

# PRB assessment of the revised draft performance plans for RP3

Annex I – Technical guide to the RP3 assessment factbooks

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## Introduction to this document

- 1 This document describes the methodology followed in the different sections of the factbooks developed by the Performance Review Body (PRB) to assess the revised draft performance plans (hereafter performance plans) as required by Annex IV of Commission Implementing Regulation (EU) 2019/317, hereafter referred to as "the Regulation".
- 2 The sections of the factbooks and the assessment approach are based on the assessment of the draft RP3 performance plans by the PRB in 2020 and have been updated following the implementation of the exceptional measures Regulation.<sup>1</sup>
- 3 The aim of this document is to explain how the tool used is organised and what information, figures and tables are shown in each factbook.

### Presentation conventions

- 4 Use and interpretation of check marks (ticks, crosses, warning symbols):

	The check is passed, or the answer to the question is yes, or the result is in the range of expected values, or there is no particular issue to be mentioned.
	The check is not passed, or the answer to the question is no.
	Face value, the check is passed, but possibly due to the use of assumptions that do not seem adequate, or the result is outside the range of expected values.
n/a	The section, the answer or the specific analysis is not applicable since it is not relevant in the specific draft performance plan.

- 5 Grey text boxes are text areas including factual analysis developed by the PRB and Eurocontrol. Green text boxes are text areas that summarise the PRB conclusions/recommendations. Finally, texts in quotation marks (" ") indicate direct quotes from the performance plans.

<sup>1</sup> Commission Implementing Regulation (EU) 2020/1627 of 3 November 2020 on exceptional measures for the third reference period (2020-2024) of the single European sky performance and charging scheme due to the COVID-19 pandemic.

## I. SCOPE

- 6 This section of the factbook provides information on:
- The version of the performance plan used to perform the assessment;
  - The relative weight of a Member State in the Single European Sky (SES) area, calculated as its share in the total flight-hours, its share in the total service units and its share in total costs (box at the top-right of the sheet);
  - The Functional Airspace Block (FAB) membership, the list of air navigation service providers (ANSPs) and other entities (as per Article 1(2)) of Commission implementing Regulation (EU) 2019/317);
  - For each charging zone, the name of the zone, the number of airports (for terminal charging zones) and additional information on whether market conditions, simplified charging schemes and/or modulation of charges are applicable;
  - The average cost allocation between en route and terminal over RP3;
  - Information on whether there were some changes in the charging zones compared to the RP2 scope and explanations (if applicable);
  - The “Comparator group” that the Member State belongs to as per Article 6 of the Commission Implementing Decision (EU) 2021/891 together with the other members of the group;
  - The national currency and the 2017 exchange rate used for the performance plans.
  - The actual and forecast traffic (en route instrumental flight rules (IFR) movements) between 2015 and 2024.

## II. PRB ASSESSMENT

- 7 The PRB assessment sheet provides a summary of the PRB’s assessment for each key performance area(safety, environment, capacity and cost-efficiency). This includes a table outlining the draft targets, followed by a green box for the PRB to provide its assessment.
- 8 Each section presents a tick, which is green if the PRB advises to approve the target (red if not to approve).
- 9 At the end of the section, there is a green text box for the PRB to enter its overall recommendations, taking into account the assessment made in the four KPAs.

## 1 SAFETY

- 10 Most Member States submitted national performance plans. FABEC submitted a FAB performance plan, which was assessed at FAB level for the purposes of the Regulation. However, considering that the effectiveness of safety management (EoSM) targets are set at the ANSP level, safety analysis was conducted at a Member State level and ANSP level for MUAC, and not at FAB level.

### *1.1. Summary of safety key data and assessment results*

- 11 This worksheet provides a summary of key data related to the safety KPA. In particular, it presents:
- The EoSM targets set at the level of the ANSPs;
  - The measures undertaken by the Member State and the ANSP in order to achieve the targets;
  - The approach taken by the ANSP and the Member State to address the interdependencies between safety and other KPAs;
  - The description of change management procedures and transition plans.
- 12 Each consecutive section provides the PRB's conclusions with respect to the above points of assessment.

#### *1.1.1 Target for EoSM for ANSPs*

- 13 The section summarises the conclusions regarding the EoSM targets for RP3. It indicates if a Member State has provided the EoSM targets for each relevant ANSP for each year in RP3 and if the EoSM target at the end of RP3 is compliant with the Union-wide targets set by Commission Implementing Decision (EU) 2021/891. The section provides a comparison between planned and achieved levels in 2020.

#### *1.1.2 Measures planned to reach the targets*

- 14 This section summarises conclusions regarding assessments of relevancy and sufficiency of the measures that the Member State plans to implement to achieve the RP3 targets. Measures are relevant at a national level, i.e. for both ANSPs and at the Member State level (for national supervisory authorities (NSAs)).

#### *1.1.3 Interdependencies and trade-offs*

- 15 This section summarises the conclusions regarding the approach taken by a Member State to address the interdependencies and trade-offs between safety and needed developments on other KPAs.

#### *1.1.4 Change management*

- 16 This section summarises the conclusions regarding the application of change management procedures by a Member State for major airspace changes or for ATM system improvements and their impact on the network performance.

#### *1.1.5 PRB Conclusions*

- 17 This section summarises the final conclusions about the assessment of the performance plan in the safety KPA. It provides the justification for the PRB decision based on the arguments derived from above subsections.

### *1.2. Target for EoSM for ANSPs and measures*

- 18 This worksheet presents the EoSM targets for each management objective for each year of the RP3 period.

1.2.1. Target for EoSM for ANSPs and associated measures

- 19 The targets (presented in the factbook as in Figure 1) are expected to be set for each ANSP relevant under the Charging and Performance Scheme individually.

		2020A	2020	2021	2022	2023	2024	RP3 Union-wide targets consistent	The targets for 2024 have been set in accordance with the Commission Implementing Decision (EU) 2021/891 of 2 June 2021.
		Actual	Target	Target	Target	Target	Target		
ANSP	Safety policy and objectives	B	B	B	B	B	C	✓	
	Safety risk management	C	C	C	C	C	D	✓	
	Safety assurance	B	B	B	B	B	C	✓	
	Safety promotion	B	B	B	B	B	C	✓	
	Safety culture	B	B	B	B	B	C	✓	

Figure 1 - Example of EoSM targets.

- 20 The green tick at the right hand side of the table indicates that the targets in the last year of RP3 are in accordance with Union-wide targets for each management objectives (MO). Achieved levels for 2020 are provided for comparison.
- 21 The following section provides explanation of the Member State’s approach concerning the targets and the measures to achieve the RP3 targets. The PRB assessment aims to verify if the described measures are relevant and sufficient to allow attaining the targets. The measures are considered relevant if they apply to management objectives that require improvement, and are suitable considering their safety levels. The measures are considered sufficient if they are proportional to the effort required to improve the maturity levels from the start of RP3 until the Union-wide targets are planned to be reached. The measures may be provided at the ANSP and NSA levels, i.e. at national level.

1.3. Interdependencies and Change management practices

1.3.1. Interdependencies and trade-offs

- 22 This section aims to describe the approach the Member State takes to address the interdependencies and trade-offs with safety and others KPAs. The Member States are expected to declare what assumptions were used to assess the trade-off between safety and other KPAs in case of changes are needed to be implemented to reach targets on other KPAs: capacity, environment and cost-efficiency. Additionally, the role of NSA oversight of such activities is also examined.

1.3.2. Change management practices

- 23 This section addresses the approach the Member State adopts to manage the major implementation into the ATM Functional Systems with special focus on the impact on network performance. The approach may be described at the ANSP and at the State level. The change management procedures or transition plans, compliant with the Commission Implementing Regulation (EU) 2017/373, are considered sufficient to ensure that the implementation minimises the negative impact on the network performance.

## 2 ENVIRONMENT

24 Most Member States submitted national performance plans. However, FABEC submitted a FAB performance plan, which was assessed at the FAB in accordance with the Regulation. Nonetheless, an analysis was performed at Member State level, and ANSP level for MUAC, to fully explore the performance plan. Thus, there is a FABEC factbook along with the individual Member States' and MUAC factbooks.

### 2.1. Summary of environment key data and assessment results

25 This worksheet provides a summary of key data related to the environment KPA. It presents:

- A comparison of the European Route Network Improvement Plan (ERNIP) Part 2, June 2021 reference values and performance plan targets for calendar years 2021-2024;
- The PRB conclusions are also provided here along with its findings and advice to the Commission concerning whether the performance plan should be adopted or not.

#### 2.1.1 Comparison of ERNIP reference values and draft performance targets

26 The section contains a table and graph (as shown in Figure 2) that provides a comparison between the ERNIP reference values and draft environment performance targets along with information on past performance.

27 The key checks related to the draft RP3 targets and their consistency with the reference values are presented in the table above the graph. For each year, it is verified whether the draft performance targets are consistent with the reference values and the difference, if any, between them.

28 The graph provides a visual representation of actual RP2 and 2020 achieved KEA value (black diamonds), and looking forward to RP3, the Network Manager ERNIP reference values (yellow bars) and the draft local performance targets (blue bars).

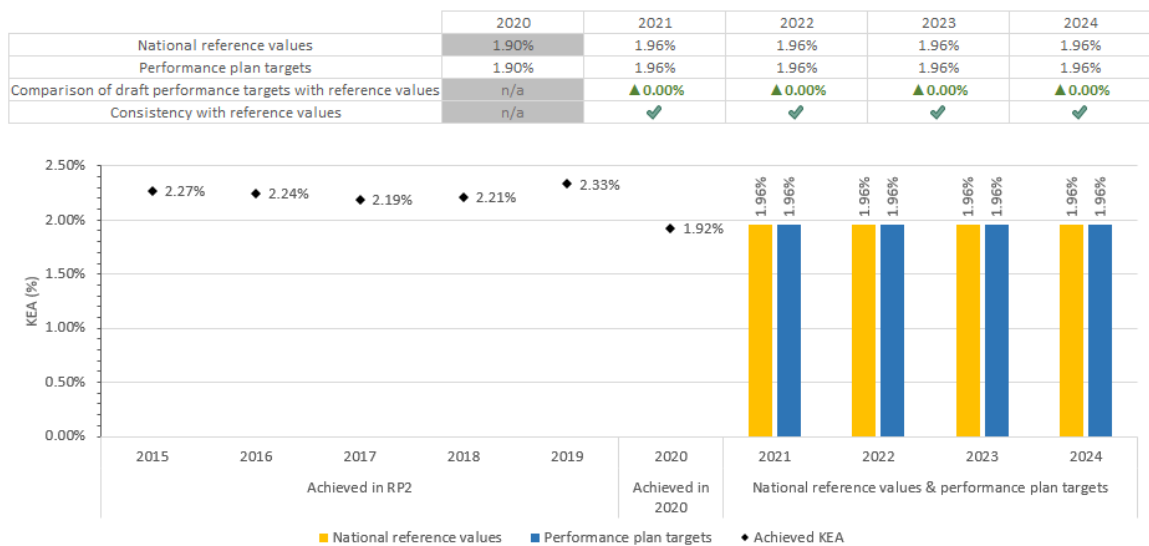


Figure 2 - Example of environment targets comparison between reference values and draft performance targets.

#### 2.1.2 PRB conclusions

29 This section summarises the final conclusions about the assessment of the performance plan in the environment KPA. It provides the justification for the PRB decision based on the arguments derived from above subsections.



2.2. Measures of achievement

30 This worksheet provides a summary of key data related to the measures committed to in the performance plan, enabling the Member States to achieve their targets.

2.2.1. Measures of achievement

31 This section contains tables, as shown in Figure 3, providing an overview of key checks related to the measures committed to in the performance plans, along with a cross check between the pages of reference in the Local Single Sky Implementation (LSSIP)/European Route Network Improvement Plan (ERNIP) and the pages of reference in the performance plan. These include:

- Commitment to implementing free route airspace (FRA) by 2022, as is required for all Member States in accordance with the ATM Functionality 3 (AF3) in the pilot common project (PCP);<sup>2</sup>
- Commitment to major ERNIP recommended measures related to each Member State;
- The stage of flexible use of airspace (FUA) implementation according to latest LSSIP.

Commitment to FRA by 2022?		✘	Reference in PP	Reference in LSSIP
[redacted] implemented free route airspace (FRA) within the [redacted] flight information region (FIR) in November 2016. Austria is yet to extend FRA towards its western border.			3.2.1 (b)	Page 14
Major ERNIP Recommended Measures:	4		Reference in PP	Reference in ERNIP
Measure included within performance plan?			3.2.1 (c)	Page 148
SECSI FRA - FRALB H24 cross-border FRA		✔	3.2.1 (c)	Page 148
SECSI FRA - M-FRA H24 cross-border FRA		✔	n/a	Page 204
LOWV Re-Structuring		✘	3.2.1 (c)	Page 195
Free Route Airspace Switzerland - FRACH		✔		
FUA Implementation according to latest LSSIP	Implementation			
1		✔		
2		✔		
3		✔		

Figure 3 - Example of checks related to measures committed to in the performance plan.

32 The green ticks and red crosses on the right-hand side of each measure indicates whether the ERNIP measures are committed to within the performance plan.

33 This section also contains a comment box below the tables, providing a more detailed description and additional relevant information on the measures of achievement included in the performance plans.

2.2.2. Incentive schemes

34 This section contains a table, as shown in Figure 4, indicating whether an incentive scheme in accordance with Article 11(4) is planned or not.

Does Austria plan for an environmental incentive scheme?	✘
Austria does not plan to apply an optional incentive scheme for the environment KPA.	

Figure 4 - Example of checks related to environmental incentive schemes described in the performance plan.

<sup>2</sup> Commission Implementing Regulation (EU) No 716/2014.

