PRB | Performance review body of the single european sky

PRB assessment of the draft performance plans for RP4

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REMARKS FROM THE CHAIR

The PRB has completed its analysis of performance plans submitted by Member States for the fourth reference period which commenced in 2025 and ends in 2029. Based on the facts and figures presented by the Member States, the PRB assessed for 16 of these plans that all their targets are consistent with the Union-wide performance targets. In carrying out its assessments, the PRB has taken into consideration the impact of Russia's war of aggression against Ukraine and the geopolitical situation in the Middle-East.

The majority of performance plans and targets which we consider not to be consistent with the Union-wide targets fail to demonstrate sufficient ambition to align their expected costs with the target values. Some Member States are seeking substantially more money to provide the capacity to remove bottlenecks and thereby improve environmental performance. However, even assuming that the presented additional amounts were fully justified, for the majority the costs of these capacity measures would not fully account for the deviations from the Union-wide cost-efficiency trends. These plans will need to be revised by the relevant Member States and the PRB is open to assisting in this work.

The underperformance of a small number of area control centres in the middle of Europe has continued to have a significant impact on the overall network performance, and this negates the efforts of those Member States that have submitted solid plans. As noted in previous assessment reports, Union-wide targets can only be achieved if the air navigation service providers in the core of Europe perform to the standard of their best-performing peers.

As already highlighted in our Annual Monitoring Reports, the problems remain the same and the solutions are known. The PRB has found that many performance plans would benefit from the inclusion of an implementation plan setting out specific measures, potentially including further improvement measures compared to those in their performance plans where needed, to demonstrate how ANSPs will achieve the targets for RP4. This will facilitate monitoring of progress and provide timely indications for any corrective actions that may need to be taken during the review period.

The analyses undertaken by the PRB and the recommendations given in the individual assessments will support the National Supervisory Authorities to identify issues and implement solutions. The PRB will work in close collaboration with the National Supervisory Authorities to proactively encourage and monitor the timely implementation of the measures included in the performance plans and those recommended by the PRB in its assessments.

We could not have completed these assessments by ourselves and, on behalf of the PRB, I would like to thank our colleagues from the National Supervisory Authorities, Eurocontrol, and EASA for their excellent cooperation, and most of all our colleagues in the PRB Support Team.

Cathy Mannion
PRB Chair

EXECUTIVE SUMMARY

This report evaluates whether the performance targets included in the draft performance plans, which Member States submitted in late 2024, are consistent with the Union-wide performance targets for RP4.[1]

- **Safety:** All Member States plan targets that are consistent with the Union-wide safety targets.[2] The Member States aim to achieve the effectiveness of safety management targets in alignment with Union-wide objectives and have outlined relevant measures to demonstrate the necessary improvements to be implemented during the RP4 period although some of the performance plans would have benefited from including more detail.
- **Environment:** All Member States plan targets to be consistent with the Union-wide targets. Achieving the targets would be a good outcome for air traffic management. However, in the final years of RP3 a few Member States were far away from their targets for 2025, which makes it challenging for them to achieve these targets and those for the remainder of RP4. This also puts the achievement of the Union-wide targets at risk. These Member States are requested to act now to close the gap between current performance and their targets.
- **Capacity:** All bar two Member States plan targets to be consistent with the Union-wide targets in each year of RP4, and all of them plan to be consistent by the end of the period. Due to the volatility of traffic growth and the under delivery of capacity improvements in RP3, achieving the Union-wide targets in RP4 remains challenging, despite the targets being significantly less ambitious than at the end of RP3. Monitoring the implementation of the key capacity enhancement measures will have to be improved to support the ambition of eliminating the existing shortfalls early in RP4.
- **Cost-efficiency:** The PRB has found that 18 charging zones in 17 Member States are consistent with the criteria for the cost-efficiency KPA. The Union-wide costs as planned in the aggregated performance plans are consistently higher than the Union-wide targets over RP4. The PRB considers that the Union-wide cost-efficiency targets as set allow enhancements in operational performance. However, these improvements should be delivered in an efficient manner. The effective implementation of the RP4 performance plans will be paramount for the delivery of enhanced services to users.

In assessing the performance plans, the PRB has included recommendations for those Member States where it considers that more detail of planned measures to achieve targets and/or timelines for implementation need to be provided. Moreover, the PRB also made recommended where some additional measures may be needed to achieve the targets of safety, environment, and capacity.

Each Member State held consultation meetings with stakeholders to present their draft performance plan. Overall, the consultation processes were an improvement compared to previous reference periods, with some Member States providing detailed information in advance and organising the consultations in an exemplary manner. However, some still lacked proper preparation: Information was provided at short notice or with a lack of detail; There was insufficient opportunity for meaningful dialogue with stakeholders; Some consultations were held too late to have an impact in the drafting of the performance plans.

Concluding the assessment of all the draft performance plans, the PRB finds 16 of them consistent with the Union-wide targets and recommends the Commission to consider these for adoption. The plans that are deemed inconsistent will have to be revised by the Member States concerned, these revisions will need to consider any update of the traffic forecasts. The PRB will assist the NSAs in their revisions of the performance plans, if requested.

[1] With Member States we refer to EU Members plus Norway and Switzerland.

[2] In this report, Norway is categorised as inconsistent since the safety targets for one small ANSP included in the plan (i.e. Saerco) have not been specified in the draft performance plan.

TABLE OF CONTENTS

1 INTRODUCTION

1 In June 2024, the Commission Implementing Decision (EU) 2024/1688 set the Union-wide targets for the air traffic management network for the fourth reference period (RP4). Based on this decision, the Performance Review Body of the Single European Sky (PRB) has prepared this report to assess the draft performance plans (hereafter performance plans) which the Member States and one Functional Airspace Block (FAB) submitted as required by the Commission Implementing Regulation (EU) 2019/317 (hereafter the Regulation). The performance plans cover each year of RP4, from 2025 to 2029.

2 This report describes how the PRB has assessed the performance plans and provides a summary of the Union-wide assessment and is supported by two annexes:

- Annex I – Technical guide. Description of the methodology applied for the preparation of the factbooks (Annex II); and
- Annex II – Factbooks. Detailed assessment of each performance plan.

3 The PRB assessed each performance plan with the support of the Network Manager (NM), Eurocontrol, and the European Union Aviation Safety Agency (EASA).

1.1 Development of the performance plans

4 For RP4, the PRB and the Commission revised the previous template for the development of performance plans and the related guidance materials. This material was provided to Member States in June 2024 and was pre-filled with information available for each Member State and FAB. The Member States used these templates to draft their performance plans. Member States were required to consult on their performance plans with stakeholders. These consultations took place between June and September 2024.

5 The performance plans were to be submitted using the ESSKY platform no later than 30th September 2024.[3] The majority of Member States submitted their plans on time. Upon receipt, the PRB and the Commission assessed the completeness of the performance plans and verified whether they contained all the elements needed to assess compliance as required by Article 13 of the Regulation.

6 The PRB and the Commission found that all performance plans were missing some information. Member States were requested to submit updated performance plans by 15th November 2024. In addition to the request for complete submissions, the Commission allowed Member States to align their traffic forecasts in their performance plans with the latest STATFOR traffic forecast published on 15th October 2024 if deemed necessary.

1.2 Impact of consultation meetings on the performance plans

7 All Member States complied with the statutory requirement to hold consultation meetings with stakeholders. Consultation meetings were held between June and September. The PRB managed the consultation calendar to avoid scheduling back-to-back meetings and sent reminders to ensure material was distributed sufficiently in advance, as required by the Regulation.

8 Representatives of the PRB attended all the consultation meetings, as observer. However, one Member State wished to consult with airspace users separately to the PRB. The PRB does not support this approach as it leads to duplication and has no apparent additional value.

9 Compared to the consultations held during RP3, the quality and the degree of preparation have improved. Most of the Member States sent the consultation material sufficiently in advance, and the time dedicated to the consultation allowed for discussion with the stakeholders. The PRB invites the Member States to continuously improve the consultation process to allow for more transparency in the information provided to airspace users and a greater meaningful exchange of views.

[3] https://eu-single-sky.transport.ec.europa.eu/essky-database_en.

2 ASSESSMENT OF PERFORMANCE PLANS

10 The principles applicable to the assessment, such as those laid down in Annex IV of the Commission Implementing Regulation (EU) 2019/317, remain unchanged from RP3. Article 14 (1) of the Regulation states that the Commission will assess "*the consistency of the national performance targets or FAB performance targets contained in the draft performance plans with the Union-wide performance targets on the basis of the criteria laid down in point 1 of Annex IV, and taking into account local circumstances. The Commission may complement the assessment by reviewing the draft performance plans in respect to the elements specified in point 2 of Annex IV*". This annex of the Regulation defines elements subject to review for each key performance area. The factbooks (Annex II of this report) cover each of these elements for each key performance areas (KPAs) in detail.

2.1 Application of traffic forecasts

11 Article 10 (2) (f) and (g) of the Regulation requires the performance plans to be based on Eurocontrol's latest available STATFOR base traffic forecast. Considering the evolving geopolitical environment, the Commission allowed the Member States to adapt their traffic forecast during the completeness check phase following the publication of the forecast on 15th October 2024.

12 Article 10 (2) (f) and (g) of the Regulation also allows National Supervisory Authorities to use other forecasts if they:

- Consult with airspace users and air navigation service providers concerned;
- Set out in the draft performance plan the reasons for using a different forecast;
- Only deviate where specific local factors are not sufficiently addressed by Eurocontrol's STATFOR base traffic forecast; and
- Apply the same forecast for all KPAs.

13 18 Member States adapted their plans in accordance with the new forecast (STATFOR October 2024), while four kept applying the STATFOR February 2024. The remaining seven Member States applied a local forecast specifying the reasons.

2.2 EASA acceptable means of compliance

14 Member States are required to define intermediate targets for the key performance indicator related to safety for each calendar year of RP4. For RP4, EASA has developed and published Acceptable Means of Compliance (AMC) and Guidance Material (GM) defining the requirements to be achieved for the maturity levels for each management objective.[4]

15 The AMC and GM for RP4 are different to those used in RP3. For each safety management objective, the level when starting RP4 is expected – as a general indication – to be one level lower compared to the end of RP3 for the same level of safety maturity. This implies a change in the interpretation of the maturity level and does not imply a degradation of safety or safety management practices between RP3 and RP4.

16 The PRB considers that Members States and their ANSPs as well as the Network Manager should apply the AMC in their draft performance plans for measuring the effectiveness of their safety management system, because these common standards provide legal certainty and uniform implementation.

2.3 Local reference values

17 The assessment criteria set out in Annex IV paragraph 1.2 and 1.3 of the Regulation consider the consistency between the draft performance plan targets and the local or FAB reference values. The reference values for environment and capacity were published in June 2024, following the adoption of the Union-wide targets.[5]

18 Member States not targeting to achieve their reference values for environment and capacity for each year of RP4 will be recommended to revise their plans. The only exceptions relate to recital 19 of Commission Implementing Decision (EU) 2024/1688, where the PRB has considered and assessed the justification provided by the Member States for potential deviations from the capacity reference values due to the considerable additional traffic and the significant increase in the

[4] EASA Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs) - European Commission.
[5] https://eu-single-sky.transport.ec.europa.eu/rp4-breakdown-values-capacity-and-environment_en.

complexity of operations resulting from Russia's war of aggression against Ukraine.

2.4 Cost-efficiency criteria

19 The Regulation defines the consistency criteria for the cost-efficiency of performance plans in Annex IV: Criteria (a) and (b) ensure that the trend of local determined unit cost (DUC) is consistent with the Union-wide trends. Criterion (a) assesses the consistency of this trend over the fourth reference period, while criterion (b) assesses it over the third and fourth reference periods combined. Criterion (c) assesses the baseline for the determined unit cost with the corresponding average value of the relevant comparator group.[6] Annex IV 1.4 of the Regulation does not stipulate whether a performance plan should meet all the criteria of paragraphs (a) to (c) or a subset of them.

