please refer to the en-route detailed assessment.	

Overall consistency assessment of Portugal terminal ANS cost-efficiency KPIs

Taking into account these key points, in particular 1 and 3, the SW FAB Performance Plan, and in particular the Portugal terminal ANS cost-efficiency target is assessed as <u>not</u> being consistent with the criteria laid down in Annex IV of the performance Regulation.

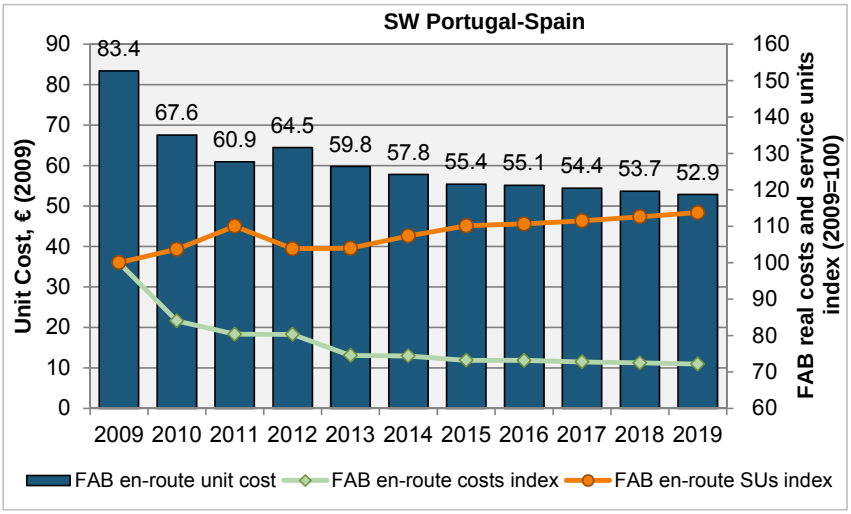
Therefore the PRB advises the Commission to issue a Recommendation to the SW FAB to adopt a revised Performance Plan, and in particular for Portugal to revise its terminal ANS cost-efficiency target, including to:

a) Review its TNSU forecast; and

b) Revise its terminal DC trend over RP2.

5.7 SW FAB: Aggregated en-route trend at FAB level

Overview



Key figures: SW Portugal-Spain		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	1,030.0	865.1	827.4	826.8	767.4	765.7	753.8	753.4	749.2	746.5	743.1
FAB en-route service units	'000s	12,352	12,806	13,586	12,825	12,840	13,257	13,601	13,666	13,768	13,910	14,050
FAB en-route unit cost	EUR (2009)	83.38	67.56	60.90	64.47	59.77	57.76	55.42	55.13	54.41	53.67	52.89

Key figures: SW Portugal-Spain CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	-3.2%	-1.3%	-0.6%	-0.4%
FAB en-route service units	'000s	1.3%	0.4%	1.2%	0.8%
FAB en-route unit cost	EUR (2009)	-4.5%	-1.7%	-1.7%	-1.2%

Figure 13: FAB en-route unit cost trend overview

Key points for the SW FAB

Note: the following comments on the aggregated FAB en-route cost trend should not be interpreted as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level, and for RP2 there are no FABs with a common charging zone and a single unit rate.

Spain (combined Continental and Canarias) en-route determined costs represent 86% of the total en-route costs for the SW FAB over RP2. The trend of the en-route unit costs aggregated at FAB level is therefore significantly impacted by Spain's contribution.

In 2013 the FAB en-route costs (767.4 M€) represent 12.7% of the total SES en-route costs. By 2019, these are planned (743.1 M€) to be 12.1%.

The en-route unit cost trend for the SW FAB over RP2 (-1.7% p.a. between 2014 and 2019) is worse than the Union-wide cost-efficiency target trend (-3.3%).

Over RP1 and RP2 combined (i.e. 2011-2019), the en-route unit cost trend for the SW FAB (-1.7% p.a.) is in line with the Union-wide target.

In addition, the PRB notes that by 2019 the SW FAB unit cost (52.89 $€_{2009}$) is +3.2% higher than the Union-wide aggregated DUC 51.26 $€_{2009}$).

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

6.1.1 Both Aena and NAV Portugal have provided comprehensive information with respect to the links to the ATM Master Plan and the PCP. In both cases the links seem justified and accurate.

6.2 FAB and/or Regional dimension

6.2.1 The Lisboa/Madrid/Brest free route airspace (FRA) project is noteworthy. The aim is, within the RP2 timeframe, the extension of the SW FAB FRA towards the French coast to accommodate main traffic flows into the West Airspace Operational Block of the SW FAB. This involves the SW FAB and the FABEC.

6.2.2 Beyond this, there is no FAB approach to investment and no joint Aena/NAV PT investments. Only one project (PBN PLAN – Performance Navigation) is reported by Aena as bringing synergies at FAB level. NAV PT reported a series of projects as FAB projects level but this seems to have been done on the wrong grounds and Aena does not confirm participation in any of these projects.[4]

REGIONAL PROJECTS PORTUGAL - NAV PORTUGAL

6.2.3 NAV Portugal mistakenly reported several projects as FAB projects on the grounds that they are work packages of a set of the SW FAB Projects. However from the descriptions provided and the fact that Aena does not confirm any participation, these projects seem very much carried out by NAV PT in isolation and bringing no synergies at FAB level.

6.2.4 NAV Portugal reported that the 'Lisbon ACC New System' project is a joint investment with other European ANSPs but it does not specify the partners.

REGIONAL PROJECTS SPAIN - AENA

6.2.5 Aena reported only one project (PBN PLAN – Performance Navigation) as bringing synergies at FAB level. There is no common procurement/investment other than this project.

6.2.6 Aena is involved in the iTEC FDP initiative with partners NATS, LVNL and DFS to establish a harmonised FDP system and Controller Working Position. This brings obvious synergies in terms of financial savings and systems interoperability.

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 The planned investment average for RP2 is foreseen to be 25% lower than the average for the previous five years (planned annual average: 75.8 $M_{€2009}$ per year in RP2 vs. 101.4 $M_{€2009}$ updated annual average for 2010-14).

SW FAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	75.5	81.1	75.0	72.0	75.3	378.8	75.8

Table 19: RP2 SW FAB CAPEX

SW FAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	158.5	164.6	167.3	99.1	166.4	755.8	151.2
Total Updated Planned	165.4	130.5	81.3	53.4	76.5	507.1	101.4
U-P (M€2009, real terms)	6.9	-34.0	-86.0	-45.7	-89.9	-248.7	-49.7
U/P (%)	4.3%	-20.7%	-51.4%	-46.1%	-54.0%	-51.2%	-33.6%

Table 20: 2010-14 SW FAB CAPEX

6.3.2 This FAB level assessment does not reflect different situations at national level, as described below:

PORTUGAL ANSP

6.3.3 Portugal's ANSP investments are planned to be on average 46% higher in RP2 than for the period 2010-14 (8.8 $M€_{2009}$ RP2 yearly average vs. 6.1 $M€_{2009}$ updated average over the past five years).

6.3.4 A peak in CAPEX is noted for 2016 (13.3$M€_{2009}$, 30% from the total RP2 CAPEX), more than half being planned for the "Lisbon ATM System Development".

6.3.5 The "Lisbon ATM System Development", main project for RP2 is continuing from RP1, when two projects were included in the plan: 1) "LISATM 9.0" (€2.1M_{2009} spent over RP1 vs. 2.9$M€_{2009}$ planned) and 2) iTEC-eFDP (300k$€_{2009}$ spent over RP1 vs. 26.7$M€_{2009}$ planned). For RP2 17.6$M€_{2009}$ is planned for the ATM System, 700k$€_{2009}$ for LISATM V9.2 and no amounts for iTEC, so it is assumed that the planned RP2 amount to be a catch-up from RP1. However Portugal should bring clarity on the planned CAPEX for this project. The project will be deployed jointly with other ANSPs and it is in support of ATM Functionality #3 of the PCP Regulation (Flexible Airspace Management and Free Route) meant "*to deliver a system with a common core, to share costs and risks and provide a seamless platform across several European States.*"[5]

6.3.6 LISATM V9.2 is reported as a joint SW FAB project linked to the WP 5.1 ATM. However it is not clearly described to which partners it refers and Aena has not confirmed or mentioned this partnership. Parts of several other projects are also reported as linked to SW FAB projects; i.e. Communication projects in reference to Datalink, AMHS and ATM IR conformity, Navigation systems linked to X TMA's project, "NORWAM" is linked to CNS Surveillance, SSR Mode S is linked to SUR and radar data sharing (see also paragraph 6.2.2).

6.3.7 Several other projects are continuing from the previous reference period, e.g. "Lisbon Terminal APP Radar replacement" and "SSR Mode S" and

"Communication".

6.3.8 The percentage of main versus total investments is higher for each year in RP2 than it was for the previous five years (99% on average in RP2 vs. 86.3% updated average for 2010-14).

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	7.1	13.3	8.2	5.7	9.8	44.1	8.8
MAIN	Planned	7.1	13.0	8.2	5.7	9.7	43.7	8.7
MAIN versus TOTAL		98.7%	98.0%	100.0%	100.0%	99.1%	99.0%	99.0%

Table 21: RP2 Portugal ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	16.1	14.3	23.7	17.3	18.2	89.6	17.9
	Updated Plan	9.2	3.7	4.1	5.8	7.6	30.3	6.1
	U-P (M€2009, real terms)	-7.0	-10.6	-19.6	-11.5	-10.6	-59.3	-11.9
	U/P (%)	-43.2%	-74.4%	-82.6%	-66.7%	-58.2%	-66.2%	-65.0%
MAIN	Planned	14.5	13.0	21.4	15.5	17.4	81.8	16.4
	Updated Plan	7.8	2.8	2.8	5.8	7.6	26.8	5.4
	U-P (M€2009, real terms)	-6.7	-10.2	-18.5	-9.7	-9.8	-55.0	-11.0
	U/P (%)	-46.4%	-78.3%	-86.7%	-62.9%	-56.2%	-67.2%	-66.1%
MAIN versus TOTAL (Planned)		90.0%	91.0%	90.3%	89.7%	95.5%	91.3%	91.3%
MAIN versus TOTAL (Updated Plan)		85.0%	77.2%	69.2%	100.0%	100.0%	88.5%	86.3%

Table 22: 2010-14 Portugal ANSP CAPEX (Actual vs. Planned)

6.3.9 Most of the projects will be deployed during the RP2 timeframe, generating an increase in depreciation by 15.4% on average over the period, whilst the decline in CAPEX during RP1 generated a significant fall in depreciation for the previous five years (actual vs. planned depreciation has decreased by 17% on average over 2010-14).

SPAIN ANSP

6.3.10 Spain's ANSP investments are planned to be on average 30% lower in RP2 than for the period 2010-14 (66.9M€$_{2009}$ RP2 yearly average vs. 95.4M€$_{2009}$ updated average over the past five years).

6.3.11 "*In global terms, contribution of CAPEX to the European ATM Master Plan deployment corresponds to a 66.2% (249.2 M€) of the total investments planned for RP2. This contribution is dedicated to the projects defined in order to address the implementation of Master Plan/ESSIP/ IDP objectives, as well as to enabling activities which support /facilitate the accomplishment of these projects*."[6]

6.3.12 Several main projects are linked to RP1, i.e. "iTEC - Flight Data Processing", "COMETA - Voice over Internet Protocol", "REDAN - Data Network" (Common Project PENS/SWIM), Surveillance Evolution- Mode S, ADSB" and "CWP - Controller Working Position".

6.3.13 "iTEC - FDP", Aena's main project amounts to 44.9M€$_{2009}$ on top of 4.6M€$_{2009}$

already spent during RP1 (1.2M€$_{2009}$ more than planned). It is a joint investment: development costs will be shared with LVNL, NATS and DFS and is linked to regulatory requirements arising from iTEC – FDP Plan.

6.3.14 Another major investment, "COMETA - Voice over Internet Protocol", amounts to 37.8M€$_{2009}$ during the RP2 period, in addition to 7.8M€$_{2009}$ already spent during RP1 (vs.8.6M€$_{2009}$ planned). It is in line with the European ATM Master Plan objectives and the project is described as having impact on capacity and cost-efficiency.

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	68.3	67.8	66.8	66.2	65.5	334.6	66.9
MAIN	Planned	45.0	44.7	44.2	43.9	43.6	221.4	44.3
MAIN versus TOTAL		65.8%	66.0%	66.1%	66.3%	66.5%	66.2%	66.2%

Table 23: RP2 Spain ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	142.4	150.3	143.6	81.8	148.2	666.2	133.2
	Updated Plan	156.2	126.9	77.2	47.6	68.9	476.8	95.4
	U-P (M€2009, real terms)	13.9	-23.4	-66.4	-34.1	-79.3	-189.4	-37.9
	U/P (%)	9.7%	-15.6%	-46.3%	-41.7%	-53.5%	-28.4%	-29.5%
MAIN	Planned	97.3	105.6	16.1	14.7	0.0	233.7	46.7
	Updated Plan	97.2	89.1	11.4	5.5	22.1	225.1	45.0
	U-P (M€2009, real terms)	-0.2	-16.6	-4.7	-9.2	22.1	-8.6	-1.7
	U/P (%)	-0.2%	-15.7%	-29.4%	-62.7%		-3.7%	-27.0%
MAIN versus TOTAL (Planned)		68.4%	70.3%	11.2%	17.9%	0.0%	35.1%	33.6%
MAIN versus TOTAL (Updated Plan)		62.2%	70.2%	14.7%	11.5%	32.1%	47.2%	38.1%

Table 24: 2010-14 Spain ANSP CAPEX (Actual vs. Planned)

6.3.15 For Aena the percentage of main versus total investments is higher for each year in RP2 than it was in RP1 (66.2% on average in RP2 vs 38.1% in RP1). This can be interpreted as a positive evolution: focus is put on key investments likely to deliver better added value. It is however noted that "other" CAPEX amounts to 33.8% from the total planned on average in the RP2 timeframe.

6.3.16 Though several projects are foreseen to be deployed over RP2, depreciation is foreseen to decrease by 3.8% in continuation to the significant decline expected for the previous five years (actual vs. planned depreciation has decreased by 17% on average over 2010-14). It is explained that this decrease is the result of *"reduction of costs due to rationalisation on investments plans, prioritising actions such as constant improvement on safety, legal or regulatory requirements, obsolescence or improvement measures."*[7]

6.4 Total investments vs Total ANS costs

PORTUGAL

6.4.1 Over RP2, total CAPEX is foreseen to represent on average 7.7% of gate-to-gate costs with a peak in 2016 (reaching 11.7%). This is due to the important amounts planned for Lisbon ATM System for this year. Both CAPEX and gate-to-gate ANS costs are expected to increase (+22.2% for CAPEX and +2.2% for gate-to-gate costs).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	6.5%	11.7%	7.1%	4.9%	8.2%	7.7%

Table 25: % RP2 Portugal ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.2 For the 2010-2014 period, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 5% (vs. 15.3% planned), due to -65% "CAPEX effect"[8] and -4% "Costs effect"[9].

SPAIN

6.4.3 Over RP2, total CAPEX is foreseen to represent on average 12.4% of gate-to-gate costs. Both CAPEX and gate-to-gate ANS costs are expected to decrease (-1.1% for CAPEX and -1.1% for gate-to-gate ANS costs).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	12.4%	12.4%	12.4%	12.4%	12.4%	12.4%

Table 26: % RP2 Spain ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For the 2010-2014, the percentage of CAPEX into total gate-to-gate costs is foreseen to be 12.3% (vs. 14.6% planned), due to -38.8% "CAPEX effect" and -15.3% "Costs effect".

6.5 Ancillary assessments

Ancillary assessments	Portugal ANSP (NAV Portugal)	Spain ANSP (Aena)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	"Lisbon ATM System Development", main RP2 project is in continuation of RP1 and seems to be a catch-up from RP1 (for iTEC). Several other projects are in continuation of the previous reference period, e.g. "Lisbon Terminal APP Radar replacement", "SSR Mode S" and "Communication". However some of the projects for RP1 are now grouped differently and it is difficult to assess precisely their continuity through RP2	Major projects are traceable back to RP1, i.e. "iTEC - Flight Data Processing", "COMETA - Voice over Internet Protocol", "REDAN - Data Network" (Common Project PENS/SWIM), Surveillance Evolution- Mode S, ADSB" and "CWP - Controller Working Position". Although the grouping for some smaller projects is different, the investments for RP2 show a clear continuity with RP1.
Overview, impact and date of expected benefits per KPA.	Most of the projects are expected to bring benefits starting with RP2. The Lisbon ATM System is foreseen to impact all the four KPAs beyond the reference period. However benefits are expressed in terms of general expectations but not quantified.	Most of the projects are expected to bring benefits starting with RP2. However benefits are expressed in terms of general expectations but not quantified.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Consultation with stakeholders at FAB level: The documentation provided no other details. At National level, no information is provided on stakeholder consultation and the decision making process. It is unclear whether a CBA has been performed.	Aena refers to an internal process (S22-06) which defines the need for a CBA or other supporting justification. Although the process seems well established, there is no specific information per investment and therefore it is not possible to assess how each project individually was supported by the appropriate analysis e.g. CBA. Consultation at FAB level: The documentation provided no other details. Aena refers to the consultation carried out in the context of the production of the Performance Plan itself but it is unclear to which extent individual investments have been consulted.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	Investment plan is available at FAB level. Information provided in the RP2 Performance Plan is consistent with the Investment Plan.	

Table 27: Ancillary assessments for DANUBE FAB

6.6 PCP prerequisites View

PCP	ESSIP	Portugal	Spain
AF1	ATC15	2015	2015
	ATC07.1	2015	2015
	NAV03		2018
AF2	AOP05	LPPT 2016	LEMD 2015
			LEBL 2015
			LEPA 2015
	AOP04.1	LPPT 2015	LEMD
			LEBL 2014
			LEPA 2014
	AOP04.2	LPPT 2016	LEMD 2015
			LEBL 2015
			LEPA 2015
AF3	AOM19	2015	2015
	AOM21		2014
	ATC12	2016	2016
AF4	FCM04		
	FCM05	2016	
AF5	COM09	2014	2014
AF6	ITY-AGDL	2015	2016

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 28: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: At FAB level, the planned investment average for RP2 is foreseen to be 25% lower than the average for the previous five years.

6.7.2 **FAB / Regional approach**: Beyond the important Lisboa/Madrid/Brest free route airspace (FRA) project, there is no FAB approach to investment and no joint Aena/NAV Portugal investments.

6.7.3 Both ANSPs are involved in initiatives for the development of their ATC systems with partners outside the FAB.

6.7.4 The investment plans of both ANSPs seem to have been developed in isolation and responding mostly to their individual needs.

6.7.5 **Link with Master Plan:** Both Aena and NAV Portugal have provided comprehensive information with respect to the links to the ATM Master Plan and the PCP. In both cases the links seem justified and accurate.

6.7.6 The investments of the SW FAB Member States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation[10]. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

PORTUGAL

6.7.7 On average, Portugal's ANSP investments are planned to be 46% higher in RP2 than for the period 2010-14.

6.7.8 Several main investment projects planned for RP2 are continuing from the ones in RP1 (i.e. Lisbon ATM System Development", "Lisbon Terminal APP Radar replacement", "SSR Mode S" and "Communication"). Lisbon ATM System Development It is assumed to be a catch-up for "iTEC-eFDP", Portugal's main investment for RP1 (see details in paragraph 5). Portugal should provide evidence that the investments planned for RP1 but carried over to RP2 will not be charged twice to airspace users.

6.7.9 Most of the projects will be deployed during the RP2 timeframe, generating an increase in depreciation by 15.4% on average over the period, whilst a fall is foreseen for the period 2010-14.

6.7.10 Over RP2, total CAPEX is foreseen to represent on average 7.7% of gate-to-gate costs, whilst for 2010-2014 it is expected to be 5%.

6.7.11 NAV Portugal did not provide any information regarding consultation with stakeholders or decision-making processes.

SPAIN

6.7.12 Spain's ANSP investments are planned to be on average 30% lower for RP2 than for the period 2010-14.

6.7.13 Several main projects are linked to RP1, i.e. "iTEC - Flight Data Processing", "COMETA - Voice over Internet Protocol", "REDAN - Data Network" (Common Project PENS/SWIM), Surveillance Evolution- Mode S, ADSB" and "CWP - Controller Working Position". "iTEC" is a joint investment with other Member States (see details in paragraph 6.3.13).

6.7.14 Though several projects are foreseen to be deployed during the RP2 timeframe, depreciation is foreseen to decrease by 3.8% in continuation to the significant decline expected over 2010-14.

6.7.15 Over RP2, on average total CAPEX is foreseen to represent 12.4% of gate-to-gate costs being relatively constant over the period, whilst for 2010-2014 it is foreseen to be 12.3%.

6.7.16 The description of the consultation process is generic for all investments and does not allow assessing how each project individually was supported by the appropriate consultation and supported by performance analysis including a CBA. Although processes seem well established, it is not possible to assess individually how investments were consulted.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Plan describes clearly which entities are responsible for the monitoring and reporting at the section “10 Implementation of the plan” (e.g. the “Supervisory Authorities Committee” at FAB level).

7.1.2 A clear description of the measures applied to monitor and report has been included.

7.1.3 Although a description of what is done is included in the Performance Plan, how the situation would be addressed if targets were not met during the reference period is still under construction.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 The FAB plan contained details of how the FUA legislation is being applied to provide additional capacity for general air traffic, including the implementation of new conditional routes and the revision of conditional routes availability to increase capacity;

8.1.2 The PRB considers civil military coordination and cooperation to be a key area where capacity performance for general air traffic could be significantly improved in the SW FAB. This could form a substantial part of the remedial actions required to improve existing capacity plans.

8.2 Additional indicators

8.2.1 No additional civil military indicators were described in the FAB Performance Plan.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the SW FAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the SW FAB Performance Plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 The SW FAB targets for en-route capacity are not consistent with the Union-wide targets for each year of RP2.

COST-EFFICIENCY

9.1.4 The cost-efficiency targets for the en-route charging zones of Spain Canarias and Portugal are not consistent with and do not adequately contribute to, the achievement of the en-route Union-wide target.

9.1.5 The cost-efficiency target for the terminal charging zone of Portugal is not consistent with the criteria laid down in Annex IV of the performance Regulation.

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the SW FAB in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The SW FAB should revise its en-route capacity targets to be consistent with the FAB reference values from the Network Operations Plan of the Network Manager (2014-2018/2019).

RECOMMENDATIONS FOR THE COST-EFFICIENCY KPA

9.2.2 Spain should:

- revise the en-route TSU forecast for Spain Canarias in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital for Spain Canarias to reflect the lower financial risk actually incurred;

9.2.3 Portugal should:

- revise the en-route TSU forecast in the light of the latest available information;
- revise the TNSU forecast in the light of the latest available information.
- revise downwards the en-route determined costs planned for RP2, in the light of the economic surplus being generated during the first years of RP1,
- revise downwards the terminal ANS determined costs planned for RP2.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The SW FAB should provide the missing information and/or clarifications relating to the stakeholder consultations, in application of Annex II, Point 1.3 of the performance Regulation, in particular:

- The SW FAB should provide the list of invited stakeholders and the list of actual participants to all its consultation meetings;
- The SW FAB should provide the dates on which the material for each of the consultation meetings were sent to stakeholders.

COMPLIANCE ISSUES FOR THE SAFETY KPA

9.3.2 The SW FAB should revise the RAT methodology application target for ATM-S, as the values for ATM Ground and ATM Overall scores should be the same.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.3 The SW FAB should ensure that the individual ANSP contributions for en-route capacity are revised so that, when aggregated, they are consistent with the required level of performance, as determined by the SW FAB reference values from the Network Operations Plan (2014-2018/2019).

9.3.4 The SW FAB should mandate its ANSPs to revise and implement en-route capacity plans to meet the required level of en-route capacity performance for RP2.

9.3.5 The SW FAB should revise the proposed en-route ATFM incentive scheme, which is inconsistent with Article 12 of the performance Regulation, and Article 15 of the charging Regulation. In particular, the following items should be addressed:

- The documentation contained in the FAB Performance Plan leads to the conclusion that a full bonus would be paid, even where capacity performance is significantly lower than the required level;
- the incentive scheme does not encourage the entities to achieve a high level of performance;
- the incentive scheme does not apply article 15 of the charging Regulation in a consistent manner;
- there is no mention of an independent verifiable method of reconciling attributed delay classification to actual events, which raises the possibility of errors or gaming.

9.3.6 For arrival ATFM delay, Portugal should provide information on planned initiatives and associated performance benefits to motivate the reference values for the two major Portuguese airports..

9.3.7 The SW FAB Performance Plan should present a capacity incentive scheme for the national target on arrival ATFM delay for Spain or Portugal.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.8 Spain should:

- provide information on the underlying assumptions regarding interest rates on loans in line with the requirements of the FAB Performance Plan template. → during the fact verification process (16-09 until 26-09 2014) updated information was provided. As a result the PRB notes that Spain should provide information that explains the relationship between the interest rate stated in the cost of capital table in the Additional Information to the Reporting Tables in Annex C and the long term provision for ATCO salaries.

9.3.9 Portugal should:

- ensure that the airspace users are not paying for cancelled or delayed investments in RP1, and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.4.1 The SW FAB has provided details of the measures put in place to monitor and report on the implementation of the Performance Plans. It should however include a description of how the situation would be addressed if targets are not reached during the reference period.

OBSERVATIONS FOR THE SAFETY KPA

9.4.2 The SW FAB should closely monitor improvements and progress in the RAT methodology severity classification.

9.4.3 The SW FAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.4.4 Spain should:

- revise the en-route TSU forecast for Spain Continental in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital for Spain Continental to reflect the lower financial risk actually incurred;
- ensure that the airspace users are not paying for cancelled or delayed investments in RP1 and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information on how this is ensured

9.4.5 Portugal should:

- address the issue of ATCO employment costs identified in the ACE 2012 benchmarking analysis.

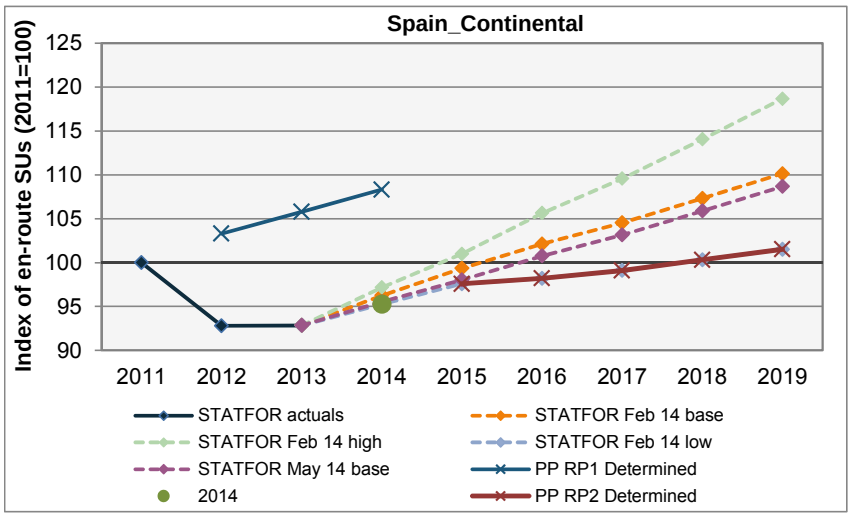
OBSERVATIONS FOR THE INVESTMENTS

9.4.6 Portugal and Spain should provide information on how investments have been consulted with relevant stakeholders and about the decision-making process followed for each project.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Spain Continental: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		9,401	9,626	9,857							
Actuals, 2014, PP RP2 Determined	9,099	8,444	8,447	8,669	**8,880**	**8,936**	**9,018**	**9,128**	**9,238**	**0.2%**	**1.0%**
STATFOR Feb 14 base				**8,757**	**9,040**	**9,293**	**9,513**	**9,765**	**10,023**	**1.2%**	**2.6%**
STATFOR Feb 14 high				8,842	9,189	9,613	9,970	10,379	10,799	2.2%	4.1%
STATFOR Feb 14 low				8,669	8,880	8,936	9,018	9,128	9,238	0.2%	1.0%
STATFOR May 14 base				8,692	8,920	9,169	9,386	9,635	9,889	1.0%	2.6%
PP RP2 vs STATFOR Feb 14 base (%)					-1.8%	-3.8%	-5.2%	-6.5%	-7.8%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 14: En-route TSU forecasts

Comments:

Forecast total en-route TSUs per en-route charging zone is equivalent to the STATFOR February 2014 low forecast for RP2.

The updated TSU forecast for 2014 is +2.6% higher than 2013 actuals. However the latest actual traffic available for 2014 to date (January – August) shows that traffic in the Spain Continental charging zone is +4.4% higher than the equivalent period in 2013.

If the outturn traffic should be in line with the STATFOR February 2014 base case forecast, the net potential gains in revenues to be retained by Spain/Aena according to the traffic risk sharing arrangements are 67.5 M€$_{2009}$ or 3.0% of the total costs subject to traffic risk sharing for RP2. The net potential gains to be retained by airspace users according to the traffic risk sharing arrangements are 53.5 M$_{€2009}$ or 2.4% of the total costs subject to traffic risk sharing for RP2.

Based on this analysis, the Spain Continental en-route charging zone is assessed as passing this check, with reservations, given the discrepancy between the 2014 TSU forecast in the Performance Plan and the latest actual information available for 2014 January - June.

Economic assumptions

Inflation: Spain_Continental		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.4%	1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Eurostat/IMF avg	annual % change		1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Eurostat/IMF avg	2009=100	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 15: Economic assumptions

Comments:

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for RP2 and equivalent to EUROSTAT HICP for 2013.

There is one consistent inflation rate in the Plan, used for both the Spain Continental and Spain Canarias en-route charging zones, as well as the Spain TCZ which is applied to all components of the cost base.

Based on this analysis, the Spain Continental en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	786.6	662.6	644.8	662.0	622.3	624.8	623.0	624.7	625.0	628.4	630.7
Inflation rate	annual % change		2.0%	3.1%	2.4%	1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Inflation index	2009=100	100.0	102.0	105.2	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Determined costs	EUR m (2009)	786.6	649.3	612.9	614.5	569.1	569.9	563.5	560.0	554.5	551.9	548.1
Service units	'000s	8,358	8,642	9,099	8,444	8,447	8,669	8,880	8,936	9,018	9,128	9,238
Determined unit cost	EUR (2009)	94.11	75.14	67.35	72.78	67.37	65.74	63.46	62.67	61.49	60.46	59.33
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	94.11	75.14	67.35	72.78	67.37	65.74	63.46	62.67	61.49	60.46	59.33

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	-2.2%	-0.3%	0.2%	0.3%
Inflation	CAGR %	1.4%	1.1%	1.0%	1.0%
Determined costs	EUR m (2009)	-3.5%	-1.4%	-0.8%	-0.7%
Service units	'000s	1.0%	0.2%	1.3%	1.0%
Determined unit cost	EUR (2009)	-4.5%	-1.6%	-2.0%	-1.7%
Exchange rate					
Determined unit cost	EUR (2009)	-4.5%	-1.6%	-2.0%	-1.7%

Table 29: Determined unit cost trend

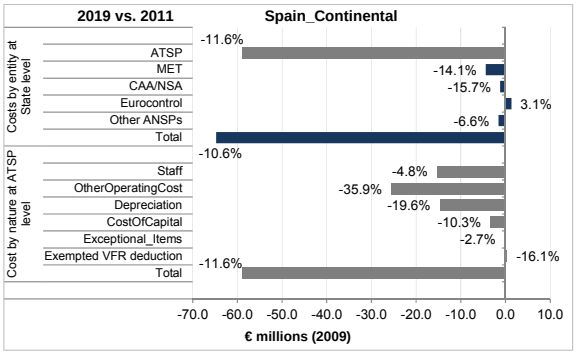


Figure 16: Planned cost category changes over RP1 and RP2

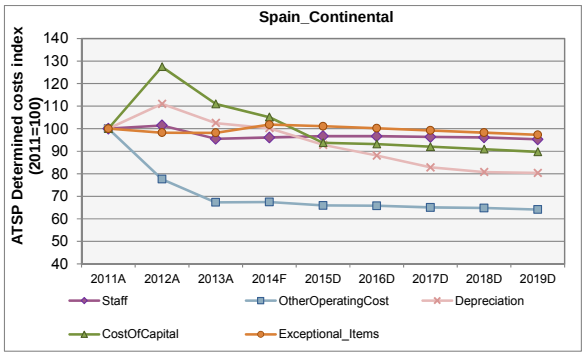


Figure 17: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Annual average % changes in DUC for Spain Continental is -2.0% for the period 2014-2019, which is worse than the Union-wide target (-3.3% p.a.). Over the period 2011-2019, annual average % changes in DUC is -1.6%, approximately equivalent to the Union-wide target (-1.7% p.a.). However Spain Continental's annual average % changes in the DUC over the period 2009-2019 is -4.5%, significantly better than the Union-wide target (-2.5% p.a.).

The PRB notes that Spain Continental have provided a traffic forecast that is in line with the STATFOR February 2014 low case. It is also important to note that Spain have significantly revised the 2014 traffic (-12.1%) and DC (-13.4%) forecasts for Spain Continental downwards, resulting in a lower starting point for the analysis of the 2014-2019 period. If the STATFOR February 2014 base case scenario were applied, the DUC over the period 2014-2019 would be -3.4% p.a.

As far as the DCs is concerned, annual average percentage changes in DC for Spain Continental for the period 2014-2019 (-0.8%) are worse than the DCs trends underpinning the Union-wide DUC target (-2.1%). However annual average percentage changes in DCs for both the period 2011-2019 (-1.4%) and 2009-2019 (-3.5%) are better than the DCs trends underpinning the Union-wide DUC targets (-0.8% and -1.1% respectively).

Airspace users have commented that the Spanish DUC reduction is "*sufficient*".

The PRB notes that updated costs and traffic data for 2014 are provided in the RP2 Performance Plan. The updated 2014 value for TSUs is +2.6% higher than 2013 actual (but lower than the latest available actuals for 2014 to date, which show a +4.5% increase over January – June compared to the equivalent period in 2013), and the updated 2014 value for en-route costs is +0.1% higher than the 2013 actual (i.e. the 2014 updates are in line with the most recent actual data available).