### 3 CAPACITY

35 Most Member States submitted national performance plans. However, FABEC submitted a FAB performance plan, which was assessed at the FAB level in accordance with the Regulation. Nonetheless, for MUAC the analysis was performed at Member State and ANSP level to fully explore the performance plan. Thus, there is a FABEC factbook along with the individual Member States' and MUAC factbooks.

#### *3.1. Summary of capacity key data and assessment results*

36 This worksheet provides a summary of key data and insights related to the capacity KPA.

##### *3.1.1 En route ATFM delay*

37 This section provides a summary of key data and insights related to en route air traffic flow management (ATFM) delay targets as defined in the performance plan, their consistency with the national reference values and comparison to network operations plan (NOP) delay forecasts. The checks and figures in this section are linked directly to those of section 3.2. of the factbook.

##### *3.1.2 Arrival AFTM delay*

38 This section provides a summary of key data and insights from the review of arrival ATFM delay targets in accordance with point 2.1(b) of Annex IV of the Regulation as defined in the performance plan.

##### *3.1.3 Incentives*

39 This section provides a summary of key data and insights related to both en route and terminal incentive schemes as defined in the performance plan.

##### *3.1.4 Investments*

40 This section provides a summary of key data and insights related to major capacity related investments defined in the performance plan, along with the relevance of their justification regarding their contribution to capacity.

##### *3.1.5 PRB conclusions*

41 This section summarises the final PRB conclusions on the assessment of the performance plan with regards to the capacity KPA. It provides justifications for the PRB decision based on the arguments derived from all the other subsections.

#### *3.2. En route ATFM delay per flight*

##### *3.2.1. Overview of en route ATFM delay per flight*

42 This section provides an overview of en route ATFM delay per flight (Figure 5, next page). The data presented includes actual values from RP2 and 2020 for:

- En route ATFM delay per flight (solid grey bars);
- Traffic in terms of IFR movements (yellow line).

43 Looking forward to RP3, it presents:

- National reference values for each year of RP3 (green line);
- Targets within the performance plan for each year of RP3 (blue line);
- Delay forecasts provided by the NM in the NOP: (forecast based on STATFOR May 2021 high traffic forecast (scenario 1) in grey dotted line, forecast based on base traffic forecast

(scenario 2) in red dotted line). Delay forecasts are not shown for the years of 2020 and 2021, as no such forecast has been published by the Network Manager for those years.

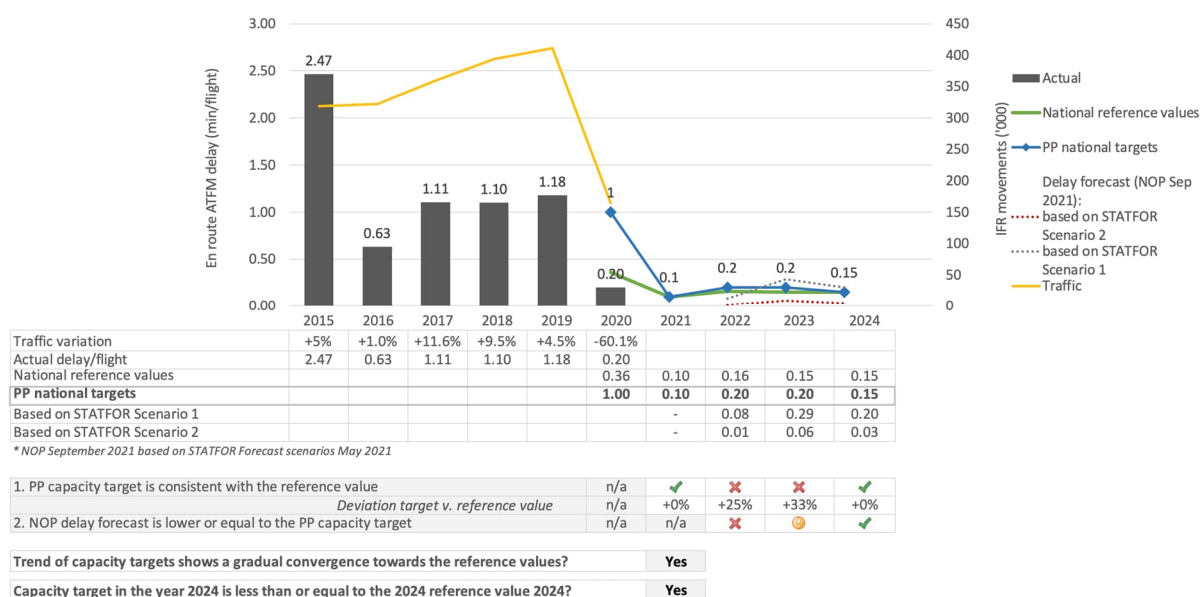


Figure 5 - Example of en route capacity targets comparison between reference values and performance plan targets.

- 44 The key checks undertaken by the PRB are presented in the tables beneath the graph: these checks focus on the consistency and the level of ambition of the targets for each year, apart from 2020.
- 45 Firstly, the consistency of the performance plan targets (blue line) with the reference values (green line) is checked (if the draft target is lower than or equal to the national reference value, it is deemed consistent). In the example, the performance plan targets for 2021 and 2024 are set equal to the reference values, while targets for 2022 and 2023 are higher than the reference values. For each year, the results are visualised by a green tick (if consistent) or a red 'X' (if not consistent).
- 46 The second check is focusing on the level of ambition of the draft targets, by comparing them to the NOP delay forecasts, thus this check is not applicable for 2021. The results of this check are also dependent on the first check on consistency. The logic of the check is as follows:
- If, for a given year, the performance target is consistent with the national reference value, this check returns a green tick, unless the performance target is set lower than the NOP delay forecast based on STATFOR scenario 2 value for that year. In this case, the check returns a yellow exclamation mark, indicating that the performance plan should contain additional capacity improvement measures compared to those included in the NOP (capacity enhancement measures are analysed further in section 3.2.2. and 3.2.3).
  - If, for a given year the performance target is not consistent with the national reference value and the performance target is set lower than the NOP delay forecast value based on scenario 2, the check returns a green tick, indicating relatively high level of ambition, compared to that of the performance associated with the delay forecast.
  - If, for a given year the performance target is not consistent with the national reference value and the performance target is set lower than the NOP delay forecast value based on scenario 1, but not lower than the NOP delay forecast value based on scenario 2, the check returns a yellow exclamation mark, indicating that the level of ambition is relatively low, compared to that of the performance associated with the delay forecast.
  - Finally, if for a given year, the performance target is not consistent with the national reference value and the performance target is set higher than the NOP delay forecast values based on

scenario 1, the check returns a red 'x', indicating that the level of ambition is low compared to that of the performance associated with the delay forecast.

- 47 In the example above, the check returns a red 'x' for 2022, as the performance target is not consistent with the national reference value and is set higher than the NOP delay forecast value based on scenario 1. The check returns a yellow exclamation mark for 2023, as the performance target is not consistent with the national reference value and is set lower than the NOP delay forecast value based on scenario 1, but higher than the NOP delay forecast value based on scenario 2. For 2024, the check returns a green tick, as the performance target is consistent with the national reference value and is not set lower than the NOP delay forecast value based on scenario 2.
- 48 Two additional checks are then performed to assess:
- Whether the trend of the draft performance targets (blue line) are converging towards the reference values (green line) as RP3 progresses, assessing whether performance is improving throughout RP3;
  - Whether the draft performance target (blue line) is less than or equal to the reference value (green line) in 2024. This assesses whether the plan is set to achieve the target by the end of RP3.
- 49 The conclusion from these checks is presented in 3.1 Summary of capacity key data and assessment results, under the first paragraph of 3.1.1.

### 3.2.2. Review of planned capacity enhancement measures

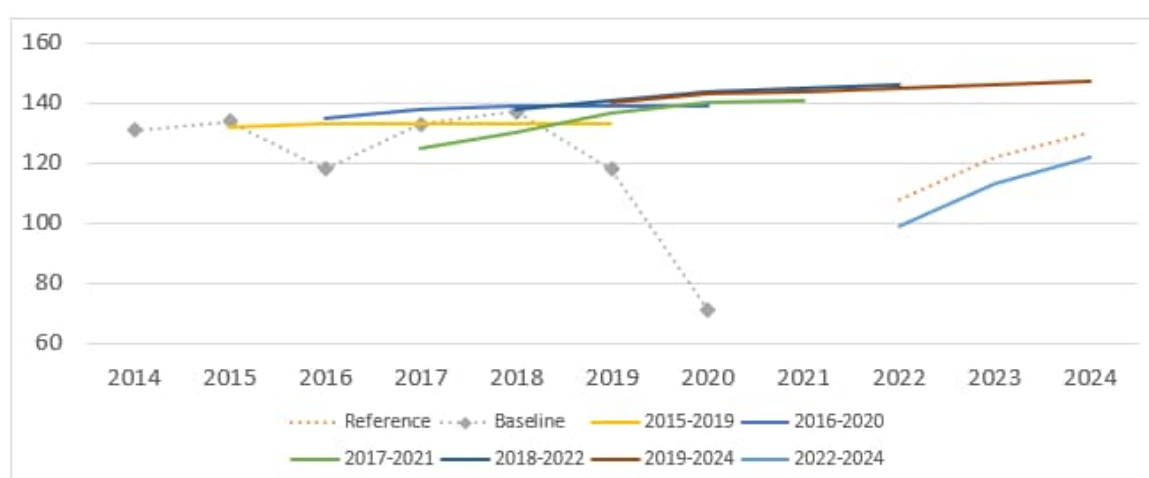
- 50 This section focuses on the primary assessment of the capacity enhancement measures included in the performance plan. The analysis performed under this section focuses on whether the planned set of measures is effective in improving capacity performance, and if it is sufficient to achieve the targeted capacity.
- 51 This section consists of two parts: a text field containing the review and assessment of the capacity enhancement measures included in the performance plan, and a table summarising the planned number of air traffic control officers in operations (ATCOs in OPS) expressed in full-time equivalents (FTEs), as indicated in the performance plan.
- 52 The key checks undertaken by the PRB are:
- Whether capacity enhancement measures contained in performance plan reflect those mentioned in the NOP, and whether the measures are in line with the ambition of the draft performance targets regarding closing future capacity gaps.
  - Whether the number of additional ATCOs in OPS to start working in the OPS room, number of ATCOs in OPS to stop working in the OPS room and the final number of ATCOs to be operational at year-end is in line with predicted future capacity gaps. If a Member State has more than one area control centre (ACC), this information is presented for all area control centres (ACCs) and for en route operations in total as well.
- 53 The section presents the evolution of ATCO numbers as shown in the performance plan (Figure 6). The increase in ATCO numbers is assessed in conjunction with the capacity gap. Results from this analysis are summarised in the text field on capacity enhancement measures.

ATCO Planning (FTEs)		2018A	2019A	2020A	2021P	2022P	2023P	2024P	2024 (end) - 2020 (beg.)
ACC (ACC)	Additional ATCOs in OPS to start working in the OPS room	0	0	0	8	8	10	10	+22
	ATCOs in OPS to stop working in the OPS room	0	3	5	2	2	3	2	
	<b>ATCOs in OPS to be operational at year-end</b>	<b>81</b>	<b>78</b>	<b>73</b>	<b>79</b>	<b>85</b>	<b>92</b>	<b>100</b>	
Total - (en route)	Additional ATCOs in OPS to start working in the OPS room	0	0	0	8	8	10	10	+22
	ATCOs in OPS to stop working in the OPS room	0	3	5	2	2	3	2	
	<b>ATCOs in OPS to be operational at year-end</b>	<b>81</b>	<b>78</b>	<b>73</b>	<b>79</b>	<b>85</b>	<b>92</b>	<b>100</b>	

Figure 6 - Example of growth of the number of ATCO FTEs to be operational in all years of RP3.

### 3.2.3. Review of previous and existing capacity profile plans per ACC

- 54 This section provides an overview and assessment of the previous and current capacity profile plans, as well as the baseline and reference profiles for each ACC included in the performance plan. Capacity profiles are expressed in terms of IFR movements per hour, and are shown both as a graph and in a table format (Figure 7). The data presented includes actual baseline values for the years 2014-2020 (light grey dotted line).
- 55 For both RP2 and RP3, the graph and table show the planned values for each five-year period as follows:
- 2015-2019 (yellow solid line);
  - 2016-2020 (blue line);
  - 2017-2021 (green line);
  - 2018-2022 (dark blue line);
  - 2019-2024 (brown line);
  - 2022-2024 (light blue line).
- 56 For the remaining years of RP3, the graph and table includes the reference capacity profile (orange dotted line). The reference capacity profile represents the capacity level, which would be required to achieve the national reference values for en route ATFM delay.
- 57 The table below the graph also includes a comparison of the latest capacity profile plan with the reference capacity profile. The figures are calculated for each remaining year of RP3 as the difference between the latest capacity profile plan and the reference profile, expressed as a percentage of the reference capacity profile. These figures are also colour-coded (red, amber or green).



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Reference									108	122	130
Baseline	131	134	118	133	137	118	71				
2015-2019		132	133	133	133	133					
2016-2020			135	138	139	139	139				
2017-2021				125	130	137	140	141			
2018-2022					138	141	144	145	146		
2019-2024						140	143	144	145	146	147
2022-2024									99	113	122
Latest vs Reference									-8%	-7%	-6%

Figure 7 - Example of the capacity profile graph and table.

58 The checks include:

- The comparison of baseline values (dotted grey line) to planned values (coloured solid lines) and their evolution in time;
- The comparison of latest capacity plans (light-blue solid line) against the reference profile (orange dotted lines);
- The assessment of the capacity gap, expressed as the difference between the latest capacity plans and the reference profile, displayed in the last row of the table. These values are colour coded: the numbers are red if the difference is equal to or lower than -5% (indicating a 5% or bigger capacity gap). Numbers are amber if the difference is between -5% and 0 (indicating that the capacity gap is smaller than 5%). Numbers are green if the difference is between 0% and +15%, both values included (indicating, that there is no capacity gap if zero, or a reasonable capacity surplus if greater than zero). Numbers greater than 15% are also displayed in amber (indicating a relatively high capacity surplus).