20 The PRB has used the same approach as in the previous assessments, in that:

- A Member State must comply with two of the three criteria ((a) to (c)) to be consistent with the Union-wide trends. By being consistent with both criteria (a) and (b), the charging zone has to achieve the short-term evolution of determined unit cost according to RP4 targets (criteria (a)), and the long-term evolution as defined by criteria (b). This combination ensures that a charging zone with historically high unit costs continues its efforts to reduce cost. By being consistent with criteria (a) and (c), the charging zone has to achieve the short-term evolution of determined unit cost according to the RP4 targets (criteria (a)), as well as showing a relatively low 2024 baseline (criteria (c)). This combination ensures that charging zones with relatively low unit costs continue their efforts to have determined unit cost corresponding to the RP4 targets. By being consistent with criteria (b) and (c), the charging zone has to achieve the long-term evolution of determined unit costs, showing as well a relatively low 2024 baseline. This combination ensures a continuous effort in the long-term evolution for relatively low unit cost charging zones.
- A Member State may deviate from the cost-efficiency criteria to achieve the capacity targets or to implement restructuring measures leading to restructuring costs. In the case of restructuring costs, the deviation needs to deliver a net financial benefit to airspace users at the latest in the subsequent reference period.
- A deviation for capacity reasons (criterion (d)(i)) can only be considered in relation to performance plans which deviate from at least one of the Union-wide cost-efficiency trends and which include capacity targets which are consistent with the reference values. Finally, the measures presented by the Member States to justify the deviation need to be necessary and proportionate to achieve the capacity targets.

21 In addition to the aforementioned criteria, the PRB has also considered Article 10 (2) (a) of the Regulation, *"(t)he baseline value for determined costs shall be estimated by using the actual costs available for the preceding reference period and shall be adjusted to take account of latest available cost estimates, traffic variations and their relation to cost*". Assessing the local DUC trend for RP4 and the local long-term DUC trend, it is also necessary to verify that the DUC baseline values used for each charging zone comply with the principles set out in the Regulation. Those baseline values should be underpinned by sound assumptions reflecting the actual costs and traffic recorded for the charging zone, including adjustments, if duly justified. The review of the baseline value is an essential part of the assessment as an inflated baseline value would distort the calculation of the local DUC trends for the charging zone concerned.

22 With respect to the legal requirements laid down in Annex IV (criteria (a) and (b)), the local trend is assessed comparing the values for the DUC a Member State establishes in its performance plan against the Union-wide trends stemming from the targets. The Union-wide trend during RP4 (criterion (a)) calculated based on the Union-wide targets equals -1.2%. The Union-wide long-term trend (covering RP3 and RP4) equals -1.0%.[7]

[6] The comparator groups of air navigation service providers with a similar operational and economic environment, for the purposes of assessing performance targets in the key performance area of cost-efficiency.

[7] Long-term trend Compound Annual Growth Rate (CAGR) calculation considers 2020/2021 as a combined year.

23 Considering recital 23 of Commission Implementing Decision (EU) 2024/1688, the PRB has applied a specific methodology for the calculation of the long-term trend for the Member States which have lost a significant share of their traffic as a consequence of Russia's war of aggression against Ukraine. The PRB has also taken into account, in calculating the long-term trend, the geopolitical situation in the Middle-East. The details are provided in Annex I.

3 SAFETY

- The PRB recommends approving the safety targets of all Member States.
- All Member States bar Norway provided targets for all five years in RP4 and plan to achieve the RP4 targets by 2029.
- Some Member States should improve measures to ensure these are sufficient to achieve the maturity levels within the performance plans.

3.1 Union-wide targets for RP4

24 The Union-wide targets for RP4 for the effectiveness of safety management (EoSM) are defined as a minimum maturity level to be achieved for five management objectives by the end of RP4 (Table 1).[8] In order to monitor progress and ensure targets can realistically be met by the end of RP4, Member States shall provide intermediate values for all other years of the reference period. The key performance indicator for RP4 is based on maturity levels published in spring 2020.[9]

Management objectives	2029 Maturity Level
Safety Policy and Objectives	C
Safety Risk Management	D
Safety Assurance	C
Safety Promotion	C
Safety Culture	C

Table 1 – Union-wide safety targets for RP4.

3.2 Approach to the assessment

25 The PRB has coordinated with EASA on the verification of completeness and the consistency assessment of the performance plans. The performance plans were considered consistent with the requirements of the Regulation if the safety targets and intermediate targets were established for all ANSPs providing ATS.

26 As for the RP3 assessment, the PRB compared the targets within each performance plan with the Union-wide targets. The PRB also considered whether measures included in a plan should enable the Member States to achieve the targets by the end of RP4.

27 Where targets and interim targets were not proposed for each year of RP4 or the related measures were lacking detailed explanation in the performance plans submitted in October, the PRB considered these plans as incomplete and requested the relevant Member States to provide the required information.

28 The PRB and EASA analysed whether the proposed measures were sufficient. In several cases, the PRB concluded that additional measures would be necessary and requested the Member States to complete the performance plans.

3.3 Result of the assessment of the Effectiveness of Safety Management

29 The performance plans submitted cover a total of 38 ANSPs. Only one plan, Norway, was categorised inconsistent due to the lack of the effectiveness of safety management targets for Saerco ANSP. All other Member States have provided targets for the effectiveness of safety management for each year of RP4 and for each ANSP.

30 All ANSPs plan to achieve the Union-wide targets at the latest by end of RP4 (Figure 1, next page):

- Seven ANSPs plan to achieve the RP4 targets during the first year of RP4 (the ANSPs of Estonia, Greece, Ireland, Sweden (LFV, ACR, SDATS and AFAB)).
- 24 ANSPs plan to achieve the RP4 targets in the last year of RP4 (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Italy (ITAF), Latvia, Lithuania, Luxembourg, Malta, the Netherlands (LVNL, MUAC), Poland (PANSA, Port Lotniczy Bydgoszcz, Warmia i Mazury Sp.), Romania, Slovenia, Spain (Enaire, AE), Switzerland).
- Seven ANSPs plan a gradual improvement over RP4 to achieve the targets (Cyprus, Hungary, Italy (ENAV), Norway, Portugal, Slovakia and Spain (Skyway).
- Only two ANSPs plan to exceed the RP4 on management objectives other than safety risk management, with the target for safety risk

[8] The levels of achievement for the five management objectives range from Level "A" (lowest maturity) to Level "E" (highest maturity).
[9] Easy access rules for S(K)PI (Regulations (EC) No 549/2004 and (EU) 2019/317) (europa.eu).

management already defined as the highest achievable (Malta and Spain - Skyway).

Figure 1 – Number of ANSPs reaching the end of the period targets.

31 Two Member States (Luxembourg and the Netherlands) show planned maturity levels at the end of the first year of RP4 which are defined at maturity level A - Informal Arrangements (the lowest possible). Besides portraying a degradation of levels achieved at the end of RP3, it also portrays a situation where compliance with Commission Implementing Regulation (EU) 2017/373 can be questioned. Member States should ensure that their ANSP quickly improves such a level.

Measures to achieve safety targets in the performance plans

32 Member States defined various measures to achieve the targets and – where needed – improve the maturity levels over RP4. Some provided detailed measures, but most Member States provided more general descriptions. Most Member States included compliance with Commission Implementing Regulation (EU) 2017/373 as a measure; the PRB and EASA agree that this is an important but not a sufficient measure, which must be combined with other measures.

33 The PRB recommends ten Member States to consider improving measures by linking them to a particular management objective and/or by including additional measures to better reflect what is required to achieve the targeted maturity level. The PRB still considers such performance plans to be consistent with the requirements of the Regulation. The PRB together with the relevant NSA will closely monitor the evolution of the performance to assess the implementation of the plans and to define any necessary additional step for achieving the targets.

3.4 Summary and recommendations for the safety KPA

34 All bar one Member State set their targets by the end of RP4 consistent with the Union-wide targets for RP4 and all provided planned maturity levels for each year of the reference period. Norway included an ANSP in the performance plan for which no targets were provided. Therefore, Norway will need to include targets and associated measures for this ANSP to be consistent in the safety KPA and it is currently categorised as not consistent.

35 The PRB considered that the majority of Member States plan measures for their ANSPs which are sufficient to reach the targets by end of RP4. The measures of ten Member States were considered not to be sufficient. The PRB will request detailed information related to the achievement of the safety targets to these Member States in the context of the annual monitoring process.

36 Nine Member States have planned levels at the start of RP4 which are two levels lower than the maturity level they planned to achieve at the end of RP3 or start at the lowest possible maturity level. These Member States should ensure that the maturity of their safety management does not degrade and should aim to enhance the safety performance reached by the end of RP3. Finland needs to improve/detail measures related to safety risk management.

37 The PRB recommendations, as a result of the assessment of the performance plans within the safety KPA, are shown in Table 2 (next page).

Recommended to approve (consistent)		Recommended not to approve (inconsistent)
Without comments	With specific points	
Bulgaria	Austria	Norway[10]
Cyprus	Belgium	
Czech Republic	Croatia	
Denmark	Finland	
Estonia	France	
Greece	Germany	
Hungary	Italy	
Ireland	Luxembourg	
Latvia	The Netherlands	
Lithuania	Switzerland	
Malta		
Poland		
Portugal		
Romania		
Slovakia		
Slovenia		
Spain		
Sweden		

Table 2 – PRB recommendations for the safety KPA.

[10] Norway is categorised as inconsistent since the targets for Saerco have not been specified in the performance plan.

4 ENVIRONMENT

- The PRB recommends approving the environment targets of all Member States and FABEC.
- Most Member States' performance plans fail to commit to all the major ERNIP projects related to improving environmental performance, leaving it unclear how they will achieve the targets.
- Some Member States' performance in the final years of RP3 were far away from the targets for 2025 and the remainder of RP4. These Member States should review their activities and plan additional actions, where necessary, to close the performance gap as quickly as possible.

4.1 Union- wide targets for RP4

38 The target for the environment KPA is set on the actual horizontal flight inefficiency (KEA), calculated as a ratio between the horizontal length of the flown routes and the so-called achieved distance. The RP4 Union-wide targets for the environment KPA are shown in Table 3.

	2025	2026	2027	2028	2029
KEA (%)	2.80	2.75	2.71	2.68	2.66

Table 3 – Union-wide environment targets for RP4.

4.2 Results of the assessment of the environment KPA

39 The Union-wide targets shown in Table 3 were broken down into national and FAB reference values by the Network Manager.[11] All Member States plan to achieve their national reference values and, therefore, plan a performance that is consistent with the Union-wide targets.

Measures to achieve environment targets

40 The Commission may complement the assessment process by reviewing measures a Member State has proposed for achieving (national or FAB) performance targets in each KPA. The performance plans include the following reasons proposed by Member States, which may adversely affect their ability to reach their planned environment KPA targets:

- Flight planning and airspace users' route choices. Member States highlight that airspace users' route choices are an uncontrollable factor that affects their ANSPs' ability to deliver performance according to the national reference values. Article 32 (1) of the Regulation allows Member States to modulate their air navigation service charges to "*reduce the environmental impact of flying*", enabling Member States to influence the routes airspace users choose. No Member States included this option to modulate charges to support achieving the environmental targets.
- Re-routing due to geopolitical situations. Geopolitical situations (e.g. re-routing to avoid Belarus, Ukraine, and Russia airspaces) affect flight planning and cause re-routing of flights that are not permitted or would like to avoid certain airspace. This has a significant impact on the performance of surrounding States. As the reference values for RP4 include an allowance for the impact of these known airspace closures, this should not have a significant impact on the achievement of the targets.
- Free route airspace (FRA) deployment. The PRB considers the deployment of enhanced free route airspace, as mandated by the Common Project 1 (CP1) Regulation, to be important for achieving the Union-wide targets.[12] Most Member States have committed to, or are already, offering enhanced FRA. Of the Member States that have not yet implemented enhanced FRA, both Spain and Portugal commit to its implementation by 2025, which is consistent with the CP1 Regulation. However, Cyprus, Malta, France, and Greece do not commit to implement enhanced FRA by the CP1 deadline within their performance plans. The European Route network improvement plan (ERNIP) includes recommendations where enhanced FRA should be deployed, including cross-border FRA as detailed. The PRB considers the recommendations in the ERNIP as a measure which Member States should implement to achieve the reference values.

[11] https://eu-single-sky.transport.ec.europa.eu/rp4-breakdown-values-capacity-and-environment_en.
[12] Commission Implementing Regulation (EU) 2021/116 of 1 February 2021 on the establishment of the Common Project One.

- Weather disturbance. Adverse weather may cause ANSPs and airspace users to extend the planned route for safety and comfort. The targets for RP4 account for weather-related impacts on horizontal flight efficiency. They are integrated in the Union-wide targets and the national and FAB reference values. However, the PRB notes that some Member States have experienced a significantly higher impact from weather in recent years. The PRB will monitor the impact of weather during RP4.

41 In addition, Member States have proposed other measures to achieve the environment targets, such as performance-based navigation, air traffic service route improvement, airspace redesign, interface re-sectorisation on the boundary between Member States, and new air traffic management system implementations. The PRB has considered these measures in its assessment.

42 All Member States set targets to be consistent with the national reference values, but some Member States will require a significant improvement in performance from 2023-2024 to achieve their target in 2025 and for the remainder of RP4. Thus, even though these performance plans are recommended for approval, the PRB together with the relevant NSA will closely monitor the evolution of the performance to assess the implementation of the plans and to define any necessary additional step for achieving the targets.