Looking at the contribution of each accountable entity over the 2011-2019 period, the PRB notes that:

- the ATSP (Aena) DCs are planned to reduce by -11.7% (-1.5% p.a.); and
- the CAA/NSA (-2.1% p.a.) and MET (-1.9% p.a.) also plan reductions in DCs over the 2011-2019 period. Other ANSP (Air Force) costs are forecast to reduce at -0.8% p.a.
- EUROCONTROL costs are planned to increase (+0.4% p.a.). The PRB notes however that EUROCONTROL costs for Spain should be viewed in conjunction with Spain Canarias where they are planned to decrease significantly (-16.2% p.a.) over the 2011-2019 period. There was also a one-off reduction "IFRS Budgeting" accounted for in 2011 (-6.2 M€$_{2009}$ for Spain Continental).

There are some variations in individual cost by nature over the 2014-2019 period:

- The most significant reductions are seen in the depreciation (-3.8% p.a.) and cost of capital (-3.4% p.a.) categories.
- Staff costs are expected to remain relatively stable (-0.1% p.a.) and other operating costs are expected to increase slightly (+0.4% p.a.).

For RP2 there are no indications in the FAB Performance Plan that significant structural or organisational changes are planned in the delivery of services within Aena or amongst other ATSPs. However there have been changes in recent years; in the additional information to the Reporting Tables, Spain Continental notes that "*information and justification on the 2012 restructuring costs was sent by Aena to Aesa in September 2013*".

The PRB notes that Spain's ANSP investments are planned to be on average 30% lower for RP2 than for the period 2010-14, and that several main projects are linked to RP1 (for further information see section 6).

Based on this analysis, the Spain Continental en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost level

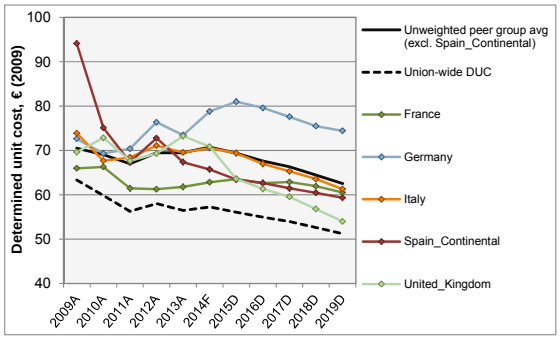


Figure 18: Determined unit cost level

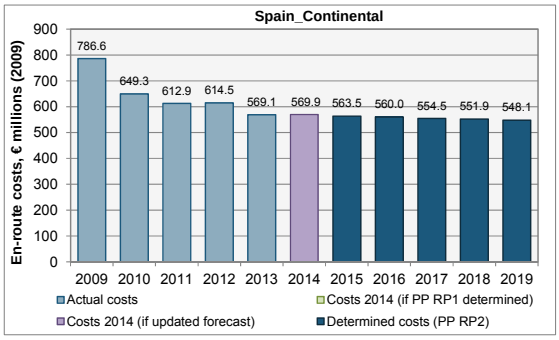


Figure 19: Determined costs 2009-2019

Comments:

Spain Continental's en-route charging zone DUC level in 2019 is planned to amount to 59.33 €$_{2009}$, which is -5.2% lower than the average of the comparator group en-route charging zones (62.57 €$_{2009}$).

The result of this check improves (Spain Continental is -11.2% lower in 2019) if the STATFOR February 2014 base case traffic forecast is used.

If the DUC is adjusted to reflect PPP exchange rates, Spain Continental's DUC in 2019 would be +8.7% higher than the comparator group average.

The planned reduction in Spain Continental's DUC over the 2009-2019 period (-4.5% p.a.) is much higher than the comparator group average (-1.2% p.a.). However, over the 2014-2019 period, Spain Continental's planned DUC (-2.0% p.a.) is lower than the comparator group average (-2.4% p.a.).

Based on this analysis, the Spain Continental en-route charging zone is assessed as passing this check.

Cost of Capital

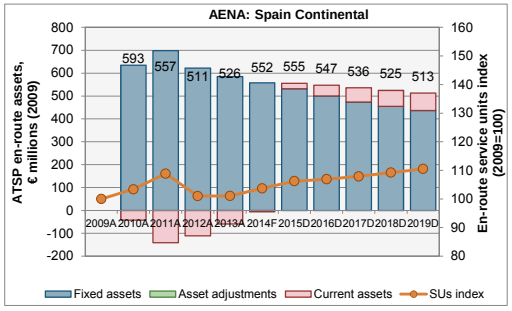


Figure 20: Breakdown of ATSP en-route asset base (2009-2019)

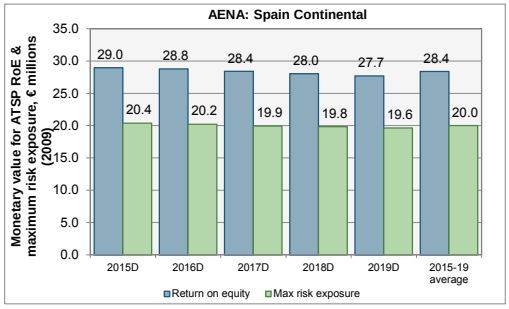


Figure 21: ATSP RoE vs maximum traffic risk exposure

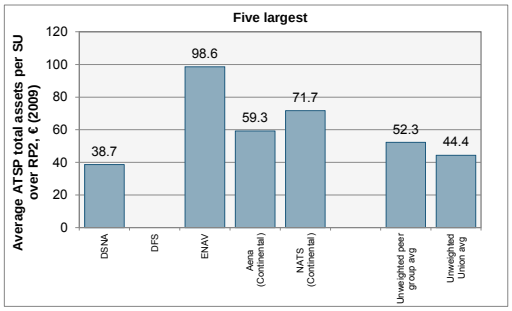


Figure 22: Average en-route asset base per SU over RP2

Comments:

Note: The cost of capital analysis for Spain Canarias and Spain Continental is undertaken jointly, at the ATSP level, Aena, and is provided following.

The WACC rate used to calculate the cost of capital of Aena (ranging between 5.7% - 5.9% over each year in RP2) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although one assumption used for the different components of the WACC calculation is outside the range of recommended values.

Note: The assessment of the return on equity and benchmark comparison of the en-route asset base per service unit is undertaken at en-route charging zone level. The analysis below therefore refers to Spain Continental only.

The pre-tax rate of return on equity (RoE) that will be used by Aena over RP2 amounts to some 6.8% per annum. The monetary value of the RoE for Spain Continental is calculated by taking the relevant components of Aena's capital structure and the total assets used to determine the cost of capital into account. For Spain Continental this decreases from 29.0 M€$_{2009}$ in 2015 to 27.7 M€$_{2009}$ in 2019, higher than the maximum traffic risk exposure which will be borne by Aena over RP2 (approximately 20 M€$_{2009}$ in each year of RP2).

The PRB notes that the choice of the STATFOR February 2014 low case forecast, the downside risk for Aena is significantly reduced.

In 2015, Aena's en-route asset base per service unit for Spain Continental (63 €$_{2009}$) is lower than the comparator group average of ATSPs (XX €$_{2009}$ [update once DFS data available]). This is expected to reduce over RP2 (-3% p.a.) and to amount to 56 €$_{2009}$ per SU in 2019 which is [-xX%] than the group average (XX €$_{2009}$).

Based on this analysis, the Aena Spain Continental en-route charging zone is assessed as passing this check, with reservations due to the high value of the RoE compared to the risk exposure.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
The Performance Plan comprises information about the underlying pension costs assumptions for the PAYG scheme. Under Spanish law 20/2011, no contributions shall be made to employee's pension plans therefore no defined contribution pension costs are included in the Performance Plan for RP2 for Spain Continental. In the Performance Plan, Spain state that any change to this current situation (i.e. a reversal of the law) and resultant requirement to contribute to employee defined contribution pension plans, should be considered as exempt from risk sharing. No information is provided on the interest rates on loans (i.e. breakdown of loans and their interest costs). No information relating to the reconciliation with the average cost of debt used in the WACC calculation was available. The PRB notes that no adjustments beyond IAS are proposed. **Based on this analysis, the Spain Continental en-route charging zone is assessed as not passing this check.** The Performance Plan should be updated to reflect the requirements of the FAB Performance Plan template with respect to the information required on interest rates on loans. ➔ During the fact verification process (16-09 until 26-09 2014) Spain has noted that the "debt" reflected does not correspond to bank debt, but mainly to a long term accounting provision for "active reserve" ATCO personnel salaries, which are reflected in the liability section of the balance sheet. ➔ The PRB amends its recommendation and requires that the Performance Plan should be updated with information that explains the relationship between the interest rate stated in the cost of capital table in the Additional Information to the Reporting Tables in Annex C and the long term provision for ATCO salaries. ➔ **Taking this information into account, Spain Continental's en-route charging zone is assessed as passing this check, with reservations.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Spain has reported costs exempt from cost sharing in 2012 and 2013. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions. Regarding information for RP2, Spain has considered the following factors as costs exempt

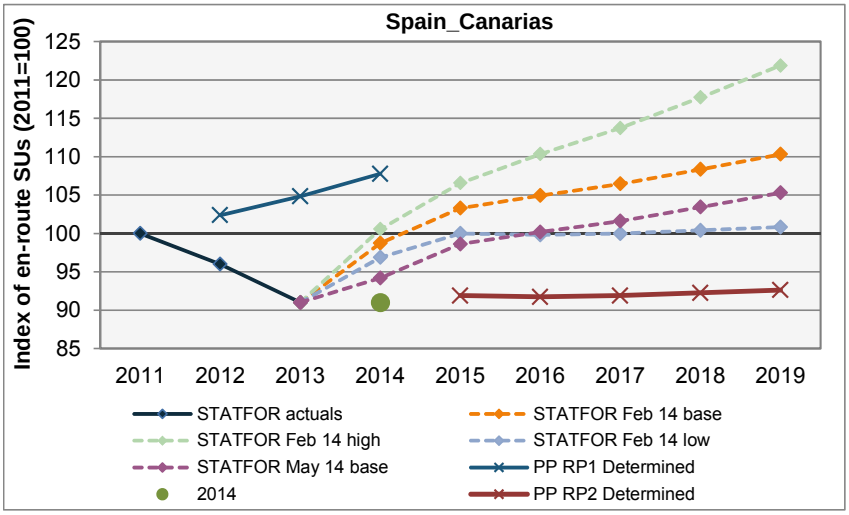
from risk sharing: pension costs relating to any defined contribution pension scheme, changes to interest rates, unforeseen cost items required by law, unforeseen changes in national taxation law, and EUROCONTROL costs.

The Performance Plan includes limited quantitative information about costs exempt from risk sharing planned for RP2 (with the exception of interest rates on loans, which as outlined above is not provided). The national authority responsible for the decision as to whether the costs are valid is not stated.

Based on this analysis, the Spain Continental en-route charging zone is assessed as passing this check.

Spain Canarias: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		1,705	1,746	1,795							
Actuals, 2014, PP RP2 Determined	1,666	1,599	1,516	1,516	**1,531**	**1,528**	**1,531**	**1,537**	**1,543**	**-1.0%**	**0.2%**
STATFOR Feb 14 base				**1,645**	**1,721**	**1,748**	**1,773**	**1,805**	**1,837**	**1.2%**	**1.7%**
STATFOR Feb 14 high				1,675	1,775	1,838	1,895	1,961	2,030	2.5%	3.4%
STATFOR Feb 14 low				1,614	1,666	1,663	1,666	1,672	1,679	0.1%	0.2%
STATFOR May 14 base				1,569	1,643	1,669	1,693	1,723	1,754	0.6%	1.7%
PP RP2 vs STATFOR Feb 14 base (%)					-11.0%	-12.6%	-13.7%	-14.8%	-16.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 23: En-route TSU forecasts

Comments:

Forecast total en-route TSUs for Spain Canarias are significantly lower than the STATFOR February 2014 low forecast, for every year 2014-2019. The updated TSU forecast for 2014 is -6.1% lower than the STATFOR February 2014 low forecast, and in 2015 Spain Canarias' forecast is -8.1% lower than the STATFOR low case. For the 2016-2019 period the Spain Canarias forecast is consistent with the STATFOR February 2014 low case in terms of annual growth, however not in absolute value, due to it being driven off a lower value in 2015. In 2019 therefore, Spain Canarias' TSU forecast is -8.1% lower than the STATFOR low case and -16.0% lower than the base case.

The PRB notes that the most recent 2014 actual TSUs, covering January – August 2014, show that Spain Canarias actual 2014 traffic is -0.8% lower than 2013. STATFOR do not expect full-year 2014 outturn traffic to be lower by the same extent as compared to 2013 actuals, however the choice of a 2014 value that is level with 2013 actuals is not unrealistic.

In the Performance Plan, it is noted in reference to the Spain Canarias forecasts for 2014 and 2015 that "*Aena and STATFOR have actively worked together to fine tune the traffic forecasts these years*". STATFOR confirmed that Aena and AESA are engaged in the development of traffic forecasts. Spain state that an annual average growth rate in line with STATFOR's February 2014 low forecast is predicted as whilst TSUs for arrival/departure traffic are expected to grow, "*the situation for overflights and domestic traffic is rather conservative*", citing recent actual TSU data. The Performance Plan states that this is due to a proportion of traffic on the major routes between Europe and South America preferring to fly the longer route through Portuguese airspace, which the PRB notes has a significantly lower unit rate than Spain Canarias. Overflights currently represent 53% of TSUs for Spain Canarias and consequently any reduction in overflights will have a significant impact on overall TSUs in the charging zone.

If the outturn en-route traffic for Spain Canarias is in line with the STATFOR base case scenario (Feb 2014), according to the traffic risk sharing arrangements:

- The net potential gains to be retained by the State/ANSP are 21.7 M€$_{2009}$ or 6.1% of the total costs subject to traffic risk sharing for RP2; and
- The net potential gains to be retained by airspace users are 34.2 M€$_{2009}$ or 9.7% of the total costs subject to traffic risk sharing for RP2.

Based on this analysis, the Spain Canarias en-route charging zone is assessed as not passing, with reservations, for this check.

Economic assumptions

Inflation: Spain_Canarias		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.4%	1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Eurostat/IMF avg	annual % change		1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Eurostat/IMF avg	2009=100	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Difference	index difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 24: Economic assumptions

Comments:

The inflation forecasts provided are equivalent to the IMF average inflation rate forecast published in April 2014 for every year 2014-19 and equivalent to EUROSTAT HICP for 2013.

There is one consistent inflation rate in the Plan, used for both the Spain Continental and Spain Canarias en-route charging zones as well as the Spain Terminal Charging Zone which is applied to all components of the cost base.

Based on this analysis, the Spain Canarias en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	120.1	109.2	105.1	110.9	106.5	105.5	98.6	98.8	99.1	98.6	98.4
Inflation rate	annual % change		2.0%	3.1%	2.4%	1.5%	0.3%	0.8%	0.9%	1.0%	1.0%	1.1%
Inflation index	2009=100	100.0	102.0	105.2	107.7	109.3	109.6	110.6	111.6	112.7	113.9	115.1
Determined costs	EUR m (2009)	120.1	107.0	99.9	103.0	97.4	96.3	89.2	88.6	87.9	86.6	85.5
Service units	'000s	1,492	1,540	1,666	1,599	1,516	1,516	1,531	1,528	1,531	1,537	1,543
Determined unit cost	EUR (2009)	80.49	69.48	59.95	64.39	64.27	63.50	58.26	57.99	57.43	56.33	55.44
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	80.49	69.48	59.95	64.39	64.27	63.50	58.26	57.99	57.43	56.33	55.44

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	-2.0%	-0.8%	-1.4%	0.0%
Inflation	CAGR %	1.4%	1.1%	1.0%	1.0%
Determined costs	EUR m (2009)	-3.3%	-1.9%	-2.3%	-1.0%
Service units	'000s	0.3%	-1.0%	0.4%	0.2%
Determined unit cost	EUR (2009)	-3.7%	-1.0%	-2.7%	-1.2%
Exchange rate					
Determined unit cost	EUR (2009)	-3.7%	-1.0%	-2.7%	-1.2%

Table 30: Determined unit cost trend

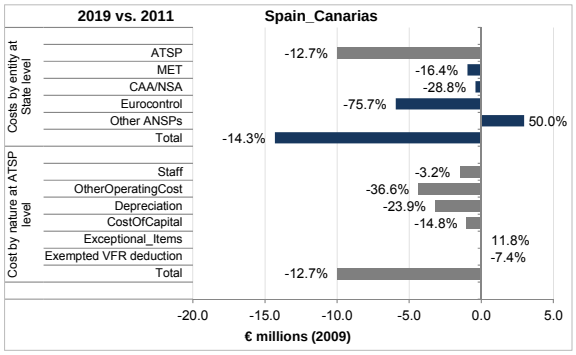


Figure 25: Planned cost category changes over RP1 and RP2

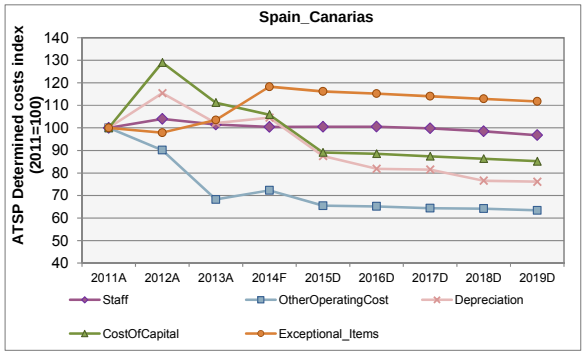


Figure 26: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Annual average % changes in DUC for Spain Canarias is -2.7% for the period 2014-2019, which is worse than the Union-wide target (-3.3% p.a.). Over the period 2011-2019, annual average % changes in DUC is -1.0%, also lower than to the Union-wide target (-1.7% p.a.). However Spain Canarias' annual average % changes in the DUC over the period 2009-2019 is -3.7%, significantly better than the Union-wide target (-2.5% p.a.).

The PRB notes that Spain Canarias have provided a traffic forecast that is significantly lower than the STATFOR February 2014 low case (-8.1% in each year of RP2) and base case (-16.0% lower in 2019). If the STATFOR February 2014 base case scenario were applied, the DUC over the period 2014-2019 would be -4.5% p.a., which is significantly better than the Union-wide target (-3.3%).

As far as the DCs are concerned, the annual average percentage changes in DCs for Spain Canarias are better than the trends underpinning the DUC Union-wide targets for all periods analysed:

- 2014-2019: -2.3%, compared to the Union-wide target of -2.1%;

- 2011-2019: -1.9%, compared to the Union-wide target of -0.8%; and
- 2009-2019: -3.3%, compared to the Union-wide target of -1.1%.

Airspace users have commented that the Spanish DUC reduction is "*sufficient*".

The PRB notes that updated costs and traffic data for 2014 are provided in the Performance Plan. The updated 2014 value for TSUs is exactly at the level of the 2013 actual, and the updated 2014 value for en-route costs is -1.2% lower than the 2013 actual (i.e. the 2014 updates are in line with the most recent actual data available).

Looking at the contribution of each accountable entity over RP2, the PRB notes that all entities are planning to reduce costs. The most significant reduction is seen in EUROCONTROL costs (-9.0% p.a. over the period 2014-2019, due primarily to a change in allocation key between Spain Canarias and Spain Continental). The other entities all plan to reduce costs, ranging from -1.8% p.a. (other ANSP, EA) to -3.5% (the NSA).

All categories of cost by nature forecast decreases over RP2, ranging between -1.1% p.a. over the period 2014-2019 (staff costs and exceptional items) to -5.0% p.a. (depreciation). At Aena, the most significant cost reduction in absolute terms is in other operating costs, linked to "austerity measures" that have been in place since 2010. Staff costs at Aena are forecast to remain constant in nominal terms over RP2, however it is noted in the Performance Plan that the ATCO Collective Agreement is currently under negotiation and the outcome of this may impact the planning.

For RP2 there are no indications in the FAB Performance Plan that significant structural or organisational changes are planned in the delivery of services within Aena or amongst other ATSPs during RP2.

Based on this analysis, the Spain Canarias en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost level

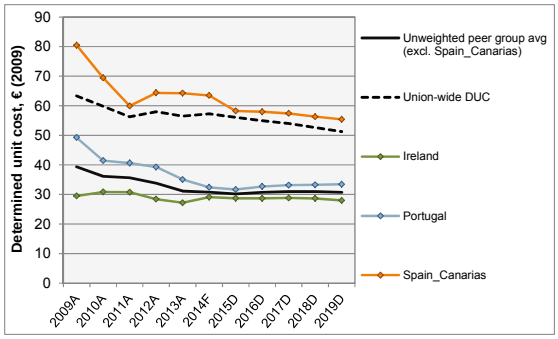


Figure 27: Determined unit cost level

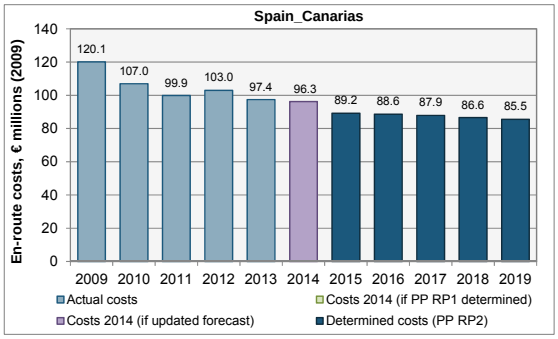


Figure 28: Determined costs 2009-2019

Comments:

Spain Canarias' en-route charging zone DUC level in 2019 is planned to amount to 55.44 €$_{2009}$, which is significantly (+80.4%) higher than the average of the comparator group en-route charging zones (30.73 €$_{2009}$). It is also higher (+8.2%) than the Union-wide average (sum of total determined costs divided by sum of TNSU) taken from RP2 Performance Plans of 51.26 €$_{2009}$.

The result of this check does not improve significantly if the STATFOR February 2014 base

case traffic forecast is used (Spain Canarias is +60.1% higher in 2019) or if the DUC is adjusted to reflect normalised PPP exchange rates (+84.4% higher).

The PRB notes, however, that Spain Canarias has been reducing its DCs since 2012, with the starting point planned for 2014 being -6.5% lower than the 2012 actual DCs, and -1.2% than actual DCs in 2013. This DCs reduction is planned to continue at an average annual rate of -2.3% p.a. over 2014-2019.

The planned reduction in Spain Canarias' DUC over the 2009-2019 period (-3.7% p.a.) is higher than the comparator group average (-2.5% p.a.). Spain Canarias' planned DUC reduction over the 2014-2019 period (-2.7% p.a.) is also higher than comparator group states (0.0% p.a.)

Based on this analysis, the Spain Canarias en-route charging zone is assessed as <u>not</u> passing, with reservations, for this check.

Cost of Capital

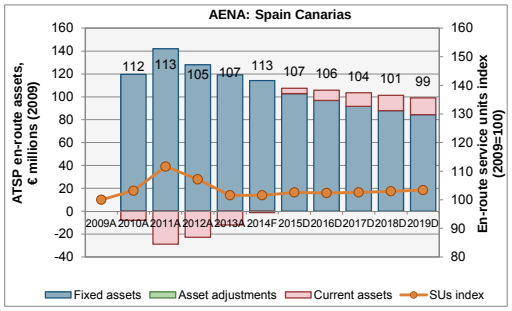


Figure 29: Breakdown of ATSP en-route asset base (2009-2019)

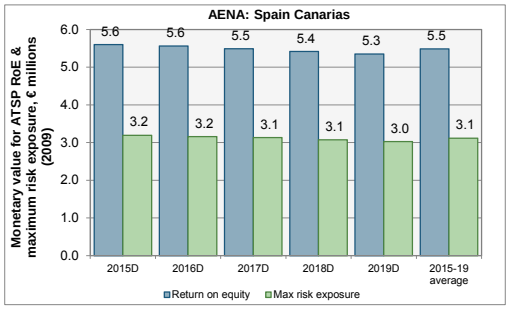


Figure 30: ATSP RoE vs maximum traffic risk exposure

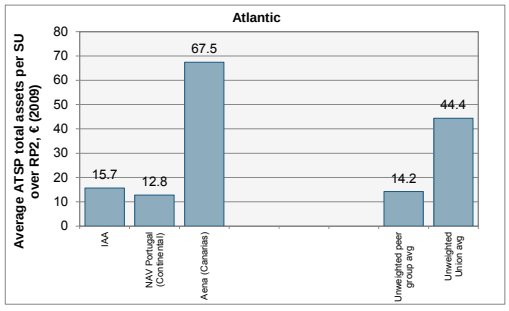


Figure 31: Average en-route asset base per SU over RP2

Note: The cost of capital analysis for Spain Canarias and Spain Continental is undertaken jointly, at the ATSP level, Aena, and is provided in the assessment for Spain Continental.

The assessment of the return on equity and benchmark comparison of the en-route asset base per service unit is undertaken at en-route charging zone level and is provided below.

The pre-tax rate of return on equity (RoE) that will be used by Aena over RP2 amounts to some 6.8% per annum. The monetary value of the RoE for Spain Canarias is calculated by taking the relevant components of Aena's capital structure and the total assets used to determine the cost of capital into account. This ranges from 5.6 M€$_{2009}$ in 2015 to 5.4 M€$_{2009}$ in 2019, higher than the maximum traffic risk exposure which will be borne by Aena over RP2 (just over 3 M€$_{2009}$ in each year of RP2).

In 2015, Aena's en-route asset base per service unit for Spain Canarias (70 €$_{2009}$) is over four times the comparator group average of ATSPs (13 €$_{2009}$). This is expected to reduce over RP2 (-3% p.a.) and to amount to 64 €$_{2009}$ per SU in 2019 which is just over three times the forecast group average (15 €$_{2009}$).

Based on this analysis, the Spain Canarias en-route charging zone is assessed as <u>not passing</u> this check, with reservations about the high RoE compared to the risk exposure and the high asset base.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
Comments:
For Spain Canarias, the information relating to economic assumptions provided in the Performance Plan is the same as that provided for Spain Continental. The comments on this component of the assessment are therefore provided under the Spain Continental assessment. **Based on the analysis, the Spain Canarias en-route charging zone is assessed as <u>not</u> passing this check.** ➔ During the fact verification process (16-09 until 26-09 2014) Spain provided additional information on this point (see Spain Continental) ➔ **Taking this information into account, Spain Canarias' en-route charging zone is assessed as passing this check, with reservations.**

Description, level, composition and justification of costs exempt from risk sharing
Comments:
For Spain Canarias, the information relating to the description, level, composition and justification of costs exempt from risk sharing provided in the Performance Plan is the same as that provided for Spain Continental. The comments on this component of the assessment are therefore provided under the Spain Continental assessment. **Based on the analysis, the Spain Canarias en-route charging zone is assessed as passing this check.** ➔ During the fact verification process (16-09 until 26-09 2014) and following a comment from Spain, Key Point 7 for Spain Canarias has been updated to reflect the outcome of Key Point 7 for Spain Continental. ➔ **Spain Canarias' en-route charging zone is assessed as passing this Check.**

Spain: Assessment of terminal charging zones

Overview of terminal charging zones in Spain:

Based on the information provided in the RP2 Performance Plan, there is one terminal charging zone (TCZ) in Spain for RP2.

This charging zone includes five airports, all of which have more than 70,000 IFR per year: Adolfo Suárez Madrid-Barajas (LEMD), Barcelona (LEBL), Palma de Mallorca (LEPA), Málaga (LEMG) and Gran Canaria (GCLP).

This is a reduction on the number of airports included in the Spain TCZ between 2014 and 2015 (from 12, of which 11 had over 50,000 IFR per year, down to five).

The Spanish TCZ covers 64.1% of terminal traffic in Spain.

Traffic forecast assumptions

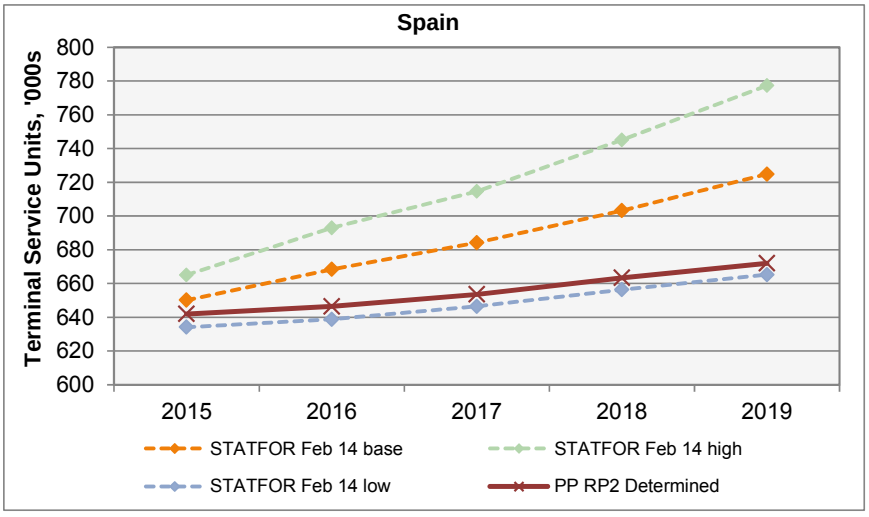


Figure 32: TNSU forecast 2015-2019

Forecast total Terminal Navigation Service Units (TNSUs) for the Spain TCZ lie within the STATFOR base case and low forecasts published in February 2014 for RP2. The Spain TCZ TNSU forecast increases at an average annual rate of +1.1% over 2015-2019, and the STATFOR February 2014 low case increases at +1.2% p.a.

Based on this analysis, the Spain terminal charging zone is assessed as passing this check.

Economic assumptions

The inflation data provided for the Spain TCZ is in line with the en-route assumptions for RP2.

Based on this analysis, the Spain terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

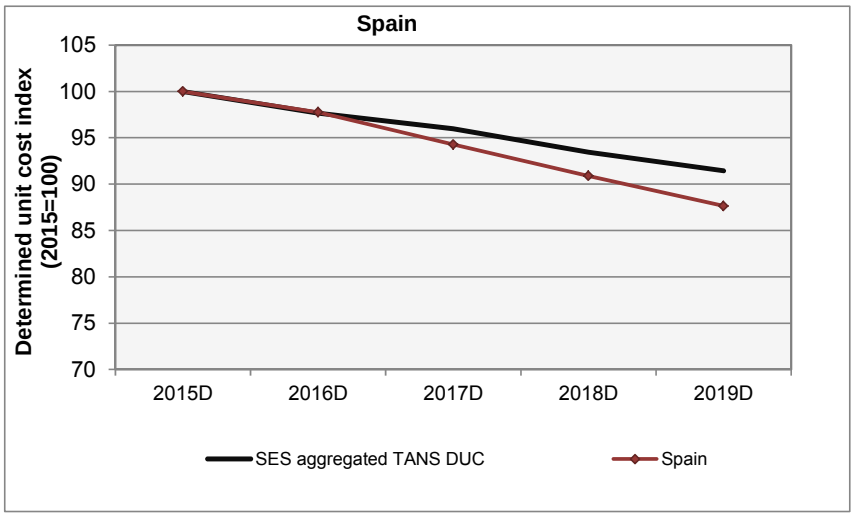


Figure 33: Terminal DUC index, 2015-2019

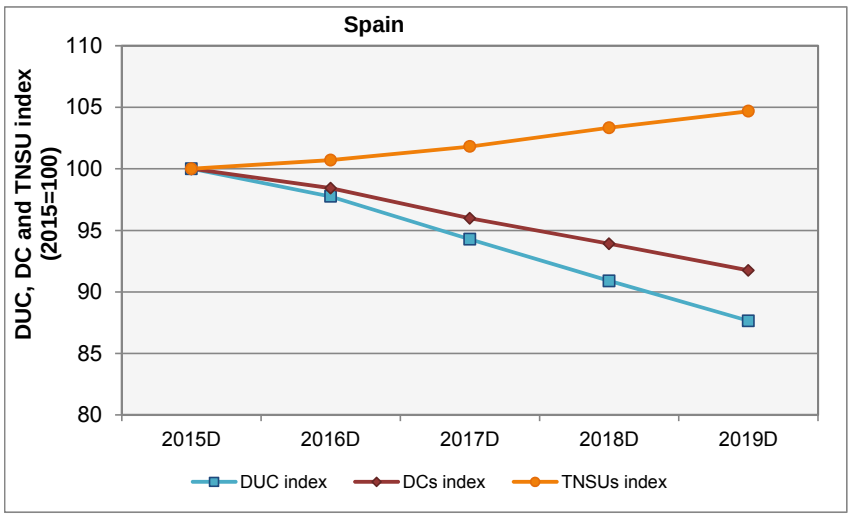


Figure 34: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Spain		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	100.0	99.3	97.8	96.7	95.5	-1.1%
Inflation rate	annual % change	0.8%	0.9%	1.0%	1.0%	1.1%	1.0%
Inflation index	2009=100	110.6	111.6	112.7	113.9	115.1	
Determined costs	EUR m (2009)	90.4	89.0	86.8	84.9	83.0	-2.1%
Terminal service units	'000s	642	646	654	663	672	1.1%
Determined unit cost	EUR (2009)	140.86	137.69	132.79	128.02	123.46	-3.2%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	140.86	137.69	132.79	128.02	123.46	-3.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 31: Terminal DUC, DC and TNSU trends, 2015-2019

The annual average percentage change in Spain's local Terminal ANS DUC over 2015-2019 is -3.2%, which is better than the profile corresponding to the SES Union-wide aggregated Terminal ANS DUC (sum of total determined costs divided by sum of TNSU) taken from RP2 Performance Plans: -2.2%.

This DUC reduction is driven by reductions in DCs as well as a low level of traffic growth.

Spain plans to reduce its terminal ANS DCs by -2.1% p.a. on average over the 2015-2019 period. This is better than the profile corresponding to the local en-route ANS DCs for the 2015-2019 period (-0.7%).

Based on this analysis, the Spain terminal charging zone is assessed as passing this check.

Cost of Capital

The traffic risk sharing mechanism is applied in the Spain TCZ. The PRB notes that the return on equity (6.8%) used to calculate the cost of capital for Aena for the TCZ is the same as that used to calculate the return on equity for en-route ANS.