59 The results of the checks are summarised textually in the text field beside the graph and table.

#### *3.2.4. Review of capacity enhancement measures related to mitigating higher delays due to significant / special events*

60 This section provides additional details on events that the Member State claims will lead to higher delays in some years of RP3 along with the relevant capacity enhancement measures aimed at mitigating the effects of those special events.

61 This section is displayed and filled in if the Member State has referred to any significant and/or special event affecting capacity, as a justification for setting the draft performance target higher than the national reference value for a specific year(s).

#### *3.2.5. Review of the measures to increase capacity and address capacity gaps*

62 This section provides an analysis of capacity enhancement measures and the effectiveness of other measures aiming to address any capacity gaps.

63 This section is only displayed and filled in if the assessment of en route capacity targets reveals that the draft performance targets are not consistent and/or capacity performance in previous years indicate long-standing or structural capacity problems, and/or the analysis of capacity profiles and capacity enhancement measures indicates a capacity gap that is not sufficiently addressed.

#### *3.2.6. PRB Key Points*

64 This section provides the key points that the PRB concluded by reviewing the above elements relating to en route ATFM delay in the performance plan. It summarises the information contained in worksheet 3.2 regarding en route delay, the national en route ATFM delay targets, capacity enhancement measures, ATCO planning, capacity plans, inconsistencies between the NOP and the performance plan, events that could lead to higher delays and the mitigation measures to lower the impact from these events and the measures to reduce and address capacity gaps.

65 A brief summary on en route delay is also presented in section 3.1.1.

### *3.3. Arrival ATFM delay per flight*

#### *3.3.1. Overview of arrival ATFM delay per flight*

66 This section provides an overview of the targets on arrival ATFM delay per flight - in both a graph and table format (Figure 8, next page). The data presented includes retrospective data for:



- RP2 targets (orange line);
- Actual values (grey bars) for RP2 and 2020.

67 Looking forward to the remaining years of RP3, it presents:

- Draft performance targets (blue line).

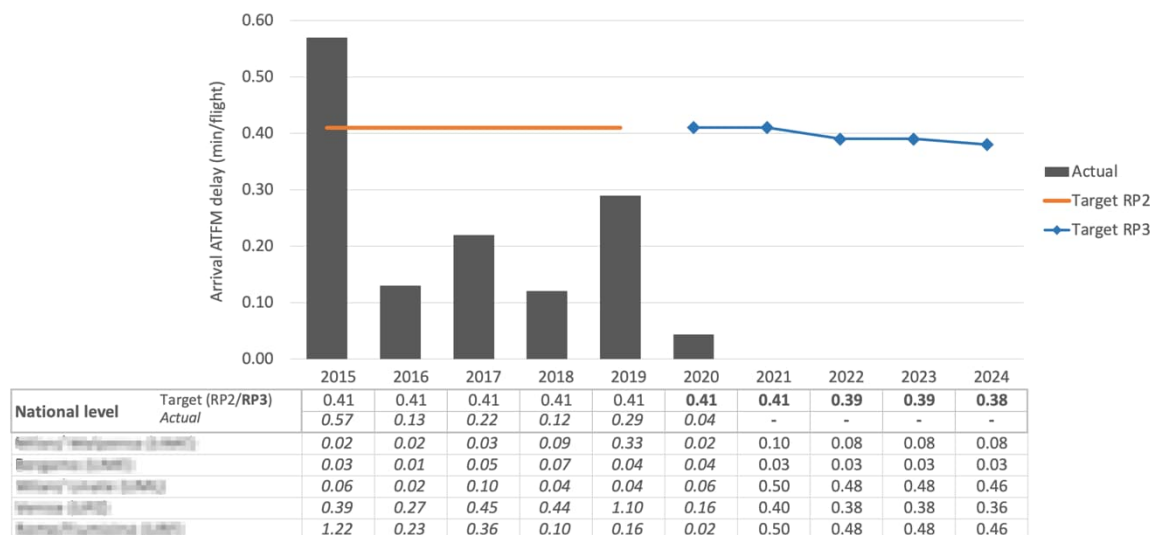


Figure 8 - Example of the overview of arrival ATFM delay targets.

68 This section graphically represents the following:

- Actual arrival ATFM delay for the period of RP2 together with RP2 targets, which shows whether the targets were met or exceeded;
- RP3 targets to visualise the gradual evolution of targets beginning in RP2 and to determine if the targets are evolving ambitiously.

69 Arrival delay figures are shown for each airport included within the scope of the performance plan. The graph only shows the values aggregated on a national level.

### 3.3.2. Review of targets and comparison with level and trend of past performance during RP2

70 This section provides a review of targets and comparison with level and trend of past performance during RP2. This section summarises the previous graph and table in written form and explains the possible future situation based on past performance, expected traffic growth and assesses the likelihood of meeting the targets.

### 3.3.3. Contribution of individual airports to the national target

71 This section provides an overview of contribution of individual airports to the national target (Figure 9, next page). The section consists of:

- A table summarising the average RP3 targets (minutes per flight);
- A graph presenting individual airports contribution vs national target;
- A written description of the table and graph.

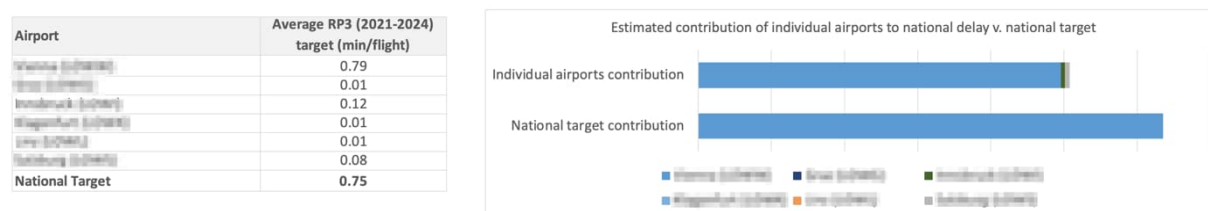


Figure 9 - Example of the overview of contribution of individual airports to national delay vs national targets.

72 This table and graph present the following:

- The table summarises the average RP3 target (minutes per flight) for each airport contribution to national targets;
- The graph presents the contribution of individual airports to national delay vs national targets to show whether the national target contribution coincides with the contribution associated with the airport target breakdown.

73 A written description is included in this section, which provides an overview of what the graph and table are presenting, and describes potential delay associated with the targets of the individual airports, taking into account actual traffic share.

### 3.3.4. Comparison of performance with other similar airports

74 This section provides a comparison of performance with other similar airports (Group I, II, III or IV based on number of movements and seasonality, as grouped by the PRB). This section consists of:

- A table providing the basis for comparison of performance between airports (Figure 10);
- A written description of the table and graph.

Airport	Group*	Median airport group 2015-2019 delay/flight	RP2 performance		RP3 target	
			Average delay/flight 2015-2019	Difference vs Median	RP3 average target (2021-2024)	Difference vs Median
Vienna (LH/BAW)	GROUP I	0.65	0.93	+0.27	0.79	+0.13
Graz (LH/BAW)	GROUP IV	0.00	0.00	-0.00	0.01	+0.01
Innsbruck (LH/BAW)	GROUP IV	0.00	0.10	+0.10	0.12	+0.12
Siegenfurt (LH/BAW)	GROUP IV	0.00	0.00	-0.00	0.01	+0.01
Leiz (LH/BAW)	GROUP IV	0.00	0.00	-0.00	0.01	+0.01
Salzburg (LH/BAW)	GROUP IV	0.00	0.08	+0.08	0.08	+0.08

\* GROUP I - Avg. mvts. in 2016-2018  $\geq$  225,000; GROUP II - Avg. mvts. in 2016-2018  $\geq$ 80,000 and  $<$ 225,000 and seasonal;

GROUP III - Avg. mvts. in 2016-2018  $\geq$ 80,000 and  $<$ 225,000 and not seasonal; GROUP IV - Avg. mvts. in 2016-2018  $<$  80,000

Figure 10 – Example of comparison of performance with other similar airports.

75 This table presents the following:

- Airport comparator groups based on average movements in 2016-2018;
- The median delay per flight of the airport group (2015-2018);
- An overview of RP2 performance:
  - Average delay per flight during 2015-2019;
  - Difference vs median of the relevant comparator group.
- An overview of RP3 performance:
  - RP3 average target;
  - Difference vs median.

76 The grouping of airports (equivalent to the one for cost-efficiency analysis) is done based on the two following criteria:

- Average number of movements over 2016-2018;
- Seasonality.



- 77 To establish an airport as seasonal, the three busiest months (2018 data) are compared to the three lowest months. If traffic in the high season is more than double traffic in the low season, it is flagged as seasonal. Based on this criteria, four groups are established (Table 1):

GROUPS	Criteria
GROUP I	Average 225,000 movements or above in 2016-2018
GROUP II	Average $\geq 80,000$ and $< 225,000$ movements in 2016-2018 and SEASONAL
GROUP III	Average $\geq 80,000$ and $< 225,000$ movements in 2016-2018 and NOT SEASONAL
GROUP IV	Less than 80,000 movements average in 2016-2018

Table 1 - Calculation of similar airport groups.

### 3.3.5. PRB Key Points

- 78 This section provides the key points that PRB identified by reviewing the above elements relating to arrival ATFM delay. The section summarises past performance and its trend, targets for RP3, and how they are in line with the observed performance. It also summarises how individual airports are performing and the impact on the overall performance.
- 79 A brief summary on arrival ATFM delay is also presented in worksheet 3.1, section 3.1.2.

## 3.4. Capacity incentive schemes

### 3.4.1. En route capacity incentive scheme

- 80 This section provides a review of the en route capacity incentive scheme. As in Figure 11, the data presented includes:

- Parameters of the en route capacity incentive scheme (table form);
- Threshold and pivot value review (written form);
- Modulation review (written form);
- Review of financial advantages/disadvantages (written form).

Parameters of the en route capacity incentive scheme

Dead band	Max bonus	Max penalty	2020	2021	2022	2023	2024
$\pm 0.05$ min	0.500%	0.500%			0.17	0.17	0.16
	✓	⚠			$\pm 0.050$	$\pm 0.050$	$\pm 0.050$
Has the NSA chosen to modulate the pivot values?	No				0.17	0.17	0.16
If yes, is the modulation CRSTMP?	n/a				0.17	0.17	0.16

Figure 11 - Example of the overview of en route capacity incentive scheme.

- 81 The checks undertaken by the PRB presented in the tables above include:
- Maximum bonus check:
    - If the maximum bonus percentage is lower or equal to the maximum penalty percentage, it is presented by a green tick. If the maximum bonus percentage is higher than the maximum penalty percentage, it is presented by a red cross.
  - Maximum penalty check:
    - If the maximum penalty is higher or equal to 1% and higher or equal to the maximum bonus, the PRB considers it to have a material impact on the revenue at risk, as provided by paragraph 3 of Article 11 of Implementing Regulation (EU) 2019/317, and is presented by a green tick. If the maximum penalty is lower than 1%, but higher or equal to the maximum bonus, it is presented as a warning by a yellow exclamation mark. If the maximum penalty is lower than the maximum bonus, it is and presented by a red cross.
  - NSA's choice to modulate the pivot values:
    - This only includes a yes or no answer.

- Check whether the modulation is limiting the scope of incentives to cover only delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual:
    - If the answer to previous question is yes, the NSA chooses to modulate the pivot values, a check is performed to see whether the modulation is CRSTMP. 'N/A' is displayed for NSAs that did not choose to modulate the pivot values. This information is used when assessing the possible impact of the Incentive Scheme.
  - An overview of the following values for 2022-2024:
    - NOP reference values;
    - Alert threshold ( $\Delta$  Ref. value in fraction of min);
    - Draft performance targets;
    - Pivot values for RP3.
- 82 When the modulation of pivot values is informed by the latest NOP reference values of year n-1 (in accordance with point 1.1(a) of Annex XIII of IR 2019/317), these pivot values are only known for 2020 and will be notified annually by the Member State.
- 83 The threshold review provides a written overview on the threshold, whether it is symmetrical around the pivot value, and if the pivot value is based on the reference values.
- 84 The modulation review provides information on modulation processes in place.

### 3.4.2. Terminal capacity incentive scheme

- 85 This section provides a review of terminal capacity incentive scheme. The data presented includes (Figure 12):
- Parameters of the terminal capacity incentive scheme (table form);
  - Threshold and pivot value review (written form);
  - Modulation review (written form);
  - Review of financial advantages/disadvantages (written form).

Parameters of the terminal capacity incentive scheme							
Dead band	Max bonus	Max penalty					
±25.0%	0.500%	0.500%					
	✔	⚠					
Has the NSA chosen to modulate the pivot values?			No				
If yes, is the modulation CRSTMP?			n/a				
			2020	2021	2022	2023	2024
Bonus/penalty range $\Delta$ (in fraction of min)					±0.435	±0.420	±0.410
Performance Plan targets					0.87	0.84	0.82
Pivot values for RP3					0.87	0.84	0.82

Figure 12 - Example of the overview of terminal capacity incentive scheme.

- 86 The checks undertaken by the PRB presented in the tables above include:
- Maximum bonus check:
    - If the maximum bonus percentage is lower or equal to the maximum penalty percentage, it is presented by a green tick. If the maximum bonus percentage is higher than the maximum penalty percentage, it is presented by a red cross.
  - Maximum penalty check:
    - If the maximum penalty is higher or equal to 1% and higher or equal to the maximum bonus, it is presented by a green tick. If the maximum penalty is lower than 1%, but higher or equal to the maximum bonus, it is presented as a warning by a yellow exclamation mark. If the maximum penalty is lower than the maximum bonus, it is presented by a red cross.
  - NSA's choice to modulate the pivot values:
    - This only includes a yes or no answer.
  - Check whether the modulation is CRSTMP:

- If the answer to previous question is yes – the NSA chooses to modulate the pivot values, a check is performed to see whether the modulation is CRSTMP. 'N/A' is displayed for NSAs that did not choose to modulate the pivot values.