Incentive schemes

43 Article 14 (1) of the Regulation specifies that the Commission may complement the assessment process with a review of the incentive scheme or schemes. Article 11 (4) of the Regulation enables Member States to incentivise their ANSP(s) to achieve their environment targets. Applying an optional incentive scheme for the environment KPA, where appropriate, can provide momentum and incentivise ANSPs to prioritise the environment KPA since revenue would be placed at risk.

44 The PRB continues to highlight the importance of setting an environmental incentive scheme on an appropriate indicator of local performance. Despite offering support to the NSAs in setting up such a scheme, no Member State has chosen to incentivise its ANSP on environmental performance.

4.3 Summary and recommendations for the environment KPA

45 All Member States set their environment targets to be consistent with their national reference values.

46 Several Member States have not fully demonstrated that they will reach their targets. During the reference period, the PRB together with the relevant NSA will closely monitor the evolution of the performance to assess the implementation of the plans and to define any necessary additional step for achieving the targets.

47 The Network Manager listed major projects in the ERNIP that will help Member States achieve the environmental targets. Most Member States do not commit to implementing all the projects recommended for them, which include free route airspace and route optimisation projects. The PRB recommends these Member States to work with the Network Manager to implement all projects identified within the ERNIP. This should focus on the implementation of FRA and the effects of route availability document (RAD) restrictions that limit the benefits of FRA.

48 Where a performance plan is not consistent and needs to be revised, the PRB recommends the Member State to include sufficient detail within the performance plan to demonstrate the targets will be achieved. This should include a commitment to the implementation timelines of enhanced FRA and a commitment to implement all projects defined within the ERNIP.

49 The PRB recommendations following assessment of the performance plans are shown in Table 4 (next page).

Recommended to approve (consistent)		Recommended not to approve (inconsistent)
Without comments	With specific points	
Austria	Bulgaria	
Croatia	Cyprus	
Czech Republic	Greece	
Denmark	Hungary	
Estonia	Italy	
Finland	Malta	
Ireland	Romania	
Latvia	Spain	
Lithuania	FABEC	
Norway		
Poland		
Portugal		
Slovakia		
Slovenia		
Sweden		

Table 4 – PRB recommendations for the environment KPA.

5 CAPACITY

- The PRB recommends approving the capacity targets of 21 Member States and FABEC, and to not approve them for two Member States (Greece and Norway).
- Member States must ensure that all capacity improvement measures are realised as planned, especially the recruitment and training of ATCOs, new ATM system upgrades, and airspace reorganisations.

5.1 Union-wide targets for RP4

50 The targets for the capacity KPA are set on average en route ATFM delay attributable to air navigation services, expressed in minutes per flight for each calendar year of RP4. The RP4 Union-wide targets for the capacity KPA are shown in Table 5.

	2025	2026	2027	2028	2029
En route ATFM delays (min/flight)	0.9	0.7	0.6	0.5	0.5

Table 5 – Union-wide capacity targets for RP4.

5.2 Results of the assessment of the en route capacity KPA

51 The Union-wide targets were broken down into national and FAB reference values by the Network Manager.[13]

52 Out of the 24 submitted performance plans, three plans include capacity targets above the corresponding national reference values in at least one year of the reference period:

- Greece set targets which are less ambitious than the national reference values in 2025 and 2026, claiming that the currently existing capacity gap cannot be closed before 2027.
- Hungary set targets that are less ambitious than the national reference values in all years apart from 2029, justifying this deviation with the extraordinary impact of Russia's war of aggression against Ukraine.
- Norway set a target that is less ambitious than the national reference value in 2028, highlighting that the implementation of the new ATM system will have a temporary negative impact on capacity performance.

53 Denmark, Lithuania, and Norway set targets which are more ambitious than the respective reference values during 2025 and 2026, while Ireland set targets which are more ambitious than the reference values in all years of the reference period.

54 Apart from the aforementioned exceptions, Member States have proposed targets which are set equal to the corresponding national reference values for all years of RP4.

55 Considering the performance targets included in the performance plans and the STATFOR October 2024 base forecast of IFR movements, the Union-wide targets for capacity would not be achieved in 2025 and 2026. On the other hand, the national/FABEC targets allow for achieving the Union-wide targets with a small buffer in the remaining years of RP4 (Figure 2, next page). However, considering the historical evolution of en route ATFM delays, achieving the national and Union-wide targets will be challenging and will require Member States to implement all the planned capacity improvement measures and, in some cases, introduce additional measures to those included in the performance plans.

[13] https://eu-single-sky.transport.ec.europa.eu/rp4-breakdown-values-capacity-and-environment_en.

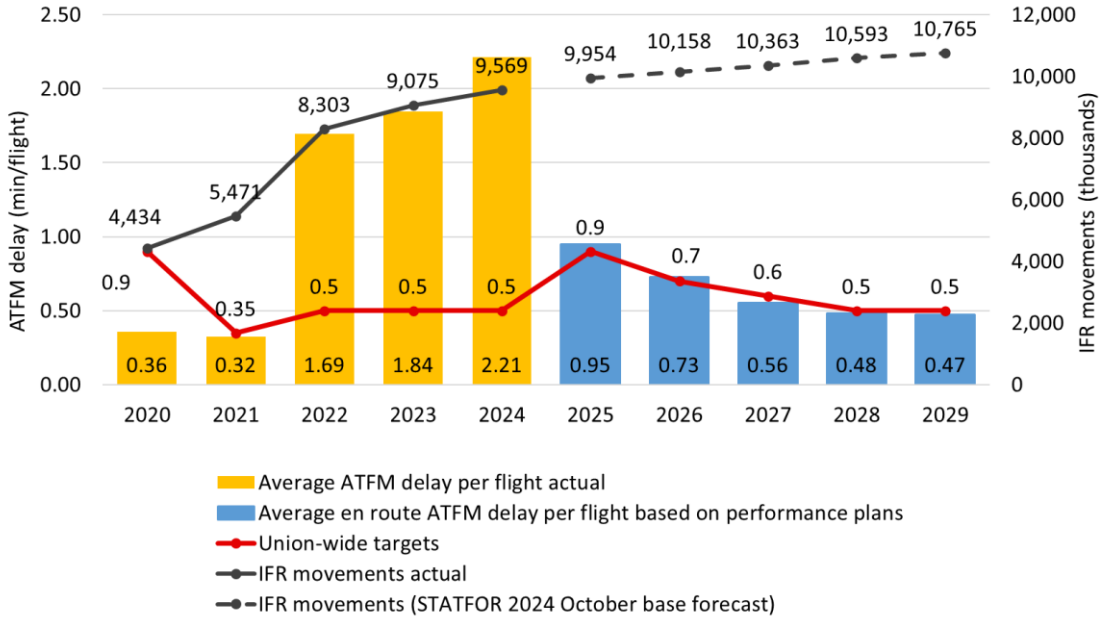

Figure 2 – Union-wide capacity targets for RP4 and average en route ATFM delays calculated based on the performance plans.

Measures to achieve the capacity targets

56 Almost all the performance plans include measures aimed at implementing a new main ATM system or a major update during RP4, typically between 2027 and 2029. These will be important for improving capacity performance as well as implementing CP1 functionality.

57 Several Member States plan airspace restructuring measures and/or re-sectorisation initiatives. These measures are often aimed at optimising the interface between terminal manoeuvring areas and the upper airspace. However, a more thorough reorganisation of the airspace is planned by Portugal, Spain, Greece, and Hungary.

58 During RP2 and RP3 the key drivers behind en route ATFM delays have been the lack of ATCOs and the inability of ANSPs to open enough sectors to cope with traffic demand. While ANSPs continued or restarted their ATCO recruitment and training processes after the COVID-19 pandemic in 2022, the gap between the planned and the actual number of ATCOs still increased until the end of RP3.

59 As a consequence, Member States submitted plans which include an increase in the number of ATCOs in OPS FTEs compared to 2024 in all bar three ACCs. A decrease is planned in Marseille and Brindisi ACCs (operations will be transferred from Brindisi to Rome ACC from 2027 onwards), while in Tallinn ACC the plan remains flat for RP4.

60 At Union-wide level, the performance plans indicate an average increase of +15% in ATCOs in OPS FTEs from 2024 to 2029 (8,857 FTEs in 2029, 1,155 FTEs more than the 7,702 planned for 2024) (Figure 3). The planned increase is more evenly distributed across the network than in previous reference periods. At the same time, the three Member States with the highest planned increase (Italy, Germany, and France) represent more than 43% (515 FTEs) of the total growth.

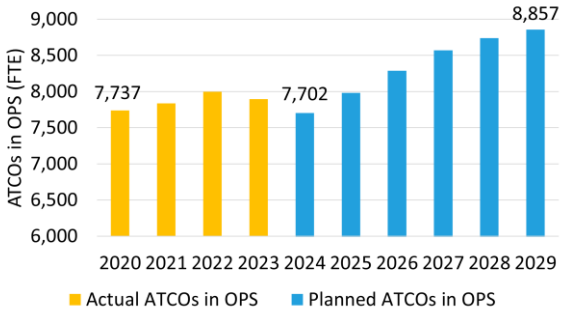

Figure 3 – Union-wide evolution of ATCOs in operations.

61 When looking at the plans on an ACC level, Padova ACC has the highest increase both in absolute and relative terms as well (+125 FTEs or +64%).[14]

[14] The increase in Padova and Milano ACCs is due to a reorganisation of APP units and the associated re-allocation of APP ATCOs to the ACC units.

Further to this, three additional ACCs have planned an increase of over +40%: Sofia (52%), Budapest (43%), and Milano (41%). Considering the absolute increase in the number of ATCOs in OPS FTEs, Milano, Sofia, Karlsruhe, and Athens have the highest figures (+118, +82, +67, and +66, respectively) after Padova ACC.

62 Performance in RP3 has demonstrated that despite the commitment of Member States in their performance plans, ATCO recruitment and training plans were largely not realised throughout the network (partly due to the impact of COVID-19 pandemic). Resolving the ATCO shortage is arguably the easiest and most straightforward way to improve capacity performance. Realising the training plans for RP4 will be key in achieving the capacity targets.

63 In addition to introducing more controllers to the operations, utilising the existing resources is an equally important factor of capacity enhancement. Several ANSPs struggled to allocate capacity to peak periods and to adapt sector-openings to traffic demand, especially when that demand was more volatile than in previous years. Consequently, the Member States of these ANSPs plan to improve the flexibility of rostering schemes and adapt sector-opening schemes more dynamically, which will also be crucial to achieve the capacity targets on the local and Union-wide levels.

64 While the lack of delivery during RP3 is more apparent when looking at the ATCO numbers, Member States and ANSPs also fell behind in delivering other capacity improvement measures. In some cases, this was due to the impact of Russia's war of aggression against Ukraine, the COVID-19 pandemic, or technical difficulties. Irrespective of the reasons presented, the result is that ANSPs did not deliver the required capacity. In order to enhance and strengthen the monitoring of the capacity measures, the PRB identified key measures for the ANSPs that are facing a capacity gap and recommends the respective NSAs to closely monitor their implementation.

Incentive schemes

65 Article 11 (3) of the Regulation defines the requirements for incentive schemes. The Regulation stipulates that performance plans must contain an incentive scheme regarding the achievement of en route and terminal capacity targets.

66 Figure 4 provides an overview of the maximum bonus and penalty values, as proposed in the performance plans (FABEC members are counted separately for information purposes). Out of the 29 incentive schemes:

- 18 have a maximum bonus parameter that is less than 1%.
- 13 incentive schemes are asymmetric, with maximum penalties higher than maximum bonuses.
- Five incentive schemes are penalty-only schemes.

67 All these figures represent an improvement compared to the situation in RP3. However, eight incentive schemes have a maximum penalty parameter below 1% of determined costs. In these cases, the incentive schemes have very limited effectiveness and do not have a material impact on revenue.[15]

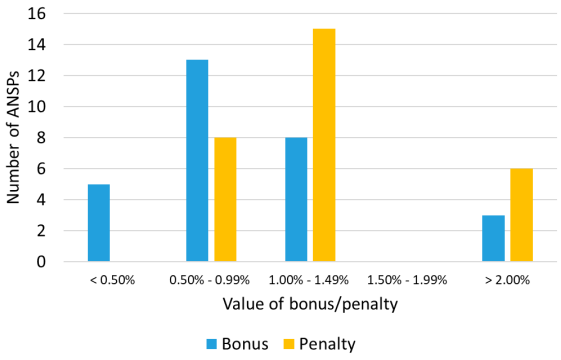

Figure 4 – Distribution of maximum bonus/penalty parameters.