The WACC (5.7%-5.9%) used to calculate the cost of capital for terminal ANS is the same as that used to calculate the en-route cost of capital for the main en-route ATSP.

Based on this analysis, the Spain terminal charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the RP2 Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.

The Spain terminal charging zone is assessed as <u>not passing</u> this check.

➔ During the fact verification process (16-09 until 26-09 2014) Spain provided additional information on this point (see Spain Continental for details).

➔ **Taking this information into account, the Spain Terminal charging zone is assessed as passing this check, with reservations.**

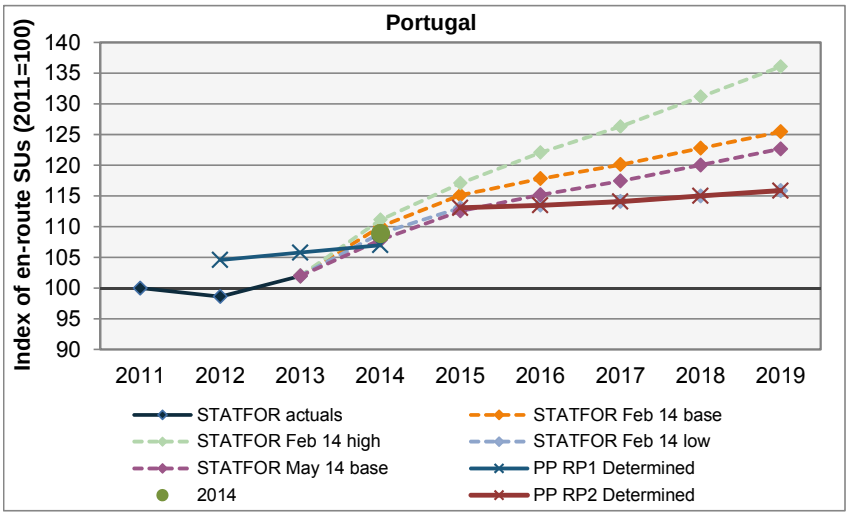
Description, level, composition and justification of costs exempt from risk sharing

The information provided in the RP2 Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.

The Spain terminal charging zone is assessed as passing this check.

Portugal: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		2,951	2,985	3,019							
Actuals, 2014, PP RP2 Determined	2,821	2,782	2,877	3,072	**3,190**	**3,202**	**3,219**	**3,245**	**3,269**	**1.9%**	**0.6%**
STATFOR Feb 14 base				**3,104**	**3,248**	**3,324**	**3,388**	**3,464**	**3,540**	**2.9%**	**2.2%**
STATFOR Feb 14 high				3,135	3,304	3,445	3,564	3,700	3,839	3.9%	3.8%
STATFOR Feb 14 low				3,072	3,190	3,202	3,219	3,245	3,269	1.9%	0.6%
STATFOR May 14 base				3,043	3,176	3,250	3,313	3,387	3,461	2.6%	2.2%
PP RP2 vs STATFOR Feb 14 base (%)					-1.8%	-3.7%	-5.0%	-6.3%	-7.6%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 35: En-route TSU forecasts

Comments:

The forecast en-route TSUs are in line with STATFOR low case forecast published in February 2014, for every year between 2015 and 2019. These correspond to a +1.3% p.a. increase over the 2014-2019 period. By comparison, the base case scenario of STATFOR forecasts an increase of +2.7% p.a. The Performance Plan does not provide any justification for the preference of the low case rather than the base case forecast.

The traffic forecast adopted by Portugal for 2014 is also in line with STATFOR low case forecast, which implies a +6.8% increase in TSUs compared to 2013. This trend is slightly lower than the evolution observed to date (+7.3% for the period January to August 2014).

If the outturn en-route traffic for RP2 were to be in line with the STATFOR base case scenario (February 2014), then the net gains in revenues to be retained by the State/ATSP according to the traffic risk sharing would amount to 13.1 M€$_{2009}$ over RP2.

Based on this analysis, the Portugal en-route charging zone is assessed as passing this check, with reservations given the strong growth seen to date in 2014 traffic on 2013 actuals.

Economic assumptions

Inflation: Portugal		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.8%	0.4%	0.7%	1.2%	1.5%	1.5%	1.5%	1.5%
Eurostat/IMF avg	annual % change		0.4%	0.7%	1.2%	1.5%	1.5%	1.5%	1.5%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	108.0	108.4	109.2	110.5	112.2	113.8	115.5	117.3
Eurostat/IMF avg	2009=100	108.0	108.4	109.1	110.5	112.1	113.8	115.5	117.2
Difference	index difference	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1

Figure 36: Economic assumptions

Comments:

The inflation forecasts are in line with IMF average inflation rate forecast published in April 2014 for every year 2014-19 and equivalent to EUROSTAT HICP for 2013.

For the years 2015-2019, a single rate of inflation has been used for all charging zones, en-route and terminal. This single rate has also been applied to all components of the cost base.

Based on this analysis, the Portugal en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	123.2	110.3	120.4	118.1	109.4	108.8	111.7	117.5	121.5	124.9	128.3
Inflation rate	annual % change		1.4%	3.6%	2.8%	0.4%	0.7%	1.2%	1.5%	1.5%	1.5%	1.5%
Inflation index	2009=100	100.0	101.4	105.1	108.0	108.4	109.2	110.5	112.2	113.8	115.5	117.3
Determined costs	EUR m (2009)	123.2	108.8	114.6	109.3	100.9	99.6	101.1	104.8	106.8	108.1	109.4
Service units	'000s	2,501	2,624	2,821	2,782	2,877	3,072	3,190	3,202	3,219	3,245	3,269
Determined unit cost	EUR (2009)	49.26	41.47	40.63	39.29	35.06	32.43	31.69	32.72	33.16	33.30	33.47
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	49.26	41.47	40.63	39.29	35.06	32.43	31.69	32.72	33.16	33.30	33.47

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	0.4%	0.8%	3.4%	3.5%
Inflation	CAGR %	1.6%	1.4%	1.4%	1.5%
Determined costs	EUR m (2009)	-1.2%	-0.6%	1.9%	2.0%
Service units	'000s	2.7%	1.9%	1.2%	0.6%
Determined unit cost	EUR (2009)	-3.8%	-2.4%	0.6%	1.4%
Exchange rate					
Determined unit cost	EUR (2009)	-3.8%	-2.4%	0.6%	1.4%

Table 32: Determined unit cost trend

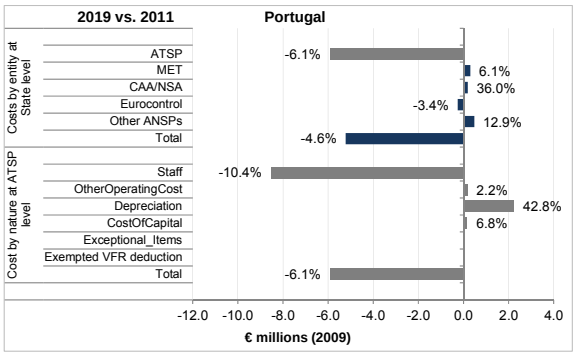


Figure 37: Planned cost category changes over RP1 and RP2

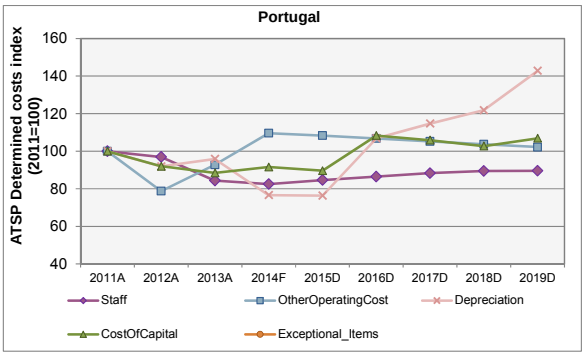


Figure 38: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Portugal forecasts a +0.6% annual en-route DUC increase over the 2014-2019 period, which is worse than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). However, when assessed between 2011 and 2019, the DUC is planned to fall by -2.4% p.a., which is better than the expected decrease at Union-wide level (-1.7% p.a.).

Considering the trends in DCs, the PRB notes that DCs are planned to rise by +1.9% p.a. between 2014-2019 (fall by -0.6% p.a. between 2011-2019). These trends are worse than the DCs trends underpinning the Union-wide DUC target for both periods (-2.1% over 2014-2019 and -0.8% over 2011-2019).

Portugal's DCs for 2015 are -7.5% lower than 2012 actuals (which accounted for a significant amount of pension-related costs/provisions), and only +0.2% higher than 2013 actuals. This is an indication that the cost-efficiency performance improvements achieved in the first years of RP1 were taken into account when setting determined costs at the start of RP2.

Amongst the different accountable entities, Portugal en-route ATSP (NAV Portugal) and the MET provider (IPMA) plan for increases in DUC over RP2 (+0.8% p.a. and 0.2% p.a., respectively). Portugal NSA (INAC) and SAR (provided by the Navy and Portuguese Air Force) costs are both planned to fall by -1.3% p.a. over the same period.

At ATSP level, the increase in the en-route DUC planned over 2014-2019 (+0.8% p.a.) is due to the fact that DCs are planned to rise by +2.1% p.a. while TSUs are forecast to increase by +1.2% p.a. The planned increase in en-route DCs between 2014 and 2019 results from:

- Increases expected for staff costs (+1.7% p.a., or +5.8 M€$_{2009}$ between 2014 and 2019). The Performance Plan explains that RP2 staff costs reflect a projected decrease of -4% in the number of employees (i.e. around -30 FTEs) and a real salary increase of +2% per year. Portugal justifies this increase in salary by a catch-up effect following the application of exceptional measure to reduce staff costs in 2011 and 2012, while Portugal was under the "European Support Mechanism". However, the PRB notes from the Portugal Performance Plan (Additional Information to the Reporting Tables) that the 2013 actual and the 2014 forecast costs (serving as the starting point for RP2 target assessment) already comprise the *"reinstatement of 2010 salary levels"* (+3.0 M€). The PRB also notes from the 2012 ACE benchmarking analysis that NAV Portugal ATCO employment costs per ATCO-hour are +54.4% higher than the Union-wide average.
- Increases expected for depreciation costs (+13.3% p.a., or +3.5 M€$_{2009}$ between

2014 and 2019). The largest capex project in RP2 relates to Lisbon ACC New ATM System (20.1 €M between 2016 and 2019). Actual depreciation costs in 2012 and 2013 were significantly lower than planned (-11.5% and -20.1% in real terms, respectively). These deviations are partly due to the postponement of investments to future years. It is important to ensure that the depreciation costs associated with the non-realised capex programmes over RP1 (e.g. iTEC) are not included in the en-route DCs provided for RP2. It is not clear from the Performance Plan whether the projects labelled as "Lisbon ACC New ATM System" in RP2 and "iTEC" in RP1 relate to the same project. This issue deserves a clarification from Portugal.

- Increases expected in the cost of capital (+3.1% p.a., or +0.4 M€$_{2009}$ between 2014 and 2019).

Airspace users do not consider that the planned growth in DC/DUC for Portugal is acceptable, and do not support the use of the STATFOR February 2014 low case forecast.

For RP2 there are no indications in the FAB Performance Plan that significant structural or organisational changes are planned in the delivery of services within NAV Portugal or amongst other ATSPs.

Finally, the PRB 2013 monitoring analysis indicates that NAV Portugal actual en-route costs for 2013 were -2.5% lower than planned (-2.1 M€$_{2009}$). On the other hand, traffic was also lower than planned (-3.6%) causing a loss in respect of traffic risk sharing of -2.1 M€$_{2009}$. Taking into account the amount of costs exempt from the cost sharing (5.6 M€$_{2009}$) in addition to traffic and cost risk sharing, NAV Portugal generated a net gain of +5.6 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating NAV Portugal economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 2.0 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 7.6 M€$_{2009}$, which implies an ex-post rate of return on equity of 29.1% (compared to 7.6% as initially planned in the NPP). This adds to the gains generated by NAV Portugal in 2012 (+7.7 M€$_{2009}$ or 7.9% of en-route revenues leading to an ex-post rate of return on equity of 26.1%). These results are to be confirmed as they depend on the eligibility, or not, to recover the costs exempt from risk sharing.

Based on this analysis, the Portugal en-route charging zone is assessed as <u>not passing</u> this check.

➔ During the fact verification process (16-09 until 26-09 2014) Portugal submitted further rationale for the planned increases in staff costs and depreciation costs. NAV Portugal forecasts a 2% salary increase in RP2 following a period of five years where salaries have been frozen due to the fact that Portugal was under the "European Support Mechanism". SWFAB states that the situation that is not sustainable for a longer period where labour stability is the main objective to safeguard. Increases in salaries also aim to compensate for higher productivity that is required in a period where traffic is growing and number of staff is decreasing. Depreciation costs growth according to the Investment Plan, designed to comply with ESSIP and other technological improvement plans.

➔ Following this input, there is no change to the outcome of this assessment of the en-route DUC trend..

En-route Determined Unit Cost level

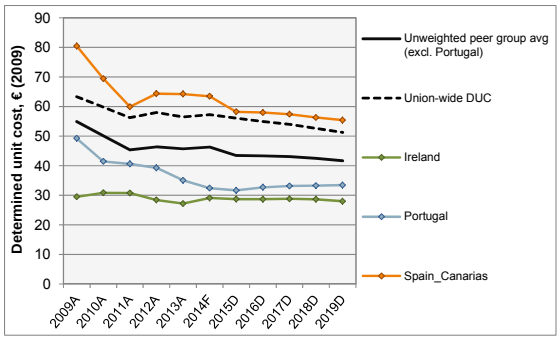


Figure 39: Determined unit cost level

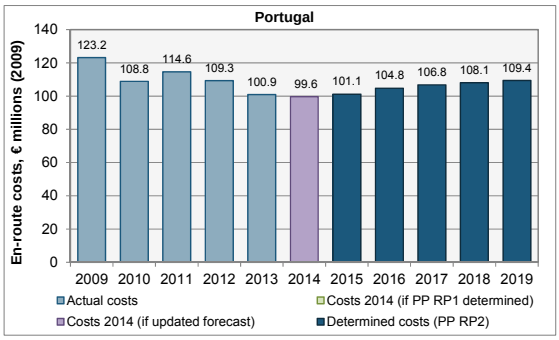


Figure 40: Determined costs 2009-2019

Comments:

Portugal's en-route DUC in 2019 is planned to amount to 33.47 €$_{2009}$, which is -19.8% lower than the average of the comparator group (41.71 €$_{2009}$) and -34.7% lower than the Union-wide DUC (51.26 €$_{2009}$). When differences in the cost of living are taken into account (adjusting DUCs by the Purchasing Power Parities - PPPs), the gap between Portugal and the comparator group reduces from -19.8% to -2.1%.

It should also be noted that when compared to Ireland, Portugal's en-route DUC is +19.6% higher (or +71.5% higher after PPP adjustment).

The planned reduction in Portugal's DUC over the 2011-2019 period (-2.4% p.a.) is better than the comparator group average (-1.0% p.a.). However, when examining the 2014-2019 period, Portugal's DUC is expected to increase by +0.6% p.a., which is worse than the comparator group average (-2.1% p.a.).

Based on this analysis, Portugal's en-route charging zone is assessed as passing this check, with reservations.

Cost of Capital

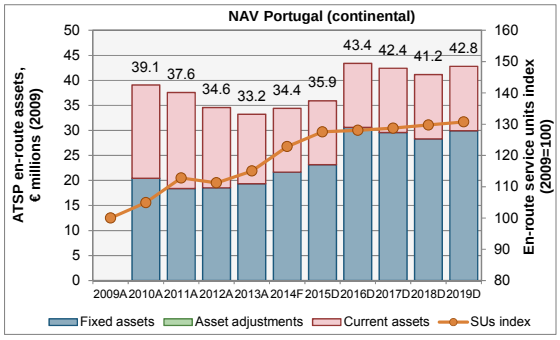


Figure 41: Breakdown of ATSP en-route asset base (2009-2019)

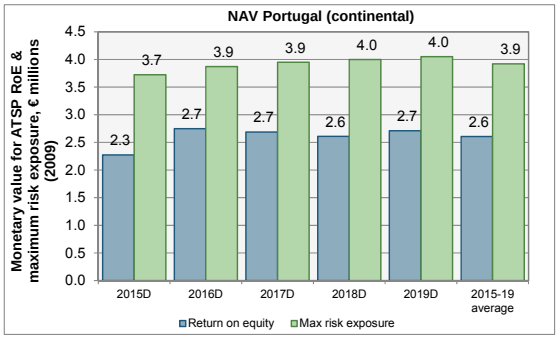


Figure 42: ATSP RoE vs maximum traffic risk exposure

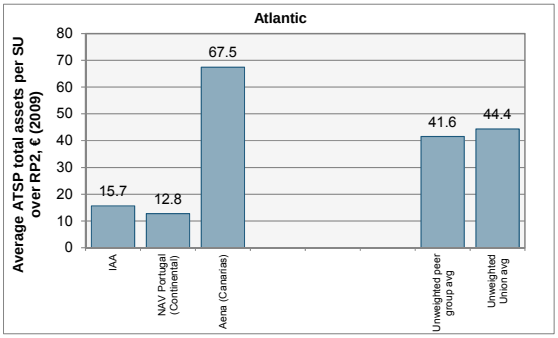


Figure 43: Average en-route asset base per SU over RP2

Comments:

The WACC rate used to calculate the cost of capital of NAV Portugal (6.3%) is towards the lower bound of the range of values calculated with the methodology laid down in Annex C guidance, although assumptions used for the different components of the WACC calculation are sometimes outside the range of recommended values.

The pre-tax rate of return on equity (RoE) that will be used by NAV Portugal over RP2 amounts to 6.4% per year. Taking into account NAV Portugal's capital structure and the amount of total assets used to calculate the cost of capital allows the monetary value of the RoE to be calculated, which ranges between 2.3 M€$_{2009}$ and 2.7 M€$_{2009}$ over RP2. This is lower than the maximum traffic risk exposure which will be borne by NAV Portugal over RP2 (3.7 - 4.0 M€$_{2009}$). Over RP2, the PRB calculates that the monetary value of the aggregate return on equity is -33.5% lower than the maximum traffic risk exposure for NAV Portugal. On the other hand, using STATFOR low case forecast significantly reduces the likelihood of experiencing this extreme scenario.

The PRB notes that the average asset base per SU for NAV Portugal is lower than its comparators. The PRB also notes that NAV Portugal's share of current assets in the asset base used to calculate the en-route cost of capital (between 36% and 30% over RP2) is significantly higher from that of its comparators (between 15% and 0% over RP2).

Based on this analysis, Portugal's en-route charging zone is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan comprises information about the underlying pension costs assumptions. Information is also provided on the interest rates on loans. The average cost of debt used in the WACC calculation (0.45%) is also consistent with this information provided for individual loans.

Based on this analysis, Portugal's en-route charging zone is assessed as passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
Over RP1, Portugal Plan indicates that an amount of 26.5 €M of costs exempt from risk sharing (comprising pension-related costs/provisions, new cost item required by law and EUROCONTROL costs) will be carried forward to RP2 to be reimbursed from airspace users if the amounts are deemed eligible by the European Commission. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. **Based on this analysis, Portugal's en-route charging zone is assessed as passing this check.**

Portugal: Assessment of terminal charging zones

Overview of terminal charging zones in Portugal:

Based on the information provided in the Performance Plan, there is a single terminal charging zone (TCZ) "Portugal", comprising 9 airports (Lisboa, Santa Maria, Flores, Faro, Horta, Madeira, Ponta Delgada, Porto, and Porto Santo). These airports represent 96% of TNSUs in Portugal.

There was no change in the composition of the TCZ between 2014 and 2015, and traffic risk sharing applies in this TCZ.

Traffic forecast assumptions

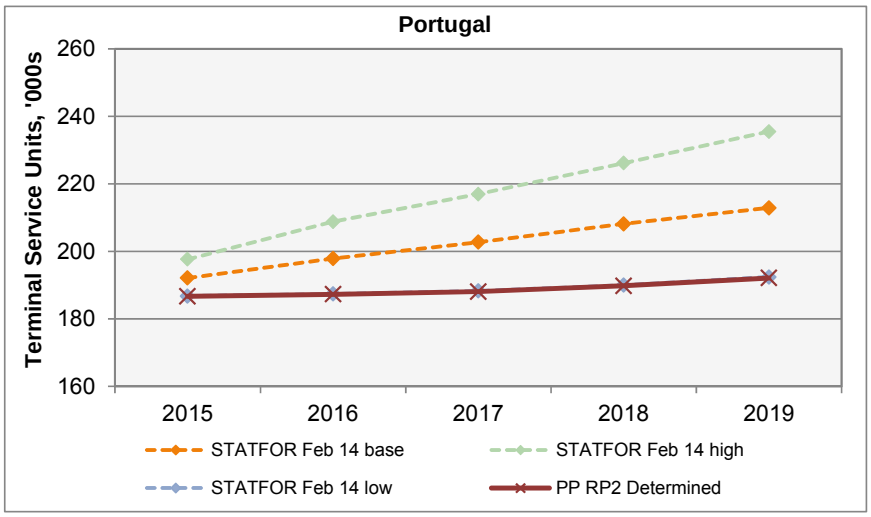


Figure 44: TNSU forecast 2015-2019

The TNSU forecasts for the Portugal TCZ are marginally lower than STATFOR low case forecasts published in February 2014, for every year between 2015 and 2019. These correspond to a +0.7% p.a. increase over the 2015-2019 period. By comparison, the base case scenario of STATFOR forecasts an increase of +2.6% per year. The Performance Plan does not provide any justification for the preference of the low case rather than the base case forecast.

Based on this analysis, Portugal's TCZ is assessed as passing this check.

Economic assumptions

Over the 2015-2019 period a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for the en-route and the TCZ.

Based on this analysis, Portugal's terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

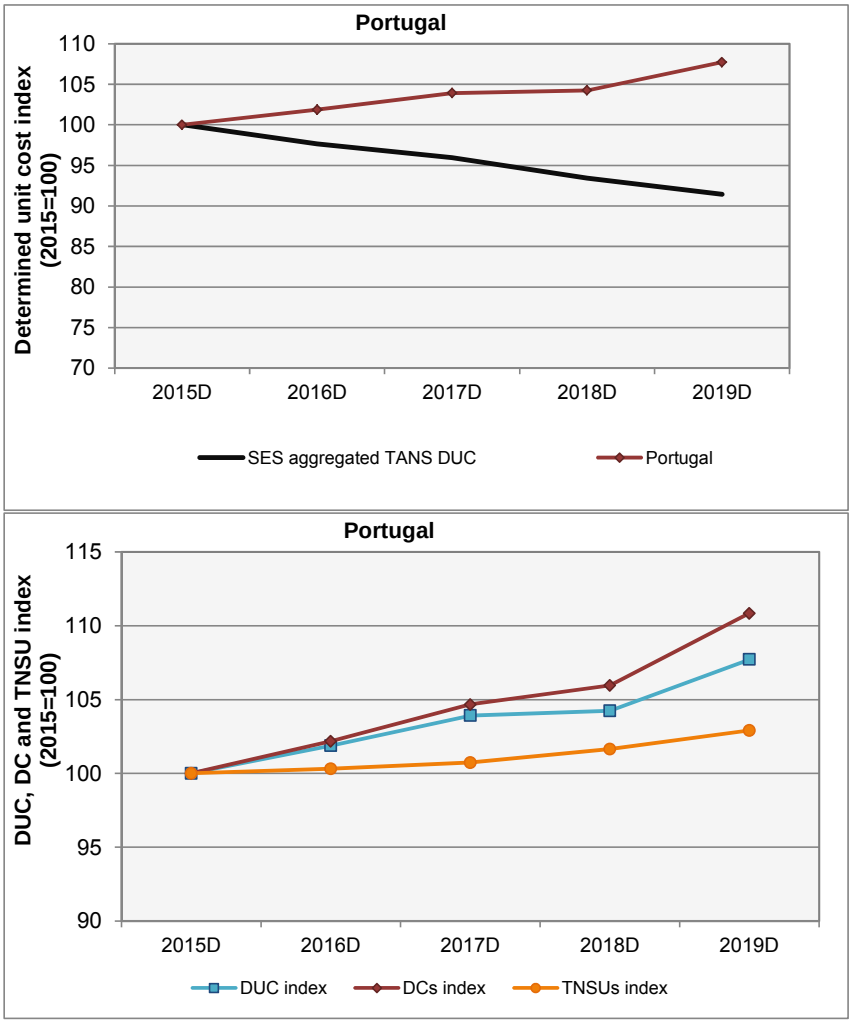


Figure 45: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Portugal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	27.4	28.4	29.6	30.4	32.3	4.1%
Inflation rate	annual % change	1.2%	1.5%	1.5%	1.5%	1.5%	1.5%
Inflation index	2009=100	110.5	112.2	113.8	115.5	117.3	
Determined costs	EUR m (2009)	24.8	25.4	26.0	26.3	27.5	2.6%
Terminal service units	'000s	187	187	188	190	192	0.7%
Determined unit cost	EUR (2009)	132.93	135.41	138.13	138.57	143.18	1.9%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	132.93	135.41	138.13	138.57	143.18	1.9%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 33: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC (+1.9% p.a.) is significantly worse than that of the SES aggregated DUC (-2.0% p.a.).

Portugal's terminal DCs are planned to increase by +2.6% p.a. between 2015 and 2019, which is worse than the average % increase of Portugal's en-route ANS DCs over the same period (+2.0% p.a.).

If Portugal had selected the STATFOR base case scenario (+2.6%) p.a. instead of the low case scenario (+0.7%), the planned increase in DCs would have been compensated by the

traffic increase, leading to a flat profile of the terminal DUC. The forecast level of DCs in 2015 is -9.4% lower than actual DCs in 2012 and -3.1% lower than actual DCs in 2013.

Looking at the 2014-2015 period instead of 2015-2019 leads to similar conclusions.

Based on this analysis, Portugal's TCZ is assessed as <u>not</u> passing this check.

Cost of Capital

Portugal's TCZ is subject to traffic risk sharing. The return on equity used to calculate the cost of capital for the TCZ is the same as for the en-route charging zone.

Based on this analysis, Portugal TCZ is assessed as passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

The information provided in the Performance Plan for the description of economic assumptions is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Portugal's TCZ is assessed as passing this check.

Description, level, composition and justification of costs exempt from risk sharing

The information provided in the Performance Plan for the costs exempt from risk sharing is the same as for en-route. Please refer to the en-route detailed assessment.

Based on this analysis, Portugal's TCZ is assessed as passing this check.

References

[1] Commission Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Source: European Economic Forecast (Spring 2014).

[3] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[4] RP2 Performance Plan, paragraph 3.16 / page 23

[5] RP2 Performance Plan, page 37

[6] 2015-2019 South West FAB Performance Plan, page 39

[7] En-route charging reporting (June 2014) – Spain Continental, Additional information 1 – paragraph k), page 10/28 and Additional information 4, page 20/28

[8] "CAPEX Effect"= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[9] "Costs Effect"= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

[10] Commission Implementing Regulation (EU) No 391/2013 of 3 May 2013 laying down a common charging scheme for air navigation services.

Performance Review Body
designated by
the European Commission

EUROCONTROL

PRB Assessment Report of Performance Plans for RP2

UK-Ireland FAB

Final edition

Edition date: 06/10/2014

Table of Contents

Table of Figures

Table of Tables

UK-Ireland FAB

1 GENERAL CRITERIA

1.1 Introduction

1.1.1 The Performance Plan for the UK-Ireland FAB was received on 27 June 2014 in English. It was co-signed by the Directors General of Civil Aviation of Ireland and the United Kingdom.

1.1.2 The NSAs responsible for drawing up the Performance Plan are the Irish Aviation Authority Safety Regulation Division and the UK Civil Aviation Authority. The latter is also the NSA responsible for the coordination within the FAB.

1.1.3 The FAB Performance Plan provides performance targets set at local level as defined in the performance Regulation[1] for the following accountable entities:

- [IE] Irish Aviation Authority as the designated ANS provider;
- [IE] Irish Aviation Authority Safety Regulation Division as the nominated NSA;
- [IE] Met Eireann as the designated MET service provider;
- [UK] Department for Transport as the responsible Government department;
- [UK] Civil Aviation Authority as the nominated NSA;
- [UK] NATS (En-route) Plc (NERL) as the designated en-route ANS provider;
- [UK] NATS Service Limited (NSL) as the designated terminal ANS provider;
- [UK] Met Office as the designated MET service provider.

1.1.4 The FAB Performance Plan covers the en-route services provided in the Shannon, Scottish and London Flight Information and Upper Information Regions (FIR/UIR). It does not include Shanwick Oceanic airspace.

1.1.5 As far as terminal services are concerned, it covers all airports in the UK and Ireland with an average, over the period 2011-2013, of more than 70,000 instrument flight rules (IFR) movements per annum. Nevertheless, it is specified that Cork and Shannon airports are included in the Irish terminal Cost-efficiency target but not for the other KPIs. This appears to be in contradiction with the clarification provided by the European Commission on the correct application of Article 1(3) of the performance Regulation and Article 1(5) of the charging Regulation[2] concerning the application of the performance and charging schemes to terminal air navigation services.

1.1.6 According to Article 14 of the performance Regulation[1], the PRB has assessed this plan on the basis of the criteria laid down in Annex IV of the same Regulation.

1.2 Overall situation

IRELAND

1.2.1 After two years of stagnant economic activity, 2014 should see a 1.7% surge in GDP, indicating the economic recovery is underway [3].

1.2.2 The FAB Performance Plan contains macroeconomic data and forecasts for Ireland sourced from the Department of Finance and the IMF. The GDP figures are overall marginally more optimistic than the values presented in Figure 1.

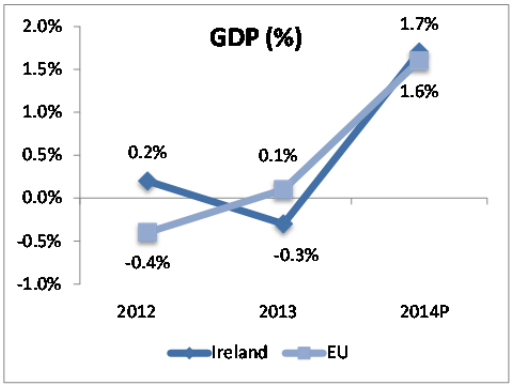


Figure 1: Gross domestic product for Ireland, volume (percentage change on preceding year)[3]

1.2.3 Figure 2 shows that IFR traffic in Ireland, although close to the 2009 levels, is still below that threshold. According to the February 2014 STATFOR baseline scenario, traffic levels will not match those already experienced in 2008 until 2020.

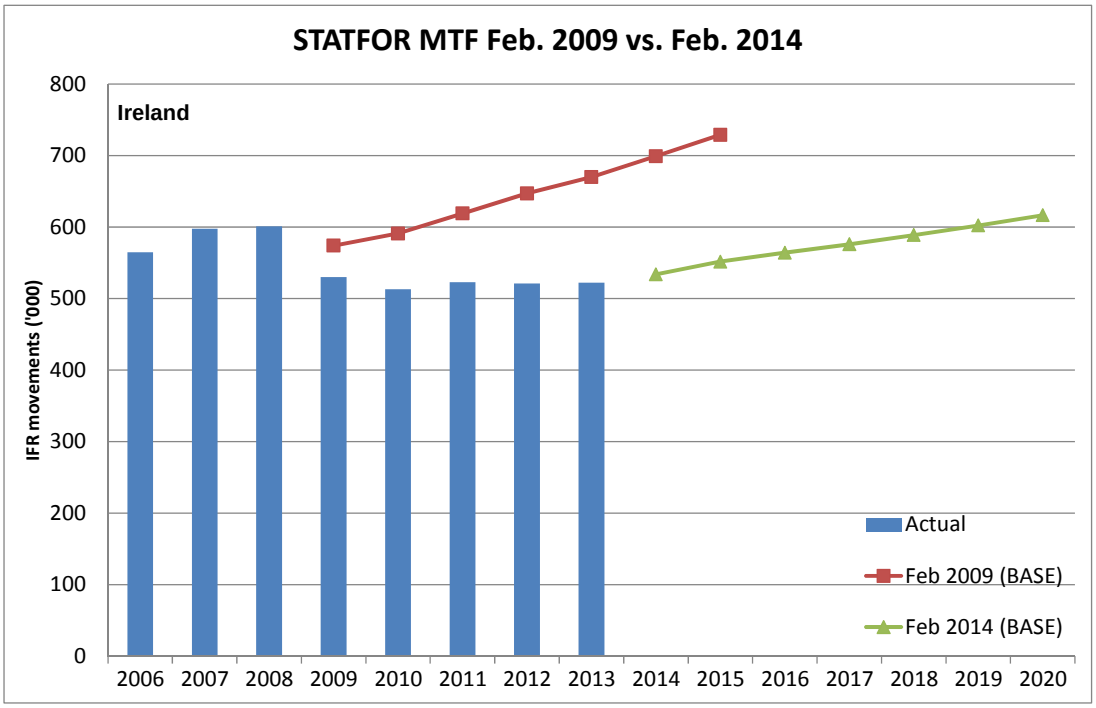


Figure 2: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for Ireland

1.2.4 The traffic forecasts used by Ireland in the Performance Plan are the mid-point between the February 2014 STATFOR base and low case scenarios.

UNITED KINGDOM

1.2.5 After a slowdown in economic activity in 2012, which led to a marginal increase of 0.3% in GDP, the pace is picking up in 2013 to 1.7% growth and planned to increase this year to 2.7%[3].

1.2.6 The FAB Performance Plan includes macro-economic data for UK sourced from the Oxford Economics Ltd forecasts (OEF), IMF and the HM Treasury. As far as GDP is concerned, the values are similar to those presented in Figure 3.