87 Besides the checks, the table also presents the following values for 2022-2024:

- An overview of the following values for 2022-2024:
  - Alert threshold ( $\Delta$  Ref. value in fraction of min);
  - Performance plan targets;
  - Pivot values for RP3.

88 When the modulation of pivot values is informed by the latest NOP reference values of year n-1 (in accordance with point 1.1(a) of Annex XIII of IR 2019/317), these pivot values are only known for 2020 and will be notified annually by the Member State.

89 The threshold review provides a written overview on the threshold, whether it is symmetrical around the pivot value, and if the pivot value is based on the reference values.

90 The modulation review provides information on modulation processes in place.

### 3.4.3. Additional capacity incentive scheme

91 This section provides an overview of any additional capacity incentive schemes, if presented in the performance plan.

### 3.4.4. PRB Key Points

92 This section provides the conclusions that the PRB identified by reviewing the above elements relating to en route and terminal capacity incentive schemes. The PRB also investigated and indicated whether the ANSP's performance is likely to incur a penalty, bonus, or neither.

93 A brief summary on incentives is also presented in worksheet 3.1, section 3.1.3.

## 3.5. Investments

94 This section presents an analysis of how the new and existing investments affect the determined costs (Section 3.5.1), the list of new major investments for the main en route air traffic service provider (Section 3.5.2), and a review of how investments contribute to the capacity targets (Section 3.5.3). All the costs presented in the worksheet are expressed in nominal terms as depreciation and cost of capital are not subject to inflation adjustments as per the last subparagraph of Article 26 of the Regulation.

### 3.5.1. Determined costs of investments over RP3

95 This section provides a table and pie chart presenting the total and annual determined costs relating to en route and terminal investments for the 2020-2024 period (Figure 13, next page). These costs are calculated as the sum of:

- Depreciation costs reported in the reporting tables, Table T1 ANSP, item 3.10.
- Cost of capital reported in the reporting tables, Table T1 ANSP, item 3.11.
- Cost of leasing reported in the reporting tables, Table T1 ANSP, item 3.12.

96 It is important to note that in case of inconsistencies between the performance plan and its Annexes A and B, the numbers presented in this worksheet may not fully correspond.

		2020	2021	2022	2023	2024	Total
Total determined costs of investments*	M€ (nominal)	32.0	33.2	35.1	34.2	32.8	167.4
	En route M€ (nominal)	24.7	25.8	27.4	26.9	25.8	130.6
	Terminal M€ (nominal)	7.3	7.4	7.7	7.3	7.1	36.8

\* Determined costs of investments include depreciation, cost of capital and cost of leasing for the main ANSP in the State

RP3 investment ratio ER/TRM

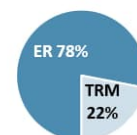


Figure 13 - Example of the overview of determined costs of investments over RP3.

### 3.5.2. Major investments and justifications for major investments

#### 3.5.2.1. New major investments per ANSP (i.e. above 5M€) – Main ANSP

97 This section provides a table with the list of the major investments (i.e. investments above 5M€) for the main en route air traffic service provider as reported in the performance plan (Figure 14). The table includes:

- The name of the investment;
- The performance plan description of the assets (or a reference to the performance plan for detailed descriptions);
- The total asset value;
- A check if the asset is mandatory based on the Regulation as indicated in the performance plan;
- An expert judgment based on the description provided if the specific asset is linked to the measures to achieve capacity targets;
- The RP3 determined costs of the investments by allocation as provided in section 2 “Investments” of the performance plan.

Nr	Name of the major investment	Asset description	Total value of the asset (M€)	Is the investment mandatory based on SES legislation?	Is there a justified link with measures to achieve capacity	Costs RP3 (M€)	
						ER	TMZ
1			7.5	No	No	0.4	0.0
2			8.6	Yes	Yes	6.4	0.0
<b>Total:</b>						<b>6.8</b>	<b>0.0</b>

Figure 14 - Example of the overview of major investments and justifications for major investments.

98 Two text boxes are also included in the section:

- The first includes a summary of the comments provided during the consultation by the airspace users. The second box includes additional information concerning the weight of the determined costs for new major investments, an RP2 summary of CAPEX expenditures RP2 to date (2015-2019) and the RP2 underspend charged/reimbursed to users in RP3 (if any).
- The second focusses on the investments, which are not required by a SES legislation (Figure 15, next page). When provided, the table highlights the main KPAs impacted and the specific justification as presented in the performance plan. Below the table, additional information (if any) is included in a box.

### 3.5.2.2. Justification for major investments (i.e. above 5M€), which are not required by SES legislation

Nr	Name of the major investment	Level of impact (network/local/none)	Main KPAs impacted	Specific justifications provided
8	Plant & Equipment Replacement	Local	Environment, Capacity, Cost efficiency	Replacement programme for and of life critical plant and equipment which supports I&E Operations. Plant and equipment includes AHUs, Chiller Units, VSDs, Heat Pumps and internal mechanical and electrical equipment.
9	Capital Costs of I&E Restructure	Local	Environment, Cost efficiency	Provision of a suitable new Head Office for the H&E following the restructure process. The costs related to the professional fees, design costs, civil works and fit out of an alternative premises. The costs include all legal, relocation, building branding and related costs with the provision of a new premises.

Figure 15 - Example of justifications for major investments (i.e. above 5M€), which are not required by SES legislation.

99 For each of the major investments not required by SES legislation, the table above contains the following information:

- Name of the major investment;
- Level of impact;
- Main KPAs impacted;
- Specific justifications provided;
- In the example above, two investments not required by SES legislation were reported. This table is complemented by a field with additional information, which is filled if necessary.

### 3.5.2.3. Other new and existing investments

100 This section summarises other new and existing investments. The data displayed in the table (Figure 16) are sourced from section 2 "Investments" of the performance plan.

101 The table below summarises:

- Other new investments:
- Total value of the asset;
- Value of the assets allocated to ANS;
- Investments 2020-2024;
- Total cost in RP3.
- Existing investments:
  - Investments 2020-2024;
  - Total cost in RP3.

102 This table is complemented by a description and justification of other new and existing investments in fixed assets planned over RP3.

	Total value of the asset (MEUR)	Value of the assets allocated to ANS	2020	2021	2022	2023	2024	Total costs RP3 (MEUR)
Other new investments	100.0	97.8	5.6	11.2	15.1	18.9	20.0	70.8
Existing investments			22.6	20.2	15.3	13.0	12.4	83.6

Figure 16 - Example of the overview of other new and existing investments.

103 The subsection "Details of the main other new investments" provides some further details on the other new investments. The data displayed in the table are sourced from section 2 "Investments" of the performance plan (if provided).

104 The table below includes (Figure 17, next page):

- Name of the other new investment;
- Total value of the asset;
- Value of the asset allocated to ANS in the scope of the performance plan;

- The RP3 determined costs of the investments by allocation as provided in section 2 “Investments” of the performance plan. The performance plan description of the assets (or a reference to the performance plan for detailed descriptions).

Details of the main other new investments

Nr	Name of the major investment	Total value of the asset (M€)	Value of the assets allocated to ANS	2020	2021	2022	2023	2024	Total RP3 (M€)	Description
1	ISMC (IAS Phase 1-4)RP	4.9	2.6	0.0	0.0	0.0	0.0	0.2	0.2	As part of a cooperation between IBAAC and IFA, a study is currently being conducted to determine whether a joint air traffic control system can be used in the future (IBAC/IFA/ICAO/ICAO/ICAO/ICAO). The realization of IBAC/IFA/ICAO/ICAO/ICAO/ICAO would replace the planning of IBAAC.
2	ICAO Flight Data RP	4.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0	The ICAO System Project (ICAO Flight Data RP) is currently in the planning phase but the strategic RP strategy. The project will implement the enhanced functionality in the future (ICAO) of the system to improve the interoperability of ICAO Flight Data RP control centers. The assets reported here are planned and will be realized once the planning phase is completed.

Figure 17 - Example of the overview of main other new investments.

### 3.5.3. Review of investments contribution to capacity

105 This section provides a review of the contribution of the investments to capacity. The data presented includes written comments and answers on the following assessment questions:

- Investments contribute to the rectification of identified capacity shortfalls?
- Justification on investment plans' contribution to capacity (timing and quantified improvement) is provided in the performance plan?
- Capacity related capital expenditure takes due account of the time needed to get the planned systems implemented?

### 3.5.4. PRB Key Points

106 This section provides the key points that the PRB identified by reviewing the above elements relating to the major investments planned over RP3, a review of RP2 CAPEX, the underspend/overspend charged/reimbursed to airspace users (if any), and what impact they have on capacity.

107 A brief summary on investments is also presented in worksheet 3.1, section 3.1.5.

## 4 COST-EFFICIENCY

### 4.1. Summary of cost-efficiency key data and assessment results

108 The purpose of this worksheet is to show a one-page summary of the key cost-efficiency data from the performance plan, the assessment results on the criteria listed in point 1.4 of Annex IV of the Regulation and the conclusions of the PRB.

109 For the charging zones with no particular issues, this sheet may constitute the only piece of analysis to be retained.

#### 4.1.1 Key data underlying en route cost-efficiency targets

110 This section contains a graph (Figure 18) presenting the evolution of the average unit cost (AUC) between 2014 and 2018 and the determined unit cost (DUC) between 2014 and 2024, together with the changes in costs and traffic over the same period. The value are shown in €<sub>2017</sub> and the costs and traffic are shown as indices (with a value of 100 in 2019).

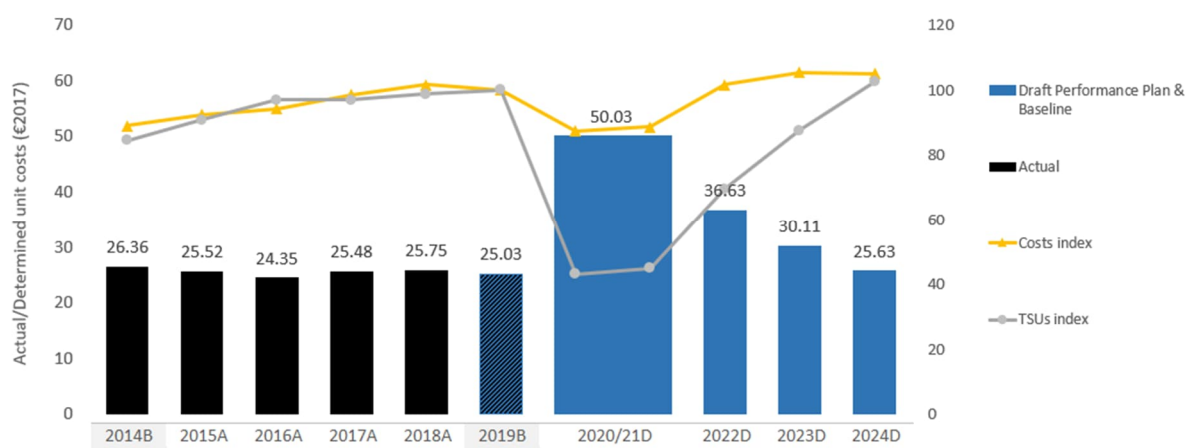


Figure 18 - Example of the overview of key data underlying en route cost-efficiency targets.

111 Depending on the years, the type of data may vary:

- For the year 2014, the graph shows the 2014 DUC baseline calculated dividing the costs baseline submitted by Member States, which should be consistent with the scope of activities of RP2, and the 2014 actual service units.
- 2015-2018 data is actual data.
- For the year 2019, the graph shows the 2019 DUC baseline calculated dividing the costs baseline submitted by Member States, which should be consistent with the scope of activities of RP3, and the 2019 actual service units.
- 2020-2024 data is planned data as reported by the Member State in its performance plan.
- 2020 and 2021 are showed as a combined year, since the Commission Implementing Regulation (EU) 2020/1627 defines calendar years 2020 and 2021 as a combined period.

112 The table below the chart (Figure 19, next page) contains:

- The total determined costs for the charging zone, in national currency and in nominal terms over the 2014-2024 period. The data are sourced from the RP3 reporting tables (T1, item 4.2).
- The total determined costs for the charging zone, in national currency and in 2017 prices over the 2014-2024 period. With the exception of 2019B, the data comes from the RP3



reporting tables (T1, item 5.3). Costs for 2019B come from the performance plan (section 3.4.1 ERT-CZ 1, cell E13).

- The total service units for the charging zone over the 2014-2024 period. Except for 2019B, the data comes from the RP3 reporting tables (T1, item 5.4). Total service units for 2019B come from the performance plan (section 3.4.1 ERT-CZ 1, cell E16).
- The DUC in national currency and in 2017 prices over the 2014-2024 period. With the exception of 2019B, the data comes from the RP3 reporting tables (T1, item 5.5). The DUC for 2019B comes from the performance plan (section 3.4.1 ERT-CZ 1, cell E18).
- The 2017 exchange rate, coming from the reporting tables, "RP3 PP revised" sheet (cell E20).
- The DUC in €<sub>2017</sub> over the 2014-2024 period is the DUC in national currency and in 2017 prices divided by the exchange rate.