68 Most of the en route capacity incentive schemes have modulated pivot values: Three schemes modulated for unforeseen changes in the distribution of traffic; eleven schemes limited to CRSTMP delay reasons only; six schemes included both modulation options. While the PRB reviewed the modulation methodologies included in the performance plans, Member States will have to notify the pivot values to the European Commission before the start of each year.

[15] Particularly when incentive schemes are combined with (a) a pivot value set at the performance targets and (b) the Network Operations Plan (2019 June edition 2.1) (NOP) delay forecast, indicating a reasonably high probability of meeting or outperforming those targets.

5.3 Results of the assessment of the terminal capacity KPA

69 According to Article 1 (3) of the Regulation, terminal services provided at airports that have more than 80,000 IFR movements per year are within the bounds of the scheme.[16] The Regulation requires local targets for the average arrival ATFM delay per flight. These targets are among the elements to be reviewed during the assessment criteria for performance plans (2.1(b) of Annex IV). The performance plans of 21 Member States included terminal ANS (this compares to 23 during RP3; in RP4, Latvia and Estonia removed terminal ANS from the scope of their performance plans).

70 Sweden, Switzerland, Luxembourg, Hungary, Italy, and Portugal set targets that are less ambitious than those of 2024 (although the national targets for Hungary and Luxembourg are relatively low, and for Portugal the difference is only marginal) (Figure 5).

71 The most notable planned improvements for 2029 compared to 2024 are in Finland and Austria, with an improvement of 0.63 and 0.42 minutes per arrival, respectively.

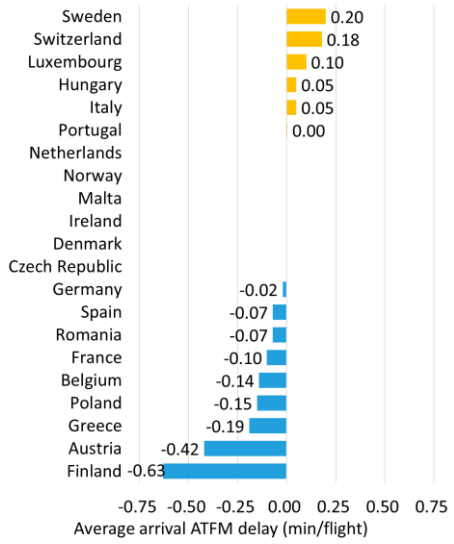

Figure 5 – National targets on average arrival ATFM delay (2029 targets compared to 2024 targets).

72 When looking at the evolution of the proposed targets, Greece has the highest ambition with a decrease of -1.49 minutes per arrival between 2025 and 2029, while the Netherlands is second with a decrease of -0.80, and France is third with -0.35 minutes per arrival. Nine Member States set terminal capacity targets which become more ambitious over RP4. Another 11 Member States plan flat targets, and Poland set a target for 2029 that is 0.02 minutes per arrival less ambitious than in 2025.

5.4 Summary and recommendations of the capacity KPA

73 All but two Member States (Greece and Norway) have proposed en route capacity targets which are consistent with the respective national reference values in each year of RP4. The targets proposed by Hungary are less ambitious than the national reference values, however, that deviation is justified by the impact of Russia's war of aggression against Ukraine, and so the proposed targets are deemed consistent.

74 Despite the significantly less ambitious Union-wide targets in the early years of RP4 compared to those at the end of RP3, achieving the capacity targets seems to remain challenging for several Member States. Traffic growth is foreseen to remain uneven at ACC level across the network and external factors will also continue to impact capacity performance (e.g. adverse weather, and the impact Russia's war of aggression against Ukraine).

75 The recruitment and training of ATCOs as well as the efficient and more flexible use of ATCO resources will be essential to closing existing capacity gaps. Airspace reorganisation projects and new major ATM system implementations should also deliver a significant capacity improvement during the period, visible in increased sector capacities.

76 The PRB, together with the relevant NSAs, will closely monitor the evolution of the performance to assess the implementation of the approved plans and the key measures and to define any necessary additional steps to ensure that the under-delivery of RP3 is not repeated in RP4.

77 The PRB recommendations as a result of the assessment of the performance plans are shown in Table 6 (next page).

[16] Member States may also include airports in their performance plans on a voluntary basis as per Article 1 (4) of the Regulation.

Recommended to approve (consistent)		Recommended not to approve (inconsistent)
Without comments	With specific points	
Bulgaria	Austria	Greece
Czech Republic	Croatia	Norway
Denmark	Cyprus	
Finland	Estonia	
Ireland	Hungary	
Malta	Italy	
	Latvia	
	Lithuania	
	Poland	
	Portugal	
	Romania	
	Slovakia	
	Slovenia	
	Spain	
	Sweden	
	FABEC	

Table 6 – PRB recommendations for the capacity KPA

6 COST-EFFICIENCY

- The PRB recommends approving the cost-efficiency targets of 17 Member States covering 18 charging zones.
- The average annual decrease of the en route Union-wide DUC between 2024 and 2029 (-0.7%) is worse than the RP4 Union-wide target (-1.2%).
- The RP4 en route Union-wide planned costs in 2029 are +12% higher than the 2024 forecast costs, while traffic, as reported by Member States, is planned to be +16% higher.

6.1 Union- wide targets for RP4

78 The targets for the cost-efficiency key performance area are set on the year-on-year change of the average Union-wide DUC for en route air navigation services. The RP4 Union-wide targets for the cost-efficiency KPA are shown in Table 7.

	2025	2026	2027	2028	2029
Y-o-Y change DUC (%)	-1.2	-1.2	-1.2	-1.2	-1.2

Table 7 – Union-wide cost-efficiency targets for RP4.

6.2 Results of the assessment of the cost-efficiency KPA

79 The aggregated results of the performance plan assessment, in accordance with the criteria specified in Section 1.4 of Annex IV of the Regulation, show that:

- 13 charging zones are consistent with the short-term trend (criterion (a));
- Ten charging zones are consistent with the long-term trend (criterion (b));
- Seven charging zones, which were initially failing to meet the long-term trend, become consistent with the long-term trend when the recital adjustment is taken into account in light of the current geopolitical situations (criterion (b));
- 14 charging zones have a lower 2024 baseline than their comparator group (criterion (c));
- A deviation from the criteria to achieve the capacity targets (criterion d) i)) has been considered justified for one of the eight charging zones of the Member States that have requested this deviation; and
- A deviation for restructuring costs (criterion d) ii)) has not been considered justified for the charging zone of the one Member State that requested this deviation.

80 In total, the PRB recommends approving the cost-efficiency targets of 17 Member States covering 18 charging zones. The results at charging zone level with respect to each cost-efficiency criteria are shown in Table 8 (next page).

	Criterion a: Short-term trend (-1.2%)	Criterion b: Long-term trend (-1.0%)	Criterion c: Comparator group	Criterion d i): deviation for capacity	Criterion d ii): deviation for restructuring costs
Austria	-0.4%	-3.4%	-51.7%		
Belgium-Luxembourg	-0.1%	+1.1%	+10.8%	X	
Bulgaria	+2.5%	-1.0%	-36.9%		
Croatia	-1.2%	-2.6%	-4.4%		
Cyprus	-1.2%	+2.4% (-1.6%)*	+15.3%		
Czech Republic	-1.3%	+0.2% (-2.4%)*	+8.9%		
Denmark	-1.6%	+0.8%	+19.9%		
Estonia	+0.4%	+4.3% (-2.4%)*	+0.9%		
Finland	+1.9%	+3.8% (-1.3%)*	-8.7%		
France	-1.2%	-1.1%	+5.6%		
Germany	-1.2%	-0.2%	+32.8%	X	
Greece	+0.5%	+0.1%	-39.2%		
Hungary	+2.2%	+0.1%**	-28.1%	X	
Ireland	+2.0%	+1.0%	-3.7%	X	
Italy	-1.2%	-2.8%	-7.1%		
Latvia	+10.9%	+9.3%	-35.0%		
Lithuania	-1.2%	+1.2% (-4.8%)*	+5.9%		
Malta	+5.3%	-1.5%	-48.7%		
The Netherlands	+0.3%	+2.3%	+11.3%	X	
Norway	+4.1%	+0.6%	-25.5%		X
Poland	-2.1%	+1.4% (-1.6%)*	+6.1%	X	
Portugal	-2.1%	-1.4%	+50.0%		
Romania	-1.3%	-0.9%	-0.8%		
Slovakia	-0.6%	+0.4%	+70.0%	X	
Slovenia	-1.2%	-1.5%	+55.4%		
Spain – Canarias	-0.2%	-1.2%	-15.3%		
Spain – Continental	-0.8%	-1.2%	-13.0%		
Sweden	-3.4%	+1.1% (-2.0%)*	+17.9%		
Switzerland	+0.7%	+1.8%	+41.8%	X	

*Table 8 – Assessment criteria applied to local cost-efficiency KPA targets, results per Member State. * Member States achieving the long-term trend due to the recital adjustment (recalculated trend in parenthesis). ** Passing the criteria considering a deviation.*

En route Union-wide cost-efficiency

81 The aggregated results of the RP4 performance plans compared to the Union-wide targets for cost efficiency are shown in Figure 6. The figure also shows the RP4 determined unit costs and the RP4 determined costs against the actual values. The PRB observes that:

- The Union-wide costs as planned in the performance plans are consistently higher than the Union-wide targets over RP4 (on average +4.2%).
- The traffic applied by Member States is higher than the STATFOR February 2024 base forecast and similar to the STATFOR October 2024 base forecast.
- The 2024 DUC baseline from the performance plans (55.00€$_{2022}$) is similar to the baseline as defined in the Commission Implementing Decision (55.07€$_{2022}$).
- The average decrease DUC from 2024 to 2029 as aggregated from the performance plans equals -0.7%, less than the RP4 Union-wide target of -1.2%. Similarly, the DUC is planned to decrease on average by -0.8% per year between 2019 and 2029, which is less than the long-term Union-wide target (-1.0%).

82 Article 34 of the Regulation provides an option for Member States to establish and apply a simplified charging scheme for the duration of an entire reference period. No Member State has proposed to apply this provision.

6.3 En route service units

83 Article 10 (2) (f) and (g) of the Regulation requires Member States to use the latest STATFOR base traffic forecast available at the time of drawing up the performance plans (in this case the February 2024 forecast). Given the evolving geopolitical environment, the Commission has allowed Member States to adjust their traffic forecasts to the October 2024 forecast during the completeness verification phase.

84 18 Member States applied the STATFOR October 2024 base forecast for every year of RP4: Austria, Belgium and Luxembourg, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Lithuania, Malta, the Netherlands, Norway, Portugal, Slovenia, Sweden, and Switzerland.[17] From the remaining 11 Member States, four maintained the STATFOR February 2024 base forecast (France, Ireland, Romania, and Spain for the two en route charging zones), while the remaining seven Member States used a local forecast: Bulgaria, Croatia, Hungary, Italy, Latvia, Poland, and Slovakia.

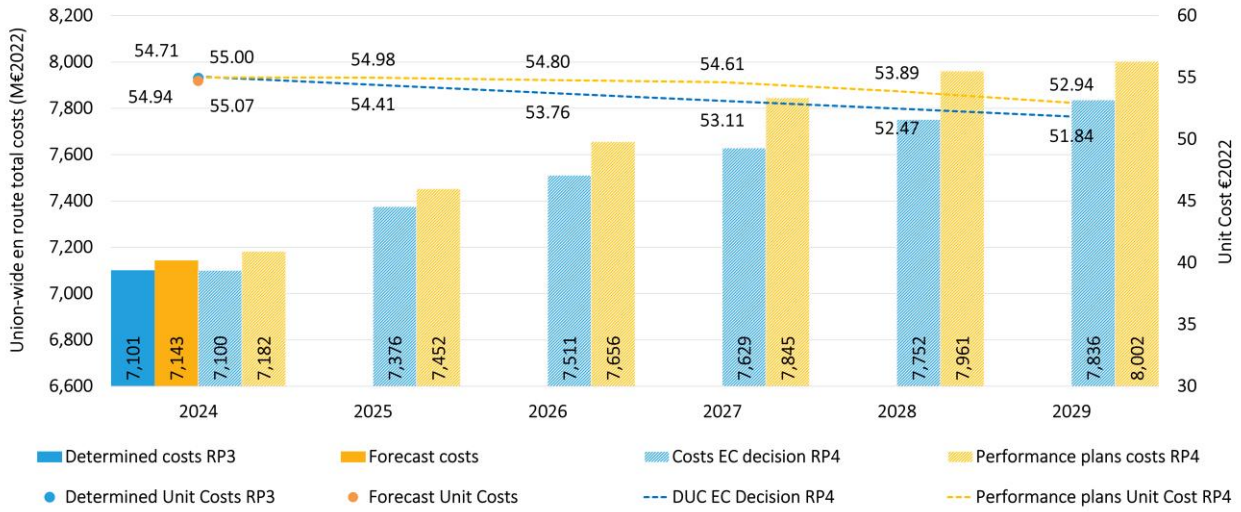

Figure 6 – RP4 Union-wide en route cost-efficiency targets for RP4.