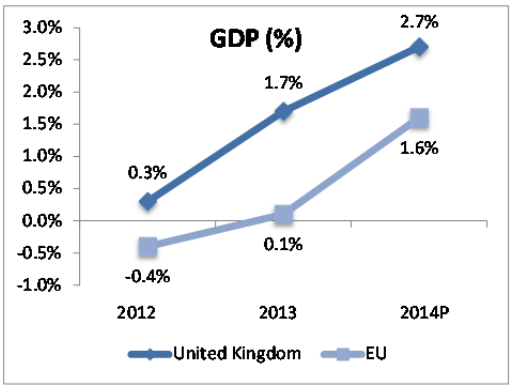


Figure 3: Gross domestic product for the UK, volume (percentage change on preceding year)[3]

1.2.7 Figure 4 shows that, after a significant drop between 2007 and 2010, traffic is stagnating but does not show clear signs of recovery. The February 2014 STATFOR baseline scenario for UK airspace in 2020 projects traffic levels below those experienced in 2007.

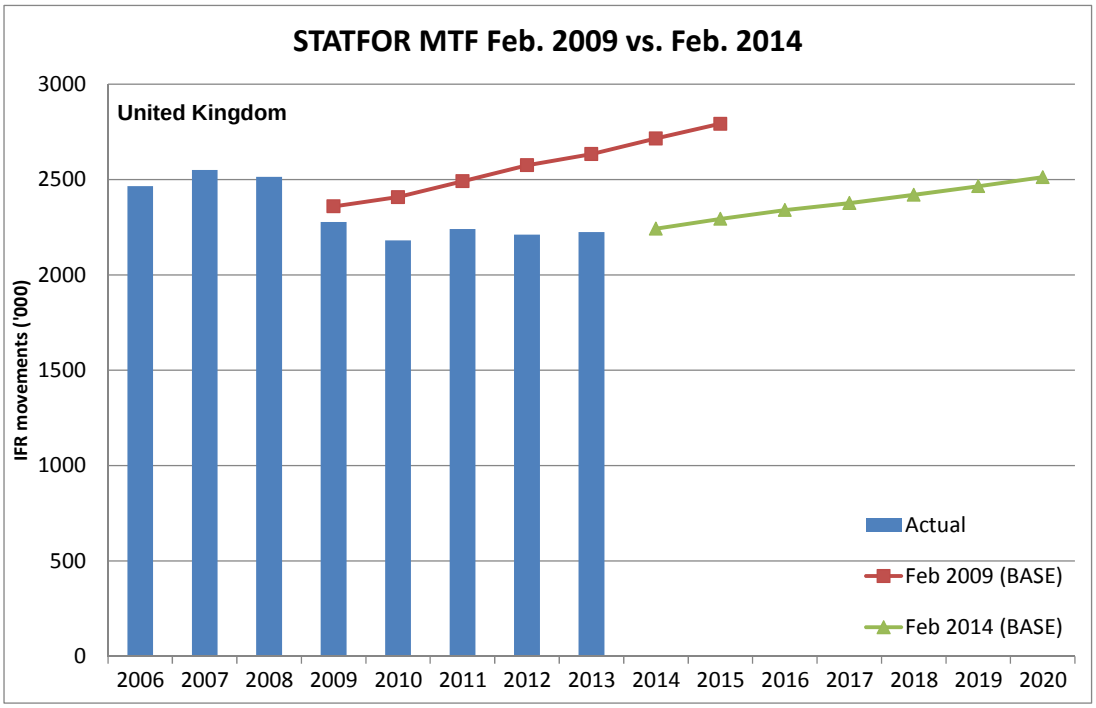


Figure 4: STATFOR Feb. 2009 base case and Feb. 2014 base case forecasts for the UK

1.2.8 The traffic forecast used by the UK in the Performance Plan is the February 2014 STATFOR base case scenario.

1.3 Level of performance

SAFETY

1.3.1 The effectiveness of safety management (EoSM) current performance (2013 results) is calculated based on the minimum level achieved principle. This means that at FAB level, EoSM performance is defined as the minimum level of the EoSM of all FAB States. Similarly at the ANSP level, EoSM performance is defined as the minimum level of the EoSM of all ANSPs of FAB Member State. State and ANSP EoSM performance is calculated for all Management Objectives (MOs) separately.

EoSM current performance		2013
State level	Ireland	B
	United Kingdom	B
	FAB minimum level	*B*
ANSP level	Ireland for Safety Culture MO	D
	United Kingdom for Safety Culture MO	D
	FAB minimum level	*D*
	Ireland for all other MOs	C
	United Kingdom for all other MOs	C
	FAB minimum level	*C*

Table 1: EoSM minimum levels achieved

1.3.2 The current performance (2013 results) of the Risk Analysis Tool (RAT) methodology severity classification is calculated as the average of the severity classification application of all FAB States.

RAT application current performance (2013)		Ireland	United Kingdom	FAB
Separation Minima Infringements (SMIs)	ATM Ground	100%	100%	100%
	ATM Overall	100%	100%	100%
Runway Incursions (RIs)	ATM Ground	100%	100%	100%
	ATM Overall	71%	100%	85.5%
ATM Specific Occurrences (ATM-S)	ATM Overall	100%	100%	100%

Table 2: Severity classification using the RAT methodology

1.3.3 Detailed information regarding the level of performance achieved in the Safety area (including Just Culture) can be found in the PRB Annual Monitoring Report 2013 (Volume 2) and the PRB Dashboard[4].

ENVIRONMENT

1.3.4 Current performance shows a notable improvement in 2014 with respect to 2013. For the first semester, it corresponds to an improvement of 39 percentage points (from 4.07% in the first half of 2013 to 3.68% in the first half of 2014).

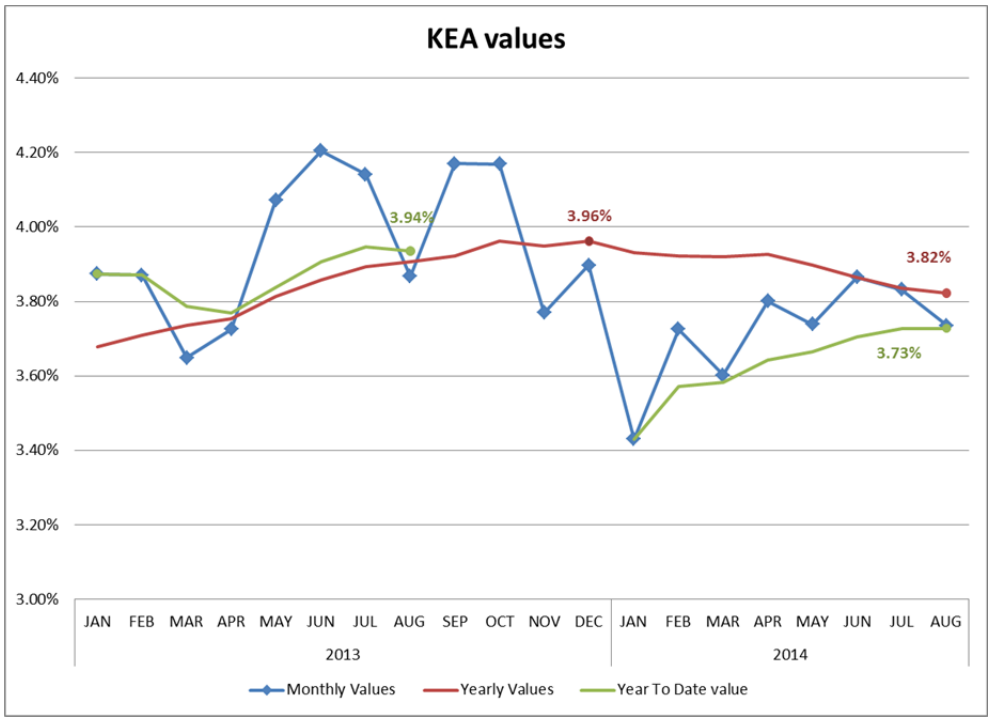


Figure 5: Horizontal en-route flight-efficiency (KEA) for 2013 and 2014

1.3.5 Current performance shows a marked improvement in 2014 with respect to 2013. For the first eight months, it corresponds to an improvement of 0.21 percentage points (from 3.94% in the first eight months of 2013 to 3.73% in the corresponding period of 2014).

CAPACITY

1.3.6 The UK-Ireland FAB has provided very good en-route capacity performance for a number of years. Since the beginning of RP1, it has provided a positive contribution to the Union-wide capacity target which, to an extent, makes up for capacity shortfalls elsewhere in the network.

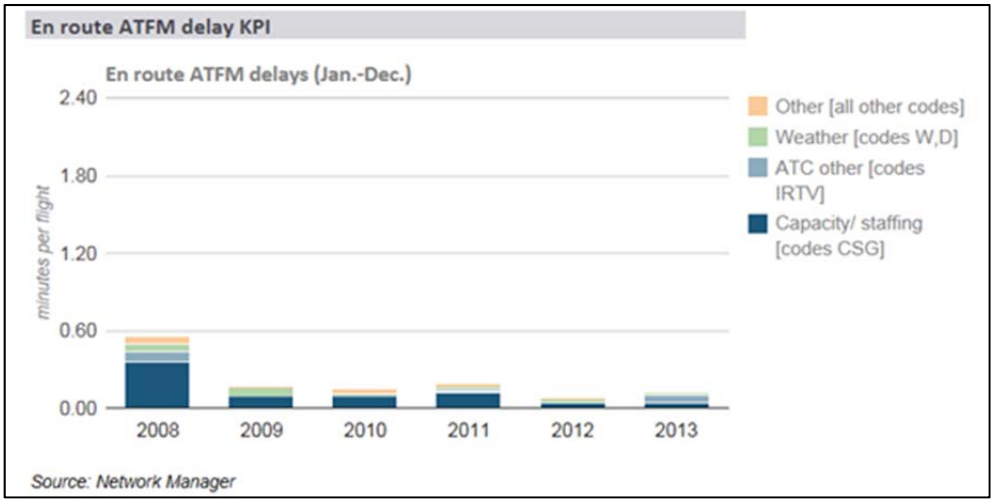


Figure 6: En-route ATFM delay

1.3.7 Over the last five years, i.e. 2009 – 2013, the performance of the UK-Ireland FAB in terms of arrival ATFM delay ranges under one minute per arrival and around the European average throughout RP1. The major reported cause of arrival ATFM delay within the UK-Ireland FAB is weather.

1.3.8 In that respect, the FAB has made a positive contribution to the European average by managing weather-related impacts on the arrival flow.

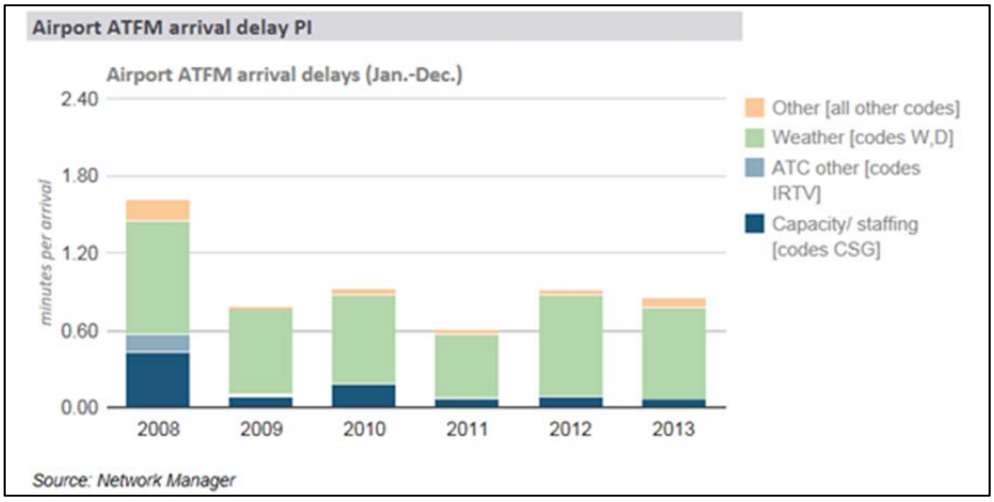


Figure 7: Airport ATFM delay

COST-EFFICIENCY

1.3.9 For cost-efficiency, the current level of performance has been integrated in the analysis comprised in Section 5 and detailed per charging zone.

1.4 Compliance Checks

1.4.1 It has been noted that some requirements were missing in the FAB Performance Plan.

1.4.2 These have been identified in section 9.3 and, although it did not prevent the PRB from carrying out its assessment, it recommends that the European Commission invites the UK-Ireland FAB to complement the missing and/or incomplete elements

as mandated by the performance Regulation[1].

1.5 Stakeholder Consultation

1.5.1 Consultation has been performed as summarised in the section "1.3 - Stakeholder consultation" of the Performance Plan. The relevant papers are attached to the Performance Plan as "ANNEX A. PUBLIC CONSULTATION MATERIAL".

1.5.2 Five consultation meetings were held at FAB and national level:

- Meeting #1, 14 March 2014 for all UK and IE stakeholders (meeting and written consultation).
- Meeting #2, 21 March 2014, bilateral meeting between the CAA and NATS (ANSP).
- Meeting # 3, 21 March 2014, bilateral meeting between the CAA and Airspace users.
- Meeting #4, 21 March 2014, bilateral meeting between the CAA and NATS trade unions (NTUS).
- Meeting #5, 6 March 2014, Bilateral meeting between the Irish NSA and Airspace users (IATA supported by Airline representatives).

1.5.3 Based on the information contained in the Performance Plan, the following observations could be made:

- Information on the outcome of the consultation (including points of disagreement and reasons) has been made available to the PRB;
- The list of invited stakeholder was not attached to Annex A, only the list of actual attendees has been made available to the PRB. The missing information have been provided during the fact validation.;
- Materials for the meeting were provided well in advance.

2 SAFETY

2.1 Level of effectiveness of safety management

		2015	2016	2017	2018	2019	Consistency check
State level	Union-wide target					C	✓
	FAB targets	*B*	*B*	*C*	*C*	*C*	
ANSP level	Union-wide target for Safety Culture MO					C	✓
	FAB targets	*C*	*C*	*C*	*C*	*C*	
	Union-wide target for all other MOs					D	✓
	FAB targets	*C*	*C*	*C*	*C*	*D*	

Table 3: Comparison of the level of effectiveness of safety management at local level with the Union-wide target

Primary check:

- *Is the FAB effectiveness of safety management target, as measured by the minimum level of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.1.1 The UK-Ireland FAB EoSM target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.1.2 The majority of the scores given by both States meet or exceed the Level 'C' in EoSM questionnaire. The data reliability was reviewed by EASA in 2013 using the 'light' verification methodology which means - desktop review. EASA's opinion is that the scores correspond to the real situation and can be considered as reliable. However, this opinion can only be confirmed after the inspection.

2.1.3 Having said that, it is worth noting that the reason of having a FAB minimum level of 'B' is due to only one question: Q 5.2 'measurement of safety culture', in which both States have provided a honest answer (no measurement in place yet).

2.1.4 Overall, based on the current performance (2013), it seems realistic that the UK-Ireland FAB will be able to meet these targets.

2.1.5 The UK-Ireland FAB report states that the FAB target is applicable only to the FAB en-route. Therefore, IAA and NERL are only service providers within the scope of this safety target.

2.2 Severity classification

Ground score (ANSP level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%		100%	
	RIs			≥ 80%		100%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*80%*	*80%*	*80%*	*80%*	*100%*	✓
	RIs	*80%*	*80%*	*80%*	*80%*	*100%*	✓
	ATM-S	*80%*	*80%*	*80%*	*80%*	*100%*	✓

Overall score (State level)		2015	2016	2017	2018	2019	Consistency check
Union-wide targets	SMIs			≥ 80%	≥ 80%	≥ 80%	
	RIs			≥ 80%	≥ 80%	≥ 80%	
	ATM-S			≥ 80%		100%	
FAB targets	*SMIs*	*80%*	*80%*	*80%*	*80%*	*80%*	✓
	RIs	*80%*	*80%*	*80%*	*80%*	*80%*	✓
	ATM-S	*80%*	*80%*	*80%*	*80%*	*100%*	✓

Table 4: Comparison of the results of application of the severity classification based on the Risk Analysis Tool (RAT) methodology at local level with the Union-wide target

Primary check:

- *Is the FAB application of the severity classification based on RAT, as measured by the average % application of all FAB States of the Performance Plan, greater than or equal to the Union-wide target?*

2.2.1 The UK-Ireland FAB severity classification target is equal to, and hence **consistent** with, the Union-wide target (both at State and ANSP level).

2.2.2 Based on the current performance (2013), the PRB believes that the UK-Ireland FAB is on the right track to meet these targets.

2.3 Just culture

2.3.1 The Just Culture indicator defines the level of presence and corresponding level of absence of just culture at local level.

Primary check:

- *Has a FAB target been set for the level of presence or absence of just culture, yes/ no?*
- *Have sufficient information been provided to explain the basis of the elements in place to promote the application of just culture?*

2.3.2 The UK-Ireland FAB indicates in its Performance Plan that a common FAB approach for Just Culture improvements in certain areas **has been established**.

2.3.3 The UK and Ireland NSAs have agreed on common FAB Policy Statement on Just Culture and encourage ANSPs to take note of such policy and to incorporate equivalent principles into the ANSP documentation, activities and processes. Just Culture targets for both NSAs and participating ANSPs have also been set within the FAB Plan.

2.3.4 The Just Culture FAB targets set by the UK and Ireland NSAs, for both NSAs and participating ANSPs for RP2, is measured by the provision of formal Just Culture training. The PRB believes that a Just Culture target based only on training requirements might not sufficient, as evidence of completed Just Culture training is an important step towards a better understanding of Just Culture principles but cannot, in and of itself, be indicative that Just Culture is in place. Therefore, the UK-Ireland FAB should also heavily rely on other measures (which they have listed in their plan already - Page 31 of Supporting Document, Chapter 3, para 3.21-3.22), such as: monitoring the level and quality of incident reporting and investigation, and monitoring the level of Just Culture as validated annually and reported in the EASA questionnaire.

2.3.5 Lastly, there is concern with regards to the statement made by the Irish Air Traffic Control Association (available as a part of the package of consultation documents) that there has been no agreement between the ATB Branch and the IAA about the Just Culture Policy and that it will instruct its members not to comply with proposed training programmes. After the PRB request to clarify whether this issue has been further discussed and what actions have been taken in order to resolve it (as it might have significant consequences on achieving identified Just Culture improvements), the Irish NSA stated that formal agreement on Just Culture policies is still subject to ongoing IR discussions. Nevertheless, the Irish NSA confirms also that the day to day activities of the ANSP reflect the application of Just Culture, and that they are satisfied that the principles of Just Culture are already being applied in practice within the ANSP.

2.3.6 Based on the information provided in the Performance Plan, the PRB concludes that the **local FAB target** for reporting on the level of presence or absence of Just Culture **has been set**. In addition, some further information provides guidance on how to effectively ensure the achievement of the Just Culture targets and explains the basis of the elements in place to promote the application of Just Culture.

2.4 Key points

2.4.1 The PRB is confident that the UK-Ireland FAB will be able to meet Union-wide EoSM and RAT application targets.

2.4.2 The UK and Ireland NSAs have set Just Culture FAB targets for both NSAs and participating ANSPs.

2.4.3 In addition, the PRB would like to invite the European Commission to remind the FAB that Guidance Material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas) is available and should be consulted.

3 ENVIRONMENT

3.1 Average horizontal en-route flight efficiency of the actual trajectory

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	3.36%	3.27%	3.18%	3.09%	2.99%
FAB Target	*3.36%*	*3.27%*	*3.18%*	*3.09%*	*2.99%*
Consistency check	✓	✓	✓	✓	✓

Table 5: Comparison of horizontal en-route flight efficiency at local level with the FAB reference values

Primary check:

- *Is the FAB target consistent with the respective FAB reference values?*

3.1.1 The UK-Ireland FAB adopted annual targets that **are consistent** with the corresponding reference values and therefore passes the primary check.

3.2 Additional indicators

3.2.1 An additional indicator valid only for NATS has been introduced, with a financial incentive.

3.3 Incentives

3.3.1 As per Article 12.4 of the performance Regulation[1], a non-financial incentive has been adopted at FAB level to address underperformance with respect to the FAB environment target.

3.3.2 A financial incentive for the additional environment indicator (3Di metric) has been adopted for NATS only.

3.3.3 Although the methodology has replaced the horizontal parameters with the KEA measurement, no explanation is provided about the link between the revised 3Di metric values and the KEA values.

3.3.4 Similarly, the revision of the Performance Plan targets is focussed on the conversion of the PAR values from the RP1 3Di model to the RP2 3Di model and does not consider the KEA targets.

3.3.5 It is therefore not possible to assess the contribution towards the achievement of the local (and Union-wide) environment performance.

3.3.6 The situation could arise in which bonuses are paid out even if the FAB KEA targets are not met.

Incentive		FAB	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance
ID	Name					
	3Di	No (NATS only)	Yes	Yes	Yes	No (Not linked to meeting the environment targets, as required by article 12.1.(d))
	Transition Altitude	No (NATS only)	Non proportional (is a trigger)	Yes	Yes	No (because of link to 3Di)

Table 6: Incentives on Environment KPA

3.4 Key points

3.4.1 The UK-Ireland FAB has adopted annual targets which are in accordance to the reference values and would ensure appropriate contribution to the Union-wide environment performance targets.

3.4.2 A financial incentive has been set for the 3Di metric, without providing a link to the environment performance as measured in the Performance Scheme. The payment of bonuses should be conditioned on the achievement of the FAB Performance Scheme targets.

4 CAPACITY

4.1 En-route delay level

	2015	2016	2017	2018	2019
FAB reference value (NOP March 2014)	0.25	0.26	0.26	0.26	0.26
FAB Target	*0.26*	*0.26*	*0.26*	*0.26*	*0.26*
Consistency check	✘	✓	✓	✓	✓
Shortfall	**0.01**				

Table 7: Comparison of en-route capacity targets at local level with the FAB reference values

Primary check:

- *For en-route capacity, is the FAB target consistent with the respective FAB reference value (Annex IV section 4(a))?*

4.1.1 The UK-Ireland FAB target is **not consistent** with the respective FAB reference value for the year 2015, but is consistent for the years 2016-2019.

4.1.2 The associated cost to airspace users from the additional delay is estimated at €2 million in 2015.

Secondary check:

- *The PRB will consider the Performance Plans of other FABs and the Network Performance Plan (To see if the Union-wide target can still be met due to more demanding targets being adopted by other FABs.)*

4.1.3 No other FAB has adopted capacity targets that would make up for the projected performance deficit from the UK-Ireland FAB in 2015.

Additional information:

- *Existing, and previous, ANSP capacity plans (Annex II, 3.1c(iii));*

4.1.4 The latest ANSP capacity plans (from the NOP 2014-2019, June 2014) indicate that the UK-Ireland FAB capacity performance should meet the required level of performance for each year in RP2.

Year	2015	2016	2017	2018	2019
Annual reference value	0.25	0.26	0.26	0.26	0.26
Delay forecast full year	0.08	0.15	0.24	0.19	0.18

Table 8: Extract from Network Operations Plan 2014-2019

Additional information:

- *Contribution of individual ANSPs to FAB performance (Annex II, 3.4)*

4.1.5 When the individual ANSP contributions are aggregated and compared with the required FAB capacity performance (reference value), using the baseline STATFOR 7 year forecast from February 2014, a performance deficit of 3% is expected for 2015, and consistent performance is expected for the following years.

Year		2015	2016	2017	2018	2019
FAB reference value		0.25	0.26	0.26	0.26	0.26
ANSP contribution	IAA	0.13	0.13	0.14	0.14	0.14
	NATS	0.23	0.23	0.23	0.23	0.23
Aggregated ANSP contribution		**0.26**	**0.26**	**0.26**	**0.26**	**0.26**

Table 9: Individual ANSP contributions to the FAB reference value

Additional information:

- *Civil-military cooperation and coordination arrangements (Annex II, 5)*

4.1.6 Annex E of the UK-Ireland FAB Performance Plan contains details of how the FUA legislation is being applied, within the FAB, to provide additional capacity for general air traffic. Additional indicators contained within this section are consistent with the intentions of the performance scheme in that they aim to remove constraints on general air traffic.

Additional information:

- *Historic performance (Annex IV section 1(d))*

4.1.7 Both the UK and Ireland surpassed the minimum level of capacity performance required to be consistent with the Union-wide capacity target in 2012 & 2013.

4.2 Average arrival ATFM delay at national level

	2015	2016	2017	2018	2019
Ireland	*0.18*	*0.18*	*0.20*	*0.20*	*0.22*
UK	*0.87*	*0.78*	*0.78*	*0.78*	*0.78*

Table 10: National target on average arrival ATFM delays [minutes per arrival]

4.2.1 The scope of the UK-Ireland FAB Performance Plan comprises the terminal air navigation services at 9 United Kingdom airports and one airport in Ireland.

Primary check:

- *State target with breakdown per airport (Annex I, Section 2, 3.1(b))*
- *Description and explanation of targets and how they contribute to the improvement of performance (Annex II, 3.2)*

4.2.2 The plan sets a national target on arrival ATFM delay with a breakdown per airport for each of the years of the reference period for both the United Kingdom and Ireland.

4.2.3 In both cases, the description and explanation of the national target and the contribution to the improvement of performance is limited to general claims about projected traffic growth and the associated challenge to maintain low levels of arrival ATFM delay.

4.2.4 The Ireland target entails a step-wise increase of the arrival ATFM delay linked to

the anticipated growth of air traffic referring to the absence of airport infrastructure-related enhancements.

Primary check:

- *Historical performance achieved in the last 5 years (Annex IV, 4(a))*

4.2.5 In both cases, the national target on arrival ATFM delay for the United Kingdom and Ireland is consistent with the observed historic performance and the performance at the beginning of the reference period.

Primary check:

- *Contribution of individual airports to the national target (Annex IV, 4(b))*

4.2.6 For the United Kingdom, the projected growth of air traffic is framed by a constant target throughout 2016-2019 and motivated by operational benefits from planned activities across the airports. The step in the target from 2015 to 2016 is motivated by performance improvements anticipated from the introduction of time-based separation at the major UK hub. The reasoning and adaptation of the reference values for each airport, including the results from the stakeholder consultation, are presented in the supporting documentation to the plan.

4.2.7 For Ireland, The projected growth of air traffic is compensated by a step-wise increasing target for 2015-2019. The increase is motivated by the absence of airport infrastructure-related enhancements. No further operational improvement activities are detailed.

Primary check:

- *Comparison of performance with other similar airports (Annex IV, 4(b))*

4.2.8 As regards arrival ATFM delay, the performance of UK and Ireland airports shows no particular behaviour. Nationally and across Europe, similar values for arrival ATFM delay have been recorded.

Primary check:

- *Operational benefits expected from planned initiatives (Annex IV, 4(c))*

4.2.9 Please refer to paragraphs 4.2.6 and 4.2.7.

Primary check:

- *Other justifications provided*

4.2.10 The UK-Ireland FAB Performance Plan provides no further specific airport capacity-related justifications.

4.3 Additional indicators

EN-ROUTE

4.3.1 The UK-Ireland FAB Performance Plan presents no additional indicators for en-route capacity.

AIRPORT

4.3.2 The UK-Ireland FAB Performance Plan presents no additional indicators for airport capacity.

4.4 Incentives

EN-ROUTE

4.4.1 Table 11 lists the incentives for en-route capacity included in the FAB Performance Plan which have been reviewed in line with the general principles as explained in Article 12 of the performance Regulation[1].

Incentive		FAB-wide	Effective and proportional	Non-discriminatory and transparent	Known regulatory framework	Foster high level of performance	Notes
ID	Name						
C1	Trigger	Yes	Yes	Yes	Yes	Not for 2015	
C2	Common incentive scheme	Yes	Yes	Yes	Yes	Not for 2015	No independent verification of delay classification
C3	Delay Impact score	No UK only	Yes	Yes	Yes		
C4	Daily Excess Delay Score	No UK only	Penalty only	Yes	Yes		

Table 11: Incentives on en-route Capacity

4.4.2 The following list gathers the comments on the en-route capacity incentive schemes presented in the FAB Performance Plan:

- The trigger value, C1, is defined [Chapter 4, para 4.33] as a FAB-wide target, however in Figure 4.8 it is shown as two separate ANSP targets. This confuses the issue of when bonuses or penalties will be due;
- The trigger value, C1, for 2015 does not meet the required FAB performance level of 0.25 minutes per flight;
- The par value for the IAA (0.14) is less stringent than the ANSP contribution required in 2015 & 2016;
- Figure 4.6 only gives examples of delay classification, it does not give a complete list, and the examples are not binding;
- There is no mention of an independent verifiable method of reconciling attributed delay to actual events, which raises the possibility of errors or gaming;
- The description of ‘exceptional events’ does not match the definition contained in the performance Regulation, Article 2 paragraph (17).
- There is no evidence to show how the margin for non-ANSP attributable delay

was derived, and thus how it is consistent with the other targets in the Performance Plan;

- The incentive scheme C3 can be modulated against a change in forecasted traffic. Although it is not explicitly stated in the description of the incentive scheme, it is assumed that this refers to the baseline STATFOR 7 year forecast which is mentioned in section 1.2 of the Performance Plan.

AIRPORT

4.4.3 The UK-Ireland FAB Performance Plan presents no capacity incentive scheme for the national target on arrival ATFM delay for the United Kingdom or Ireland.

4.5 Key points

EN-ROUTE

4.5.1 Although the UK-Ireland FAB target for en-route capacity is consistent with the Union-wide target for the years 2016-2019, it is inconsistent for the year 2015. If the FAB authorities wish to have a consistent target for each year of the reference period, then adopting a more stringent target for the years 2016-2019 would be a better solution for the network and for airspace users.

4.5.2 The ANSP contribution for 2015 is not consistent with the required FAB performance level for that year, even though the existing capacity plans already forecast much better performance.

AIRPORT

4.5.3 The national target on arrival ATFM delay for the United Kingdom and Ireland is realistic and consistent with the requirements of the performance Regulation[1] and therefore acceptable (c.f. the performance Regulation, Article 14.2.).

4.5.4 The justification for the UK target on arrival ATFM delay is typically pointing to potential impacts from activities with little evidence to what extent performance benefits can be expected. The level of information varies significantly from airport to airport and should be enriched.

4.5.5 The justification for the Irish target on arrival ATFM delay is limited and lacks evidence to what extent performance benefits may be achievable and desirable to establish a national contribution achieving a reasonable performance while catering for the anticipated traffic growth.

5 COST-EFFICIENCY

5.1 Ireland: setting the scene for the RP2 cost-efficiency assessment

5.1.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate-to-gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of Ireland main ATSP, the Irish Aviation Authority (IAA), which represented some 113 M€ of ATM/CNS costs in 2012 (about 1.5% of the overall SES gate-to-gate ATM/CNS costs).

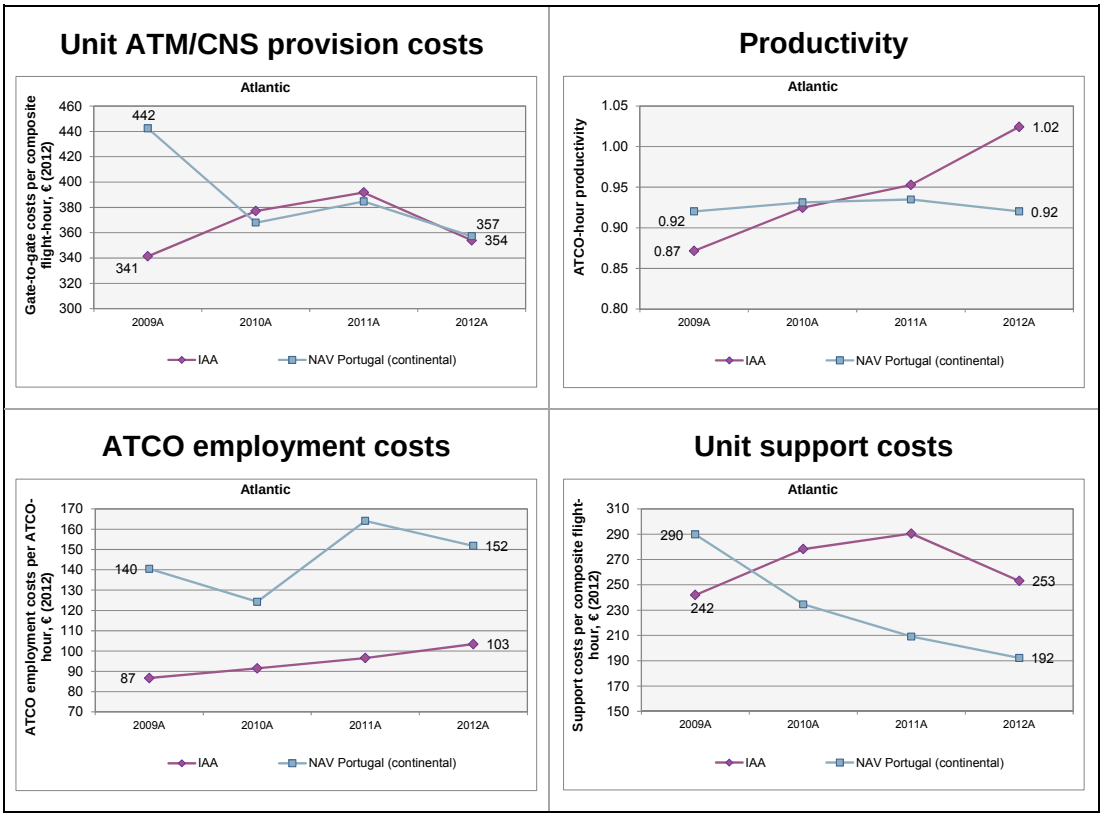
5.1.2 In the context of the ACE benchmarking analysis, an ANSP's performance is often compared to other European ANSPs operating in a similar economic and operational environment (so called "comparators or peer group").

5.1.3 Whereas in the following sections of the PRB RP2 assessment report for Ireland, the "Atlantic" comparator group comprises Ireland, Portugal (continental) and Spain (Canarias), in ACE (ATSP) benchmarking (see graphs below) only NAV Portugal and IAA can be considered, because AENA (Spain ATSP) ACE data are not separately reported between Spain-Continental and Spain-Canarias en-route charging zones for ATSP benchmarking purposes.