		2014B	2015A	2016A	2017A	2018A	2019B	2020/21D	2022D	2023D	2024D	CAGR 2019B-2024	CAGR 2014B-2024
Total costs	M€ (nom)	145	146	141	119	136	141	277	181	200	210	+10.5%	+4.5%
Total costs	M€ (2017)	145	147	142	119	135	139	274	178	195	202	+9.8%	+4.2%
TSU	'000	4,617	4,899	4,678	5,158	5,600	6,004	6,729	5,445	5,888	6,140	+0.6%	+0.2%
DUC	€ (2017)	31.37	30.01	30.36	23.12	24.08	23.20	40.71	32.60	33.12	32.93		
Exchange rate	€:€				1.000								
DUC	€ (2017)	31.37	30.01	30.36	23.12	24.08	23.20	40.71	32.60	33.12	32.93	+9.1%	+0.5%
Annual change	%		-4.3%	+1.2%	-23.9%	+4.2%	-3.6%	+75%	-19.9%	+1.6%	-0.6%		

Figure 19 - Example of the overview of key data underlying en route cost-efficiency.

#### 4.1.2 Summary of baseline review

113 This section shows the level of the 2019 DUC baseline. The section includes a text box to indicate whether the 2019 baseline seems adequately justified or not (after examining the justifications provided by the Member State in the performance plan).

#### 4.1.3 Summary of cost-efficiency assessment results

114 This section contains the assessment results on the criteria listed in Annex IV of the Regulation.

##### Consistency with the Union-wide target over 2019-2024 (RP3)

115 Line (a) displays the compound annual growth rate (CAGR) of the determined unit cost (DUC) between 2019 baseline and 2024.

- If the percentage change is lower than or equal to +1.0% per year, the criterion is met and a green tick is shown on the right-hand side.
- If the percentage change is higher than +1.0% per year, the criterion is not met and a red cross is shown on the right-hand side.

116 Consistency is assessed with a one decimal rounding (i.e. -1.851% is approximated to -1.9%).

117 If the expert judgment differs from the automatic checks, the PRB can decide to insert a different check mark. In these cases, additional explanations are inserted in the text box below.

##### Consistency with the Union-wide target over 2014-2024 (RP2+RP3)

118 Line (b) displays the CAGR of the DUC between 2014 baseline and 2024.

- If the percentage change is lower than or equal to -1.3% per year, the criterion is met and a green tick is shown in on the right-hand side.
- If the percentage change is higher than -1.3% per year, the criterion is not met and a red cross is shown in on the right-hand side.

119 Consistency is assessed with a one decimal rounding (i.e. -2.651% is approximated to -2.7%).



- 120 If the expert judgment differs from the automatic checks, the a different check mark can be inserted. In these cases, additional explanations should be inserted in the text box below.

#### **Consistency with the comparator group average in 2019**

- 121 Line (c) displays the difference in % between the 2019 DUC baseline and the average of the comparator group.
- 122 If the expert judgment differs from the automatic checks, a different check mark can be inserted. In these cases, additional explanations should be inserted in the text box below.

#### **Deviation exclusively due to measures necessary to achieve the capacity targets**

- 123 Line (d) shows information only if there is a deviation from the Union-wide cost-efficiency trends and the capacity targets are consistent with the reference values.
- 124 In such cases, Line (d) provides a check if the cost-efficiency criterion is met. The text box below Line (d) provides a summarised justification of the evaluation, in case additional comments are needed.

#### **Deviations necessary to implement restructuring measures**

- 125 Line (e) shows information only if a deviation from the Union-wide cost-efficiency targets may be justified due to the implementation of "restructuring measures" as defined in the Regulation.
- 126 In such cases, Line (e) provides a check if the cost-efficiency criterion is met. The text box below Line (e) provides a summarised justification of the evaluation, in case additional comments are needed.

### *4.1.4 PRB conclusions*

- 127 This section summarises the final conclusions about the assessment of the performance plan in the cost-efficiency area. It provides the justification for the PRB decision based on the arguments derived from above subsections.

### *4.2. Review traffic forecasts and baseline*

- 128 The purpose of this worksheet is to provide an analysis of en route traffic forecast (expressed in service units) underpinning the calculation of the DUC, both for the 2019 baseline and the whole RP3 period.

#### *4.2.1. Overview of service units forecasts for RP3*

- 129 This section contains a graph (Figure 20, next page) presenting the evolution of the actual en route traffic (in service units) for the 2015-2020 period and a comparison of the forecast used in the performance plans with the STATFOR forecasts from October 2021 (high, base and low) to May 2021 (base) for the period 2021-2024. As a comparison, the figure is also showing in a dotted black line the evolution of the traffic of the Union-wide October 2021 base forecast.
- 130 Since the methodology for traffic computation and forecasting changed as of January 2020 from using the trajectories as filed in the flight plans (M2) to the actual route flown (M3), the year 2019 is duplicated in order to show values from both methodologies and better understand the impact of the change.<sup>3</sup>
- 131 The Central Route Charges Office (CRCO) evaluated the impact of the change of methodology on the service units computation from M2 to M3.<sup>4</sup> It published correction factors for each State

<sup>3</sup> EUROCONTROL, En Route Service Units Forecast Method with Model 3 data.

<sup>4</sup> EUROCONTROL, Seven-Year forecast February 2019, Annex 4.

based on a 12-month traffic sample, which is embedded in the analysis of the traffic baseline for 2019 and 2014.<sup>5</sup>



Figure 20 - Example of the overview of service units forecasts for RP3.

132 The chart in this section shows:

- 2015-2019 - actual traffic evolution computed using the M2 methodology. The values of 2019 will be used to compare the coefficients used by the Member States to change from M2 to M3 methodology with those calculated by the CRCO.
- 2019B (M3) - shows:
- traffic baseline based on the M3 methodology, as submitted by the Member States in their performance plans and actually used to calculate the 2019 DUC baseline;
- 2020A – shows:
- actual traffic based on the M3 methodology, as submitted by the Member States in their performance plans;
- 2021F-2024F – shows:
- Forecast traffic evolution based on the M3 methodology, as submitted by the Member States in their performance plans;
- STATFOR October 2021 (high, base and low) and STAFOR May 2021 (base) traffic forecast;
- Evolution of Union-wide traffic based on STATFOR October 2021 base.

133 The table below the chart (Figure 21) contains the values depicted in the chart, their annual change, and where relevant, the compound annual growth rate (CAGR) for the 2019B-2024 period.

		2015A	2016A	2017A	2018A	2019A(M2)	2019B(M3)	2020A	2021F	2022F	2023F	2024F	2024F vs 2019B
Actual	'000 TSUs	760	764	848	940	1,011	1,012	462					
Annual change	%		+0.5%	+11.1%	+10.8%	+7.5%	+7.6%	-54.3%					
STATFOR Oct 21 Base	'000 TSUs								481	894	1,087	1,167	+15.3%
Annual change	%								+4.1%	+86.0%	+21.5%	+7.4%	
STATFOR May 21 Base	'000 TSUs								448	766	904	1,029	+1.7%
Annual change	%								-3.0%	+71.1%	+18.0%	+13.8%	
Performance Plan	'000 TSUs						1,011	462	481	894	1,087	1,167	+15.4%
Annual change	%						+7.5%	-54.3%	+4.1%	+86.0%	+21.5%	+7.4%	

Figure 21 - Example of the overview of service unit figures over RP2 and RP3.

#### 4.2.2. Traffic baseline review

134 This section reviews both, the 2019 and 2014 traffic baseline submitted by the Member States in their performance plans:

<sup>5</sup> EUROCONTROL, Intermediate two-year Forecast – Service Units 2019-2020.

- M2/M3 coefficient check: This check calculates the ratio between the 2019 traffic baseline submitted in the performance plan (M3) and the 2019 actuals submitted in the reporting tables (2019B/2019A), and compares it with the coefficients calculated by the CRCO.

2019	'000 TSUs	CRCO 12-month coefficient
<b>2019B (PP baseline, M3)</b>	<b>1,679</b>	
2019A (as in the Reporting tables, M2)	1,781	
2019B/ 2019A	<b>-5.70%</b>	-5.70%

- Same as above for 2014.

2014	'000 TSUs	CRCO 12-month coefficient
<b>2014B (PP baseline)</b>	<b>1,445</b>	
2014A (as in the Reporting tables)	1,532	
2014B/ 2014A	<b>-5.70%</b>	-5.70%

135 At the end of the section, there are two text boxes presenting:

- the summary of the adjustments to the 2014 and/or 2019 baseline as provided in the performance plans;
- the analysis of the 2014 and 2019 traffic baseline.

#### 4.2.3. Review of the PP traffic forecast

136 In the first part of this section, a simple check confirms whether the Member State has used the STATFOR October 2021 base forecast.

137 Under this check, if the Member State has decided to avail itself of the provisions of the last paragraph of Article 10(2) and use a local forecast (not the STATFOR October 2021 base), a text box presents a summary of the justifications provided in the performance plan.

138 Finally is a text box, which presents a factual description of the traffic forecast used by the Member State in the performance plan in comparison with the available STATFOR forecasts (October 2021), and, where applicable, a review of the justifications provided by the State in case of using a local forecast.

#### 4.2.4. PRB Key Points

139 This section provides the key points that the PRB identified by reviewing the above elements relating to traffic. It summarises the traffic forecast chosen, and in the case where it may differ from the STATFOR October 2021 base forecast, justifications for the difference.

#### 4.3. Review of determined costs and baseline

140 The purpose of this worksheet is to provide a review of the determined costs, their components and their evolution in RP3 as well as a review of the 2019 cost baseline submitted in the performance plan.

#### 4.3.1. Overview of en route costs in RP2 and RP3

141 This section contains a graph (Figure 22, next page) presenting the evolution of total costs in the charging zone for the 2015-2024 period. All figures are in M€<sub>2017</sub> but depending on the years the type of the data may vary:

- 2015A-2019A shows two series of data:
  - The black columns show the actual costs for the period;
  - The orange diamonds show, for the sake of comparison, the RP2 determined costs.

- 2019B shows the costs baseline submitted by the Member States for the purpose of setting the RP3 targets, consistent with the scope of activities of RP3 as per Article 10(2)(a) of the Regulation. The difference between both values (2019B and 2019A) is highlighted in a data callout pointing at the 2019B column.
- 2020D-2024D data is the RP3 planned determined costs as reported by the Member State in its performance plan.

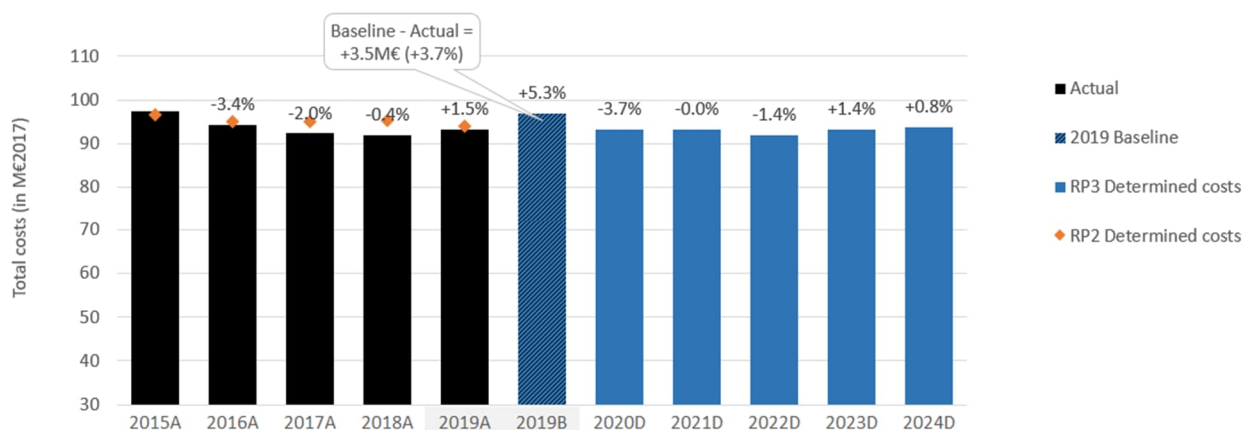


Figure 22 – Example of the overview of en route costs in RP2 and RP3.

142 Below the chart, there is a table (Figure 23) containing:

- The total costs in nominal terms (in millions of national currency) and their annual changes in percentage (ref. reporting tables T1, item 4.2).
- The inflation index (with a value of 100 in 2017), actual for the 2015-2020 period and planned for 2021-2024. This index is used to convert staff costs, other operating costs, and exceptional items in real terms (ref. reporting tables T1, item 5.2).
- The total costs in real terms and their annual changes in percentage (ref. reporting tables T1, item 5.3 divided by exchange rate).
- Finally, the table shows the compound annual growth rate (CAGR) for the 2019B-2024D period.

		2015A	2016A	2017A	2018A	2019A	2019B	2020D	2021D	2022D	2023D	2024D	2024D vs 2019B	Exchange rate 2017
Total costs	M€ (nom)	1,232	1,249	1,280	1,329	1,333	1,333	1,331	1,337	1,357	1,382	1,407	+5.6%	€:€ 1.00000
Annual change	%		+1.4%	+2.4%	+3.8%	+0.3%	+0.3%	-0.1%	+0.5%	+1.5%	+1.9%	+1.8%		
Inflation index	2017 = 100	98.5	98.9	100.0	102.1	103.4	103.4	103.9	105.1	106.3	107.7	109.3	+5.6%	
Total costs	M€ (2017)	1,247	1,261	1,280	1,307	1,298	1,298	1,291	1,286	1,294	1,305	1,315	+1.4%	
Annual change	%		+1.1%	+1.5%	+2.2%	-0.7%	-0.7%	-0.5%	-0.3%	+0.6%	+0.9%	+0.8%		
<b>Total costs</b>	<b>M€ (2017)</b>	<b>1,247</b>	<b>1,261</b>	<b>1,280</b>	<b>1,307</b>	<b>1,298</b>	<b>1,298</b>	<b>1,291</b>	<b>1,286</b>	<b>1,294</b>	<b>1,305</b>	<b>1,315</b>	<b>+1.4%</b>	

Figure 23 – Example of the overview of costs over RP2 and RP3.

143 On the right-hand side, the table shows the 2017 exchange rate between the national currency and €, which is used throughout the plan to convert between both currencies.