[17] Germany applied the STATFOR October 2024 base forecast after adjustment for OAT traffic.

85 As a result, over RP4, the aggregated traffic forecast used by Member States is +2.2% higher than the STATFOR February 2024 base forecast and +0.2% higher than the STATFOR October 2024 base forecast (Figure 7).

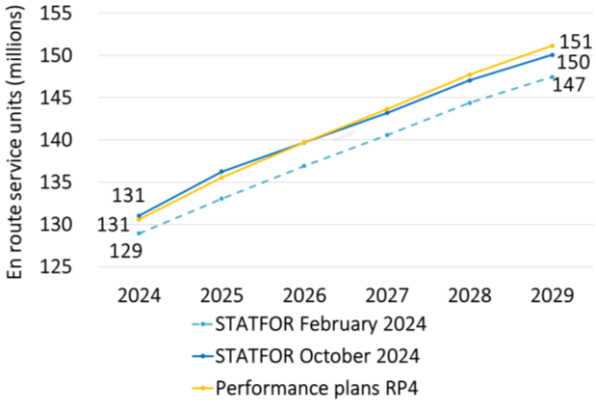

Figure 7 – Comparison of service units as included in the performance plans, the STATFOR February 2024 base forecast, and the STATFOR October 2024 base forecasts.

Traffic risk sharing

86 No Member State modulated the standard values of the traffic risk sharing mechanism in its performance plan.[18]

6.4 En route costs analysis

Cost baselines

87 The 2019 and 2024 baseline costs are important elements of the performance plans since they define the starting point for the short-term and long-term evolution of the determined costs (and determined unit costs) over the reference periods. The 2019 baseline should be based on the actual costs incurred, adjusted to reflect changes in scope. The 2024 baseline should be set based on the best estimates of costs for the year (i.e. forecast) and may be adjusted to reflect changes in scope across reference periods. The adjustments leading to an artificially high baseline have been identified within the assessment and considered within the PRB recommendations.

88 Regarding the 2019 baseline, Member States included adjustments in 21 charging zones. Cyprus presented the greatest difference in percentage regarding the difference between the 2019 baseline and 2019 actuals (-9.3M€$_{2022}$, -16%), whilst Germany presented the greatest absolute difference in costs (+108M€$_{2022}$, +11%). Among the 21 charging zones with an adjusted 2019 baseline, the PRB has deemed as justified the adjustments made for 16; the remaining were deemed not sufficiently substantiated or did not comply with the Regulation.[19]

89 With respect to 2024, Member States have forecast costs of 7.1B€$_{2022}$, +334M€$_{2022}$ (+4.9%) above the 2023 actual costs.

90 In 26 charging zones, the 2024 forecast costs were higher than the 2023 actual costs. The three charging zones with the highest planned percentages increase in these costs are: Croatia (+14M€$_{2022}$, +16%), Estonia (+3.8M€$_{2022}$, +15%), and Hungary (+13M€$_{2022}$, +13%). The largest differences regarding this cost increase, in terms of absolute values, are attributable to: Germany (+64M€$_{2022}$, +6.6%), Spain Continental (+36M€$_{2022}$, +5.3%), and France (+28M€$_{2022}$, +2.0%).

91 In three charging zones, the 2024 forecast costs were lower than the 2023 actual costs. The differences regarding these cost decreases, in terms of absolute values, are attributable to: Sweden (-5.0M€$_{2022}$, -2.0%), and Belgium-Luxembourg (-3.6M€$_{2022}$, -1.5%). Latvia also planned a cost decrease, although marginally, with a reduction of -35K€$_{2022}$, representing a difference of -0.2%.

92 Starting from the 2024 forecast, Member States have included adjustments in 18 charging zones. The resulting 2024 baseline amounts to 7.2B€$_{2022}$, +38M€$_{2022}$ (+0.5%) above the 2024 forecast costs. The PRB has found the adjustments made for 14 charging zones as justified, while the remaining four charging zones' adjustments were not sufficiently substantiated or did not comply with the Regulation.[20]

93 14 charging zones presented a baseline higher than the 2024 forecast costs. The largest increases, in terms of absolute values, are

[18] Member States shall set up values of the traffic risk sharing parameters referred to in Article 27 (2) and (3) and, in the event that the National Supervisory Authority has adapted the values for these parameters in accordance with Article 27 (5), justifications should be provided for those values.

[19] The adjustments to the 2019 cost baseline made by Greece, Hungary, Lithuania, the Netherlands, and Switzerland were not sufficiently substantiated or did not comply with the Regulation.

[20] The adjustments to the 2024 cost baseline made by Belgium-Luxembourg, Hungary, the Netherlands, and Switzerland were not sufficiently substantiated or did not comply with the Regulation.

attributable to: Germany (+30M€$_{2022}$, +2.9%), the Netherlands (+19M€$_{2022}$, +6.5%), and Switzerland (+15M€$_{2022}$, +7.2%). In three charging zones, the 2024 baseline costs are planned to decrease compared to 2024 forecast costs, namely: Sweden (-40M€$_{2022}$, -16%), Cyprus (-11M€$_{2022}$, -17%), and Poland (-0.3M€$_{2022}$, -0.2%).

94 When comparing the 2024 baseline with the 2023 actual costs, the difference amounts to +372M€$_{2022}$ (or +5.5%). Figure 8 shows the difference for each charging zone in both percentages and values.

95 26 charging zones present higher 2024 baseline costs compared to 2023 actual costs. Hungary presents the greatest difference as a percentage (+18%), whilst Germany presents the greatest absolute difference in costs between the 2024 forecast and 2023 actuals (+94M€$_{2022}$). In three charging zones, the 2024 baseline costs are planned to decrease compared to 2023 actual costs, namely: Sweden (-45M€$_{2022}$, -18%), Cyprus (-7.1M€$_{2022}$, -12%), and Latvia (-35K€$_{2022}$, -0.2%).

96 The PRB analysis of each of the charging zone's 2019 and 2024 baselines is reported in Annex II of this report.

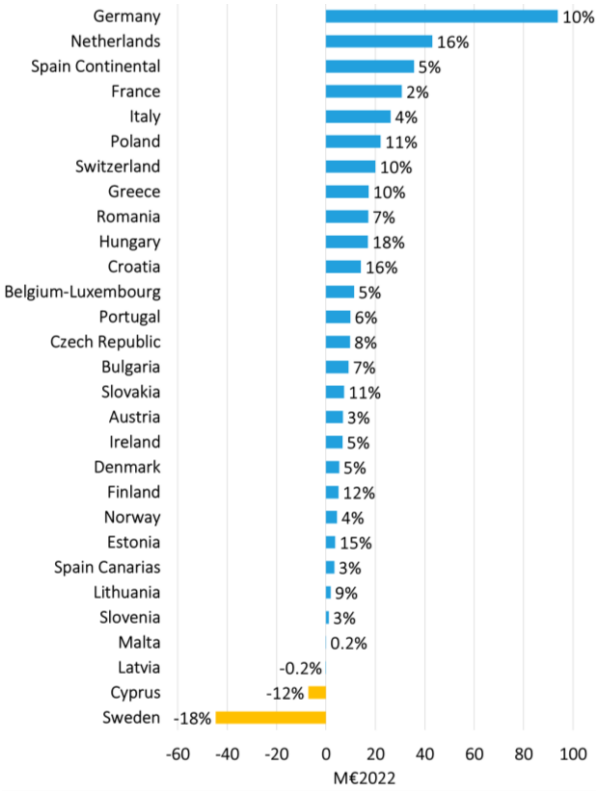

Figure 8 – Comparison between en route 2024 baseline costs and 2023 actual costs per Member State.

RP4 en route cost base

97 With respect to 2029, Member States have planned costs amounting to 8B€$_{2022}$, +821M€$_{2022}$ (+11%) above the 2024 baseline costs. This increase is mainly driven by main ANSPs (+726M€$_{2022}$, +12%) and Eurocontrol costs (+37M€$_{2022}$, +9.3%). Costs of other ANSPs and MET increase by +5.4% and +9.5%, while their absolute increases are similar but remain moderate (+20M€$_{2022}$, respectively). Finally, NSA costs are also contributing to the total increase between the 2024 cost baseline and 2029 planned costs (+18M€$_{2022}$, +15%).

98 Member States plan to increase their costs from the 2024 baseline to the 2029 planned costs in 28 charging zones. The three highest planned percentages increase in costs are attributable to: Latvia (+17M€$_{2022}$, +80%), Malta (+11M€$_{2022}$, +59%), and Bulgaria (+51M€$_{2022}$, +38%). The three highest planned increases, in terms of absolute values, are attributable to: France (+93M€$_{2022}$, +6.6%), Italy (+83M€$_{2022}$, +12%), and Spain Continental (+81M€$_{2022}$, +11%).

99 The three lowest planned percentage increase in costs are attributable to: Germany (+62M€$_{2022}$, +5.8%), Denmark (+4.8M€$_{2022}$, +4.3%), and Portugal (+7.5M€$_{2022}$, +4.5%). The three lowest planned increases in terms of absolute value are attributable to: Slovenia (+2.7M€$_{2022}$, +6.9%), Estonia (+4.8M€$_{2022}$, +17%), and Lithuania (+2.5M€$_{2022}$, +10%,).

100 Sweden is the single Member State planning to reduce its costs between 2024 and 2029 (-4.4M€$_{2022}$, -2.2%).

Staff costs

101 The en route actual staff costs for RP3 and the planned staff costs for RP4 are shown in Figure 9 (next page). After a decrease in 2020 and 2021, staff costs are expected to reach 5.0B€$_{2022}$ in 2029 compared to the 2024 cost baseline (+421M€$_{2022}$, +9.2%).

102 At Union-wide level, Member States' planned staff costs account for 63% of costs during RP4. This is consistent with the actual RP3 average (64%).

103 The Union-wide number of FTE ATCOs in OPS at year end is planned to grow from 7,981 in 2025 to

8,857 in 2029.[21] The yearly average staff cost per FTE ATCO in OPS is planned to decrease from 591K€$_{2022}$ in 2025 to 561K€$_{2022}$ in 2029 (-5.0%).[22]

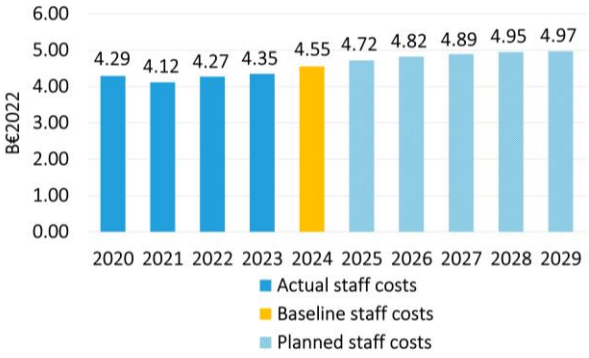

Figure 9 – Evolution of staff costs.

104 Pension costs are a significant part of staff costs, representing 18% of these during RP4. 48% of the pension costs come from State pension schemes (22 main ANSPs), where defined benefits schemes account for 36% (18 main ANSPs), and the remaining 16% are defined contribution schemes (ten main ANSPs).[23]

105 Defined benefits pension schemes are particularly sensitive to actuarial assumptions, which can fluctuate significantly over time. These assumptions, including factors such as the discount rate, mortality rates, and salary growth, directly influence the valuation of pension liabilities and the associated costs. As a result, the charges related to these schemes can exhibit considerable volatility, leading to unpredictable financial impacts for the airspace users. The PRB recommends Member States to adopt risk management measures for these schemes to address the inherent uncertainties and ensure sufficient predictability of future costs related to these pension obligations, in particular in the context of the cost risk sharing mechanism.

Other operating costs

106 The actual en route other operating costs for RP3 and the planned other operating costs for RP4 are shown in Figure 10. After a decrease in 2020 and 2021, other operating costs are expected to reach 1.7B€$_{2022}$ in 2029 representing a +5.9% increase compared to the 2024 cost baseline (+95M€$_{2022}$).

107 At Union-wide level, Member States' planned other operating costs account for 22% of costs during RP4, which is consistent with the actual RP3 average (23%).