5.1.4 The ACE 2012 benchmarking analysis shows that:

- IAA Productivity (1.02) is higher (+11.3%) than that of NAV Portugal (0.92);
- IAA ATCO employment costs (103 €$_{2012}$) are much lower (-31.9%) than NAV Portugal (152 €$_{2012}$); and,
- IAA Unit support costs (253 €$_{2012}$) are much higher (+31.7%) than NAV Portugal (192 €$_{2012}$).

5.1.5 Overall, IAA's unit ATM/CNS provision costs (354 €$_{2012}$) were close (-0.9%) to that of NAV Portugal in 2012 (357 €$_{2012}$), whereas they were much lower in 2009.



5.1.6 The PRB 2013 monitoring analysis indicates that IAA's actual en-route costs for 2013 were substantially lower than planned (-11.2 M€$_{2009}$). This was more than enough to compensate for the impact of the lower traffic than planned (-2.4%) on IAA revenues. Indeed, taking into account the amount of costs exempt from the cost sharing and the traffic risk sharing arrangements, IAA generated a net gain of +9.1 M€$_{2009}$ in 2013 on the en-route activity which is higher than the gain on the en-route activity achieved in 2012 (6.8 M€$_{2009}$). However, when estimating IAA economic surplus, it is important to also account for the profit embedded in the cost of capital through the return on equity (some 7.3 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounted to 16.4 M€$_{2009}$, which implied an ex-post rate of return on equity of 22.9% or an equivalent of 16.9% of en-route revenues.

5.1.7 In 2012, the estimated economic surplus generated by IAA for the en-route activity amounted to 14.8 M€$_{2009}$, which implied an ex-post rate of return on equity of 18.2% or an equivalent of 14.9% of its en-route revenues.

5.1.8 Therefore during the first two years of RP1, IAA managed to generate an aggregated estimated economic surplus of some 31M€$_{2009}$, even growing over time in a context of decreasing traffic/TSU and related revenues.

Cost sharing ('000€2009)	**2012A**	**2013A**
Determined costs for the ATSP (NPP)	99 515	99 104
Actual costs for the ATSP	90 654	86 524
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	8 861	12 581
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**8 861**	**12 581**

Traffic risk sharing ('000€2009)	**2012A**	**2013A**
Difference in total service units (actual vs NPP)	-0.52%	-2.38%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-516**	**-2 095**

Incentives ('000€2009)	**2012A**	**2013A**
ATSP bonus (+) / penalty (-)	-	-
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**-**	**-**

Net ATSP gain(+)/loss(-) on en-route activity	**8 346**	**10 485**

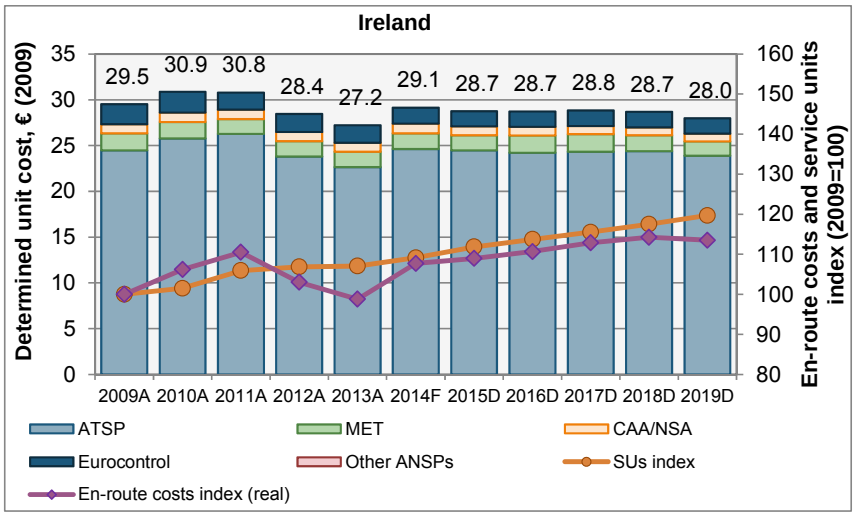
ATSP estimated surplus ('000€2009)	**2012A**	**2013A**
Estimated surplus embedded in the cost of capital for en-route	5 065	4 618
Overall estimated surplus (+/-) for the en-route activity	13 411	15 103
Revenue/costs for the en-route activity	98 999	97 009
Estimated surplus (+/-) in percent of en-route revenue/costs	**13.5%**	**15.6%**
Estimated ex-post RoE pre-taxe rate (in %)	**25.9%**	**33.5%**

Table 12: IAA estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.2 Ireland: overview of en-route KPI assessment

5.2.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in an Annex 1.

Overview of en-route KPI assessment



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	24.46	25.77	26.26	23.79	22.66	24.63	24.48	24.20	24.32	24.38	23.87	-1.2%	-0.6%
MET	EUR (2009)	1.87	1.82	1.64	1.69	1.68	1.71	1.65	1.90	1.92	1.74	1.58	-0.5%	-1.6%
CAA/NSA	EUR (2009)	0.99	1.01	1.04	1.00	0.95	1.04	0.96	0.93	0.90	0.88	0.85	-2.5%	-4.0%
Eurocontrol	EUR (2009)	2.19	2.27	1.86	1.97	1.93	1.74	1.65	1.68	1.69	1.69	1.68	-1.2%	-0.7%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**29.51**	**30.87**	**30.79**	**28.44**	**27.23**	**29.12**	**28.74**	**28.71**	**28.84**	**28.68**	**27.99**	**-1.2%**	**-0.8%**

Figure 8: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	105.1	109.8	115.6	109.9	105.9	116.1	118.7	122.1	126.2	129.9	131.3
Inflation rate	annual % change		-1.6%	1.2%	1.9%	0.5%	0.6%	1.1%	1.2%	1.4%	1.7%	1.7%
Inflation index	2009=100	100.0	98.4	99.6	101.5	102.0	102.6	103.7	105.0	106.4	108.2	110.1
Determined costs	EUR m (2009)	105.1	111.6	116.1	108.3	103.8	113.2	114.5	116.3	118.6	120.0	119.3
Service units	'000s	3 561	3 615	3 771	3 806	3 813	3 886	3 983	4 050	4 113	4 185	4 262
Determined unit cost	EUR (2009)	29.51	30.87	30.79	28.44	27.23	29.12	28.74	28.71	28.84	28.68	27.99
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	29.51	30.87	30.79	28.44	27.23	29.12	28.74	28.71	28.84	28.68	27.99

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.3%	1.6%	2.5%	2.5%
Inflation	CAGR %	1.0%	1.3%	1.4%	1.5%
Determined costs	EUR m (2009)	1.3%	0.3%	1.1%	1.0%
Service units	'000s	1.8%	1.5%	1.9%	1.7%
Determined unit cost	EUR (2009)	-0.5%	-1.2%	-0.8%	-0.7%
Exchange rate					
Determined unit cost	EUR (2009)	-0.5%	-1.2%	-0.8%	-0.7%

Table 13: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	YES

Ireland revised its 2014 forecast data: the revised figures are respectively 116.1 M€ Determined Costs (DCs) in nominal terms (-4.6% vs. RP1 Performance Plan) and -2.9% in terms of TSU (in line with STATFOR February 2014 baseline forecast). These are going in the same direction than the results of the PRB Monitoring Report for years 2012 and 2013 although to a lesser extent: indeed the 2014 DCs are much higher than 2013 actual (+9%) and 2012 actual (+4.5%). To date (situation after 8 months), Ireland en-route charging zone records +2.2% actual TSU growth (vs. 2013).

There are no major issues associated with the assessment of the en-route DUC trend over 2014-2019.

Key points for Ireland en-route charging zone	
1. Traffic forecast assumptions:	**Passed with reservations**
The forecast en-route TSUs used by Ireland lies between the STATFOR Low and Baseline scenarios published in February 2014 for RP2. However there is no quantitative evidence to back this forecast below the baseline forecast and possibly in the +/- 2% deadband.	
2. Economic assumptions:	**Passed**
The inflation forecasts used by Ireland are aligned with the IMF CPI April 2014 forecast for RP2.	
3. En-route DUC trend:	**Not passed**
Ireland Performance Plans provides an en-route DUC trend worse or much worse than the Union-wide target, taken on any period (2014-2019, 2011-2019 or 2009-2019), although traffic and costs forecasts were revised for 2014 In addition, over the 2014-2019 period, the DCs are planned to increase by +1.1% p.a. on average which is significantly worse than the Union-wide target at -2.1% p.a. The detailed analysis of costs indicates that the main drivers are increasing staff costs, as well as other (non-staff) operating costs and also depreciation costs.	
4. En-route DUC level:	**Passed**
In 2019, Ireland's en-route DUC (27.99 $€_{2009}$) is planned to be -37% lower than the (unweighted) peer group average (44.45 $€_{2009}$), although much closer to Portugal (continental) in recent years. Ireland explained in its RP2 Performance Plan that they have a very particular traffic situation with more than 75% overflights, and a large traffic flow coming from the US. Notwithstanding this daily traffic distribution, the ACE analysis reports IAA as one of the ANSP with the least traffic complexity in the SES.	

5. En-route cost of capital:	**Not passed**
The cost of capital of the en-route ATSP (8.5%) is higher than the higher bound of the range of values calculated with the methodology laid down in Annex C guidance. Another element is that as the (en-route) TSU forecasts assumptions for the en-route KPI were already rather prudent (between STATFOR Low and Base case forecasts further adjusted), the related risk is therefore expected to be somehow already mitigated. Furthermore, the monetary value of the return on equity over the whole of RP2 (25.8M€$_{2009}$) covers 17.6% more than the total en-route revenue risk exposure (21.9M€$_{2009}$).	
6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed** **➔ Passed**
Overall the assumptions, description and justification of pension's costs and description of national pension costs are not fully in line with the template and Annex C guidance. ➔ During the fact verification process Ireland provided additional information on this point (see Annex H). **Taking this information into account, Ireland's en-route charging zone is assessed as passing this check.**	
7. Costs exempt from risk sharing:	**Not passed** **➔ Passed**
For RP1: This is subject to a separate assessment undertaken by the PRB and Commission. For RP2: the Performance Plan comprises information relating to the composition of costs exempt from risk sharing but not on the level and justifications for such costs. ➔ During the fact verification process and following a comment from Ireland (see Annex D), Key Point 7 for Ireland has been updated accordingly. **Taking this information into account, Ireland's en-route charging zone is assessed as passing this check.**	

Overall consistency assessment of Ireland en-route cost-efficiency KPI

Taking into account the above key points, in particular 3 and 5, the Ireland en-route cost-efficiency target is assessed as <u>not</u> being consistent with and <u>not</u> making an adequate contribution to the Union-wide cost-efficiency target over RP2.

The PRB therefore advises the Commission to issue a Recommendation to the FAB UK-Ireland to adopt a revised Performance Plan and, specifically for Ireland to revise its cost-efficiency target and, including to:

a) Revise its TSU forecast in the light of the most recent information available and in consistency with the expected level of costs;

b) Revise downward its en-route DCs over RP2, in particular its en-route RoE/cost of capital (in line with the risk actually faced by IAA) and also in light of the economic surplus being generated during RP1, due to a better control of operating costs and reduced actual depreciation costs, the latter to be transparently taken into account for RP2;

c) Provide information on the underlying pension costs assumptions and interest

rates on loans, in line with the requirements of the FAB Performance Plan template; and, → no longer required following update during the fact verification process.

d) Provide further details on cost items potentially eligible as costs exempt from risk sharing for RP2. → no longer required following update during the fact verification process.

5.3 Ireland: overview of terminal ANS KPI assessment

5.3.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPI assessment. The full assessment details are provided in Annex 1.

Overview of Ireland terminal charging zone (TCZ) assessment:

- TCZ name: Ireland.
- Number of airports: 3 (Dublin, Cork and Shannon) covering some 95% of TNSU generated in Ireland in 2013
- No change of scope in the TCZ between RP1 and RP2.
- Traffic risk sharing incentives apply in this TCZ.

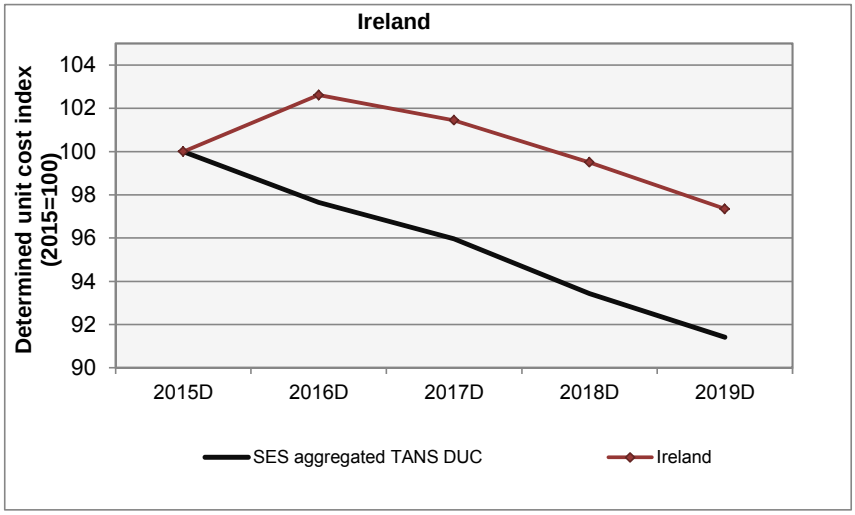


Figure 9: Terminal DUC overview RP2

Key figures: terminal		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	24.6	26.1	26.9	27.7	28.2	3.5%
Inflation rate *	annual % change	1.1%	1.2%	1.4%	1.7%	1.7%	1.5%
Inflation index *	2009=100	103.7	105.0	106.4	108.2	110.1	
Determined costs	EUR m (2009)	23.7	24.9	25.3	25.6	25.7	2.0%
Terminal SUs	'000s	141.2	144.4	148.2	152.9	156.9	2.7%
Determined unit cost	EUR (2009)	168.00	172.38	170.43	167.16	163.55	-0.7%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	168.00	172.38	170.43	167.16	163.55	-0.7%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 14: Terminal DUC breakdown

Key points for Ireland TCZ

1. Traffic forecast assumptions:	**Passed**

The total Terminal Navigation Service Units (TNSUs) forecast for Ireland terminal charging zone (TCZ) is close to the STATFOR High case forecasts (revised to take account of the final RP2 Performance Plan decision to eventually keep Cork and Shannon in the TCZ).

2. Economic assumptions:	**Passed**
The inflation forecasts used by Ireland for the Terminal ANS cost-efficiency KPI are consistent with the IMF April 2014 CPI forecast (same as for the en-route KPI assumptions).	
3. Terminal ANS DUC trend:	**Not passed**
The Terminal ANS DUC trend is worse than the SES aggregated Terminal ANS DUC trend over RP2. In addition, Ireland terminal ANS DC are planned to increase more than its en-route DC trend over RP2. The "gate-to-gate" ANS DC trend is still worse than the Union-wide en-route ANS DC trend underpinning the Union-wide cost-efficiency target over RP2.	
4. Terminal cost of capital:	**Not Passed**
The RoE applied for Terminal ANS (8.9%) as well as the WACC (8.5%) are identical to the one used for en-route ANS cost-efficiency KPI.	
5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**
The information provided for the description and justification of economic assumptions is the same as for en-route and therefore the outcome of this check is the same as for en-route.	
6. Costs exempt from risk sharing:	**Not passed** **➔ Passed**
The Performance Plan comprises limited information relating to the composition of costs exempt from risk sharing but not on the level and justifications for such costs in RP2. ➔ During the fact verification process and following a comment from Ireland (see Annex D), Key Point 7 for Ireland has been updated accordingly. **Taking this information into account, Ireland's terminal charging zone is assessed as passing this check.**	

Overall consistency assessment of Ireland terminal ANS cost-efficiency KPI

Taking into account the above key points, the Ireland terminal ANS cost-efficiency target is assessed as <u>not</u> being consistent with the criteria laid down in Annex IV of the performance Regulation.

Therefore the PRB advises the Commission to issue a Recommendation to the FAB UK-Ireland to adopt a revised Performance Plan, and specifically for Ireland to revise to revise its terminal ANS cost-efficiency KPI, including to:

a) Revise downward its terminal ANS DUC and DCs planned to increase over RP2; in particular to revise downward the RoE/cost of capital for terminal ANS in line with the risk faced by IAA;

b) Revise the TNSU forecasts, in the light of actual traffic recorded at the time of the revision of the plan; and,

c) Provide information on the underlying pension costs assumptions in line with the requirements of the FAB Performance Plan template and Guidance. ➔ no

longer required following update during the fact verification process.

5.4 United Kingdom: Setting the scene for the RP2 cost-efficiency assessment

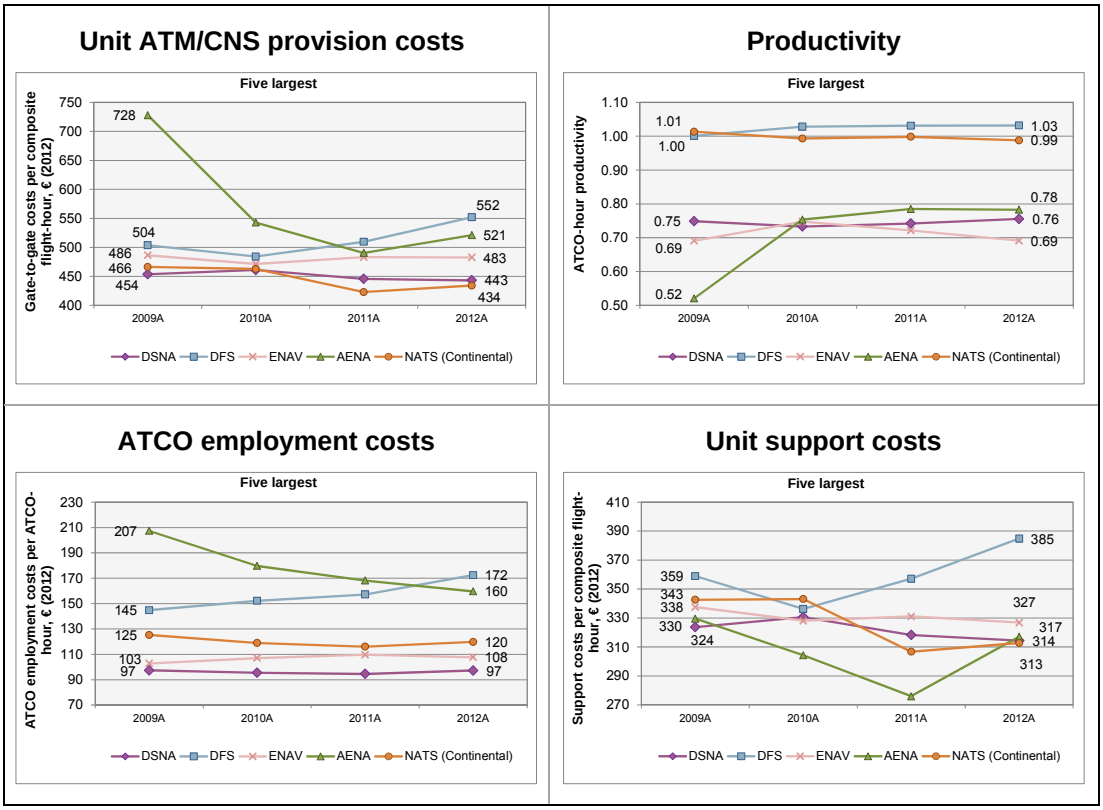
5.4.1 This section summarises key findings from the most recent ATM/CNS cost-effectiveness (ACE) gate to gate benchmarking analysis, and from the PRB 2012 and 2013 monitoring analysis. It provides background information on the initial level of performance of NATS, the main ATSP in the UK, which represented 760 M€$_{2012}$ (about 10.4% of the SES gate-to-gate ATM/CNS costs in 2012).

5.4.2 In the context of the ACE benchmarking analysis, an ATSP's performance is often compared to other European ATSPs operating in a similar economic and operational environment (so called "comparators or peer group"). NATS is part of the five largest ATSPs comparator group, also including Aena (Spain), DFS (Germany), DSNA (France) and ENAV (Italy).

5.4.3 The ACE 2012 benchmarking analysis shows that:

- NATS' productivity (0.99) is +21.2% higher than the comparator group average (0.82);
- Employment costs per ATCO-hour (120 €$_{2012}$) are -10.8% lower than the comparator group average (134 €$_{2012}$); and,
- Support costs per composite flight-hour (313 €$_{2012}$) are -6.9% lower than the comparator group average (336 €$_{2012}$).

5.4.4 As a result, NATS' unit ATM/CNS provision costs (434 €$_{2012}$) were -13.1% lower than the comparator group average in 2012 (500 €$_{2012}$).



5.4.5 The PRB 2013 monitoring analysis indicates that NERL actual en-route costs for 2013 were lower than planned (-18.2 M€$_{2009}$). This was not sufficient to compensate for the impact of the lower traffic than planned (-8.6%) on NERL revenues. Indeed, taking into account the amount of costs exempt from the cost sharing, the traffic risk sharing arrangements and a penalty in respect of performance incentives, NERL

generated a net loss of -5.2 M€$_{2009}$ in 2013 on the en-route activity.

5.4.6 However, when estimating NERL economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 45.8 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 40.6 M€$_{2009}$, which implies an ex-post rate of return on equity of 10.2% (compared to 11.5% as initially planned in the NPP). This adds to the surplus generated by NERL in 2012 (+68.1 M€$_{2009}$ or 11.4% of en-route revenues leading to an ex-post rate of return on equity of 16.7%).

Cost sharing ('000€2009)	2012A	2013A
Determined costs for the ATSP (NPP)	618,268	645,146
Actual costs for the ATSP	579,216	626,922
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	39,052	18,224
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-3,051	2,142
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	**36,001**	20,366

Traffic risk sharing ('000€2009)	2012A	2013A
Difference in total service units (actual vs NPP)	-6.94%	-8.55%
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	**-20,906**	**-24,632**

Incentives ('000€2009)	2012A	2013A
ATSP bonus (+) / penalty (-)	5,866	-972
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	**5,866**	**-972**

Net ATSP gain(+)/loss(-) on en-route activity	**20,961**	-5,238

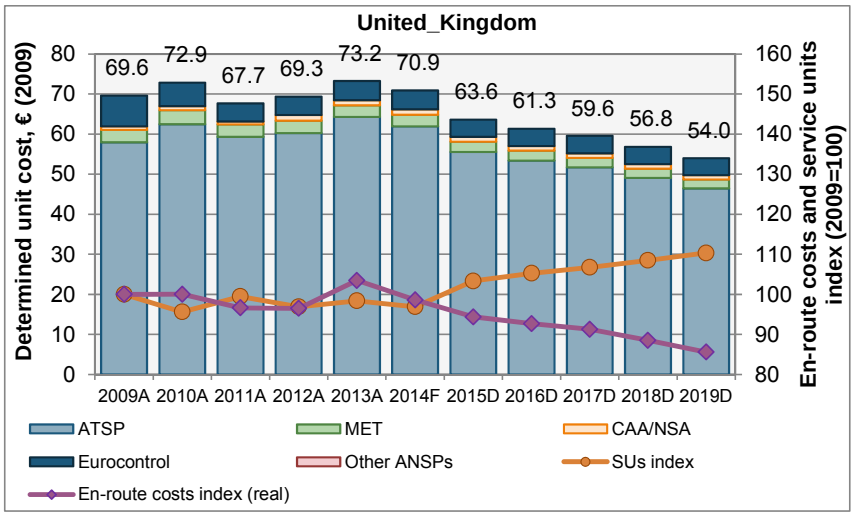
ATSP estimated surplus ('000€2009)	2012A	2013A
Estimated surplus embedded in the cost of capital for en-route	47,169	45,795
Overall estimated surplus (+/-) for the en-route activity	68,130	40,557
Revenue/costs for the en-route activity	600,177	621,684
Estimated surplus (+/-) in percent of en-route revenue/costs	**11.4%**	**6.5%**
Estimated ex-post RoE pre-taxe rate (in %)	**16.7%**	**10.2%**

Table 15: NATS estimated economic surplus 2012 & 2013 (PRB Monitoring Report)

5.5 United Kingdom: Overview of en-route charging zone assessment

5.5.1 The summary results of each of the checks are provided below, along with the key points for this en-route cost-efficiency KPI assessment. The full assessment details are provided in Annex 1.

Overview of UK en-route charging zone assessment



Components of determined unit cost		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D	2011-19 CAGR (%)	2014-19 CAGR (%)
ATSP	EUR (2009)	57.97	62.51	59.34	60.29	64.27	61.97	55.52	53.37	51.69	49.10	46.48	-3.0%	-5.6%
MET	EUR (2009)	3.11	3.49	3.07	3.07	2.90	2.88	2.60	2.49	2.39	2.29	2.20	-4.1%	-5.3%
CAA/NSA	EUR (2009)	0.88	1.01	0.76	1.42	1.32	1.33	1.22	1.19	1.16	1.14	1.06	4.3%	-4.5%
Eurocontrol	EUR (2009)	7.68	5.87	4.50	4.57	4.75	4.71	4.27	4.30	4.31	4.30	4.27	-0.7%	-1.9%
Other ANSPs	EUR (2009)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**EUR (2009)**	**69.64**	**72.87**	**67.67**	**69.34**	**73.25**	**70.89**	**63.61**	**61.35**	**59.55**	**56.82**	**54.01**	**-2.8%**	**-5.3%**

Figure 10: En-route cost-efficiency target overview

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	GBP m (nom)	615.0	635.8	641.8	658.7	724.8	703.7	686.1	686.9	689.7	682.3	672.8
Inflation rate	annual % change		3.3%	4.5%	2.8%	2.6%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
Inflation index	2009=100	100.0	103.3	108.0	111.0	113.9	116.0	118.2	120.5	122.9	125.3	127.8
Determined costs	GBP m (2009)	615.0	615.3	594.3	593.4	636.4	606.6	580.4	570.2	561.3	544.4	526.3
Service units	'000s	9 914	9 480	9 861	9 608	9 755	9 608	10 244	10 435	10 583	10 758	10 940
Determined unit cost	GBP (2009)	62.03	64.90	60.27	61.76	65.24	63.14	56.65	54.64	53.04	50.60	48.11
Exchange rate	GBP:EUR	0.89										
Determined unit cost	EUR (2009)	69.64	72.87	67.67	69.34	73.25	70.89	63.61	61.35	59.55	56.82	54.01

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	GBP m (nom)	0.9%	0.6%	-0.9%	-0.5%
Inflation	CAGR %	2.5%	2.1%	2.0%	2.0%
Determined costs	GBP m (2009)	-1.5%	-1.5%	-2.8%	-2.4%
Service units	'000s	1.0%	1.3%	2.6%	1.7%
Determined unit cost	GBP (2009)	-2.5%	-2.8%	-5.3%	-4.0%
Exchange rate					
Determined unit cost	EUR (2009)	-2.5%	-2.8%	-5.3%	-4.0%

Table 16: En-route cost-efficiency target breakdown

Provision of updated en-route TSU forecast for 2014 vs. RP1 PP?	YES
Provision of updated en-route costs forecast for 2014 vs. RP1 PP?	Yes

En-route TSU and cost forecasts provided in the RP2 Performance Plan for the year 2014 have been updated compared to the RP1 Performance Plan:

- Total en-route costs (in nominal terms) for 2014 are expected to be -3.4% lower than the RP1 Determined Costs (DCs); and
- TSUs for 2014 are expected to be -12.9% lower than in the RP1 Performance Plan and also significantly lower than the STATFOR February 2014 base case forecast. The TSU forecast adopted by the UK for the year 2014 implies a -1.5% decrease in TSUs compared to 2013, which contrasts with the actual growth observed to date (+3.3% for the first eight months of 2014 vs 2013).

In conclusion: the 2014 cost update is in line with what is observed in 2012-2013 but the 2014 TSU update is significantly below the observed actual TSU in the first semester of 2014 and also below the STATFOR February 2014 forecast. This affects the 2014-2019 trend analysis and will have to be taken into account.

Key points for the UK en-route charging zone	
1. Traffic forecast assumptions:	**Passed**

The UK en-route TSU forecasts for RP2 are in line with STATFOR February 2014 base case forecasts.

➔ During the fact verification process (16-09 until 26-09 2014) the UK submitted a revised SU forecast for 2014. The updated value for 2014 is 10,025 k TSUs (as compared to 9,608 k TSUs as previously submitted). The PRB notes both the new figure and that it does not materially impact the results of the assessment.

2. Economic assumptions:	**Passed**

The inflation forecasts are in line with IMF average inflation rate forecast published in April 2014 for every year 2014-19 and equivalent to EUROSTAT HICP for 2013.

3. En-route DUC trend:	**Passed**

Over 2014-2019, the en-route DUC trend planned by the UK (-5.3% p.a.) and over RP1 and RP2 combined (-2.8% p.a. between 2011 and 2019) are better than the Union-wide cost-efficiency target trend (-3.3% p.a. over 2014-2019 and -1.7% p.a. over 2011-2019).

Over RP2, the planned reduction of the DUC is the result of decreasing DCs (-2.8% p.a.), along with increasing traffic (+2.6% p.a.).

4. En-route DUC level:	**Passed**

The UK's en-route DUC in 2019 is planned to amount to 54.01 €$_{2009}$, which is -15.5% lower than the average of the comparator group (63.90 €$_{2009}$). The UK's DCs for 2015 are lower than 2012 and 2013 actuals (-2.2% and -8.8%, respectively), indicating that the cost-efficiency performance improvements achieved in the first years of RP1 were taken into account when setting DCs over RP2.

5. En-route cost of capital:	**Not passed**

The Weighted Average Cost of Capital (WACC) rate used to compute NERL en-route cost of capital (5.9% in real terms) is above the upper bound of the range of values calculated with the methodology laid down in Annex C guidance.

The assumptions used to calculate NERL cost of capital are not fully in line with the methodology laid down in Annex C guidance, leading to a higher equity beta (1.11). It is also noted that the corporate tax rate used to calculate the pre-tax return on equity amounts to 37%. The UK Performance Plan states that this is an "effective" tax rate, which is higher than the statutory tax rate (21% from 1st April 2015), reflecting the anticipation that the RP2 profits subject to corporate taxation will be higher than the allowed returns embedded in the cost of capital. The UK states that profit before tax in RP2 is forecast to be substantially lower than in RP1.

The pre-tax rate of return on equity (RoE) that will be used by NERL over RP2 amounts to some 10.9% (real terms) per year. Taking into account NERL capital structure and the amount of total assets used to compute the cost of capital, the PRB calculates that, over RP2, the monetary value of the aggregate return on equity is 38.5% higher than the maximum traffic risk exposure for NERL.

Over the 2015-2019 period, NERL en-route asset base per SU is expected to amount to €71.7 on average, which is higher/lower than that of comparator ATSPs and higher/lower than the unweighted union average. [pending availability of DFS data]

6. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

The information provided on pension costs assumptions and justifications, as well as on interest on loans is not consistent with the FAB Performance Plan template and guidance as it is incomplete.

7. Costs exempt from risk sharing:	**Passed**

The information provided in the Performance Plan on the level and composition of costs exempt from risk sharing for RP1 is consistent with the FAB template requirement. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2.

Overall consistency assessment of UK en-route cost-efficiency KPI

Taking into account these key points, in particular 1, 2, 3, and 4, the UK en-route cost-efficiency target is assessed as being consistent with, and making an adequate contribution to, the Union-wide cost-efficiency target over RP2.

However, the PRB advises the Commission to issue a Recommendation to the UK to:

a) Provide full details on the underlying pension costs assumptions and interest rates on loans in line with the FAB Performance Plan template and guidance.

The PRB notes that the volume of costs of the Terminal ANS charging zone C (some 11 M€$_{2009}$) is relatively small as compared to the UK en-route DCs (some 625 M€$_{2009}$ on average over RP2) and many features reported are common with en-route (see detailed analysis). Should the UK identify these costs (or part thereof) as en-route, in line with the SES regulations, these conclusions would remain unchanged.

Additional clarifications/revised data provided in the fact verification process
During the fact verification process (16-09 until 26-09 2014) the UK submitted a revised SU forecast for 2014. The updated value for 2014 is 10,025 k TSUs (as compared to 9,608 k TSUs as previously submitted). The PRB notes the new figure. **This does not materially change the conclusions of the PRB assessment of the UK en-route cost-efficiency target for RP2.**

5.6 United Kingdom: Overview of terminal charging zones assessment

5.6.1 The summary results of each of the checks are provided below, along with the key points for this Terminal ANS KPIs assessment. The full assessment details are provided in Annex 1.

Overview of UK terminal charging zones (TCZs) assessment:

Information is reported for two terminal charging zones for which Terminal ANS DUC KPIs are presented.

- Terminal Charging Zone B (TCZ B), with nine airports in 2014 for which terminal ANS are mainly provided by NSL, those having more than 70 000 movements and covering some 77% of all TNSU generated in the UK in 2013.
- Terminal Charging Zone C (TCZ C), which would correspond to the London approach area services provided by NERL for the traffic to/from five airports which are common with TCZ B.

Note: It is noted that there is a potential compliance issue with the charging Regulation for the definitions of UK (Terminal) Charging Zones and the related traffic risk sharing incentives. Indeed the same airports (and traffic/TNSU) are reported under two different (terminal) charging zones and traffic risk sharing applies to terminal ANS services to/from airports with more than 225 000 IFR movements per year. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance" which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements). The outcome of this process (compliance with EU law) will impact on whether the plan is accepted by the European Commission or otherwise.

The PRB notes that the volume of costs of the UK TCZ C (some 11 M€$_{2009}$) is relatively small as compared to both the UK en-route DCs (some 625 M€$_{2009}$ on average over RP2) or even the UK TCZ B (some 136 M€$_{2009}$ over RP2). Also many features reported are common with en-route (see detailed analysis). Should the UK identify these costs (or part thereof) as part of the en-route and/or TCZ B, in line with the SES regulations, the assessment conclusions would remain unchanged.