144 Below the table, there is a check that confirms whether the inflation data submitted by the State for 2021-2024 is consistent with the IMF April or October 2021 forecast.

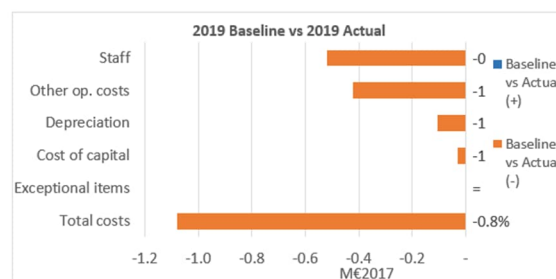
#### 4.3.2. Baseline review

145 This section reviews the 2019 and 2014 costs baselines submitted by the Member States in their performance plans (Figure 24, next page). For this, the following information is presented:

- Baseline analysis presents the difference, in M€<sub>2017</sub> and percentage, between:
  - the 2014 costs baseline and 2014 actual costs;
  - the 2019 costs baseline and 2019 actual costs.
- The 2014 baseline adjustments compared to 2014 actual costs, in M€<sub>2017</sub>.

- The 2019 baseline adjustments compared to 2014 actual costs, in M€<sub>2017</sub>.
- 2019 baseline vs 2019 actual chart presenting the difference between these two values for each cost component.

Baseline analysis	Δ M€2017	%
2014B vs 2014A	-0.9	-0.9%
2019B vs 2019A	-1.1	-0.8%



2014 Baseline Adjustments	Entity Type	Nature	M€2017
#1 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Staff	-0.1
#2 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Other ops.	-0.0
#3 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Depreciation	-0.0
#4 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Cost of cap.	-0.0
#5 - Change of cost allocation of Met costs	MET	Staff	-0.5
#6 - Change of cost allocation of Met costs	MET	Other ops.	-0.3
#7 - Change of cost allocation of Met costs	MET	Depreciation	-0.1
#8 - Change of cost allocation of Met costs	MET	Cost of cap.	-0.0

2019 Baseline Adjustments	Entity Type	Nature	M€2017
#1 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Staff	-0.1
#2 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Other ops.	-0.0
#3 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Depreciation	-0.0
#4 - Change of cost allocation of NSA costs	NSA/EUROCONTROL	Cost of cap.	-0.0
#5 - Change of cost allocation of Met costs	MET	Staff	-0.4
#6 - Change of cost allocation of Met costs	MET	Other ops.	-0.4
#7 - Change of cost allocation of Met costs	MET	Depreciation	-0.1
#8 - Change of cost allocation of Met costs	MET	Cost of cap.	-0.0

Figure 24 - Example of review of baseline.

- 146 Below the tables, there are two free text boxes that are used to describe the 2019 and/or 2014 baseline adjustments, together with the justifications and assumptions provided by the Member States in their performance plans, especially when the actual and baseline differ, or when the baseline seems disproportionately high compared to actual costs.

#### 4.3.3. Review of the RP3 determined costs and incentives

- 147 This section provides a review of some cost elements that are further analysed in dedicated sheets, a summary of the incentive mechanisms, and the planned changes in determined costs (per cost category and per entity) between 2019 (actual) and 2024.

#### Review of 2020 determined costs

- 148 This area shows the difference between 2020 determined costs and actuals, both in M€<sub>2017</sub> and in percentage.

#### Review of cost elements

- 149 The aim is to provide an overview on the status important cost drivers such as investments, cost of capital, pensions, and allocation between en route and terminal charging zones, which are all analysed in more details in other parts of the factbook.

#### Incentives

- 150 This area shows the main characteristics of the incentives proposed by the Member State in its performance plan, with information on the following attributes:

- Traffic risk sharing parameters modulated (yes/no):
  - Maximum risk exposure to traffic (in percentage of the determined costs).
- Financial advantages/disadvantages from incentive scheme:
  - Maximum bonus (percentage of determined costs);
  - Maximum penalty (percentage of determined costs).
- Additional incentives (yes/no).

## Changes in cost categories and cost by entity

151 The right-hand side of the section shows a graphical presentation of the planned changes in determined costs (per cost category and per entity) between 2019 (actual) and 2024, both in percentage and in M€<sub>2017</sub> (Figure 25). The data feeding this graph is taken from the reporting tables:

- "T1 ANSP" for the cost breakdown for the main ANSP (items 1.1 to 1.5 converted in €<sub>2017</sub>).
- "T1 NSA", "T1 MET", etc. (item 5.3).

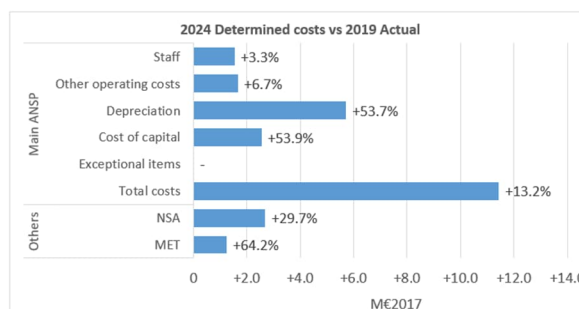


Figure 25 - Example of review of the RP3 determined costs and incentives.

152 NSA costs are set in nominal terms, and depreciation and cost of capital are also set in nominal terms as per Article 22(2) of the Regulation. For simplicity, when creating the charts and the comments in the box, these costs are mentioned as €<sub>2017</sub> despite being in nominal terms.

153 At the end of the section, there is a text box for the analysis of items above.

### 4.3.4. PRB Key Points

154 This section provides the key points that PRB concluded by reviewing the above elements relating to costs. It summarises the 2019 baseline compared to 2019 actual (also for 2014), identifying the main drivers for cost changes.

#### 4.3.A Cost of capital

155 This worksheet presents an analysis of the cost of capital as submitted by the Member States.

##### 4.3.A.1 Determined Costs vs Return on Equity

156 The table (Figure 26, next page) included in this section presents for each year of RP3:

- The nominal value of the determined costs (ref. reporting tables T1 ANSP, item 4.2).
- The monetary value of the return on equity (i.e. the surplus embedded in the cost of capital):
  - For ANSPs reporting the real weighted average cost of capital (WACC) parameters, the monetary value of the RoE is computed as  $\left(\frac{E}{E+D}\right) \times RoE \times$  *regulated asset base*.
  - For ANSPs fully financed through equity, the monetary value of the RoE equals the reported cost of capital.
  - For ANSPs where the WACC reported in the performance plan is not consistent with the individual parameters of the WACC, if possible the individual parameters of the WACC have been recomputed to reflect real parameters and have therefore the real RoE to compute the monetary value of the RoE.
  - For all remaining ANSPs, the analysis is not performed since it is not possible to compute the embedded surplus.



- The ratio between the monetary value of return on equity and determined costs is displayed in the last row of the table.

Nominal values ('000 €)	2020	2021	2022	2023	2024
<b>Determined costs</b>	117,218	124,982	130,712	135,348	141,161
<b>Monetary value of Return on Equity</b>	4,596	4,883	5,017	4,972	5,130
<b>Ratio RoE/DC (%)</b>	3.9%	3.9%	3.8%	3.7%	3.6%

Figure 26 - Example of the overview of determined costs vs return on equity.

#### 4.3.A.2 Cost of capital comparison: reported in PP, efficient cost of capital, maximum risk exposure

157 This section presents a chart and a table (Figure 27), showing for each year of RP3:

- A red bar corresponding to the cost of capital reported in the performance plan (Annex A - reporting tables T1 ANSP, item 1.4).
- A blue bar, corresponding to the efficient cost of capital as computed based on the report published by the PRB "Study on cost of capital".<sup>6</sup>
- A black bar, corresponding to the maximum risk exposure computed based on the traffic risk sharing mechanism (i.e. 4.4% of the total determined costs for the Member States not modifying the Traffic Risk parameters).

158 The table below the chart presents the values displayed in the chart and the differences between the cost of capital reported in the performance plan and the efficient cost of capital, in case the total RP3 difference is positive. The right hand side shows the total sum of those differences. All the values are presented in nominal euros.

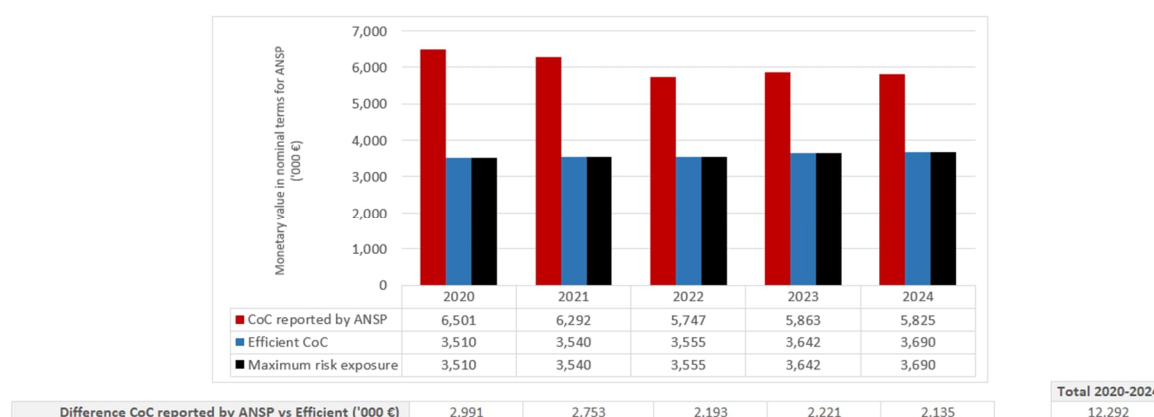


Figure 27 - Example of cost of capital comparison.

#### 4.3.A.3 WACC review

159 This section presents the table (Figure 28, next page) with the WACC and its parameters (i.e. return on equity, interest on debts, and capital structure) to compute the reported cost of capital and the efficient cost of capital.

160 The performance plan parameters are the ones reported by the ANSPs (ref. reporting tables T1 ANSP, items 3.6, 3.7 and 3.8).

161 The efficient parameters are computed based on the "Study on cost of capital" report published by the PRB.<sup>7</sup> This report defines four options to compute the efficient WACC. For option 1, 2, and 3, the efficient parameters are shown. For option 4, the cost of capital is capped to the maximum

<sup>6</sup> Report and data sources available at: [https://webgate.ec.europa.eu/eusinglesky/sites/default/files/prb\\_cost\\_of\\_capital\\_report\\_2021\\_published.pdf](https://webgate.ec.europa.eu/eusinglesky/sites/default/files/prb_cost_of_capital_report_2021_published.pdf)

<sup>7</sup> Report and data sources available at: [https://webgate.ec.europa.eu/eusinglesky/sites/default/files/prb\\_cost\\_of\\_capital\\_report\\_2021\\_published.pdf](https://webgate.ec.europa.eu/eusinglesky/sites/default/files/prb_cost_of_capital_report_2021_published.pdf)

risk exposure and the WACC value computed following a top down approach. For this reason, when option 4 is applied, the efficient WACC parameters are shown as not applicable ('n/a').

- 162 The reported interest on debt is compared to the efficient interest on debt to determine if it is in line with competitive market practices. If the reported interest on debt is below the competitive market practices value (as evaluated in the PRB "Study on cost of capital") for at least three years of RP3, the answer to the question below the table is 'Yes' and 'No' otherwise. The answer is 'n/a' if the interest on debt is not applicable (i.e. the ANSP is fully financed by equity). When option 4 is applied, even though the WACC parameters are shown as 'n/a' in the table, the interest on debts is still compared to the efficient one computed in the PRB "Study on cost of capital", therefore displaying 'Yes' or 'No' when applicable.
- 163 The text box below the table offers additional information concerning the WACC parameters, as the nature of WACC parameters (i.e. real or notional), if the return on equity is administered by the State, the difference between the reported cost of capital and the efficient one (if any), a comment on the monetary value of the RoE, if the interest on debts is in line with the market (if applicable), and any additional relevant information.

Nominal values (%)	2020		2021		2022		2023		2024	
	PP	Efficient	PP	Efficient	PP	Efficient	PP	Efficient	PP	Efficient
<b>Return on Equity</b>	6.0%	6.5%	6.0%	7.1%	4.2%	7.3%	4.2%	7.2%	4.2%	7.6%
<b>Interest on debts</b>	1.5%	1.5%	1.5%	1.5%	0.8%	1.2%	0.8%	1.3%	0.8%	1.4%
<b>Capital structure (% debt)</b>	29.9%	29.9%	29.9%	29.9%	39.3%	39.3%	39.2%	39.2%	39.2%	39.2%
<b>WACC</b>	4.6%	5.0%	4.6%	5.4%	2.9%	4.9%	2.9%	4.9%	2.9%	5.2%

Is the interest on debts in line with the market?  Yes

Figure 28 - Example of WACC review.

#### 4.3.A.4 Regulated Asset Base review

- 164 This section presents a table (Figure 29) reporting the values presented in reporting tables T1 ANSP (items 3.1, 3.2, 3.3 and 3.4): fixed asset base; net current assets; adjustments total assets; total asset base.

Nominal values ('000 €)	2020	2021	2022	2023	2024
<b>Fixed asset base</b>	114,568	122,956	129,052	128,097	129,605
<b>Net current assets</b>	46,537	37,230	48,864	45,606	38,626
<b>Adjustments total assets</b>	0	0	0	0	0
<b>Total asset base</b>	161,106	160,185	177,916	173,703	168,231

Figure 29 - Example of regulated asset base review.

- 165 Below the table, there is a text box with additional information and an analysis on the total asset base elements, namely if the fixed asset base is aligned with the evolution of the investments in section 3.5, if the net current assets seem appropriate compared to the expected cashflow and if the rationale of the adjustments is justified in the "Additional Information" of Annex A of the reporting tables.