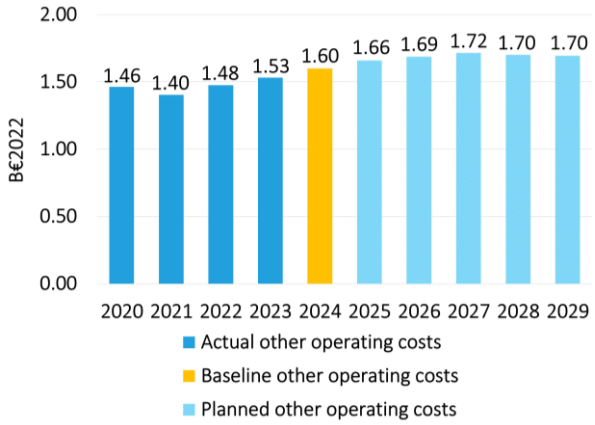

Figure 10 – Evolution of other operating costs.

Depreciation

108 The en route actual depreciation costs for RP3 and the planned depreciation costs for RP4 are shown in Figure 11. After a decrease in 2020 and 2021, depreciation costs are expected to reach 951M€$_{2022}$ in 2029, +33% higher than the 2024 cost baseline (+235M€$_{2022}$).

109 At Union-wide level, Member States plan to increase depreciation costs, which will account for 11% of the planned costs during RP4 (10% in RP3).

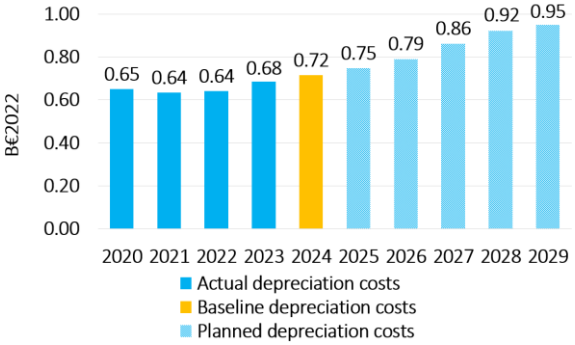

Figure 11 – Evolution of depreciation costs.

[21] Number of RP4 FTE ATCOs in OPS at year's end is 7,981 in 2025, 8,287 in 2026, 8,569 in 2027, 8,738 in 2028, and 8,857 in 2029.
[22] The yearly average cost per FTE ATCO in OPS is an estimation computed based on total staff costs reported in the reporting tables.
[23] The figures describing the distribution of pension costs among the three different types of pension schemes incorporate the terminal costs reported for informational purposes by Bulgaria, Latvia, and Slovakia in their performance plans despite the fact that these Member States do not have a terminal charging zone under the scope of the Regulation. Furthermore, Austria's performance plan included the NSA-related pension costs in its breakdown of pension costs by type of scheme.

Cost of Capital

110 By the end of RP4, the en route planned cost of capital amounts to 418M€$_{2022}$, +84M€$_{2022}$ (+25%) higher than the 2024 baseline. The planned cost of capital accounts for 5.0% of the total costs during RP4 (3.7% in RP3). Denmark is the single Member State planning to decrease its cost of capital (-0.5M€$_{2022}$, -7%).

111 The Union-wide cost of capital over RP4 is +342M€$_{2022}$ (+22%) higher than the cost of capital recommended by the PRB. Member States should reconsider their planned cost of capital to align with the PRB's recommendations and avoid excessive financial burdens on airspace users. If the reported cost of capital remains significantly above that recommended by the PRB, Member States should either: i) Reinvest the excess amount to improve the quality of services delivered by ANSPs to airspace users; or ii) Reimburse the amount to airspace users.

112 An overview of the weighted average cost of capital (WACC) over RP4 for en route planned by the main ANSPs in the performance plans is shown in Figure 12. The Union-wide RP4 average WACC is 5.8%, while the actual average in RP3 was 3.0%. The main ANSPs of 15 Member States report an average WACC higher than the Union-wide average for RP4, with Latvia (10.4%), Hungary (9.2%), and Romania (9.2%) being the highest.

113 The lowest average WACC rates over RP4 were reported by: Sweden (2.3%), the Netherlands (3.1%), due to its capital structure (i.e. almost fully financed by debt and the main ANSP is entitled to national treasury banking), and France (3.4%).

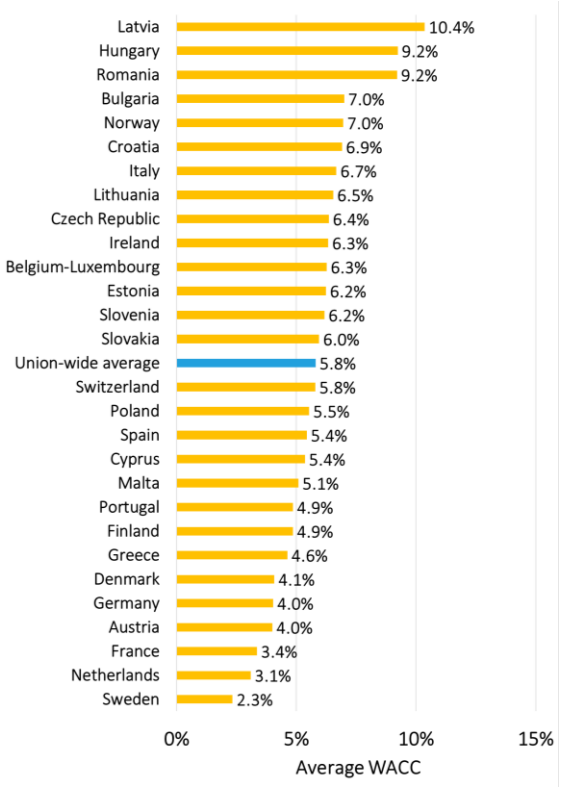

Figure 12 – Average WACC over RP4 as planned in the performance plans.

114 The main ANSPs of six Member States are fully financed through equity during the whole of RP4: Bulgaria, Cyprus, Finland, Greece, Ireland, and Lithuania. The remaining main ANSPs established their capital structure as a combination of equity and debt that was as a weighted average of 48%.

115 The Union-wide regulated asset base (RAB) is expected to decrease by -12% (-1.1B€$_{2022}$) between 2024 and 2029. However, the different components of the asset base have differing trends during this period. Specifically, the net book value of fixed assets is anticipated to increase by +33% (+1.7B€$_{2022}$), primarily driven by increases in Malta (+34M€$_{2022}$, +539%), Finland (+36M€$_{2022}$, +199%), Ireland (+73M€$_{2022}$, +159%), and Greece (+143M€$_{2022}$, +158%). The growth in fixed assets is offset by declines in both net current assets (-1.8B€$_{2022}$, -67%) and adjustments to the total asset base (-1.0B€$_{2022}$, -89%). The decrease in net current assets is mainly driven by France (-1.0B€$_{2022}$, -87%,) and Italy (-204M€$_{2022}$, -86%), whereas the adjustments to the total asset base are almost entirely driven by Germany (-944M€$_{2022}$, -88%). According to the German NSA, this reduction is related to "*outstanding receivables for the difference between the obligation and*

plan assets of the pension scheme" corresponding to "*the distribution of the coverage gap over 15 years as receivables towards the airspace users*".

6.5 Allocation of cost between en route and terminal

116 Five Member States changed the methodology to allocate costs between the en route and terminal charging zones compared to RP3: Cyprus, Hungary, the Netherlands, Sweden, and Switzerland. The PRB has analysed the allocation methodologies and found potential issues for some Member States (details in Annex II).

6.6 Results of the assessment of the terminal cost-efficiency KPA

117 The RP4 performance plans of 21 Member States included terminal ANS (23 during RP3). The Union-wide DUC for terminal services aggregated over RP4 for all performance plans is shown in Table 9.

	2025	2026	2027	2028	2029
DUC€2022	216.35	216.74	215.25	212.38	209.68

Table 9 – Union-wide DUC for terminal air navigation services as aggregation of performance plans.

118 Figure 13 shows the Union-wide DUC for RP4 in comparison to RP3 (determined and actual unit costs). The figure also shows the 2024 determined costs against the forecast values reported in the performance plans for RP4.

119 The DUC for terminal, computed as the aggregation of all performance plans, starts at 216.72€$_{2022}$ in 2024 (baseline) and decreases on average by -0.7% between 2024 and 2029, which is the same as the en route RP4 Union-wide trend (-0.7%).

120 In terms of costs, they are planned to increase from 1.6B€$_{2022}$ in 2024 (baseline) to 1.8B€$_{2022}$ in 2029 (+11%). At the same time, terminal service units are forecasted to increase from 7.4K to 8.5K in 2029 (+15%).

121 As the scope of some of the terminal charging zones has changed between RP3 and RP4, a comparison across reference periods must be treated with caution.

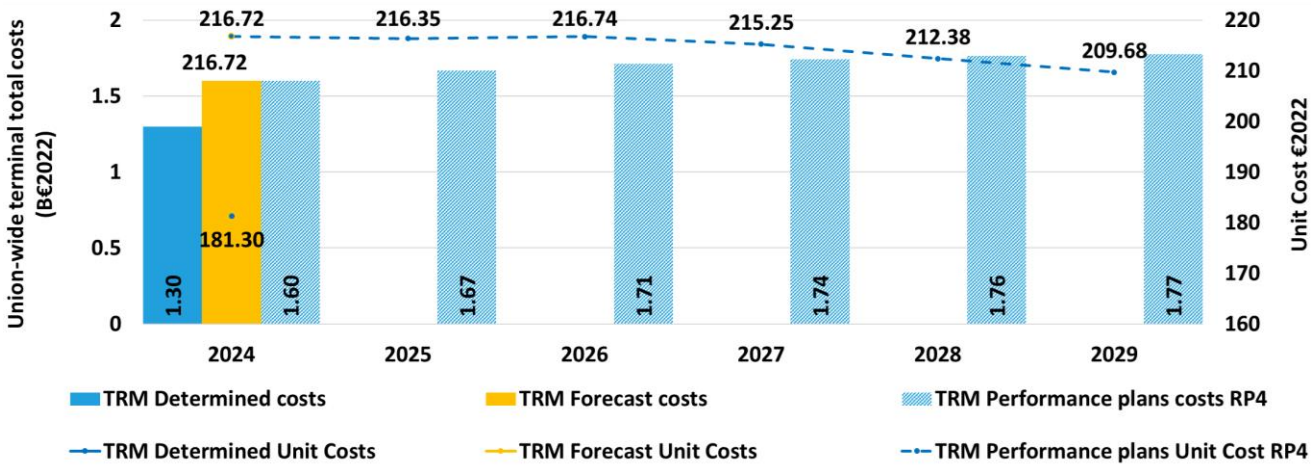

Figure 13 – Union-wide total costs and unit costs of terminal for RP4.

6.7 *Summary and recommendations of the cost-efficiency KPA*

122 The Member States fulfilling at least two criteria of Annex IV point 1.4 of the Regulation from (a) to (c), considering a deviation as well for criterion (d), and thus passing the assessment against the cost-efficiency criteria are: Austria, Bulgaria, Croatia, France, Hungary, Italy, Malta, Portugal, Romania, Slovenia, and Spain (Canarias and Continental). Moreover, the following six Member States are passing the assessment against the cost-efficiency criteria taking into account the circumstances caused by Russia's war of aggression against Ukraine and the geopolitical situation in the Middle-East: Cyprus, Czech Republic, Finland, Lithuania, Poland, and Sweden.

123 Overall, the PRB recommends approving the cost-efficiency targets of 18 charging zones in 17 Member States and to not approve it for 11 charging zones. The results of the assessment of RP4 performance plans are shown in Table 10. For the Member States whose performance plans the PRB considers not to be consistent, the assessment highlighted key challenges resulting in planned costs that increase more quickly than justified by the forecast traffic evolution. Therefore, the PRB recommends that these Member States revise downwards their cost base to achieve the Union-wide targets and thereby prevent unnecessary financial burdens on airspace users.

124 For some of the Member States assessed as consistent with the Union-wide targets, excessive cost of capital requires closer monitoring and scrutiny by the NSAs. Where the reported cost of capital is disproportionately high, the PRB recommends that the Member States concerned either reinvest any excess regulatory gain to improve the quality of services delivered or reimburse this amount to airspace users.

125 Finally, the PRB has identified data inconsistencies in some performance plans concerning en route and terminal cost bases. To uphold transparency and regulatory compliance, the PRB recommends to the European Commission to initiate a compliance review for the concerned Member States to ensure that cost reporting aligns with established regulatory frameworks.