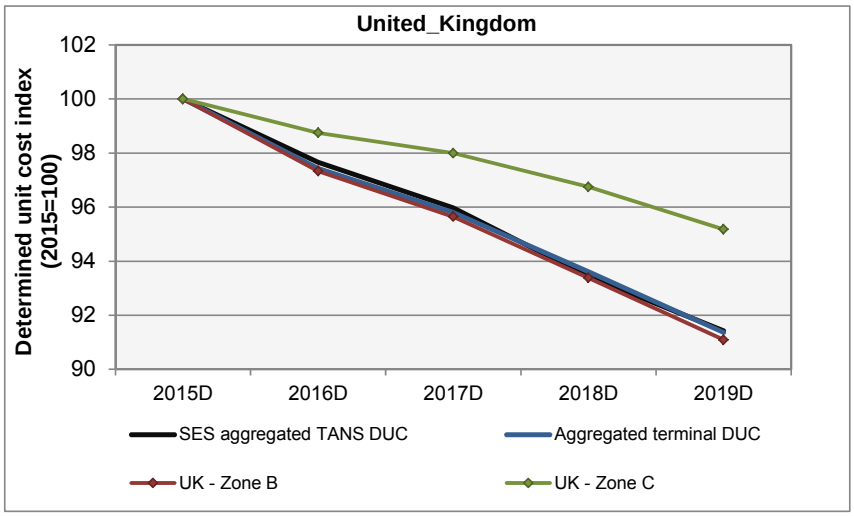


Figure 11: Terminal DUC overview RP2

Key figures: UK - Zone B		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	GBP m (nom)	143.2	145.6	148.8	151.3	153.8	1.8%
Inflation rate	annual % change	1.9%	1.9%	2.0%	2.0%	2.0%	2.0%
Inflation index	2009=100	118.2	120.5	122.9	125.3	127.8	
Determined costs	GBP m (2009)	121.2	120.9	121.1	120.7	120.3	-0.2%
Terminal service units	'000s	1 153	1 182	1 205	1 230	1 256	2.2%
Determined unit cost	GBP (2009)	105.09	102.28	100.51	98.13	95.72	-2.3%
Exchange rate	GBP:EUR (2009)	0.89					
Determined unit cost	EUR (2009)	117.99	114.84	112.85	110.18	107.48	-2.3%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Key figures: UK - Zone C		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	GBP m (nom)	12.0	12.4	12.7	13.1	13.4	2.8%
Inflation rate	annual % change	1.9%	1.9%	2.0%	2.0%	2.0%	2.0%
Inflation index	2009=100	118.2	120.5	122.9	125.3	127.8	
Determined costs	GBP m (2009)	10.2	10.3	10.4	10.4	10.5	0.8%
Terminal service units	'000s	885	906	922	940	959	2.0%
Determined unit cost	GBP (2009)	11.49	11.34	11.25	11.11	10.93	-1.2%
Exchange rate	GBP:EUR (2009)	0.89					
Determined unit cost	EUR (2009)	12.90	12.73	12.64	12.48	12.27	-1.2%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 17: Terminal DUC breakdown

Key points for the UK terminal charging zones

1. Traffic forecast assumptions:	**TCZ B: Passed**

The forecast TNSUs for TCZ B (+2.2% p.a.) are in line with STATFOR base case forecasts published in February 2014, for every year between 2015 and 2019.

As there is double counting of airports and related TNSUs for TCZ B and TCZ C, no conclusion can be drawn for the TCZ C.

2. Economic assumptions:	**Passed**

Over the 2015-2019 period, a consistent inflation rate, in line with IMF forecasts, has been used in the Performance Plan for all UK charging zones.

3. Terminal ANS DUC trend:	**TCZ B: Passed**

Over the 2015-2019 period, the terminal ANS DUC trend for the TCZ B (-2.3% p.a.) is better than the SES aggregated DUC trend (-2.2% p.a.).

As there is double counting of airports and related TNSU for TCZ B and TCZ C, no conclusion can be drawn for the TCZ C.

4. Terminal cost of capital:	**TCZ B: Not Passed**

For the TCZ B, the cost of capital element of the DCs reflects the profit NSL *"earns as a pre-tax return on sales on its contracts"*. The profit margin of the ATSP (calculated as the share of the cost of capital in the total DCs) is planned to be between 14% and 15% for all years of RP2. These figures contrast with those observed for en-route ANS, where the share of cost of capital in the total DCs is expected to be between 7% and 9% over RP2.

These large differences are observed despite the fact that the UK Performance Plan presents the DCs for the TCZ B as not being subject to traffic risk sharing, hence reduced

risk, although there are two airports with more than 225,000 IFR movements per year in the TCZ B for which traffic risk sharing shall apply (in line with Art. 13 (6) of the charging Regulation) – this is subject to a separate assessment by the Commission.

For the TCZ C provided by NERL, the cost of capital included in the DCs is calculated following the same methodology as for the UK en-route charging zone, the same RoE and same WACC values are used.

5. Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan:	**Not passed**

For the TCZ B, the UK Performance Plan mentions the existence of Defined Benefit Pension Scheme, similar to that of NERL for en-route. However, under the terms of its contracts NSL does not pass through the variance in cash cost contributions to the airports. No information is provided for interest rates on loans, due to the fact that the costs reported as cost of capital reflect the anticipated pre-tax return on sales rather than a genuine cost of capital, as defined for en-route or the TCZ C.

Adjustments beyond IAS are proposed. The assumptions for these adjustments only concern pension costs and these are similar to that for en-route.

For the TCZ C, the information provided for the description of economic assumptions relating to pensions and interest rates on loans are the same as for en-route. Adjustments beyond IAS are proposed and are similar to that for en-route.

6. Costs exempt from risk sharing:	**Passed**

For the TCZ B, the PRB understands that none of the DCs are exempt from the cost risk sharing.

For the TCZ C, the Performance Plan indicates that the costs exempt from risk sharing during RP2 are the same as for en-route. The Performance Plan also indicates that for the years 2012-2014, no exempted costs are assumed for London Approach, as *"all NERL uncontrollable costs are recovered though NERL's en-route charge".*

Overall consistency assessment of the UK terminal ANS cost-efficiency KPI

Taking into account these key points, in particular 1, 2, and 3, the UK terminal cost-efficiency target for its TCZ B is assessed as being consistent with the criteria laid down in Annex IV of the performance Regulation.

However the PRB advises the Commission to issue a Recommendation to the UK, to

a) **Provide more detailed information on the underlying assumptions for interest rates on loans in line with the requirements of the FAB Performance Plan template.**

No conclusions can be drawn at this stage on the TCZ C, pending the outcome of the regulations compliance review subject to a separate Commission assessment.

The PRB notes that the volume of costs of the TCZ C (some 11 M€$_{2009}$) is relatively small as compared to the UK en-route DCs (some 625 M€$_{2009}$ on average over RP2) and many features reported are common with en-route (see detailed analysis). Should the UK identify these costs (or part thereof) as en-route or TCZB, in line with the SES regulations, the PRB conclusions on en-route or Terminal would remain unchanged.

The PRB advises the Commission in its compliance review of UK to:

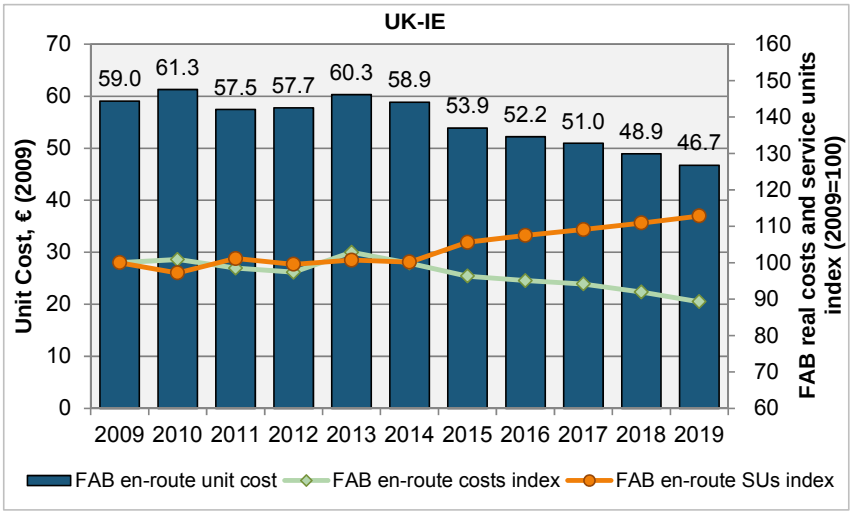
a) Reconsider with the UK authorities the qualification of the TCZ C (en-route and/or TCZ B).

b) Review the parameters used to calculate NERL cost of capital for the TCZ C.

c) Review the compliance of exempting TCZ B from traffic risk sharing for terminal ANS to/from airport with more than 225 000 IFR movements, and in relation to the relatively high profit margin embedded in the cost of capital.

5.7 UK-Ireland FAB: Overview of FAB en-route trend

Overview



Key figures: UK-IE		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FAB en-route costs	EUR m (2009)	795.5	802.4	783.4	774.5	818.3	794.3	766.1	756.5	748.9	731.3	710.2
FAB en-route service units	'000s	13 475	13 095	13 632	13 414	13 568	13 494	14 227	14 485	14 696	14 943	15 202
FAB en-route unit cost	EUR (2009)	59.04	61.27	57.47	57.74	60.31	58.86	53.85	52.23	50.96	48.94	46.72

Key figures: UK-IE CAGR (%)		2009-19	2011-19	2014-19	2015-19
FAB en-route costs	EUR m (2009)	-1.1%	-1.2%	-2.2%	-1.9%
FAB en-route service units	'000s	1.2%	1.4%	2.4%	1.7%
FAB en-route unit cost	EUR (2009)	-2.3%	-2.6%	-4.5%	-3.5%

Figure 12: FAB en-route unit cost trend overview

Key points for the UK-Ireland FAB en-route trend

<u>Note</u>: the following comments on the aggregated FAB en-route trend should not be seen as a "FAB cost-efficiency assessment". Currently the cost-efficiency assessment can only be carried out at charging zone level (en-route and terminal) and for RP2 there are no FAB with a common charging zone and a single unit rate.

Within the FAB UK-Ireland, the UK en-route DCs represent 84% of the total en-route costs, Ireland (16%) over RP2. The trend of the en-route unit costs aggregated at FAB level is therefore significantly impacted by the UK contribution.

In 2013, the FAB en-route costs (some 818.3 M€$_{2009}$) represented 13.6% of the total SES en-route costs and by 2019, these are planned to be some 710.2 M€$_{2009}$ (or a share of 11.5% of the total SES costs).

The aggregated en-route unit cost trends for the FAB UK-Ireland over RP2 (-4.5% p.a. between 2014 and 2019) and over RP1 and RP2 combined (-2.6% p.a. between 2011 and 2019) are significantly better than the Union-wide cost-efficiency target trends (-3.3% p.a. over 2014-2019 and -1.7% p.a. over 2011-2019).

In addition, by 2019 the en-route unit cost (46.7 €$_{2009}$) is lower (-8.9%) than the Union-wide aggregated en-route DUC level (51.26 €$_{2009}$).

6 INVESTMENTS

The PRB assessment of the investment cannot be considered exhaustive in respect to the consistency and adequacy of the data provided, as it is done with limited information. In addition, it does not validate the ANSPs individual investments, which is a State/NSA responsibility.

6.1 Compatibility and coherence of planned investments

IRELAND

6.1.1 The Ireland ANSP has marked those projects linked to the ATM Master Plan or PCP, except for the 'Radar replacement' programme which could have been linked to the Level 3 objective of the Master Plan ITY-SPI. However, no references to specific elements of the Master Plan have been provided.

UK

6.1.2 NATS has provided comprehensive information with respect to the links to Master Plan, PCP and NSP. These links seem justified and accurate.

6.2 FAB and/or Regional dimension

6.2.1 The only FAB project reported by the IAA-ASP is the implementation of a Common Transition Altitude. As for NATS, the 'Airspace Development' project was reported as a FAB project but it is not clear from the descriptions provided by both ANSPs how these projects are linked.

6.2.2 The IAA-ANSP is involved in the COOPANS initiative with partners LFV, Naviair, CCL and Austro Control to establish a single FDP system. This brings obvious synergies in terms of financial savings and systems interoperability.

6.2.3 NATS is involved in the iTEC FDP initiative with partners Aena, LVNL and DFS with similar objectives and synergies as COOPANS above.

6.2.4 The IAA-ASP reports that the project 'Migration to VOIP and SWIM capabilities' brings synergies at FAB/regional level but does not explain how.

6.3 Total CAPEX for RP2

FAB LEVEL

6.3.1 As shown in the table below, the planned investment average per year for RP2 is foreseen to be 3% lower than the average for the previous five years (updated for 2010-14[5]), i.e. 120.5M€$_{2009}$ RP2 planned annual average vs. 124.6M€$_{2009}$ updated annual average for 2010-14.

UK-Ireland FAB CAPEX	2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL Planned RP2	135.4	133.0	135.0	106.5	92.7	602.6	120.5

Table 18: RP2 UK-Ireland FAB CAPEX (M€2009, real terms)

UK-Ireland FAB CAPEX	2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL Planned	154.7	162.9	158.2	152.0	154.8	782.7	156.5
Total Updated Planned	131.3	114.7	127.5	110.2	139.1	622.8	124.6
U-P (M€2009, real terms)	-23.4	-48.2	-30.7	-41.8	-15.7	-159.9	-32.0
U/P (%)	-15.1%	-29.6%	-19.4%	-27.5%	-10.2%	-20.4%	-20.4%

Table 19: 2010-14 UK - Ireland FAB CAPEX (M€2009, real terms)

6.3.2 The UK-Ireland FAB has provided its planned actions for RP2 linked to the Network Strategy Plan. "In addition to on-going improvement activities such as Traffic Management enhancements, configuring sectors to better match demand and cross training programme, the following projects are expected to contribute to capacity or delay reduction benefits though RP2: Establishing FRA, Extended use of AMAN, Q-Management, Time Based Separation for Heathrow, RAT & Dynamic Sectorisation."[6]

6.3.3 During the consultation with stakeholders there was "a debate on the scope for UK centre consolidation (Swanwick and Prestwick) and *FAB integration. However, NERL highlighted that it was not possible to deliver the planned cost savings while at the same time further consolidating operations, even if this was achievable politically and socially. We will continue to consider with IAA opportunities for further improving performance in the longer term."*[7]

6.3.4 Nevertheless, this FAB level assessment does not reflect different situations at national level, as described below:

IRELAND ANSP

6.3.5 Ireland's ANSP investments are planned to be on average 111% higher in RP2 than for the period 2010-14 (i.e. 20.7M€$_{2009}$, RP2 yearly average vs. 9.8M€$_{2009}$, updated average over the past five years). In accordance with the IAA Investment Plan summary "*the technology strategy will be updated on an annual basis and the financial figures will be refined as projects mature."*

6.3.6 It is noted that an important amount is planned for 2017 (36% from total RP2 planned CAPEX) mainly due to "FDP COOPANS" (11.5M€$_{2009}$, planned for this year) and also to the "Contingency" project (12.2M€$_{2009}$). It is however evident for the previous timeframe (2010-14), the higher level of CAPEX for the marginal years (i.e. 15.6M€$_{2009}$ for 2010 and 19.3M€$_{2009}$ foreseen for 2014) and the lower actual levels for the mid-years (2011 to 2013) (see in table Table 21 below).

RP2 CAPEX (M€$_{2009}$, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	13.7	17.2	37.6	19.8	15.2	103.5	20.7
MAIN	Planned	7.8	10.9	35.3	19.4	14.3	87.7	17.5
MAIN versus TOTAL		56.8%	63.4%	94.0%	98.0%	94.1%	84.8%	84.8%

Table 20: RP2 Ireland ANSP Planned CAPEX

2010-14 CAPEX (M€2009, real terms)		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	23.2	18.7	11.2	10.8	19.1	83.0	16.6
	Updated Plan	15.6	5.8	5.8	2.6	19.3	49.1	9.8
	U-P (M€2009, real terms)	-7.7	-12.9	-5.4	-8.1	0.2	-33.9	-6.8
	U/P (%)	-33.0%	-68.9%	-48.2%	-75.4%	1.1%	-40.8%	-44.9%
MAIN	Planned	20.0	18.7	3.7	10.8	19.1	72.3	14.5
	Updated Plan	15.6	5.8	3.0	2.6	19.3	46.3	9.3
	U-P (M€2009, real terms)	-4.5	-12.9	-0.7	-8.1	0.2	-26.0	-5.2
	U/P (%)	-22.4%	-69.0%	-19.6%	-75.4%	1.1%	-36.0%	-37.0%
MAIN versus TOTAL (Planned PP RP1)		86.3%	100.0%	32.7%	100.0%	100.0%	87.1%	83.8%
MAIN versus TOTAL (Updated Plan)		100.0%	99.9%	50.8%	100.0%	100.0%	94.2%	90.1%

Table 21: 2010-14 Ireland ANSP CAPEX (Updated vs. Planned)

6.3.7 The breakdown per project was not available for RP1 therefore no link can be made between the two reference period projects. For the RP1 Performance Plan, the planned investments were not transparently disclosed, whereas for the RP2 Performance Plan detailed qualitative information was provided in regard to the IAA technology strategy, its benefits and the link with SESAR and ATM Master Plan requirements. Furthermore, the continuity of the investment projects for RP2 cannot be assessed since for the 2012 and 2013 monitoring exercises, the total actual amounts spent were not transparently detailed.

6.3.8 FDP COOPANS (Cooperation for procurement of ANSP Systems) is IAA's main project for RP2. This project is related to overhaul of the existing FDP in order to reach SESAR compliance. For RP1 it had incurred the cost of the building (operational end 2011) for a total cost of 50M€$_{2009}$, whilst for RP2 the planned CAPEX amounts to an additional 37.9M€$_{2009}$. It is described as providing benefits for all KPAs and it is a joint project with States from FAB CE and DK-SE FAB. It is stated that *"the cooperation reduces system development costs by approximately 30 %"*[8] for each member.

6.3.9 Another important RP2 main project is "Surveillance & Navigation Systems" for the introduction of ADS-B/WAM, which amounts to 17M€$_{2009}$ in RP2 and is described as bringing benefits to safety and cost-efficiency.

6.3.10 At the bilateral consultation with airlines it was stated that "*synergies within the FAB was not apparent in the plan"* and they "*were not supportive of another contingency centre in Ireland*". The airlines also considered that "*the Dynamic Sectorisation programme should continue after the current trial*."[9]

6.3.11 Most of the projects planned are foreseen to be commissioned over RP2. This is reflected into depreciation costs which are foreseen to increase by 4.9% in average over the period. Ireland has acknowledged that "*due to the investments that are foreseen for RP2, depreciation will increase due to the larger asset base."*[10]

6.3.12 On the other hand it is observed that depreciation for 2010-14 is foreseen to decrease in total over the period by 4.3% (as result of -3.5% for the en-route activity), due to the significant decline in CAPEX for 2012 and 2013.

UK ANSP

6.3.13 UK's ANSP investments are planned to be on average 13% lower in RP2 than for the period 2010-14 (i.e. 99.8M€$_{2009}$, RP2 yearly average vs. 114.7M€$_{2009}$, updated average over the past five years). NATS mentioned that CP3 "*capital investment was adjusted downwards in line with the traffic forecast"* in order *"to reflect changing customer priorities and requirements during a reference period."*[11]

6.3.14 The most important projects planned for RP2 (75% from total CAPEX) are the following:

- "iTEC FDP and New Common Workstation" (linked to Pilot Common Project: Free Route in Prestwick upper)– the core infrastructure required to support 4D trajectory-based operations (Step 1 starts in 2015/6 to Step 4 in 2023) – capital deployment costs to Step 2 are planned to be £205M of which c£151M (138M€$_{2009}$) will be incurred in RP2. After the 2013 monitoring exercise 100.6M€$_{2009}$ are expected to be spent over RP1 (vs. 114.2M€$_{2009}$ planned) due to "revised deployment strategy". It is not clear if the unspent amount was carried-over to RP2. It is described as providing benefits for Safety and Capacity;
- "Centre System Software Development" (linked with PCPs: Extended AMAN, Time Base separation and Flexible Airspace Management) – investments for Swanwick and Prestwick Centres – total planned CAPEX for RP2 £179.2M (165M€$_{2009}$). Over RP1, 115.6M€$_{2009}$ is expected to be spent (vs. 75M€$_{2009}$ planned). It is described as providing benefits for all the 4KPAs;
- "CNS Infrastructure" (linked with PCP: SWIM server) - enhanced ground-based communications networks to provide SWIM compliant infrastructure – total planned CAPEX for RP2 £92.6M (84.7M€$_{2009}$). Over RP1, 58.7M€$_{2009}$ is expected to be spent (vs. 67.7M€$_{2009}$ planned). It is not clear if the unspent amount was carried-over to RP2.

6.3.15 NERL has provided supplementary information on its investment strategy to customers and CAA trough the consultation process, including the costs and benefits of major projects[12], as follows:

	Revised Plan
Total RP2 Investment (current prices)	£575m[13]
Contribution to RP2 unit price	c. £3.70 per SU
Real reduction v. CP3 Annual Investment Levels	-c. 10%

Table 22: Impact of investments on cost reductions in RP2

6.3.16 "Investment Strategy and Portfolio" details NATS strategy in regard to reaching the longer-term objective (to move towards SESAR 4D trajectory operations). Against this objective, "*our investment strategy for RP2 is a balance between*:

- *Appropriate efficient investment in light of the key customer requirement for lower prices;*
- *Appropriate efficient asset replacement/upgrade "avoiding nugatory spend (investment and operating costs) on ageing systems";*
- *Delivering major FAS investments in RP2 (LAMP and NTCA programmes in particular) to enable fuel saving benefits for customers as early as possible;*
- *Fulfilling mandatory /regulatory requirements, including EU implementing rules;*
- *Maintaining investment in future capability towards SESAR trajectory operations;*

- *Working with partner ANSPs to share investment costs and development risks, whilst securing external funding where possible."*[14]

RP2 CAPEX (M€2009, real terms)		2015	2016	2017	2018	2019	Total RP2	Avg. 2015-19
TOTAL	Planned	121.7	115.8	97.4	86.8	77.4	499.1	99.8
MAIN	Planned	109.5	106.0	88.7	78.4	66.6	449.1	89.8
MAIN versus TOTAL		89.9%	91.6%	91.1%	90.3%	85.9%	90.0%	89.8%

Table 23: RP2 UK ANSP Planned CAPEX

2010-14 CAPEX		2010	2011	2012	2013	2014	Total 2010-14	Avg. 2010-14
TOTAL	Planned	131.5	144.2	147.0	141.2	135.7	699.7	139.9
	Updated Plan	127.4	125.1	121.7	107.5	119.8	601.6	120.3
	U-P	-4.1	-19.1	-25.3	-33.7	-15.9	-98.1	-19.6
	U/P (%)	-3.1%	-13.2%	-17.2%	-23.9%	-11.7%	-14.0%	-13.8%
MAIN	Planned	68.9	75.5	116.8	111.6	107.6	480.2	96.0
	Updated Plan	77.9	73.5	98.0	92.5	98.7	440.6	88.1
	U-P (M€2009, real terms)	9.1	-2.0	-18.8	-19.1	-8.9	-39.7	-7.9
	U/P (%)	13.2%	-2.7%	-16.1%	-17.1%	-8.2%	-8.3%	-6.2%
MAIN versus TOTAL (Planned PP RP1)		52.4%	79.4%	79.0%	79.3%	68.6%	68.6%	71.7%
MAIN versus TOTAL (Updated Plan)		58.7%	80.5%	86.0%	82.4%	73.2%	73.2%	76.2%

Table 24: 2010-14 UK ANSP CAPEX ((Updated vs. Planned)

6.3.17 For NATS the percentage of main versus total investments is higher for each year in RP2 than in RP1 (i.e. 90% the average for RP2 vs 76%, updated average for RP1).

6.3.18 None of the projects is part of a joint UK-Ireland FAB initiative. For "iTEC-FDP" the cost of the development is shared equally between 3 system groups (NATS, DFS and AENA), whilst for "NCW" up to four parties are involved (iTEC partners plus LVNL).

6.3.19 Most of the projects planned are foreseen to be commissioned over RP2. The total planned depreciation for RP2 is 11% higher than the actual/updated depreciation costs foreseen for 2010-14. However, the annual depreciation costs are planned to decrease by 4% in average over RP2.

6.3.20 An increase in depreciation is expected for 2010-14 by 7.6%, explained by the impact of "*timings on the Long Term investment programme*".[15]

6.4 Total investments vs Total ANS costs

IRELAND ANSP

6.4.1 Over RP2, the ratio of CAPEX into gate-to-gate costs is foreseen at 16.8% with a peak in 2017 (30.6%, see details in paragraph 6.3.6).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	11.5%	14.3%	30.6%	15.8%	12.2%	16.8%

Table 25: % RP2 Ireland ANSP Total CAPEX vs (gate-to-gate) ANS costs

6.4.2 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 8.5% (vs.13% planned) as a result of a "CAPEX effect"[16] of -44.9% and "Costs effect"[17] of -6.2%.

UK ANSP

6.4.3 Over RP2, the ratio of CAPEX into gate-to-gate costs is foreseen to be 14.5% with a peak in 2015 (17%). For this year only, total CAPEX represents 24% from the total planned for RP2, an important amount (48.2M€$_{2009}$) being planned for the Centre Systems Software Development (see also 6.3.14 above). However, the ratio of CAPEX into costs for RP2 is the result of a decline both in CAPEX (-10.7%) and in gate-to-gate costs (-2.2%).

% RP2 Total CAPEX vs Gate-to-gate ANS costs	2015	2016	2017	2018	2019	RP2 (Avg.)
%CAPEX vs gate-to-gate COSTS	17.0%	16.5%	14.0%	12.9%	11.8%	14.5%

Table 26: % RP2 UK ANSP Total CAPEX vs. (gate-to-gate) ANS costs

6.4.4 For the 2010-2014 period, the percentage of total updated CAPEX into total gate-to-gate ANS costs is expected to be 20.2% (vs. 23% planned) as a result of a "CAPEX effect" of -17.9% and "Costs effect" of -6.1%.

6.5 Ancillary assessments

6.5.1 In accordance with the performance Regulation, additional reporting requirements were included in the RP2 Performance Plans by the States/ANSPs. This information ensures the transparency of the investment policy at ANSP level, it details the impact of expected benefits per KPA and also the synergies achieved at FAB level.

6.5.2 The information provided by the UK-Ireland FAB is detailed in the table below.

Ancillary assessments	Ireland ANSP (IAA)	UK ANSP (NATS)
Main investments identification, assessment of the coherence and continuity in the investment policy with RP1 CAPEX	There is little continuity between RP1 and RP2. Only the COOPANS project seems to be traceable over the two periods. Most of the RP2 projects seem to be new investments due to the implementation of new technologies, replacement of obsolete (end-of-life) equipment or contingency which were not mentioned in RP1.The link with RP1 is difficult to assess since it was not detailed in the PP RP1 list.	For NATS, there is a continuity of investments between RP1 and RP2. More emphasis has been put on RP2 on airspace optimisation projects whereas in RP1 investments were mostly related to modernisation of infrastructure and equipment. Three main CAPEX refer to projects included also in the RP1 planning (i.e. Centre System Software Development, CNS Infrastructure and ITEC/FDP/NCW). Important amounts are planned in both RP1 & RP2 (see 6.3.15)
Overview, impact and date of expected benefits per KPA	Information on the overview, impact and expected benefits provided in Annex D.2 for all main projects.	Several benefits for each main project: CNS Infrastructure (for SWIM) will result in £1.4M in operational costs savings; £0.5M due to Airspace development. Relevant impact on Safety, Environment and Capacity as a result of several airspace concepts projects. See also table below.
Decision-making process transparency, existence of a CBA and outcome of the consultation process on investments	Information on the decision making process is available for all projects, in most of the cases "replacements" being needed due to "*obsolete equipment*", implementing new technologies SESAR compliant. No information on the existence of a CBA, but each project "*is subject to the normal tendering procedure and business case appraisal process.*" See information on consultation meeting in item 6.3.10).	The decision-making processes seem robust, including interfaces with airspace users where appropriate. Consultation with stakeholders was carried out. CAPEX, mini business cases attached to the UK-Ireland FAB plan included an overview of the costs and benefits of the individual projects. See information on Consultation meeting in item At the consultation with airlines no comments were made on investments.
Consistency of the information on CAPEX provided in the Performance Plans with the ANSPs' investment plans for the reference period, if available	IAA Investment plan summary available (Annex D.2). Consistency check not possible since only total CAPEX provided in the above mentioned Annex.	Investment plan with complete qualitative information for each project is provided. Progress reported also via NATS annual Service & Investment Plan for all main projects planned for RP2.

Table 27: Ancillary assessments for the UK-Ireland FAB

Benefit category	Estimated Benefit enabled by RP2 Investment
Safety	43 point reduction in NERL weighted SSE index
Fuel savings	c. 1 million tonnes CO2 pa
Service Capacity	20-25 extra flights per busy hour
Operating Costs	c. £10m pa reduction
Asset sustainability	Reduction in net weighted business risk of c.£520m
Carbon Footprint	Reduction of c. 3.4M tonnes CO2 pa across NATS estate

Table 28: NERL Combined Benefits of the RP2 Investment Plan[18]

6.6 PCP Prerequisites view

PCP	ESSIP	UK	Ireland
AF1	ATC15		
	ATC07.1		
	NAV03	2020	
AF2	AOP05	Manchester 2014	Dublin 2015
		London Gatwick 2014	
		London Heathrow	
		London Stansted 2015	
	AOP04.1	Manchester	
		London Gatwick	
		London Heathrow 2016	
		London Stansted	
	AOP04.2	Manchester	
		London Gatwick	
		London Heathrow 2016	
		London Stansted	
AF3	AOM19	2015	2015
	AOM21	2017	
	ATC12	2020	
AF4	FCM04		
	FCM05	2016	
AF5	COM09	2014	2014
AF6	ITY-AGDL		2014

Legend:

Completed	Planned	Partly Completed
Late	No Plan	Not Applicable

Table 29: PCP Prerequisites view

6.7 Key Points

FAB LEVEL

6.7.1 **Volume of investment**: The planned investment average per year for RP2 is foreseen to be 3.3% lower than the average for the previous five years (updated for 2010-14[19]).

6.7.2 The Airlines considered that "there could be significant improvements to overall FAB efficiency through linking the systems in operation at the airports to better co-ordinated traffic between the FAB members. The rapid implementation of A-CDM across Europe will also enable cross-FAB coordination and measurement of departure targets."[20]

6.7.3 **FAB / Regional approach**: There is no FAB approach to CAPEX. There are no joint NATS/IAA-ASP investments except in terms of airspace design and optimisation. Having different ATC systems providers, both ANSPs have looked for more natural partners outside the FAB to find synergies with other ANSPs. The investment plans for NATS and the IAA-ASP seem to have been developed in isolation and responding mostly to their individual needs.

6.7.4 **Consultation:** For UK NATS, decision-making process and consultation appear to be robust. For IAA-ANSP, the description of the consultation with stakeholders and of the decision making processes are more generic. It is difficult to assess their robustness.

6.7.5 **Link with Master Plan:** Overall, the UK-Ireland FAB Member States have correctly linked their planned projects to the IOP IRs, Master Plan, NSP and/or PCP.

6.7.6 The investments of UK-Ireland FAB Member States are therefore eligible for recovery through ANS charges in application of Article 6(4) of the charging Regulation[2]. This conclusion is the result of a factual mapping between these investments and the general Master Plan deployment requirements. It does not bring any judgement or support, even implicit, on the need for, and added value of, such investment at ANSP level.

IRELAND

6.7.7 Ireland's ANSP investments are planned to be on average 111% higher in RP2 than for the period 2010-14.

6.7.8 The breakdown per project was not available for RP1 therefore no link can be made between the two reference period projects. However, FDP COOPANS (Cooperation for procurement of ANSP Systems) is IAA's main project for both reference periods (see details in 6.3.8).

6.7.9 Depreciation costs are foreseen to increase by 4.9% on average over RP2, whilst for 2010-14 are expected to decrease in total over the period by 4.3%.

6.7.10 Over RP2, the ratio of CAPEX into gate-to-gate costs is foreseen to be on average 16.9% with a peak in 2017 (reaching 30.6%).

6.7.11 Information provided by the IAA-ANSP is not fully compliant with the reporting requirements. Links with Master Plan are only provided in generic terms but not to specific elements. Similarly, information provided on decision-making processes and consultation is provided in generic terms but not per project.

6.7.12 For IAA-ANSP, RP2 investments seem to be new projects (except for COOPANS) that had not been planned/referenced in RP1. It is impossible to assess to what extent the underspent amounts in RP1 are postponed to RP2 years. This could possibly generate double charging of the same investment to airspace users.

UK

6.7.13 UK's ANSP investments are planned to be on average 13% lower in RP2 than for the period 2010-14 (i.e. 99.8 M€$_{2009}$, RP2 yearly average vs. 114.7 M€$_{2009}$, updated average over the past five years).

6.7.14 The most important projects planned for RP2 (75% from total CAPEX) are "iTEC FDP and New Common Workstation", "Centre System Software Development" and "CNS Infrastructure" (see details in 6.3.14).

6.7.15 The total planned depreciation for RP2 is 11% higher than the actual/updated depreciation costs foreseen for 2010-14. However, the annual depreciation costs are planned to decrease by 4% on average over RP2.

6.7.16 Over RP2, the ratio of CAPEX into gate-to-gate costs is foreseen to be on average 14.5% with a peak in 2015 (17%) and is expected to decline by 8.9% (due to -10.7% fall in CAPEX and -2% decline in costs).

6.7.17 Information provided by NATS is compliant with the reporting requirements. Links with Master Plan elements and PCP are accurate and justified. There is traceability between RP1 and RP2 investments with a shift in focus to more airspace optimisation projects in RP2.

7 MONITORING PERFORMANCE PLANS

7.1.1 The Performance Plan clearly describes which entities are responsible for the monitoring and reporting in “Section 7 - Implementation of the performance plan”.

7.1.2 There is no description regarding the measures in place to monitor and report.

7.1.3 No clear description could be found on how the situation would be addressed, in practical terms, if targets were not met during the reference period.

8 MILITARY DIMENSION OF THE PERFORMANCE PLAN

8.1 Introduction

8.1.1 Annex E of the UK-Ireland FAB Performance Plan contains details of how the FUA legislation is being applied, within the FAB, to provide additional capacity for general air traffic.