#### 4.3.A.5 PRB Key Points

- 166 This section provides the key points that PRB identified by reviewing the above elements relating to the cost of capital. It summarises the issues of the reported cost of capital, if any. In the case where the reported cost of capital over RP3 is higher than the efficient cost of capital, the difference is stated and the monetary value of the return on equity is analysed. If the ratio between the monetary value of the return on equity compared to the total determined costs is higher than



4.4% for at least three years of RP3, the cost of capital is considered excessive and non-acceptable. Moreover, if the parameters of the cost of capital present any peculiarity, e.g. when the return on equity is administered by the State, this information is highlighted.

### 4.3.B Pensions

#### 4.3.B.1 Review of en route pension costs for the main ANSP (data from en route reporting tables)

167 This section uses information from the en route reporting tables (T1 ANSP) to look at the trend in the share of pension costs during RP3 and to examine whether the ANSP has a lower or higher proportion of pension costs compared to the average of other ANSPs at Union-wide level.

168 The chart on the left-hand side (Figure 30) shows:

- The total pension costs included in staff costs (sub item 1.1 in the reporting tables) in M€<sub>2017</sub> for all years of RP3, shown as blue bars.
- The share of the above-mentioned pension costs in the total ANSP costs (before deduction of the costs for visual flight rules (VFR) exempted flights, i.e. item 1.6).

169 The information from this chart is used to determine whether pension costs are likely to become an increasing burden during RP3, and possibly make the achievement of the cost-efficiency target more challenging.

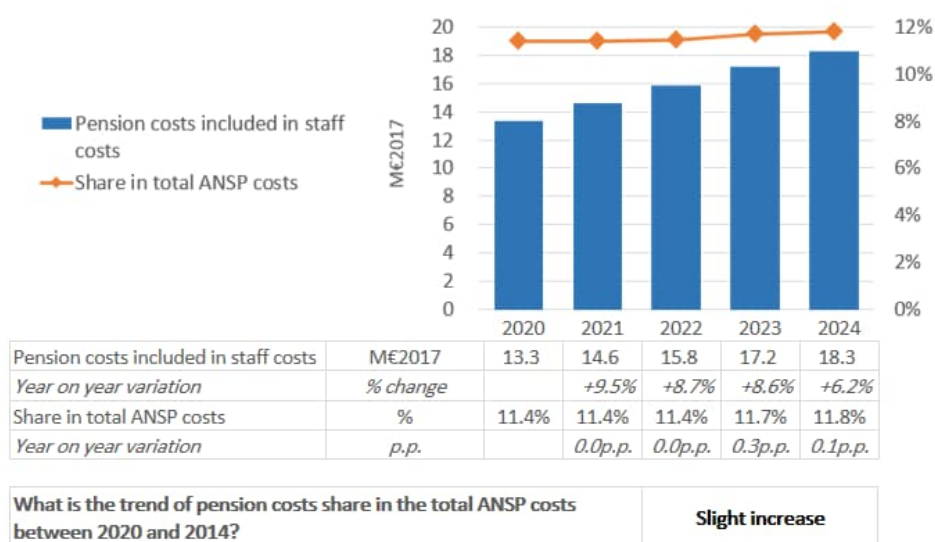


Figure 30 – Example of the overview of en route pension costs.

170 The chart on the right-hand side (Figure 31, next page) shows the share of pension costs in the total ANSP costs compared with the average calculated at EU-wide level:

- The inner ring shows the value for the ANSP, calculated as the RP3 average (i.e. the sum of 2020-2024 pension costs divided by the sum of 2020-2024 total ANSP costs).
- The outer ring shows the same figure but calculated at Union-wide level (i.e. summing pension costs and total ANSP costs for all ANSPs).

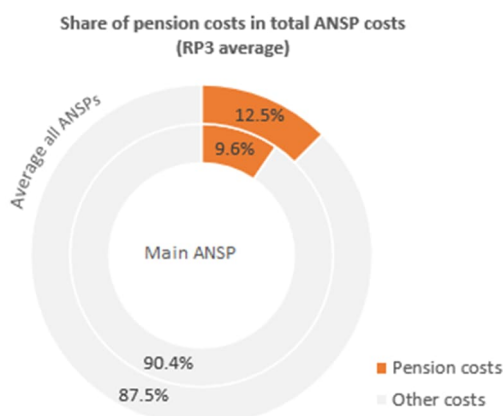


Figure 31 - Example of the overview of share of pension costs in total ANSP costs.

171 The information in Table 2 is used to determine whether pension costs for the ANSP under review represents a higher or a lower share than for an average ANSP.

Increase/decrease over RP3	Lower than Union-wide average	Higher than Union-wide average
<b>Increasing over RP3</b>	Pensions are possibly an issue in the DUC trend check. Need to investigate the magnitude of the increase and its drivers (controllable or uncontrollable). Also check if the performance plan demonstrates that there was a significant change between 2019 and 2020.	Pensions are likely to be an issue to meet the trend and level targets. Need to investigate the magnitude of the increase and its drivers (controllable or uncontrollable by the ANSP). Also need to check what the State says about the actions taken to mitigate the risks and the reasons for higher costs (type on schemes proposed).
<b>Decreasing over RP3</b>	Pensions are not likely to be an issue.	Pensions are possibly an issue in the DUC level check. Need to investigate the magnitude and the reasons for higher costs (type of schemes proposed).

Table 2 – Summary to determine if the ANSP RP3 average share of pension costs is higher or lower than the Union-wide average.

#### 4.3.B.2 Reporting exceptions and planned changes in assumptions

172 This section reviews the cases where ANSPs allocate some defined benefit costs to another cost category than staff or when there are planned changes in contribution rates or actuarial assumptions during RP3 in further detail:

- Allocation of some defined benefit costs to another cost category than staff. The information can be retrieved from the performance plan section 3.4.3.4. In the case where the answer is yes, explanations are provided in the text box.
- Planned changes in state pension contribution rates. The information can be retrieved from the performance plan section 3.4.3.2. In the case where the answer is yes, explanations are provided in the text box.
- Planned changes in occupational defined contribution rates. The information can be retrieved from the performance plan section 3.4.3.3. In the case where the answer is yes, explanations are provided in the text box.
- Planned changes in actuarial assumptions for the defined contribution schemes. The information can be retrieved from the performance plan section 3.4.3.4. In the case where the answer is yes, explanations are provided in the text box.

- If the answers to all questions are no, the section is marked as 'n/a' and the questions are hidden.

#### 4.3.B.3 Actions taken by the ANSP to manage the cost-risk associated with pensions

173 This section provides a text box summarising the information provided in the performance plan under section 3.4.3.4.

#### 4.3.B.4 PRB Key Points

174 This section provides the key points that the PRB identified by reviewing the above elements relating to pension costs. It summarises key issues concerning the pensions: lack of description of relevant parameters required to estimate future pension obligations, reporting errors in the pillars, the calculation of the pensions is not consistent, etc.

### 4.3.C Method for cost allocation between en route and terminal

#### 4.3.C.1 Cost allocation overview

175 This section presents a text box describing the overall principles and criteria for cost allocation, as well as relevant additional information as provided in the Annex A of the performance plan.

176 Below the table, a text box specifies if there is any change in the allocation with respect of RP2, and if any issue has been identified during the analysis.

#### 4.3.C.2 Review of changes to cost allocation

177 This section analyses the allocation method changes between RP2 and RP3. If the answer to the first question is "No", the remaining part of the section is filled with 'n/a'. If there is a change in cost allocation, further information and analysis is provided in the text box on the right side. Similarly, whether changes are duly described and justified (question 2.2. and, if not, text box on the right) and if there is an impact on the determined costs (question 2.3 and, if yes, text box on the right) is also analysed.

#### 4.3.C.3 PRB Key Points

178 This section provides the key points that the PRB identified by reviewing the above elements relating to cost allocation. It summarises if there have been changes in the allocation from RP2 to RP3, and in the positive case, the quantified impact in the baseline and/or the costs over RP3.

### 4.4. Determined unit costs (DUC)

179 The purpose of this worksheet is to show an overview of DUC trends and perform the cost-efficiency target assessment following the five criteria listed in Annex IV of the Regulation.

#### 4.4.1. Overview and trends of the DUC

180 This section provides a graph showing the DUCs over the period 2014-2024 (Figure 32, next page):

- The back line shows actual values for the years 2014-2019.
- The blue line shows the 2019 DUC baseline (see paragraph 0 above for explanations on the "2019 baseline") as well as the determined DUC for the years 2020-2024.
- The yellow dotted line reflects the DUC trend the Member State would have to achieve if, starting from their proposed 2019 baseline, they would meet the Union-wide trend for RP3 (i.e. +1.0% per year).

- The green dotted line reflects the DUC trend the Member State would have to achieve if, starting from the 2014 baseline DUC (though recalculated using M3 coefficient), they would meet the Union-wide (long-term) trend for RP2+RP3 in each year (i.e. -1.3% per year).

181 The table below the chart shows the DUC values in €<sub>2017</sub> and the year-on-year variations (sourced from reporting tables T1, item 5.5 divided by exchange rate). The final columns provide the calculation of the DUC variation between 2019 and 2024 and between 2014 and 2024.

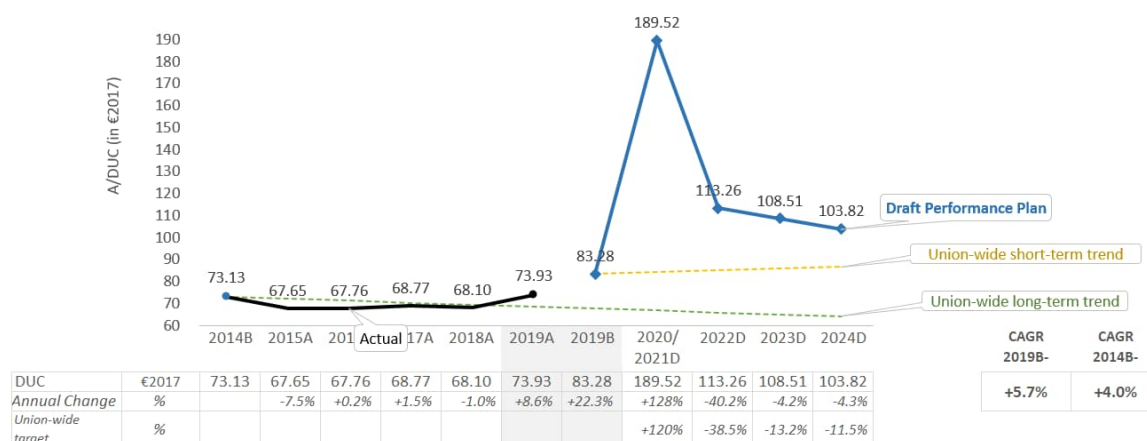


Figure 32 - Example of the overview and trends analysis of the DUC.

#### 4.4.2. DUC consistency

182 This section reviews the DUC consistency (Figure 33, next page) against the criteria set out in Annex IV, Section 1.4 of the Regulation.

- DUC consistency with the Union-wide RP3 DUC trend (ref. Annex IV, Section 1.4(a)) presents the DUC trend for RP3 in the performance plan, the Union-wide trend (i.e. +1.0% per year) and the difference between both values expressed in percentage points. The left side displays check marks to illustrate whether this criterion is met (i.e. the performance plan trend is equal or lower than the Union-wide trend). The DUC trend (CAGR) is calculated over the period 2019-2024 considering 2020 and 2021 as a single combined year.
- DUC consistency with the Union-wide long-term DUC trend (ref. Annex IV, Section 1.4(b)) presents the DUC trend for the period RP2+RP3 (2014-2024) in the performance plan, the Union-wide trend (i.e. -1.3% per year) and the difference between both values. The left side displays check marks to illustrate whether this criterion is met (i.e. the performance plan trend is equal or lower than the Union-wide trend). The DUC trend (CAGR) is calculated over the period 2014-2024 considering 2020 and 2021 as a single combined year.
- DUC level consistency (ref. Annex IV, Section 1.4(c)) presents the DUC 2019 baseline level, the unweighted average of the DUC 2019 baseline for the Member States in the same comparator group (excluding the Member State being reviewed) and the difference between both values. The left side displays check marks to illustrate whether this criterion is met (i.e. the performance plan DUC 2019 baseline level is equal or lower than the average of the comparator group).

183 At the end of the section there is a text box providing a factual analysis of the criteria.

✘ DUC consistency with the Union-wide RP3 DUC trend	Trend (CAGR 2019B-2024)	Performance Plan <b>+5.7%</b>	Union-wide +1.0%	Difference +4.7p.p.
✘ DUC consistency with the Union-wide long-term DUC trend	Trend (CAGR 2014B-2024)	<b>+4.0%</b>	-1.3%	+5.3p.p.
✘ DUC level consistency	2019 baseline	Performance Plan <b>83.28</b>	Average comparator group 73.56	Difference +13.2%

Figure 33 - Example of the overview of DUC consistency.

#### 4.4.3. Analysis of the DUC deviation for achieving the capacity targets

184 This section reviews the case where the DUC in the performance plan does not meet the trend criteria, the Member State presents consistent capacity targets in the performance plan (ref. Annex IV, Section 1.4(d)(i) in more detail), and presents a justification of the deviation in its performance plan.

185 If there is no deviation or the Member State does not present a justification of the deviation for achieving capacity targets the section is hidden. For the Member States not including specific justification in the performance plan, the analysis is carried out and shown in section 4.4.2 (and not specified in 4.4.3) when the deviation has been deemed justified.

186 The first subsection "Deviation" shows valuations in M€<sub>2017</sub> of the deviations of the DUC submitted in the performance plan against the RP3 and the long-term (RP2+RP3) Union-wide trends (i.e. +1.0% and -1.3%, respectively). The deviations are calculated as follows:

- Deviation vs RP3 trend over the period 2020-2024:  $Deviation = 2024\ PP\ total\ costs - (2024\ RP3\ target\ trend\ DUC^* \times 2024\ Planned\ En\ route\ SUs)$

\* See yellow dotted line of the graphic in section 1, which corresponds to the DUC that would be required to meet the RP3 Union-wide trend.