Recommended to approve (consistent)		Recommended not to approve (inconsistent)
Without comments	With specific points	
Finland	Austria	Belgium-Luxembourg
France	Bulgaria	Denmark
Portugal	Croatia	Estonia
Romania	Cyprus	Germany
Slovenia	Czech Republic	Greece
Spain Canarias	Hungary	Ireland
Spain Continental	Italy	Latvia
	Lithuania	The Netherlands
	Malta	Norway
	Poland	Slovakia
	Sweden	Switzerland

Table 10 – PRB recommendation cost-efficiency KPA.

7 RP4 INVESTMENT

- The total Union-wide value of the assets allocated to ANS planned for RP4 amounts to 14B€.
- 74% of the value of the assets for new major investments is expected to directly improve capacity.
- Total RP4 costs linked to the implementation of common projects amounts to 988M€.

7.1 Value of the assets allocated to ANS

126 The total (en route and terminal) Union-wide value of the assets (as reported in the performance plans) allocated to ANS planned for RP4 amounts to 14B€, out of which 4.0B€ (or 28%) is planned for new major investments for RP4 and 1.2B€ (8.6%) planned for other new investments for RP4. The remaining 8.9B€ (63%) corresponds to existing investments from previous reference periods (3.6B€ for new major investments from RP3, either included in the adopted RP3 plan or added during the reference period) (Figure 14).

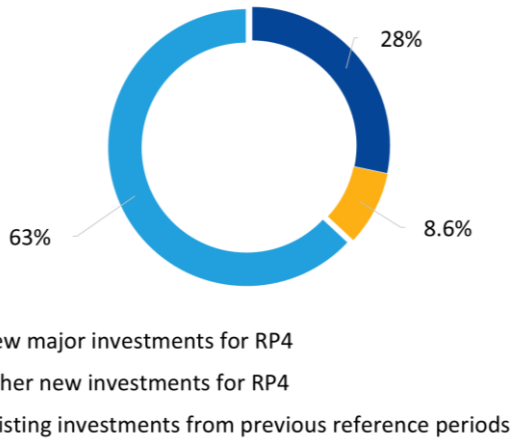

Figure 14 – Union-wide determined CAPEX for RP4 by category.

127 The Member States indicated in their performance plans that 2.9B€ (74%) of the value of the assets of RP4 new major investments (4.0B€) is expected either to directly contribute to capacity enhancements or to be an enabler of better capacity performance. This is in line with the PRB estimations, for which 3.0B€ is expected to improve capacity. Considering the insufficient capacity performance of RP3 and the challenges in delivering significant capacity improvements, the implementation of the key capacity enhancement measures planned for RP4 will be crucial to close long-standing capacity gaps, eliminate existing shortfalls, and deliver enhanced services to users.

128 1.9B€ of the value of the assets planned for new major investments for RP4 reported in the performance plans is allocated to new ATM systems or overhauls of existing ATM systems. 828M€ is allocated to CNS (communications, navigation, and surveillance), and 1.1B€ is allocated to infrastructure. The remaining part is allocated to ancillary or other investments.[24]

129 The top three new major investments in ATM systems or overhauls of existing ATM systems with the largest asset values are:

- "4-flight revolution", France (276M€, 15% of the total ATM assets value);
- "Evolution of the Air Traffic Control System (SACTA/iTEC)", Spain (275M€, 15% of the total ATM assets value); and
- "SG Sustainable Operations", Switzerland (110M€, 5.9% of the total ATM assets value).

130 The top three new major investments in CNS with the largest asset values are:

- "CH sovereign Swiss aviation", Switzerland (76M€, 9.2% of the total CNS assets value);
- "ANS Geofixed Systems", Austria (62M€, 7.5% of the total CNS assets value); and
- "Design, Simulation and Development of Airspace and ATM Concepts and Procedures", Spain (50M€, 6.1% of the total CNS assets value).

131 The top three new major investments in Infrastructure with the largest planned asset values are:

- "ATCCVneo Building", Austria (182M€, 17% of the total infrastructure assets value);
- "SG Sustainable Operations", Switzerland (110M€, 10.2% of the total infrastructure assets value); and

[24] As the performance plan template allows for multiple choices, investment may be allocated to more than one category.

- "Infrastructure Modernization and Maintenance", Spain (100M€, 9.3% of the total infrastructure assets value).

7.2 Implementation of Common Project One and European ATM Master Plan

132 Member States were requested to provide information related to the deployment of SESAR Common Project One, including progress concerning the implementation of the six ATM functionalities (AF) as defined in Commission Implementing Regulation (EU) 2021/116, and the associated costs (depreciation, cost of capital, and operating costs). The quality and granularity of the data included in the performance plans vary considerably across Member States, especially regarding the breakdown per AF, making it difficult to reconcile the data for the individual AFs with the total determined costs for common projects.

133 The total asset value for new major investments reported to be mandated by a SES Regulation (i.e. PCP/CP1/ Interoperability) is 2B€ (50% of the RP4 new major investments), while the total aggregated RP4 costs (depreciation, cost of capital, and operating costs) linked to the implementation of common projects amounts to 988M€. The AFs with the highest aggregated costs are AF3 "Flexible Airspace Management and Free Route Airspace" (175M€), and AF5 "SWIM" (161M€).

134 Additionally, Member States were requested to provide information on the consistency of new ATM systems or major overhauls with the European ATM Master Plan through a dedicated Annex to the performance plan (Annex V). The RP4 costs related to strategic deployment objectives (SDOs) (depreciation, cost of capital, and operating costs) amount to 700M€. The SDOs with the highest costs are SDO 9 "CNS optimisation, modernisation and resilience" (226M€, 32% of the total), SDO 6 "Virtualisation of operations" (123M€, 18% of the total), and SDO 3 "Dynamic airspace configuration" (105M€, 15% of the total).

135 25 Member States included investments in new ATM systems and/or major overhauls of ATM systems in RP4. 15 (60%) reported to be consistent with the ATM Master Plan. The remaining Member States should ensure that missing information is provided in the monitoring process.

8 NETWORK MANAGER PERFORMANCE PLAN

- The PRB recommends approving the network performance plan.
- The targets for the safety KPA are consistent with the Union-wide safety targets, with relevant and sufficient measures defined to achieve the targets.
- The targets for the environment and capacity KPAs are realistic, with relevant and sufficient measures defined to achieve the targets.
- The measures defined in the cost-efficiency KPA are sufficiently comprehensive.

8.1 Requirements of the NM within the Regulation

136 The European Commission established the Network Manager function under the Single European Sky (SES) II legislative package. The network functions are further laid down in Commission Implementing Regulation (EU) 2019/123.

137 The role of the NM is to address operational issues and respond to the request of users for the seamless provision of expeditious air navigation services. The European Commission re-nominated Eurocontrol to undertake the NM functions between 2020 and 2029. The Regulation states that the Network Manager should prepare a Network Performance Plan. The draft Network Performance Plan (NPP) was submitted to the Commission for assessment.

8.2 Safety

138 The Regulation requires the NM to highlight the following aspects of its work relating to the Safety KPA:

- Annex III – Point 3.1 (a): Performance target for the Network Manager on effectiveness of safety management.
- Annex III – Point 3.1 (b): Description of the measures that the Network Manager puts in place to achieve this target.
- Annex III – Point 3.1 (c): Description of the measures that the Network Manager puts in place to address ATFM over-deliveries.
- Annex III – Point 2 (h): The support to Network Safety and the implementation, monitoring and improvement of local safety performance.

Target for Effectiveness of Safety Management (EoSM)

139 The European Union Aviation Safety Agency (EASA) Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs) for RP4 does not provide specific principles for measuring the maturity of the safety management applied by the NM, but assumes the NM will apply the same criteria for maturity levels as air navigation service providers (ANSPs), adjusted to the specific nature of NM services as agreed with the Competent Authority (EASA).

140 The NM maturity levels of the EoSM for RP4 are defined as a minimum level in each of the Management Objectives for each year as shown in Table 11.

Management objectives	2029 Maturity level
Safety Policy and Objectives	D
Safety Risk Management	D
Safety Assurance	C
Safety Promotion	C
Safety Culture	C

Table 11 – Network Manager safety targets for RP4.

141 The targets for the end of RP4, within the NPP, meet the Union-wide targets for four management objectives and exceed the Union-wide targets for one management objective (Safety Policy and Objectives). Planned maturity levels are defined for all five years of RP4 with the RP4 targets expected to the achieved in 2028.

142 The maturity levels for four management objectives at the beginning of RP4 are consistent with the transition applied for during the target setting process. This principle translated a maturity level with RP3 into a lower level using the Acceptable Means of Compliance (AMC) for RP4 (i.e. Level D applying to RP3 corresponding to a Level C when applying the AMC for RP4). This should however not result in a degradation of what has been

achieved during RP3 with respect to safety performance. The NM achieved Level D for Safety Policy and Objectives in 2023. This indicates that the NM should achieve Level C in this management objective in the first year of RP4 and not Level B as shown in the NM performance plan.

Measures planned to reach the target (if applicable)

143 The measures proposed are at two levels:

- Generalised measures, covering the overall approach to continuous improvement based on measurements of the effectiveness of the safety management, combined with regulatory oversights by EASA, and;
- Specific measures, aimed at improving each of the five management objectives as required to reach the targets for RP4.

144 The planned measures are considered relevant and sufficient to reach the targets if implemented effectively.

Measures that the Network Manager puts in place to address ATFM over-deliveries

145 The NPP described initiatives that the NM has introduced during RP3 to improve the monitoring of over-deliveries (OVDs).

146 With reference to Annex III point 3 (c), the NM has also defined further measures to continue to address ATFM over-deliveries:

- Continuation of the actions related to the implementation of occupancy regulations, monitoring the OVD peak indicator and the OVD sustained indicator;
- Dynamic investigation and analysis of over and under-deliveries (UND) made possible by the Dynamo tool;
- Actions reducing unanticipated traffic through ensuring planned trajectories can be flown;
- Actions reducing the gap between the planned and actual trajectory; and
- Improved Collaborate Decision Making (CDM) processes for managing (cross-border) weather.

147 The measures proposed can be used to address over-deliveries and the different factors causing over-deliveries, alone or in combination.

Support to Network Safety

148 In line with Annex III – point 2 (h), activities are defined for RP4, which could contribute to the implementation, monitoring and improvement of local safety performance.

149 In addition, the NPP described the principles for managing network safety risk through identifying the top risks, drawing on a large -scale exercise using a safety data sample, which will enable the sharing of lessons learned from incidents and the facilitation of best practice. The top five safety priorities cover:

- Controller blind spot;
- Restricted airspace infringement;
- Controlled airspace infringement;
- Controller detection of potential runway conflict; and
- Flight without transponder or with dysfunctional one.

8.3 Environment

150 The Regulation requires the NM to highlight the following aspects of its work relating to the Environment KPA:

- Annex III – Point 2 (b): The development and harmonisation of airspace projects based on network priorities including cross-border airspace design initiatives;
- Annex III – Point 2 (b): The development and harmonisation of airspace projects based on network priorities including cross-border airspace design initiatives;
- Annex III – Point 2 (c): The reduction of inefficient use of route network and available airspace; and
- The European Route Network Design (ERND) function, including: Annex III – Point 3.3(a)(i) Performance targets for the key performance indicators for the network function; and (ii) Annex III – Point 3.3(a)(ii) Description and explanation of the measures aimed at achieving the performance targets for the European Route Network Development.

Measures to develop and harmonise airspace projects based on network priorities

151 The NM's ERNIP defines how the development and harmonisation of airspace projects will be achieved.

152 The ERNIP for 2024 - 2030 includes the implementation of full cross-border free route airspace. Other areas of focus in the ERNIP are to better understand the impact of RAD, increased cooperation with computer flight plan service providers (CFSPs), and implementation of other initiatives around continuous climb/descent operations and performance-based navigation.

Performance targets specific to the European Route Network Design (ERND) function

153 The value of RTE-DES reduced from 2.24% at the end of RP2 to 1.79% in 2023, an improvement of 0.45 percentage points, which is significant and is approaching the lower limit of what the NM has stated is possible.

154 With limited scope for further improvement in the efficiency of the route network, the focus of the NM in RP4 is to support the improvement in KEA and KEP.

155 The Regulation requires the NM to specify targets and objectives specific to each network function. For the environment KPA, this centres around the European Route Network Design (ERND) function.

156 Annex I point 3.1 of the Regulation defines the KPI for the NM as:

"*The en route flight efficiency improvement generated by the European Route Network Design function related to the last filed flight plan trajectory, expressed as a percentage point of the year-on-year variation of the en route flight efficiency of the last filed flight plan trajectory and calculated in accordance with point 2.2(a) of Section 1*".