8.2 Additional indicators

8.2.1 Additional indicators contained within this section are consistent with the intentions of the performance scheme in that they aim to remove constraints on general air traffic.

9 CONCLUSIONS

This chapter presents the PRB's advice to the Commission resulting from the analysis of the FAB Performance Plan, details of which are presented in Chapters 1 to 8. It is structured as follows:

- Section 9.1 presents the assessment result and, in case the plan is assessed as not being consistent with and/or not adequately contributing to the Union-wide targets, it identifies the relevant deficient Key Performance Areas.
- In Section 9.2, the PRB advises the European Commission to issue a series of recommendations to the respective FAB in order to address the matters highlighted in the assessment result from Section 9.1.
- In section 9.3 the PRB also identifies a list of issues in terms of compliance with the performance and/or charging Regulations. The PRB urges the European Commission to ensure that the compliance issues are resolved before the FAB Performance Plan is accepted.
- In section 9.4 the PRB presents a series of observations, as a result of the PRB assessment of the respective FAB Performance Plan, for the European Commission's attention.

9.1 Assessment result

9.1.1 The PRB has assessed the UK-Ireland FAB Performance Plan according to the criteria laid down in Annex IV of Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013.

9.1.2 The PRB considers that the UK-Ireland FAB Performance Plan is **not** consistent with and/or does **not** adequately contribute to the Union-wide target(s), as follows:

CAPACITY

9.1.3 Although the UK-Ireland FAB targets for en-route capacity are consistent with the Union-wide targets for the years 2016-2019, the target for 2015 is inconsistent.

COST-EFFICIENCY

9.1.4 The cost-efficiency target for the en-route charging zone of Ireland is not consistent with and does not adequately contribute to, the achievement of the en-route Union-wide target.

9.1.5 The cost-efficiency target for the terminal charging zone of Ireland is not consistent with the criteria laid down in Annex IV of the performance Regulation.

9.1.6 No conclusion can be drawn at this stage on the UK terminal charging zone C, pending the outcome of the unit rates compliance review, which is the subject of a separate Commission assessment.

9.2 Recommendations

The PRB advises the European Commission to issue a series of recommendations to the UK-Ireland FAB in order to address the matters highlighted in the assessment result from Section 9.1.

RECOMMENDATIONS FOR THE CAPACITY KPA

9.2.1 The UK-Ireland FAB should revise the FAB en-route capacity target for 2015 to be consistent with the FAB reference value for that year as detailed in the Network operations Report of the Network Manager (2014-2018/2019). If the preference is to use a constant value for 2015, then a more stringent target for the years 2016-2019 should be adopted in the interests of the network and airspace users.

RECOMMENDATIONS FOR THE COST-EFFICIENCY KPA

9.2.2 Ireland should:

- revise downwards the en-route determined costs planned for RP2;
- revise the en-route TSU forecast in the light of the latest available information;
- revise downwards the en-route Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred;
- revise downwards the terminal ANS determined costs planned for RP2.
- revise the TNSU forecast in the light of the latest available information.
- revise downwards the terminal Return on Equity and Cost of Capital to reflect the lower financial risk actually incurred.

9.3 Compliance issues

The PRB urges the European Commission to ensure that the following compliance issues are resolved before the FAB Performance Plan is accepted:

COMPLIANCE ISSUES FOR THE GENERAL CRITERIA

9.3.1 The UK-Ireland FAB should harmonise the list of airports submitted to, and exempted from, the performance and charging schemes, as their current application to terminal air navigation services are not in compliance with the clarification provided by the European Commission.

COMPLIANCE ISSUES FOR THE ENVIRONMENT KPA

9.3.2 The financial incentive for the additional environment indicator (3Di metric), which has been adopted for NATS, should only be granted on the condition that the FAB target is reached by the UK-Ireland FAB, based on the metric stipulated in the performance Regulation.

COMPLIANCE ISSUES FOR THE CAPACITY KPA

9.3.3 The UK-Ireland FAB should ensure that the individual ANSP contributions for en-route capacity in 2015 are revised so that, when aggregated, they are consistent

with the required level of performance, as determined in the Network Operations Plan (2014-2018/2019) for the year 2015, and that the FAB capacity performance can be effectively monitored.

9.3.4 The UK-Ireland FAB should present an incentive scheme for the national targets on arrival ATFM delay.

COMPLIANCE ISSUES FOR THE COST-EFFICIENCY KPA

9.3.5 Ireland should:

- provide information on the underlying pension costs assumptions and interest rates on loans, in line with the requirements of the FAB Performance Plan template; → **no longer required following update during the fact verification process.**
- provide further details on costs items potentially eligible as costs exempt from risk sharing for RP2. → **no longer required following update during the fact verification process.**

9.3.6 The UK should:

- reconsider the qualification of the Terminal Charging Zone C (en-route and/or Terminal Charging Zone B) and the review of the compliance of exempting Terminal Charging Zone B from traffic risk sharing for terminal ANS to/from airport with more than 225 000 IFR movements;
- provide full details on the underlying pension costs assumptions and interest rates on loans in line with the FAB Performance Plan template and guidance.

9.3.7 Ireland should ensure that the airspace users are not paying for cancelled or delayed investments in RP1, and are not charged again in RP2 for the part of the investments already charged in RP1. It should provide detailed information in the performance plan on how this is ensured.

9.4 Observations

The PRB makes the following observations for the European Commission's attention:

OBSERVATIONS FOR THE GENERAL CRITERIA

9.4.1 The UK-Ireland FAB should provide a detailed description of the measures put in place to monitor and report on the implementation of the Performance Plans, including how the situation would be addressed if targets are not reached during the reference period.

OBSERVATIONS FOR THE SAFETY KPA

9.4.2 The UK-Ireland FAB should use the existing guidance material providing support to the development of Just Culture implementation plans (allowing a common FAB approach in certain Just Culture areas).

OBSERVATIONS FOR THE CAPACITY KPA

9.4.3 Regarding the anticipated increase of arrival ATFM delay in Ireland, the information

provided does not suggest that there is a consistent approach to address it.

9.4.4 The UK IRL FAB should revise the proposed en-route ATFM incentive scheme, to include reference to an independent verifiable method of reconciling attributed delay classification to actual events, hence eliminating the possibility of errors or gaming.

OBSERVATIONS FOR THE COST-EFFICIENCY KPA

9.4.5 The UK should review the parameters used to calculate the cost of capital (both for en-route and terminal).

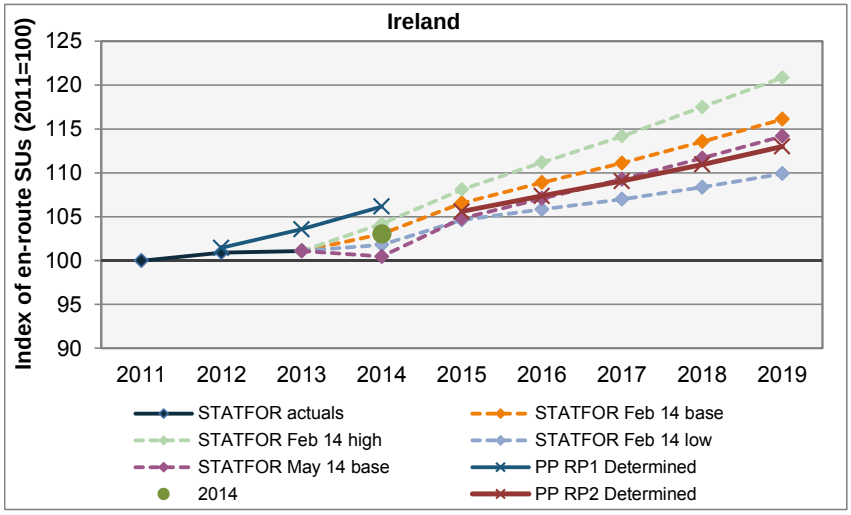
OBSERVATIONS FOR THE INVESTMENTS

9.4.6 Ireland should review its CAPEX forecast so as to integrate and reflect the requirements of the PCP deployment.

ANNEX 1: DETAILED COST-EFFICIENCY ASSESSMENT

Ireland: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		3 826	3 906	4 004							
Actuals, 2014, PP RP2 Determined	3 771	3 806	3 813	3 886	**3 983**	**4 050**	**4 113**	**4 185**	**4 262**	**1.5%**	**1.7%**
STATFOR Feb 14 base				**3 886**	**4 019**	**4 107**	**4 191**	**4 283**	**4 379**	**1.9%**	**2.2%**
STATFOR Feb 14 high				3 929	4 077	4 193	4 306	4 432	4 558	2.4%	2.8%
STATFOR Feb 14 low				3 840	3 946	3 992	4 036	4 087	4 145	1.2%	1.2%
STATFOR May 14 base				3 789	3 952	4 039	4 121	4 212	4 306	1.7%	2.2%
PP RP2 vs STATFOR Feb 14 base (%)					-0.9%	-1.4%	-1.9%	-2.3%	-2.7%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 13: En-route TSU forecasts

Comments:

Forecast en-route TSUs are lower than the STATFOR baseline scenario. Between 2015 and 2019, the forecasted average growth in TSUs (+1.7% p.a.) is slightly below STATFOR baseline scenario (+2.2% p.a.). However there is no quantitative evidence to back this forecast below the baseline forecast and possibly in the +/- 2% dead band.

The forecast en-route TSUs lies between the STATFOR Low and Baseline scenarios published in February 2014 for all years 2015-2019.

Ireland reports that their en-route TSU forecasts are subject to two adjustments:

1) As a first adjustment the mid-point between the February 2014 STATFOR base case and low case scenario is considered

2) This is further adjusted to take account of local conditions and the specific situation in the Irish airspace (75% of flights are overflights and the vast majority comes from the US). Although it is not fully clear how factors such as GDP prospects in the US, the US market trends, the level of income available to the travelling public or the air freight market are modelled into these forecasts.

The PRB calculates that, everything else being equal, should the actual level of TSU meet the February 2014 STATFOR base case forecasts for each year of RP2 (2015-2019), then the net potential gains to be retained by the ATSP after application of the traffic risk sharing

would amount to some 8M€ over RP2.

Based on this analysis, Ireland en-route KPI/Performance Plan is assessed as passing this check with reservations (linked to the "cost of capital check").

Economic assumptions

Inflation: Ireland		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	1.9%	0.5%	0.6%	1.1%	1.2%	1.4%	1.7%	1.7%
Eurostat/IMF avg	annual % change		0.5%	0.6%	1.1%	1.2%	1.4%	1.7%	1.7%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	101.5	102.0	102.6	103.7	105.0	106.4	108.2	110.1
Eurostat/IMF avg	2009=100	101.5	102.0	102.6	103.7	105.0	106.5	108.3	110.1
Difference	index difference	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0

Figure 14: Economic assumptions

Comments:

The inflation forecasts used by Ireland for the period 2014-2019 are consistent with the IMF April 2014 CPI forecast.

The actual inflation data used by Ireland for 2012-2013 is in line with Eurostat HICP data.

Based on this analysis, the Ireland en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	EUR m (nom)	105.1	109.8	115.6	109.9	105.9	116.1	118.7	122.1	126.2	129.9	131.3
Inflation rate	annual % change		-1.6%	1.2%	1.9%	0.5%	0.6%	1.1%	1.2%	1.4%	1.7%	1.7%
Inflation index	2009=100	100.0	98.4	99.6	101.5	102.0	102.6	103.7	105.0	106.4	108.2	110.1
Determined costs	EUR m (2009)	105.1	111.6	116.1	108.3	103.8	113.2	114.5	116.3	118.6	120.0	119.3
Service units	'000s	3 561	3 615	3 771	3 806	3 813	3 886	3 983	4 050	4 113	4 185	4 262
Determined unit cost	EUR (2009)	29.51	30.87	30.79	28.44	27.23	29.12	28.74	28.71	28.84	28.68	27.99
Exchange rate	EUR:EUR	1.00										
Determined unit cost	EUR (2009)	29.51	30.87	30.79	28.44	27.23	29.12	28.74	28.71	28.84	28.68	27.99

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	EUR m (nom)	2.3%	1.6%	2.5%	2.5%
Inflation	CAGR %	1.0%	1.3%	1.4%	1.5%
Determined costs	EUR m (2009)	1.3%	0.3%	1.1%	1.0%
Service units	'000s	1.8%	1.5%	1.9%	1.7%
Determined unit cost	EUR (2009)	-0.5%	-1.2%	-0.8%	-0.7%
Exchange rate					
Determined unit cost	EUR (2009)	-0.5%	-1.2%	-0.8%	-0.7%

Table 30: Determined unit cost trend

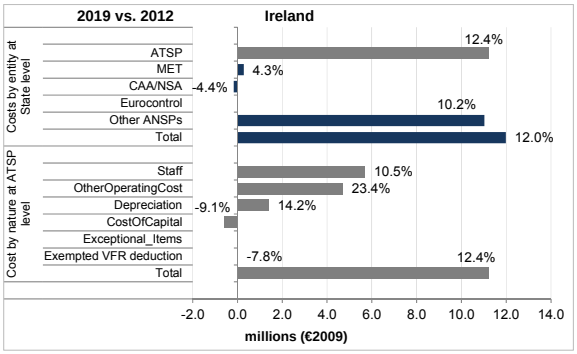


Figure 15: Planned cost category changes over RP1 and RP2

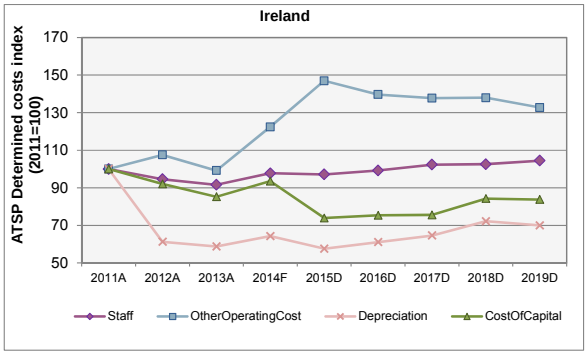


Figure 16: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

Ireland plans for a **-0.8%** p.a. decrease in en-route DUC over the **2014-2019** period, which is much worse than the Union-wide target (-3.3% p.a.), although traffic and costs forecasts were revised for 2014; in addition,

- Over 2011-2019, the en-route DUC trend (-1.2% p.a.) is slightly worse than the Union-wide target trend (-1.7% p.a.).
- Over 2009-2019, the en-route DUC trend (-0.5% p.a.) is much worse than the Union-wide target trend (-2.5% p.a.).

In addition the trends in determined costs (DCs): over the 2014-2019 period, determined costs are planned to increase by **+1.1% p.a**. (much worse than the Union-wide target: -2.1% p.a.). A closer look into costs indicates that the main drivers are increasing staff costs, as well as other (non-staff) operating costs and also depreciation costs (see costs by nature analysis below).

Ireland en-route DUC trends would still fail this check if normalised for TSU forecasts assumptions.

As expected, Ireland has revised downwards its 2014 TSU and costs forecasts; however, if the TSU forecast for 2014 is in line with the STATFOR February 2014 baseline, the PRB notes that the 2014 revised costs remain some (+9%) higher than 2013 actual and (+4.5%) higher than 2012 actual costs.

When looking at the contribution of each accountable entity over the 2011-2019 period, the PRB notes that:

- Only the NSA is planning a unit cost reduction better than the Union-wide target over 2014-2019 (-4.0% vs. -3.3% p.a.) and 2011-2019 (-2.5% vs. -1.7% p.a.)
- Only EUROCONTROL would record a better unit cost reduction than the Union-wide target when measured over 2009-2019 (-2.6% vs. -2.5% p.a.)
- The ATSP (IAA) which represents the bulk of costs (some 85% of total costs) is the only entity which increases its unit cost over any of the periods looked at (+1.2% over 2014-2019, +0.3% over 2011-2019, +1.6% over 2009-2019)

There are large variations in individual costs by nature over the 2011-2019 period:

- The largest variation is observed for “other operating costs” (+32.7%, or some +6M€$_{2009}$); this increase is very high in 2014 (+15%) and 2015 (an additional +11% vs. 2014) so the increase between the first year of RP2 and the last known actual year of RP1 would be some +27% (more than 8M€$_{2009}$). This is counter-intuitive when

reading the Ireland en-route Additional Information (item k) as IAA seem to have made substantial savings over 2012-2013 due to rigorous procedures now in place ("[in 2012] *Operating costs were down 13.2%, from €23,471,000 to €20,364,000 (and [in 2013] Operating costs were down 21%, from €23,894,000 to €18,872,000) due to savings across a range of ANSP technical and administration expenses. The IAA has strong procurement and budgeting procedures with competitive quotes being sought on significant transactions. Operating budgets are actively monitored throughout the year*.)

- By 2019 depreciation costs are planned to be -30.1% lower than in 2011 (-4.8M€$_{2009}$), following a sharp decrease between 2011 and 2012. The PRB understands that 2011 saw a peak in IAA depreciation costs due to the replacement of the ATM FDP and RDP systems (i.e. COOPANS (Build 1) initiative for an investment of some 49M€). COOPANS (Build 2) is due by 2014 (8M€) and an upgrade (COOPANS Build 3) is planned to be available by 2016 (8M€). However depreciation costs are foreseen to increase again over RP2 (+2M€$_{2009}$).
- The cost of capital is planned to decrease by -16.3% (-1.1 M€$_{2009}$), mainly reflecting a decreasing asset base.

  The PRB notes that during the first two years of RP1, the IAA managed to generate an aggregated estimated economic surplus of some 31M€$_{2009}$, even growing over time in a context of decreasing traffic/TSU and related revenues (see Introduction in Section 5.1) – this was partly due to actual depreciation costs being some 50% less than planned over 2012-2013 in particular (or even over 2010-2014). The increasing depreciation over RP2 could be due to investments initially planned in RP1 being postponed to RP2 – in which case the depreciation costs would be charged twice to airspace users. It is not fully clear whether there are genuinely new investments foreseen in RP2 and justified. The CAPEX assessment part provides a more detailed analysis (see CAPEX Key Points, Section 6).

Based on this analysis, the Ireland en-route charging zone is assessed as <u>not</u> passing this check.

En-route Determined Unit Cost level

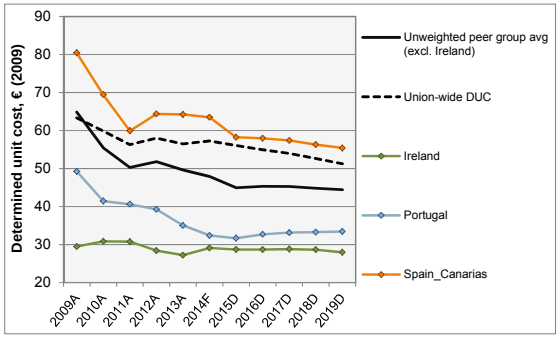


Figure 17: Determined unit cost level

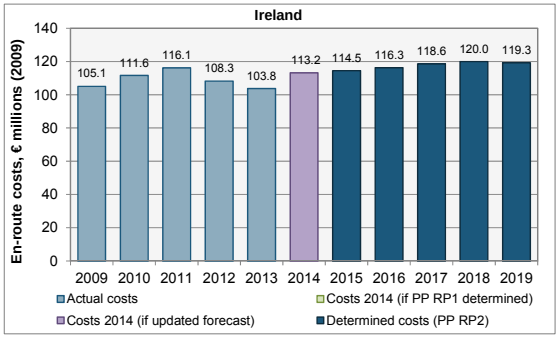


Figure 18: Determined costs 2009-2019

Comments:

In 2019, Ireland's en-route DUC (27.99 €$_{2009}$) is planned to be -37% lower than the (unweighted) peer group average (44.45 €$_{2009}$), although much closer to Portugal Continental in recent years. Ireland explained in their RP2 Performance Plan that they have a very particular traffic situation with more than 75% overflights, and a large traffic flow coming from the US. Notwithstanding this daily traffic distribution, the ACE analysis reports IAA as one of the ANSP with the least traffic complexity in the SES.

The PRB notes that Ireland en-route DUC profile remains rather flat over 2009-2019 (-0.5% p.a.) when its peers have significantly decreased their en-route DUC in the same period by (-3.8% for Portugal and -3.7% p.a. for Spain Canarias) thereby better contributing to the overall decrease in the SES en-route DUC over RP1 and RP2.

Based on this analysis, the Ireland en-route charging zone is assessed as passing this check.

Cost of Capital

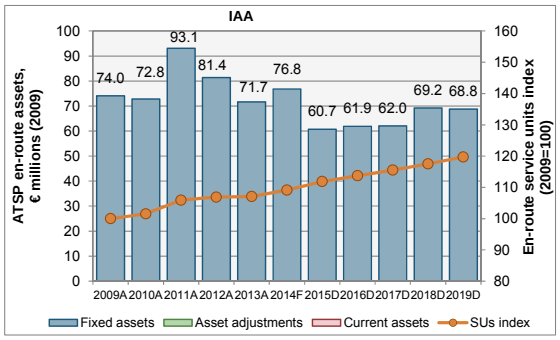


Figure 19: Breakdown of ATSP en-route asset base (2009-2019)

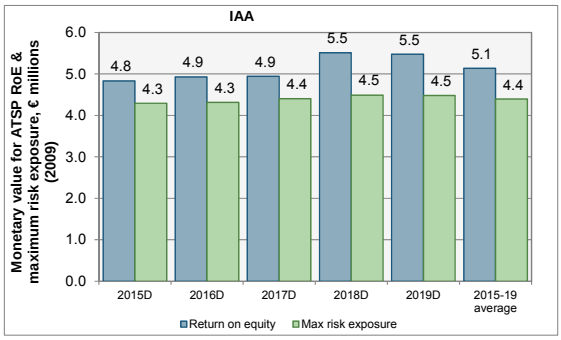


Figure 20: ATSP RoE vs maximum traffic risk exposure

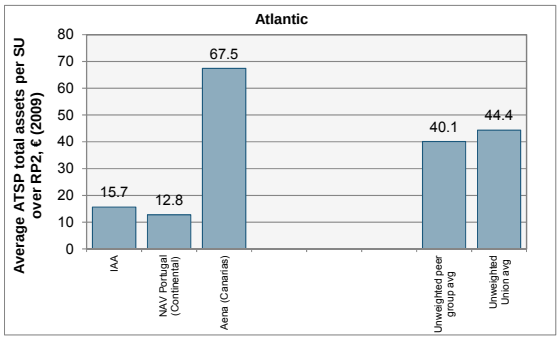


Figure 21: Average en-route asset base per service units over RP2

Comments:

The Weighted Average Cost of Capital (WACC) rate used to calculate the cost of capital of the en-route ATSP (8.5%) is slightly higher than the upper bound of the range of values calculated with the methodology laid down in Annex C guidance, although assumptions used for the different components of the WACC calculation are sometimes outside the range of

recommended values.

In addition, the monetary value of the return on equity (RoE) ranging from 4.8M€$_{2009}$ to 5.5M€$_{2009}$ is always higher than the maximum revenue risk exposure (due to traffic risk sharing incentives) for every year of RP2 (from 4.3M€$_{2009}$ to 4.5M€$_{2009}$); over the whole of RP2 it is 17.6% higher (25.8M€$_{2009}$) than the total en-route revenue risk exposure (21.9M€$_{2009}$).

On the asset base side, the value of the IAA en-route asset base per service unit is always slightly higher than Portugal (although both are much lower than Spain Canarias and the Union-wide average). Finally, it should be noticed that IAA asset base only comprises fixed assets.

Based on this analysis, the Ireland en-route charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Performance Plan provides a high level description of the four IAA pensions schemes, three of which are "defined benefit schemes" (for staff employment commencing after 1996 until 2008, between 2008 and 2011 and since 1 January 2012) and one is "defined contribution scheme" (for staff employment commencing on 1 January 2012 as well) as well as the 2010 agreement between staff and management to address the existing deficit at the time. There is a triennial actuarial valuation, but the last year,

The relevant tables (Additional Information item b.) requested under Annex C guidance are not filled in (only the aggregated amount of total pension costs for all schemes is provided for 2015-2019 – reproduced below).

The Performance Plan contains some information about the interest rates on loans. This is not fully consistent with the FAB Performance Plan Template and Guidance. Although from ACE it is understood that IAA may have no loans ongoing, some 10% debt are planned from 2015 to 2019. The information provided under Additional Information item c. seems to be referring to short term liquidity facilities rather than loans.

The Performance Plan does include information relating to the reconciliation with the average cost of debt used in the WACC calculation.

The Performance Plan contains some information on adjustments beyond the provisions of IAS: *The amounts included in the DC for pension costs are the forecast cash costs in line with the latest available actuarial valuation as at 1st January 2012. The next actuarial valuation will take place as at 1 January 2015. The pension costs forecast reflect best estimates of cash contributions*.

Overall the assumptions, description and justification of pension's costs and description of national pension's costs are in line with the template and Annex C guidance but the economic assumptions and pension fund strategy in particular are not fully transparent from the information provided.

Based on this analysis, the Ireland en-route charging zone is assessed as <u>not</u> passing this check.

➔ During the fact verification process Ireland provided additional information on this point (see Annex H). **Taking this information into account, Ireland's en-route**

charging zone is assessed as passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
For RP1: the Performance Plan includes the information for Ireland on the level and composition of uncontrollable costs/costs exempt from risk sharing (referred to in Table 3 of the en-route Reporting Tables). This is subject to a separate assessment by the Commission. For RP2: EUROCONTROL Costs is the sole item under this category the Performance Plan comprises information relating to the composition of costs exempt from risk sharing but not on the level and justifications for such costs. **Based on this analysis, the Ireland en-route charging zone is assessed as <u>not</u> passing this check.** ➔ During the fact verification process and following a comment from Ireland (see Annex D), Key Point 7 for Ireland has been updated accordingly. **Taking this information into account, Ireland's en-route charging zone is assessed as passing this check.**

Ireland: Assessment of terminal charging zone

Overview of Ireland terminal ANS KPI assessment

One single terminal charging zone (TCZ) is reported for Ireland in RP2.

This TCZ includes three airports: one (Dublin) with more than 70 000 movements (but less than 225 000 IFR mvts), and two airports with less than 70 000 IFR movements:

- Dublin (some 164 000 IFR mvts on average over 2011-2013);
- Cork (some 24 000 IFR mvts) and Shannon (some 21 500 IFR mvts).

There is no change between RP1 and RP2: data were reported on the same TCZ for every year of RP1 (2012-2014). However, there is still no reporting of costs breakdown by airport.

Taken together these three airports represent 95% of the total TNSU in Ireland.

Traffic forecast assumptions: Terminal Navigation Service Units

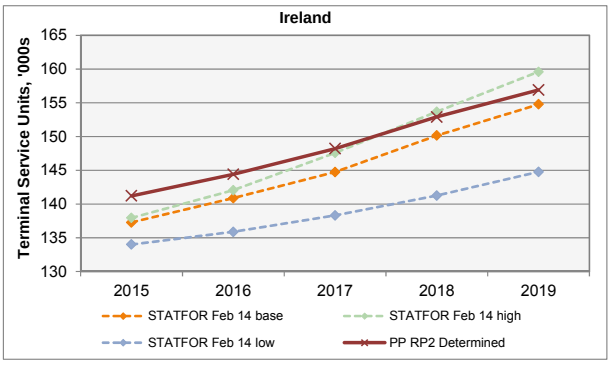


Figure 22: Terminal DUC, DC and TNSU indexes, 2015-2019

The total Terminal Navigation Service Units (TNSUs) forecast for Ireland TCZ is higher than the STATFOR high forecast scenario in 2015-2017 and below it in 2018-2019.

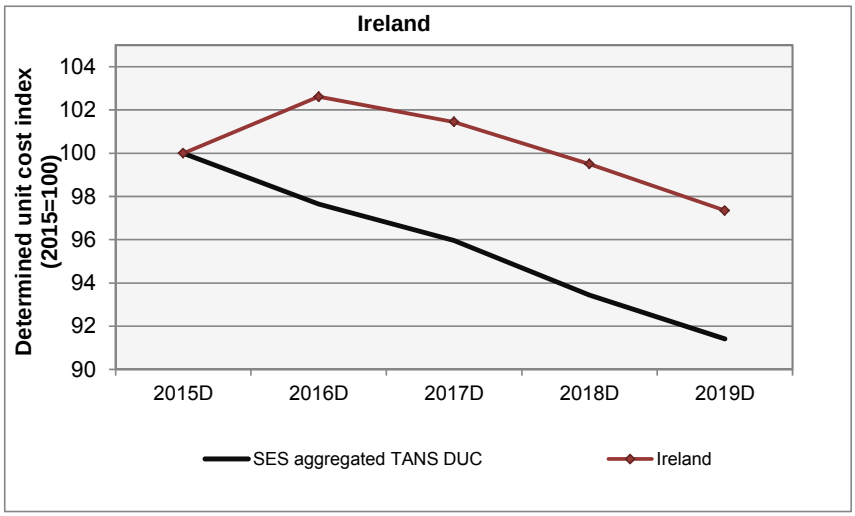
Based on this analysis, the Ireland terminal charging zone is assessed as passing this check.

Economic assumptions

The inflation forecasts used by Ireland for RP2, and for the Terminal ANS cost-efficiency KPI, are consistent with the IMF April 2014 CPI forecast and indeed the en-route KPI assumptions.

Based on this analysis, the Ireland terminal charging zone is assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend



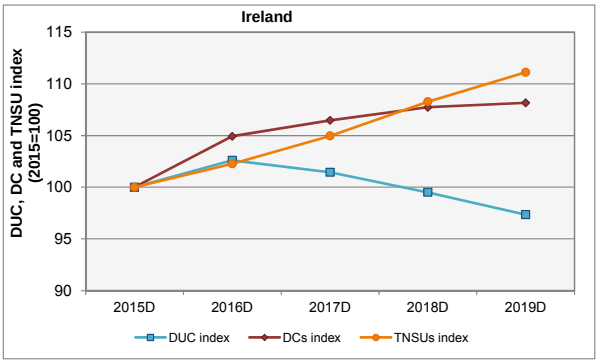


Figure 23: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: Ireland		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	EUR m (nom)	24.6	26.1	26.9	27.7	28.2	3.5%
Inflation rate	annual % change	1.1%	1.2%	1.4%	1.7%	1.7%	1.5%
Inflation index	2009=100	103.7	105.0	106.4	108.2	110.1	
Determined costs	EUR m (2009)	23.7	24.9	25.3	25.6	25.7	2.0%
Terminal service units	'000s	141	144	148	153	157	2.7%
Determined unit cost	EUR (2009)	168.00	172.38	170.43	167.16	163.55	-0.7%
Exchange rate	EUR:EUR (2009)	1.00					
Determined unit cost	EUR (2009)	168.00	172.38	170.43	167.16	163.55	-0.7%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 31: Terminal DUC, DC and TNSU trends, 2015-2019

Over 2015-2019, Ireland Terminal ANS DUC trend (-0.7%) is worse than the SES aggregated Terminal ANS DUC trend (-2.2% p.a.).

In addition, Ireland terminal ANS DCs are planned to increase by +2.0% p.a. over 2015-2019, which is slightly worse than Ireland en-route DCs trend over 2015-2019 (+1.0% p.a.).

The "gate-to-gate" ANS DC trend (+1.2%) is still worse than the Union-wide en-route ANS DC trend for the 2015-2019 period as well as over the 2014-2019 period (-2.3%)

Based on this analysis, the Ireland terminal charging zone is assessed as not passing this check.

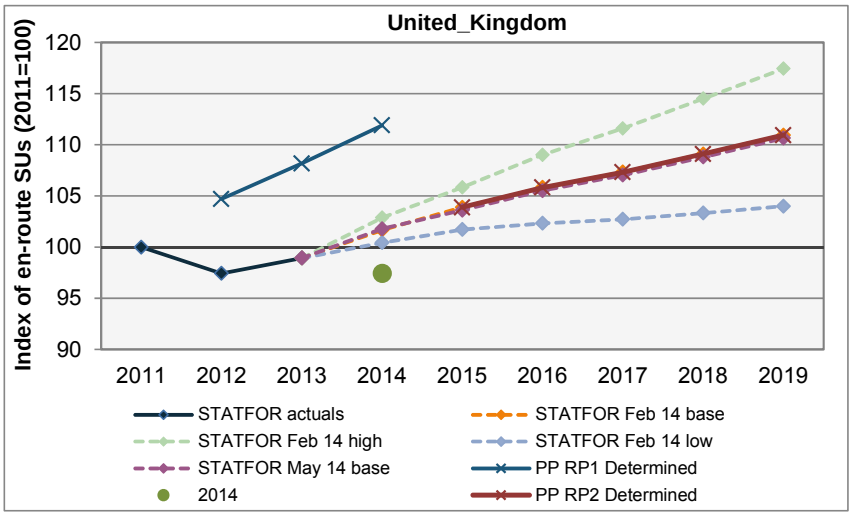
Cost of Capital
The RoE applied for Terminal ANS is 8.9% and is identical to the one used for en-route ANS cost efficiency KPI. The WACC rate applied (8.5%) is also identical to en-route ANS KPI, which was slightly higher than the upper bound of the range of values calculated with the methodology laid down in Annex C guidance, although assumptions used for the different components of the WACC calculation are sometimes outside the range of recommended values. Ireland applies the traffic risk sharing incentives. **Based on this analysis, the Ireland terminal charging zone is assessed as <u>not</u> passing this check.**

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan
The information provided for the description and justification of economic assumptions is the same as for the en-route KPI and therefore the results of this check are the same as for en-route. **Based on this analysis, the Ireland terminal charging zone is assessed as <u>not</u> passing this check.**

Description, level, composition and justification of costs exempt from risk sharing
For RP2 the Performance Plan comprises limited information relating to the composition of costs exempt from risk sharing but not on the level and justifications for such costs. **Based on this analysis, the Ireland terminal charging zone is assessed as <u>not</u> passing this check.** ➔ During the fact verification process and following a comment from Ireland (see Annex D), Key Point 7 for Ireland has been updated accordingly. **Taking this information into account, Ireland's terminal charging zone is assessed as passing this check.**

UK: Assessment of en-route charging zone

Traffic forecast assumptions



Service Units ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2011-19 CAGR (%)	2015-19 CAGR (%)
PP RP1 Determined		10 325	10 667	11 035							
Actuals, 2014, PP RP2 Determined	9 860	9 608	9 755	9 608	**10 244**	**10 435**	**10 583**	**10 758**	**10 940**	**1.3%**	**1.7%**
STATFOR Feb 14 base				**10 025**	**10 244**	**10 435**	**10 583**	**10 758**	**10 940**	**1.3%**	**1.7%**
STATFOR Feb 14 high				10 145	10 436	10 750	11 005	11 291	11 580	2.0%	2.6%
STATFOR Feb 14 low				9 903	10 031	10 090	10 129	10 189	10 255	0.5%	0.6%
STATFOR May 14 base				10 036	10 216	10 406	10 554	10 728	10 910	1.3%	1.7%
PP RP2 vs STATFOR Feb 14 base (%)					0.0%	0.0%	0.0%	0.0%	0.0%		

The 2015-2019 CAGR is shown (rather than the 2014-19 CAGR) to reflect the fact that not all FABs/States will provide an updated forecast for 2014

Figure 24: En-route TSU forecasts

Comments:

The forecast en-route TSUs are in line with STATFOR base case forecasts published in February 2014, for every year between 2015 and 2019.