- Deviation vs RP2+RP3 trend over the period 2020-2024:  $Deviation = 2024\ PP\ total\ costs - (2024\ RP2+RP3\ target\ trend\ DUC^{**} \times 2024\ Planned\ En\ route\ SUs)$

\*\* See green dotted line of the graphic in section 1, which corresponds to the DUC that would be required to meet the RP2+RP3 Union-wide trend.

187 The second subsection "Additional determined costs related to measures necessary to achieve the en route capacity targets (in M€<sub>2017</sub>)" provides an estimation of the costs as submitted by the Member State in the performance plan, broken down per cost category, per year and total for the RP3 period. The "PP deviation" columns estimates the deviation from the trend as submitted in the performance plan. It is computed as the sum over the period of the deviation submitted divided by three (i.e. the last three years remaining in the reference period). The performance plan deviation amount is compared against the deviation from the Union-wide trend to assess the consistency. The box below the table reports a summary of the justification provided in the performance plan.

188 At the end of the section there is a text box providing an analysis of the previous four subsections. This analysis substantiates the answer to the question at the end of the section – "Can it be considered that the deviation is exclusively for the purpose of achieving the capacity targets?" - which reflects the requirement of Annex IV, Section 1.4(d)(i) of the Regulation.

#### 4.4.4. Analysis of the DUC deviation due to restructuring costs

189 This section reviews the case where the DUC in the performance plan does not meet the criteria in bullets 1 and 2 of the section 12.2 and the State claims that this deviation is due to restructuring costs (ref. Annex IV, Section 1.4(d)(ii) in more detail).

190 If there is no deviation or the Member State does not report restructuring costs the section is hidden.

- 191 The first subsection "Deviation" shows a quantification in M€<sub>2017</sub> of the deviation of the DUC submitted in the performance plan and the RP3 and long-term trends if these followed the Union-wide trends (calculations as above).
- 192 The second subsection "Restructuring costs from previous periods to be recovered in RP3 (in M€<sub>2017</sub>)" presents the data provided by the Member State in the performance plan, per year and total for the RP3 period. The section is hidden if not relevant.
- 193 The third subsection "Restructuring costs planned for RP3 (in M€<sub>2017</sub>)" presents the sum of the costs of all the restructuring measures provided by the Member State in the performance plan, broken down per cost category, per year and total for the RP3 period. The "PP deviation" columns estimates the deviation from the trend as submitted in the performance plan. It is computed as the sum over the period of the deviation submitted divided by three (i.e. the last three years remaining in the reference period).
- 194 The fourth subsection "Summary of restructuring measures presented in the performance plan" is a text box that summarises the restructuring measures provided by the State in the performance plan. The purpose of this summary, in conjunction with the previous three subsections, is to provide the PRB with as much information as possible for their analysis. The analysis is complemented with a detailed reading of the justifications and material provided by the Member States in the performance plan.
- 195 At the end of the section there is a text box providing an analysis of the previous four subsections. This analysis should substantiate the answers to the two questions at the end of the section reflecting the requirements of Annex IV, Section 1.4(d)(ii) of the Regulation:
- Can it be considered that the deviation is exclusively due to restructuring costs?
  - Is it demonstrated that the measures will deliver a net financial benefit to airspace users at the latest in RP4?

#### 4.4.5. PRB Key Points

- 196 This section provides the key points that the PRB identified by reviewing the above elements relating to DUC. It summarises if the Member State is consistent with the DUC short trend, the DUC long-term trend and the average DUC baseline of the comparator group. Moreover, in case of deviation for achieving capacity targets or for restructuring costs, the PRB indicates if the deviation(s) is justified (i.e. exclusively for the purpose of achieving the capacity targets or due to restructuring costs).

### 4.5. Terminal

#### 4.5.1. Overview and trends of the terminal DUC

- 197 This section provides a graph showing the terminal and en route DUCs over the period 2015-2024 (Figure 34, next page). The terminal DUCs are shown with thicker line(s) than en route, in both cases:
- The black line shows actual values for the years 2015-2019.
  - The blue line shows the 2019 DUC baseline and the DUC for the years 2020-2024.
  - 2020 and 2021 are showed as a combined year, as Commission Implementing Regulation (EU) 2020/1627 defines a combined year for 2020 and 2021.
- 198 The table below the chart shows the DUC values in €<sub>2017</sub> and the year-on-year variations for both terminal and en route. The column on the right provide the calculation of the DUC variation between 2019 baseline and 2024.



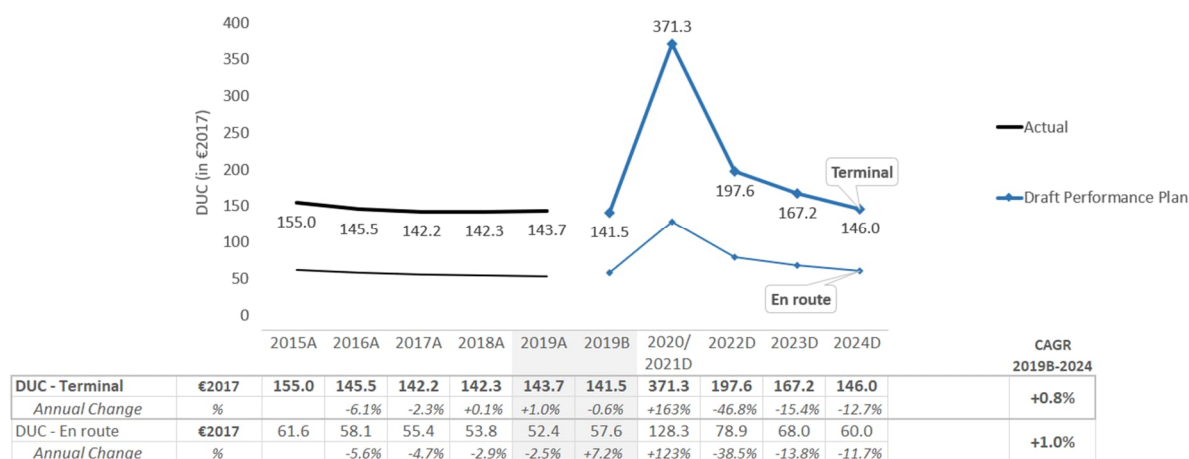


Figure 34 – Example of the overview and trends of the terminal DUC.

#### 4.5.2. Comparison of performance with similar airports

199 This section provides a table (Figure 35) with information on the performance of the airports included in the scope of the performance plan in terms of cost-efficiency compared with similar airports:

- Airport: list of airports included by the Member State in the performance plan.
- Group: group to which the airport belongs (Group I, II, III or IV based on number of movements and seasonality).
- RP2 performance (2015-2019):
  - Group median – airport unit cost: shows the median of the airport unit cost for the relevant airport group for the 2015-2019 period. This is used as a reference for comparison.
  - Average airport unit cost: shows the average of the airport unit cost for the 2015-2019 period.
  - Difference vs median: shows, in percentage, the difference between the two previous values. It shows a red gradient if the unit cost of the airport is higher than the median, and a green gradient if it is lower than the median.
- RP3 plan (2021-2024):
  - Group median – airport DUC: shows the median of the airport planned determined unit cost for the relevant airport group for the 2021-2024 period. This is used as a reference for comparison.
  - Average airport DUC: shows the average of the airport planned DUC for the 2021-2024 period.
  - Difference vs median: shows, in percentage, the difference between the two previous values. It shows a red gradient if the DUC of the airport is higher than the median, and a green gradient if it is lower than the median.

Airport	Group*	RP2 performance (2015-2019)			RP3 Plan (2021-2024)		
		Group median - airport unit cost	Average airport unit	Difference vs Median	Group median - airport DUC	Average airport DUC	Difference vs Median
Airport X	GROUP III	169.1	249.1	+47.3%	229.8	362.5	+57.7%

Figure 35 – Example of comparison of performance with similar airports.

200 Under the table there is a text box providing a review of the data presented in the table.

201 The grouping of airports is done based on the two following criteria:

- Average number of movements over 2016-2018;
- Seasonality.

202 To establish an airport as seasonal, the three busiest months (2018 data) are compared to the three lowest months. If the traffic in the high season is more than double than in low season, it is flagged as seasonal. Based on this criteria, Table 3 shows the four groups that are established.

GROUPS	Criteria
GROUP I	Average 225,000 movements or above in 2016-2018
GROUP II	Average $\geq 80,000$ and $< 225,000$ movements in 2016-2018 and SEASONAL
GROUP III	Average $\geq 80,000$ and $< 225,000$ movements in 2016-2018 and NOT SEASONAL
GROUP IV	Less than 80,000 movements average in 2016-2018

Table 3 – Criteria to group airports based on the number of movements over 2016-2018 and the seasonality.

#### 4.5.3. Elements subject to review

203 This section is divided in three subsections: the first subsection “Baseline review (terminal)” (Figure 36) reviews the two underlying elements of the 2019 terminal DUC baseline submitted by the Member States in their performance plans:

- Traffic - Comparison vs 2019 actual traffic: this check compares the 2019 traffic baseline with the 2019 actual traffic for each terminal charging zone defined by the Member State.
- Costs - 2019 actual vs baseline review: presents the difference, in M€<sub>2017</sub> and % for each terminal charging zone defined by the performance plan, between the 2019 actual costs and the 2019 baseline costs.
- For both traffic and costs, a list of the 2019 baseline adjustments (if any) compared to 2019 actual is presented.

##### Baseline review (terminal)

###### Traffic

Traffic Baseline analysis		$\Delta$ '000 TSUs	%
2019B vs 2019A	TCZ1	0.0	+0%
2019 Traffic Baseline Adjustments	TCZ1	No	

###### Costs

Cost Baseline analysis		$\Delta$ M€2017	%	
2019B vs 2019A	TCZ1	-0.1	-0.5%	
2019 Cost Baseline Adj.	TCZ	Entity Type	Nature	M€2017
#1 - Adjustment on staff co	TCZ1	ANSP	Staff	-0.0
#2 - Adjustment on other c	TCZ1	ANSP	Other ops.	-0.1

Figure 36 - Example of the review of terminal baseline.

204 Below these two checks there are two text boxes presenting:

- the summary of the adjustments to the 2019 baseline (traffic and/or cost) as provided in the performance plans;
- the analysis of the 2019 traffic and cost baseline.

205 The second subsection “Traffic forecasts (terminal)” reviews the traffic forecasts used by the Member States in their performance plans for the 2021-2024 period. It consists of three parts:

- In the first part of the subsection, a simple check confirms whether the Member State has used the STATFOR October 2021 base forecast (latest available before the submission of the performance plans) as required by Article 10(2) of the Regulation.
- Under this check, if the Member State has decided to avail itself of the provisions of the last paragraph of Article 10(2) and use a different forecast than the STATFOR October 2021 base, a text box presents a summary of the justifications provided in the performance plan.



- Finally, a free text box presents a factual description of the traffic forecast used by Member States in the performance plan in comparison with the available STATFOR forecasts (October 2021) and, where applicable, a review of the justifications provided by the Member State in case of using a different forecast than the STATFOR October 2021 base.

206 The third subsection "Determined costs (terminal)" (Figure 37) consists of the following parts:

- Two simple checks confirm whether the inflation data submitted by the Member State for 2020-2024 is consistent with the IMF April or October 2021 forecast.
- Cost elements – Main ANSP (terminal): provides a very quick overview on the status important cost drivers such as investments, cost of capital (including interest on loans, RoE and WACC), and pensions.
- Incentives (terminal): this area shows the main characteristics of the incentives proposed by the Member State in its performance plan.
- The right-hand side of the section shows a graphical presentation of the planned changes in determined costs (per cost category and per entity) between 2019 (forecast) and 2024, both in percentage and in M€<sub>2017</sub>. The data feeding this graph is taken from the terminal reporting tables:
  - "T1 ANSP" for the cost breakdown for the main ANSP.
  - "T1 NSA", "T1 MET", etc.

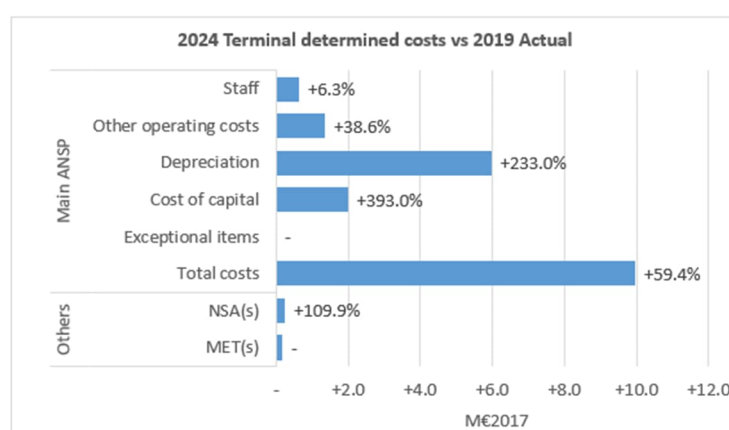


Figure 37 - Example of review of terminal determined costs.

207 NSA costs are set in nominal terms, and depreciation and cost of capital are also set in nominal terms where historical cost accounting is applied as per Article 22(2) of the Regulation. For simplicity, when creating the charts and the comments in the box, these costs are mentioned as €<sub>2017</sub> despite being in nominal terms.

208 At the end of the subsection, there is a free text box commenting on the items above.

#### 4.5.4. PRB Key Points

209 This section provides the key points identified by reviewing the above elements relating to cost allocation. It summarises the comparison with the en route costs DUC trend, the comparison of RP2 actual trend with the RP3 DUC trend, and at airport level, comparison of performance with similar airports. Moreover, PRB indicates other issues e.g. the traffic forecast used by the Member States, the cost evolution between 2019 and 2024 and, in case of an increase, the main drivers for this.