157 For KEP, the NM targets the same reduction as for the Union-wide KEA targets (0.33 percentage points). Additionally, the NM plans to reduce the margin between KEP and KEA by 0.24 percentage points by improving RAD measures, working on flight planning with CFSPs and airspace users, and airspace changes. Thus, the NM targets a reduction in KEP from 4.72% in 2023 to 4.15% in 2029 (4.59% - 0.33% - 0.24%).[25]

158 The NM highlights the importance of capacity provision improving to meet the forecasted increase in traffic demand. Without the necessary improvements, the NM states that there is a high risk that performance of KEP and KEA will degrade by 0.1-0.2 percentage points per year as airspace users use alternative routing options across the network, further impacting traffic volatility and predictability, which will result in even higher levels of ATFM delay.

159 Within the RP4 performance plan, the NM has not modulated the target to account for the fact that its scope covers the NM area.

160 Thus, the final year-on-year targets set by the NM are presented in Table 12.

	2025	2026	2027	2028	2029
KEP (%)	4.59	4.48	4.37	4.26	4.15
Y-o-Y change (p.p.)		-0.11	-0.11	-0.11	-0.11

Table 12 – RP4 year-on-year KEP targets.

Measures aimed at achieving the performance targets for the ERND function

161 The main measures the NM aims to implement to achieve the targets are:

- Airspace changes within the ERNIP Part 2 – ARN version 2021-2030, including major areas of cross border FRA up to the TMA, contributing 0.05 percentage points to the KEP target in 2029.
- Coordination of the above airspace design measures in close cooperation with States and ANSPs to ensure that the European airspace can accommodate the additional capacity needs over RP4.
- NM flight efficiency strategic project, contributing 0.10 percentage points to the KEP target in 2029. The main benefit stems from the provision of additional routing options and better airspace utilisation.
- Airspace management and Advanced FUA Network Strategic Programme and the RAD measures re-organisation and rationalisation, contributing 0.42 percentages points to the KEP target in 2029. This will include work to reduce the impact of RAD restrictions and achieve further improvements in towards more dynamic airspace management procedures and improve the availability of airspace, i.e. conditional routes (CDRs).

[25] Based on the NM area.

- Implementation steps of concepts of operations aligned with the Network Concept of Operations roadmap.

162 The PRB finds these measures comprehensive to support the NM to achieve the targets.

Other flight efficiency initiatives specific to the ATFM function

163 The NM will continue to take actions that focus on improvements to TMA operations, notably continuous climb/descent operations and the deployment of performance-based navigation.

8.4 Capacity

164 The Regulation requires the NM to highlight the following aspects of its work relating to the Capacity KPA:

- Annex III – Point 3.3 (b): Performance targets and objectives relating to air traffic flow management.
- Annex V requires the PRB to assess the adequacy of the measures aimed at achieving the performance targets for the network functions including the relevance of investments and capital expenditure.

Performance targets for en route and arrival AFTM delay savings

165 Annex I section 3 of the Regulation defines the performance targets and objectives specific to each network function. Point 4.1 of the above-mentioned section defines the performance indicators for the capacity key performance area, namely:

- The percentage of en route ATFM delay savings from the Cooperative Decision-Making network procedures and NM Operations Centre (NMOC) actions divided by the total year-on-year en route ATFM delay savings (where en route ATFM delay is calculated in accordance with point 3.1 of Section 1); and
- The percentage of arrival ATFM delay savings from the Cooperative Decision-Making (CDM network procedures and NM Operations Centre actions divided by the total arrival ATFM delay savings (where arrival ATFM delay is calculated in accordance with point 3.2 (a) of Section 1).

En route ATFM delay savings

166 In terms of en route ATFM delay savings, the NM presented historical performance (2019-2023), where en route delay savings were realised by direct actions from the NM Operations Centre. These savings amounted to 11% in 2020, 14% in 2021 (both years during the Covid-19 pandemic), and to 11.6% and 11.9% in 2022 and 2023, respectively. The achieved benefits were a result of direct actions in the NM Operations Centre and re-routing proposals (RRPs) adopted by airlines.

167 The NM lists measures and initiatives expected to bring positive benefits and provide additional capacity during RP4, such as:

- Network measures for the summer season. Measures in 2024, including prioritising the first rotation and encouraging disciplined flight plan execution;
- Capacity optimisation at pre-tactical and tactical level to fine tune the available capacity according to the latest known demand;
- Demand optimisation by means of lateral or level-capping re-routing scenarios;
- NM Operations Centre direct actions on individual flights, e.g. re-routing proposals for delay reductions (RRP) and slot optimisation.

168 The NM presents the RP4 target in terms of the percentage of en route ATFM delay savings from the Cooperative Decision-Making network procedures and NM Operations Centre actions, over the total year-on-year en route ATFM delay savings, as presented in Table 13.

	2025	2026	2027	2028	2029
% of NM en route ATFM delay savings	10%	10%	10%	10%	10%

Table 13 – NM en route AFTM delay savings for RP4.

Arrival ATFM delay savings

169 The NM did not present historical performance of the arrival ATFM delay savings within the NPP, however they exceeded their target of 5% in 2023 saving 9.6% of arrival ATFM delays. The achieved benefits were a result of direct actions of the NM Operations Centre (i.e. Calculated Time Over, Calculated Take Off Time and Override Slots).

170 The NM listed five main sets of measures and initiatives expected to bring delay savings in RP4. These are as follows:

- Implementation of summer operational priorities;
- New network operations plan processes;
- Network strategic projects;
- Airport and TMA-Network integration; and
- Stepped implementation of various concepts of operations.

171 The measures included in these initiatives all seem relevant and adequate in addressing capacity issues within the network.

172 The NM presented the RP4 target in terms of the percentage of arrival ATFM delay savings from the Cooperative Decision-Making network procedures and NMOC actions, over the total arrival ATFM delay savings, as presented in Table 14.

	2025	2026	2027	2028	2029
% of NM airport ATFM delay savings	5%	5%	5%	5%	5%

Table 14 – NM arrival AFTM delay savings target for RP4.

Adequacy of measures aimed at achieving the performance targets for the network functions including the relevance of investments and capital expenditure

173 The NM defined a comprehensive set of measures that would directly enhance the air traffic flow and capacity management processes, such as:

- Focusing on the achieved throughput and performance delivered by ANSPs in terms of ATFM delay, through the development and monitoring of four new indicators and an associated planning and monitoring process in the NOP and Rolling NOP context;
- Minimising flights with lengthy ATFM delays, defining NMOC actions to keep flights below the 30 minutes ATFM delay threshold;
- Monitoring weekend ATFM delays due to ATC industrial action and ATC capacity and staffing issues, to create a more balanced distribution of resources;
- Reducing first rotation delays and reactionary delays via improved monitoring of both, better use of available tools (such as the MIRROR), improved NOP processes, and better consolidation of the NOP and the AOP; and
- Managing actions in response to and mitigating the weather impact on the network through improved procedures, such as the cross-border weather procedure and the integration of MET experts into the NMOC, coordinated with European MET Services (through EUMETNET).

8.5 Military dimension of the NPP

174 The NPP highlighted the military authorities as important partners to the NM. This partnership has enabled airspace design projects to take due account of military airspace requirements, facilitated the introduction of better and targeted conditional routes and enabled more efficient use of the airspace and of the ATM route network.

175 The NPP proposed the following work focussing on the military dimension:

- Work to improve the civil/military coordination. This focuses on areas where military mission effectiveness is constrained and where the availability and effective usage of the route network is unnecessarily restricted.
- Support civil and military stakeholders in improving the effectiveness of booking procedures for the flexible use of airspace, to the benefit of the capacity of the network.

8.6 Coordination of scarce resources function with regards to en route ATFM delay

176 The NM's Radio Frequency Requests (RFF), which contributes to safety and capacity, aims to maintain the current performance by committing to prevent an increase in the number of unsatisfied RFFs and the amount of time taken to satisfy frequency requests.

177 Regarding radio interference, the NM does not place a target on resolving the interference reports within a given timeframe. The NM should continue to resolve such reports as quickly as possible.

8.7 Cost-efficiency

178 The Regulation requires to describe the measures that the Network Manager puts in place to improve its cost-efficiency.

179 The main measures put into place for RP4 are:

- The reduction of the cost of the service provision of European AIS Database (EAD) (2M€ per year).
- The reduction of the cost of the hosting of the EAD system due to integration in iNM (estimated to be 5.6M€ per year).
- The reduction of the maintenance cost of the legacy Network Applications (estimated to be -20M€ per year by 2029).
- A staff regulations reform and the rejuvenation programme where retired staff are replaced with junior staff at entry grades.
- Enhanced contract management and insourcing of managed services will reduce contract expenditure on significant IT contracts (estimated to be at least 2M€ per year).

180 The NPP described further commitments in order to increase cost-efficiency during the reference period, such as:

- Further identification of synergies between various activities;
- Continuous improvement in project management;
- Consolidation and increased efficiency in projects implementation; and
- Resources allocation and planning.

181 Despite the measures listed, the NPP showed an increase in cost from the planned 165.7M€$_{2022}$ in 2024, to 187.4M€$_{2022}$ in 2029 (+3.1% per year on average). When analysing the unit costs, they slightly decrease from 0.92€$_{2022}$ in 2024 to 0.91€$_{2022}$ in 2029.

182 Given the RP4 Union-wide annual target of -1.2%, ANSPs need to make extra efforts to manage their costs to compensate for the cost evolution of the NM.

8.8 Summary and recommendations of the network performance plan

183 Considering the criteria defined in Annex V of the Regulation, the PRB recommends approving the network performance plan.

184 The PRB also recommends the Network Manager:

- To focus on helping ANSPs accommodate the traffic demand and reduce the delays experienced between 2022 and 2024;
- To focus on FRA implementation and in particular the effect of RAD restrictions that limit the benefits of FRA;
- To support airspace management and ensure that airspace availability is known in advance and in real-time by the civil and military airspace users;
- To have a strong alignment between the NM and the PRB to assess the effects of the NM measures on local performance, including on capacity and delay, and to monitor the assumed effects against actual performance; and
- To continuously pursue cost-efficient measures to decrease the cost pressure of its services while ensuring the highest level of interoperability among the systems.

9 SUMMARY OF RECOMMENDATIONS

185 Table 15 presents a summary of the PRB's assessment of the performance plans for RP4. Elements of the performance plans the PRB recommends being approved but with close monitoring during RP4 are highlighted with an orange exclamation mark.

186 The PRB recommends that 16 performance plans are approved, and the remainder be revised.

187 The Member States that need to revise their plan will have to consider the new information available (e.g. traffic forecast, inflation index, actual cost 2024) and integrate the recommendations provided in the assessment. The PRB will remain available to support the NSAs during this process.

Performance plan	Overall assessment	Recommendation per KPA			
		SAF	ENV	CAP	CEF
Austria	✔	✔ (!)	✔	✔ (!)	✔ (!)
Bulgaria	✔	✔	✔ (!)	✔	✔ (!)
Croatia	✔	✔ (!)	✔	✔ (!)	✔ (!)
Cyprus	✔	✔	✔ (!)	✔ (!)	✔ (!)
Czech Republic	✔	✔	✔	✔	✔ (!)
Denmark	✘	✔	✔	✔	✘
Estonia	✘	✔	✔	✔ (!)	✘
Finland	✔	✔ (!)	✔	✔	✔
Greece	✘	✔	✔ (!)	✘	✘
Hungary	✔	✔	✔ (!)	✔ (!)	✔ (!)
Ireland	✘	✔	✔	✔	✘
Italy	✔	✔ (!)	✔ (!)	✔ (!)	✔ (!)
Latvia	✘	✔	✔	✔ (!)	✘
Lithuania	✔	✔	✔	✔ (!)	✔
Malta	✔	✔	✔ (!)	✔	✔ (!)
Norway[26]	✘	✘	✔	✘	✘
Poland	✔	✔	✔	✔ (!)	✔ (!)
Portugal	✔	✔	✔	✔ (!)	✔
Romania	✔	✔	✔ (!)	✔ (!)	✔
Slovakia	✘	✔	✔	✔ (!)	✘
Slovenia	✔	✔	✔	✔ (!)	✔
Spain	✔	✔	✔ (!)	✔ (!)	✔
Sweden	✔	✔	✔	✔ (!)	✔ (!)
FABEC	✘		✔ (!)	✔ (!)	
Belgium/Luxembourg		✔ (!)			✘
France		✔ (!)			✔
Germany		✔ (!)			✘
The Netherlands		✔ (!)			✘
Switzerland		✔ (!)			✘

Table 15 – Summary of the PRB assessment across the KPAs. ✔ indicates consistency; ✔(!) indicates consistency with specific points to address; ✘ indicates not consistency

[26] Norway is categorised as inconsistent in the safety KPA since the targets for one small ANSP included in the plan (i.e. Saerco) have not been specified in the draft performance plan.