However, for the year 2014, although UK has updated the TSU forecast published in RP1 Performance Plan, the updated number of TSUs is lower than the STATFOR February 2014 base case forecast. The TSU forecast adopted by the UK for the year 2014 implies a -1.5% decrease in TSUs compared to 2013. This trend contrasts with the evolution observed to date (+3.3% for the period January to August 2014).

Over the 2014-2019 period, the traffic growth forecast in the Performance Plan (+2.6% p.a.) is higher than STATFOR February 2014 baseline scenario (+1.8% p.a.). All else equal, compared to STATFOR baseline scenario, the profile of en-route SUs planned by the UK over 2014-2019 contributes to a higher rate of DUC reduction. This is an important factor to consider for the assessment of the DUC trend over 2014-2019.

Based on this analysis, the UK en-route charging zone is assessed as passing this check.

➔ During the fact verification process (16-09 until 26-09 2014) the UK submitted a revised SU forecast for 2014. The updated value for 2014 is 10,025 k TSUs (as compared to 9,608 k TSUs as previously submitted). The PRB notes the new figure.

➔ **There is no change to the result of this check, or any material change to the result**

of the assessment.

Economic assumptions

Inflation: United_Kingdom		2012	2013	2014	2015	2016	2017	2018	2019
PP RP2	annual % change	2.8%	2.6%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
Eurostat/IMF avg	annual % change		2.6%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
Difference	p.p. difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PP RP2	2009=100	111.0	113.9	116.0	118.2	120.5	122.9	125.3	127.8
Eurostat/IMF avg	2009=100	111.0	113.9	116.1	118.3	120.5	122.9	125.4	127.9
Difference	index difference	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1

Figure 25: Economic assumptions

Comments:

The inflation forecasts are in line with IMF average inflation rate forecast published in April 2014 for every year 2014-19 and equivalent to EUROSTAT HICP for 2013.

A consistent rate of inflation has been used for all charging zones, en-route and terminal.

Based on this analysis, the UK en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost (DUC) trend

Key figures: en-route		2009A	2010A	2011A	2012A	2013A	2014F	2015D	2016D	2017D	2018D	2019D
Determined costs	GBP m (nom)	615.0	635.8	641.8	658.7	724.8	703.7	686.1	686.9	689.7	682.3	672.8
Inflation rate	annual % change		3.3%	4.5%	2.8%	2.6%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
Inflation index	2009=100	100.0	103.3	108.0	111.0	113.9	116.0	118.2	120.5	122.9	125.3	127.8
Determined costs	GBP m (2009)	615.0	615.3	594.3	593.4	636.4	606.6	580.4	570.2	561.3	544.4	526.3
Service units	'000s	9 914	9 480	9 861	9 608	9 755	9 608	10 244	10 435	10 583	10 758	10 940
Determined unit cost	GBP (2009)	62.03	64.90	60.27	61.76	65.24	63.14	56.65	54.64	53.04	50.60	48.11
Exchange rate	GBP:EUR	0.89										
Determined unit cost	EUR (2009)	69.64	72.87	67.67	69.34	73.25	70.89	63.61	61.35	59.55	56.82	54.01

Key figures: en-route CAGR (%)		2009-19	2011-19	2014-19	2015-19
Determined costs	GBP m (nom)	0.9%	0.6%	-0.9%	-0.5%
Inflation	CAGR %	2.5%	2.1%	2.0%	2.0%
Determined costs	GBP m (2009)	-1.5%	-1.5%	-2.8%	-2.4%
Service units	'000s	1.0%	1.3%	2.6%	1.7%
Determined unit cost	GBP (2009)	-2.5%	-2.8%	-5.3%	-4.0%
Exchange rate					
Determined unit cost	EUR (2009)	-2.5%	-2.8%	-5.3%	-4.0%

Table 32: Determined unit cost trend

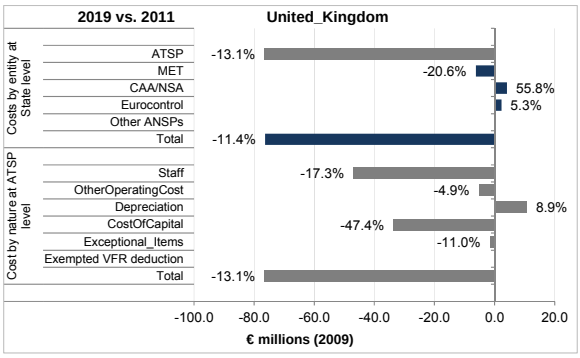


Figure 26: Planned cost category changes over RP1 and RP2

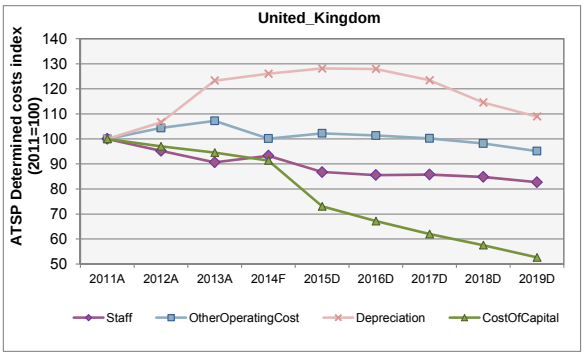


Figure 27: Evolution of ATSP cost by nature over RP1 and RP2

Comments:

The UK forecasts a (-5.3% p.a.) annual en-route DUC decrease over the 2014-2019 period, which is better than the Union-wide cost-efficiency target (i.e. -3.3% p.a.). However, as highlighted above, the updated TSU provided by UK for the year 2014 are (-4.2%) below STAFOR base case. This issue significantly affects the trend in DUCs over the 2014-2019 period. To account for this issue, the PRB also considered the DUC trend after normalisation for the difference in 2014 TSU: when using STATFOR base case TSUs as a starting point, the DUC trend over the 2014-2019 period (-4.5%) remains better than the Union-wide cost-efficiency target (i.e. -3.3% p.a.).

When assessed between 2011 and 2019, the DUC trend forecast by the UK (-2.8% p.a.) is also better than Union-wide target trend (-1.7% p.a.).

Considering the trends in DCs, the PRB notes that DCs are planned to decrease by -2.8% p.a. between 2014-2019 (-1.5% p.a. between 2011-2019). These trends are better than the expected Union-wide DC trends underpinning the Union-wide target for both periods (-2.1% over 2014-2019 and -0.8% over 2011-2019).

The UK's DCs for 2015 are lower than 2012 and 2013 actuals (-2.2% and -8.8%, respectively), indicating that the cost-efficiency performance improvements achieved in the first years of RP1 were taken into account when setting DCs over RP2.

Amongst the different accountable entities, the UK en-route ATSP (NERL) and the MET provider (the UK MET Office) plan for the largest decreases in DUC over RP2. NERL plans for substantial reductions in DUC both between 2014 and 2019 (-5.6% p.a.) and between 2011 and 2019 (-3.0% p.a.). Similarly, the en-route DUC of the MET Office are expected to decrease by (-5.3% p.a.) between 2014 and 2019. The UK CAA DUC are planned to decrease by (-4.5% p.a.) over the same period.

At ATSP level, the decrease in the en-route DUC planned over 2014-2019 (-5.3% p.a.) is due to the fact that DCs are planned to fall by -3.1% p.a. while TSUs are forecast to increase by +2.6% p.a. The planned reduction in en-route DCs observed between 2014 and 2019 results from decreases expected in all the cost categories: staff costs (-2.4% p.a.), non-staff operating costs (-1.0% p.a.), depreciation costs (-2.9% p.a.), the cost of capital (-10.4% p.a.) and exceptional costs (-5.7% p.a.). It should be noted that the expected decrease in staff costs (-2.4% p.a.) reflects a planned reduction in NERL staff numbers (-100 staff), pay allowances capped at inflation level, and restrictions in pension pass through. Planned decreases in the cost of capital reflect both a declining asset base and a reduction in the WACC rate.

The PRB 2013 monitoring analysis indicates that NERL actual en-route costs for 2013 were lower than planned (-18.2 M€$_{2009}$). This was not sufficient to compensate for the impact of

the lower traffic than planned (-8.6%) on NERL revenues. Indeed, taking into account the amount of costs exempt from the cost sharing, the traffic risk sharing arrangements and a penalty in respect of performance incentives, NERL generated a net loss of -5.2 M€$_{2009}$ in 2013 on the en-route activity. However, when estimating NERL economic surplus, it is important to account for the profit embedded in the cost of capital through the return on equity (some 45.8 M€$_{2009}$ in 2013). As a result, the estimated economic surplus for the en-route activity in 2013 amounts to 40.6 M€$_{2009}$, which implies an ex-post rate of return on equity of 10.2% (compared to 11.5% as initially planned in the NPP). This adds to the surplus generated by NERL in 2012 (+68.1 M€$_{2009}$ or 11.4% of en-route revenues leading to an ex-post rate of return on equity of 16.7%).

Based on this analysis, the UK en-route charging zone is assessed as passing this check.

En-route Determined Unit Cost level

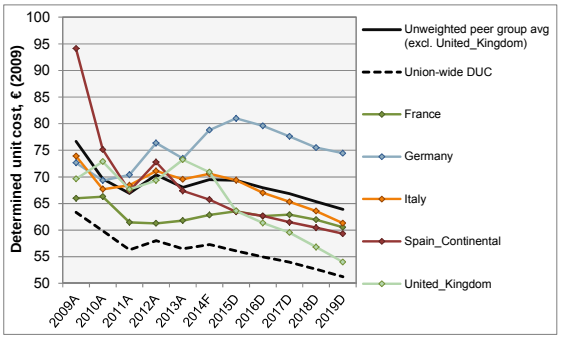


Figure 28: Determined unit cost level

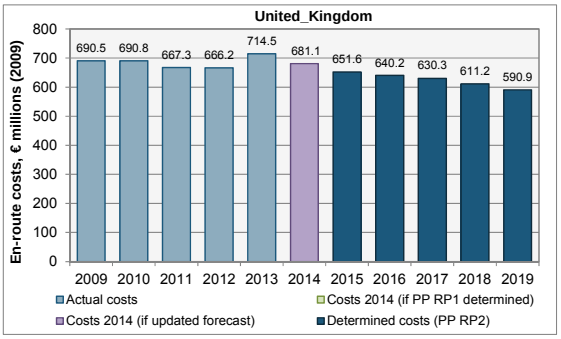


Figure 29: Determined costs 2009-2019

Comments:

The UK's en-route DUC in 2019 is planned to amount to 54.01 €$_{2009}$ which is (-15.5% or -12.6% if normalised for TSU forecast assumptions) lower than the average of the comparator group (63.90 €$_{2009}$) but above the Union-wide DUC level 51.26 €$_{2009}$). It should be noted that the UK's DUC is expected to remain below the comparator group average over the whole 2015-2019 period. The PRB computes that the result of this check does not change for the UK if alternative exchange rates assumptions (than the 2009 values which were affected by some volatility) or PPP are used.

The planned reduction in the UK's DUC over the 2011-2019 period (-2.8% p.a.) is much better than the comparator group average (-0.6% p.a.). Similarly, over the 2014-2019 period, the UK's DUC is expected to decrease by -5.3% p.a., which is better than the comparator group average (-1.7% p.a.).

Based on this analysis, the UK en-route charging zone is assessed as passing this check.

Cost of Capital

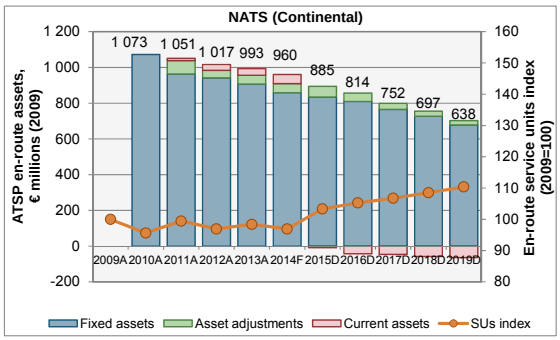


Figure 30: Breakdown of ATSP en-route asset base (2009-2019)

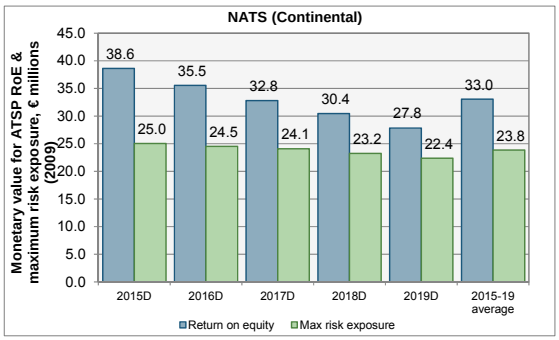


Figure 31: ATSP RoE vs maximum traffic risk exposure

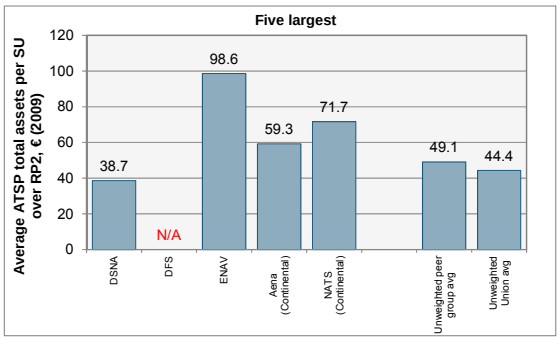


Figure 32: Average en-route asset base per SU over RP2

Comments:

Note: The cost of capital (WACC) for NERL is presented in real terms to be consistent with current accounting for assets (NERL assets are uplifted annually by inflation).

The notional "efficient" WACC reported for NERL in the Performance Plan amounts to 5.9% in real terms. This value is higher than the maximum notional "efficient" WACC resulting from the application of the methodology laid down in Annex C guidance (5.6% in real terms).

The assumptions used to calculate NERL cost of capital are not fully in line with the methodology laid down in Annex C guidance, leading to a higher equity beta (1.11 in the Performance Plan compared to a maximum value of 0.96 in Annex C guidance). The main driver for the observed difference is that UK calculation of the equity beta does not take into account the corporate tax rate. All else equal, if the UK had kept the corporate tax element in its calculation of the equity beta, the equity beta would be 0.89, and the resulting pre-tax WACC 5.1%.

The PRB also notes that the corporate tax rate used to calculate the pre-tax return on equity (10.9% in real terms) amounts to 37%. The UK Performance Plan states that this is an "effective" tax rate, which is higher than the statutory tax rate (21% from 1st April 2015), reflecting the anticipation that the RP2 profits subject to corporate taxation will be higher than the allowed returns embedded in the cost of capital. The UK states that profit before tax in RP2 is forecast to be substantially lower than in RP1.

The pre-tax rate of return on equity (RoE) that will be used by NERL over RP2 amounts to some 10.9% per year. Taking into account NERL capital structure and the amount of total assets used to compute the cost of capital allows to compute the monetary value of the RoE

which ranges between 27.8 M€$_{2009}$ and 38.6 M€$_{2009}$ over RP2. This is higher than the maximum traffic risk exposure which will be borne by NERL over RP2 (22.4 – 25.0 M€$_{2009}$). Over RP2, the PRB calculates that the aggregate return on equity is 38.5% higher than the maximum traffic risk exposure for NERL.

In 2015, NERL en-route asset base per service unit (86 €$_{2009}$) is higher than the comparator group average of ATSPs (70 €$_{2009}$, excluding DFS for which data is not yet available). It is however expected to significantly decrease over RP2 (-10% p.a.) and to amount to 58 €$_{2009}$ per SU in 2019 which is -4.9% lower than the group average (61 €$_{2009}$, excluding DFS for which data is not yet available). As a result, over the 2015-2019 period, NERL en-route asset base per SU is expected to amount to 71.7 €$_{2009}$ on average, which is higher than that of comparator ATSPs and higher than the unweighted union average.

Based on this analysis, the UK en-route charging zone is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

Comments:

The Additional Information to the Reporting Tables comprises information about the underlying pension costs assumptions (annual amounts, % contribution rate for the "defined contributions" pension scheme, % discount rate for the "defined benefits" scheme, etc.).

Information is also provided on the interest rates on loans (bonds in the case of NERL) but the level of detail is not in line with the requirements of the FAB Performance Plan template (i.e. breakdown of loans, interest costs and interest amount).

According to the information provided in the Performance Plan, the cost of NERL existing debt has been estimated with reference to the yield to maturity at issuance on NERL bond in 2026 (£600m at 5.4% in nominal terms or 2.5% in real terms). This is in line with the cost of debt used to compute NERL WACC over RP2 (2.5%). No reference is made to other loans, while NERL Financial Statements for the year 2012/13 show a bank loan of £136m having an effective nominal interest rate of 1.8% in 2012/13 and expiring in 2016.

The Performance Plan comprises information on adjustments beyond the provisions of IAS. These adjustments are mainly relating to the treatment of pension costs, the computation of the regulatory asset base in the context of NERL economic regulation, and the treatment of costs incurred on borrowings to fund capital expenditures.

Based on this analysis, the UK en-route charging zone is assessed as <u>not</u> passing this check.

Description, level, composition and justification of costs exempt from risk sharing
Comments:
The information provided in the Performance Plan on the level and composition of costs exempt from risk sharing for RP1 is consistent with the FAB template requirement. The Performance Plan indicates that an amount of £3.6 million of costs exempt from risk sharing (comprising pension related costs, new cost item required by law and EUROCONTROL costs) will be carried forward to RP2. The Performance Plan also comprises information relating to the composition of costs exempt from risk sharing for RP2. No specific items were reported against each of the following items: new costs items required by law and unforeseen changes in taxation law. **Based on this analysis, the UK en-route charging zone is assessed as passing this check.**

United Kingdom: Assessment of terminal charging zone

Overview of terminal charging zones in the UK:

Information is reported for two charging zones for which Terminal ANS DUC KPIs are presented.

- Terminal Charging Zone B, with nine airports in 2014 for which terminal ANS are mainly provided by NSL, those having more than 70 000 movements.
- Terminal Charging Zone C, which would correspond to the London approach area services provided by NERL for the traffic to/from five airports which are common with TCZ B.

The table below presents the airports and current ATSP.

TCZ B (airport, current ATSP)	TCZ C (airport, current ATSP)
Birmingham, NSL then BAATL from 2015	
Edinburgh, NSL	
Glasgow, NSL	
Manchester, NSL	
London City, NSL	London City, NERL
London Gatwick, NSL	London Gatwick, NERL
London Heathrow, NSL	London Heathrow, NERL
London Luton, NSL	London Luton, NERL
London Stansted, NSL	London Stansted, NERL

Note: There is a potential compliance issue with the charging Regulation for the definitions of UK (Terminal) Charging Zones and the related traffic risk sharing incentives. Indeed the same airports (and traffic/TNSU) are reported under two different (terminal) charging zones and traffic risk sharing applies to terminal ANS services to/from airports with more than 225 000 IFR movements per year. This is subject to a separate process managed by the European Commission (so-called "unit rate compliance" which serves both to ensure internal consistency in the Reporting Tables and Additional Information and also compliance with the charging regulation requirements). The outcome of this process (compliance with EU law) will impact on whether the plan is accepted by the European Commission or otherwise.

Summary of the main issues:

- London approach controls and sequences flights between NERL's en-route service and the tower service of London airports. It is considered by the UK CAA as *"a hybrid between en-route and terminal"*. The proposed TCZ C does not comprise any airport not already included in the TCZ B.
- The London approach charge is currently billed by NERL directly to users. The service charge is a function of aircraft weight (£0.25 per tonne up to 100 metric tonnes and £0.12 per tonne for each additional metric tonne over 100 tonnes).
- The terminal navigation charges in the TCZ B are charged to the airports (not the airspace users) by the terminal ATSPs (mostly NSL for the time being) on a contractual basis.
- Given the nature of the services provided by London approach, a possible option would be to consolidate the current London approach charges in the EUROCONTROL en-route charges, or to establish a separate (more complex) en-route charging zone within the current UK en-route charging zone (see Article 5(3) of

the charging Regulation).

- London approach services are provided from the terminal control room at NERL's Swanwick centre and are integrated with the rest of NERL operations. The determination of London approach costs results from an allocation process whereby NERL costs are distributed to either the en-route cost base or to the London Approach cost base.
- For the TCZ B, the information submitted by UK in the Performance Plan does not identify any costs subject to traffic risk sharing. Given that as of RP2, terminal services are not provided any longer under Market Conditions (as per Article 3 of the charging Regulation), it is considered that the traffic risk sharing should apply.

The PRB notes that the volume of costs of the TCZ C (some 11 M€$_{2009}$) is relatively small as compared to both the UK en-route DCs (some 625 M€$_{2009}$ on average over RP2) or even the TCZ B (some 136 M€$_{2009}$ over RP2). Also many features reported are common with en-route (see detailed analysis). Should the UK identify these costs (or part thereof) as part of the en-route and/or TCZ B, in line with the SES regulations, the assessment conclusions would remain unchanged.

Traffic forecast assumptions

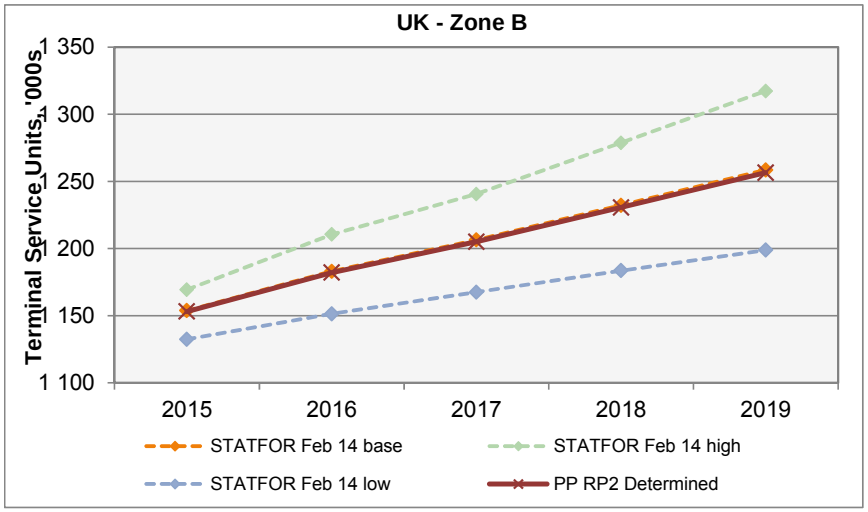


Figure 33: TNSU forecast 2015-2019

The forecast TNSUs for Terminal charging zone B are in line with STATFOR base case forecasts published in February 2014, for every year between 2015 and 2019. These correspond to a +2.2% p.a. increase.

Based on this analysis, the UK terminal charging zones B is assessed as passing this check.

Economic assumptions

Over the 2015-2019 period, a consistent inflation rate has been used in the Performance Plan for all charging zones.

Based on this analysis, the UK charging zones are assessed as passing this check.

Terminal ANS Determined Unit Cost (DUC) trend

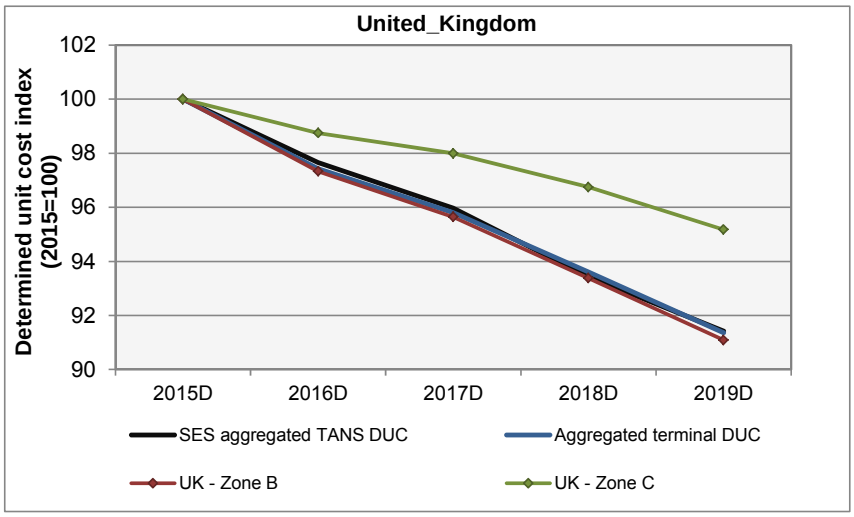


Figure 34: Terminal DUC index, 2015-2019

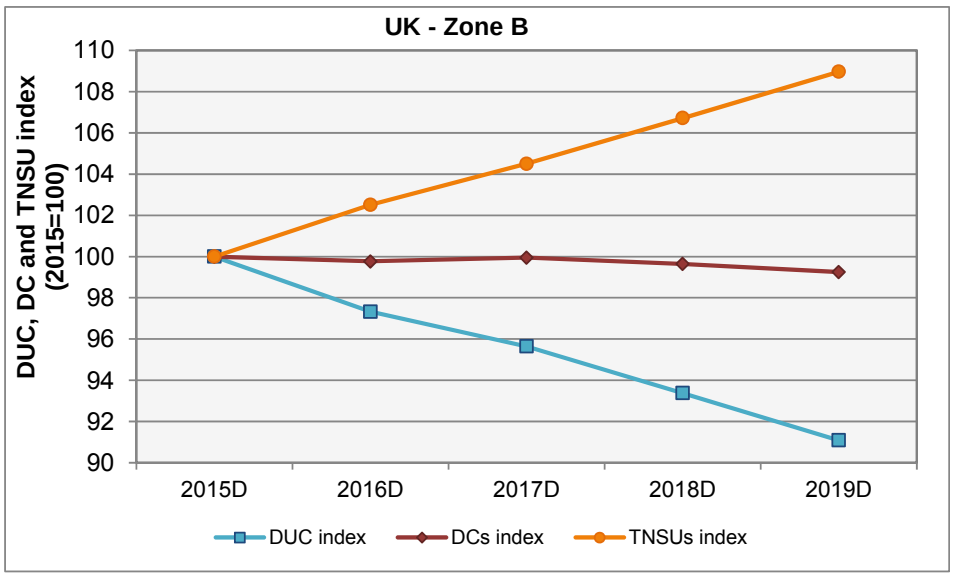


Figure 35: Terminal DUC, DC and TNSU indexes, 2015-2019

Key figures: UK - Zone B		2015D	2016D	2017D	2018D	2019D	2015-19 CAGR (%)
Determined costs	GBP m (nom)	143.2	145.6	148.8	151.3	153.8	1.8%
Inflation rate	annual % change	1.9%	1.9%	2.0%	2.0%	2.0%	2.0%
Inflation index	2009=100	118.2	120.5	122.9	125.3	127.8	
Determined costs	GBP m (2009)	121.2	120.9	121.1	120.7	120.3	-0.2%
Terminal service units	'000s	1 153	1 182	1 205	1 230	1 256	2.2%
Determined unit cost	GBP (2009)	105.09	102.28	100.51	98.13	95.72	-2.3%
Exchange rate	GBP:EUR (2009)	0.89					
Determined unit cost	EUR (2009)	117.99	114.84	112.85	110.18	107.48	-2.3%

The 2015-2019 CAGR shown in the table is different from the main en-route comparator period (2014-2019), the reason for this being the potential for changes to the size and composition of TCZs between 2014 and 2015

Table 33: Terminal DUC, DC and TNSU trends, 2015-2019

Over the 2015-2019 period, the profile of terminal ANS DUC for the TCZ B (-2.3% p.a.) is better than that of the SES aggregated DUC (-2.2% p.a.). On the other hand, the profile of terminal ANS DUC for TCZ C (-1.2% p.a.) is worse than that of the SES aggregated DUC (-2.2% p.a.).

At gate-to-gate level, UK DCs are planned to decrease by -2.0% p.a. between 2015 and 2019. This is slightly worse than the average % decrease of the Union-wide en-route ANS DCs over the same period (-2.3% p.a.).

Based on this analysis, the UK TCZ B is assessed as passing this check.

Cost of Capital

For the TCZ B, the cost of capital included in the DCs is not calculated following the same methodology as for the UK en-route charging zone.

Due to the current contractual arrangements between the ATSP (NSL) and individual airports, the total DCs for the period 2015 to 2019 reflect the anticipated revenues receivable under the relevant airport contracts. The UK Performance Plan states that the cost of capital element of the DCs reflects the profit NSL *"earns as a pre-tax return on sales on its contracts"*.

The PRB calculates that for the TCZ B the profit margin of the ATSP (calculated as the share of the cost of capital in the total DCs) is planned to be between 14% and 15% for all years of RP2. These figures contrast with those observed at en-route ANS level, where the share of cost of capital in the total DCs is expected to be between 7% and 9% over RP2.

These large differences are observed despite the fact that the UK Performance Plan presents the DCs for its TCZ B as not being subject to traffic risk sharing.

For the TCZ C provided by NERL, the cost of capital included in the DCs is calculated following the same methodology as for the UK en-route charging zone, the same RoE and same WACC values are used.

Based on this analysis, UK TCZ B is assessed as <u>not</u> passing this check.

Verification of the description and if applicable, the justification, of economic assumptions provided in the Performance Plan

<u>TCZ B:</u>

The UK Performance Plan mentions the existence of Defined Benefit Pension Scheme, similar to that of NERL. However, under the terms of its contracts NSL does not pass through the variance in cash cost contributions to the airports.

The Performance Plan mentions that *"an appropriate allowance for risk associated with the defined benefit pension scheme has been reflected in the Other operating cost line".* It is therefore understood that if actual cash contributions are lower than planned, NSL earns additional profit, while NERL would have to return 100% of the difference to airspace users. If actual cash contributions are higher than planned, NSL is fully protected up to the *"appropriate allowance"* and bears 100% of the risk beyond that allowance, while NERL would be able to recover 80% of the difference between actual and planned contributions.

No information is provided for interest rates on loans, due to the fact that the costs reported as cost of capital reflect the anticipated pre-tax return on sales rather than a genuine cost of capital, as defined for en-route or for the TCZ C.

Adjustments beyond IAS are proposed. The assumptions for these adjustments only concern pension costs and these are similar to that for en-route.

TCZ C:

The information provided for the description of economic assumptions relating to pensions and interest rates on loans are the same as for en-route.

Adjustments beyond IAS are proposed and *are similar to that for en-route*.

Based on this analysis, the UK TCZs B and C are assessed as not passing this check.

Description, level, composition and justification of costs exempt from risk sharing

For TCZ B, the PRB understands that none of the DCs are exempt for risk sharing.

For TCZ C, the Performance Plan indicates that the costs exempt from risk sharing during RP2 are the same as for en-route. The Performance Plan also indicates that for the years 2012-2014, no exempted costs are assumed for London Approach, as *"all NERL uncontrollable costs are recovered though NERL's en-route charge".*

Based on this analysis, the UK TCZs are assessed as passing this check.

References

[1] Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.

[2] Commission Implementing Regulation (EU) No 391/2013 of 3 May 2013 laying down a common charging scheme for air navigation services.

[3] Source: European Economic Forecast (Spring 2014).

[4] http://www.eurocontrol.int/prudata/dashboard/eur_view_2013.html

[5] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[6] Performance Plan RP2, Annex B – UK/IRE Planned Actions for RP2 to Address the Specific Objectives of the Network Strategy Plan (NSP)

[7] NATS (En-route) plc RP23 Revised Business Plan (2015-2019), revised following Customer Consultation and PRB advice on 27th September 2013 to the Commission on EU-wide performance targets, page 7

[8] Performance Plan RP2- Annex D.2 - IAA Investment Plan summary, page 3/7

[9] Performance Plan RP2- Annex A – RP2 bilateral meeting with Airlines (General)

[10] En-route charges reporting – June 2014, Additional Information 4- item 1.3, page 12/15

[11] NATS (En-route) plc RP23 Revised Business Plan (2015-2019), revised following Customer Consultation and PRB advice on 27th September 2013 to the Commission on EU-wide performance targets, page 11 & 8

[12] NATS (En-route) plc RP23 Revised Business Plan (2015-2019), revised following Customer Consultation and PRB advice on 27th September 2013 to the Commission on EU-wide performance targets, page 20

[13] £575m includes capital investment for non-regulated activity (excluding this activity, CAPEX is £547m)

[14] NATS (En-route) plc RP23 Revised Business Plan (2015-2019), revised following Customer Consultation and PRB advice on 27th September 2013 to the Commission on EU-wide performance targets, page 38

[15] En-route charges Reporting, June 2014, Additional information 1, item 1.3, page 13

[16] "CAPEX Effect"= the average (%) for the deviations of CAPEX Actual (updated) vs. Planned for the timeframe

[17] "Costs Effect"= the average (%) for the deviations of gate-to-gate costs (in M^{2009}, real terms) Actual (updated) vs. Planned for the timeframe

[18] NATS (En-route) plc RP23 Revised Business Plan (2015-2019), revised following Customer Consultation and PRB advice on 27th September 2013 to the Commission on EU-wide performance targets, page 41

[19] 2010-2013 actual CAPEX, 2014 updated planned CAPEX

[20] Performance Plan RP2 – Annex A- Note of meeting with Airlines Community representatives 17 April 2014