

Guidance material on cost bases for charges and unit rates for air navigation services

May 2025

CHANGE LOG

No.	Date of Change (Publication)	Section	Description
1	23-05-2025	Section 3.4 – <i>Regulatory Asset Base</i>	Clarified how to calculate average regulated asset base and gearing using start/end-of-year values.
2	23-05-2025	Section 3.4 – <i>Interest on Debt</i>	Clarified financial charges or fees (e.g. legal or bank fees) are excluded from interest calculations and should be reported as operating costs
3	23-05-2025	Section 3.8 - <i>Exclusion of ineligible costs</i>	<p>Clarified drone detection costs for public order are ineligible; those for collision risk/no-fly zone enforcement are allowed if transparently allocated.</p> <p>Clarified apron management costs relate to aerodrome operations and should be covered by airport—not ANS—charges.</p>
4	23-05-2025	Section 3.8 – <i>Principles of allocation of eligible costs between services and charging zones</i>	Clarification of the main principles.
5	23-05-2025	Section 3.8 – <i>Principles for identifying and allocating approach costs</i>	New section defining methodologies for the allocation of approach costs between en route and terminal charging zones.
6	23-05-2025	Section 4.4 – <i>Specific cost risk sharing principles</i>	Clarified that costs resulting from the non-adoption of expected legal measures do not qualify as unforeseeable new cost items required by law.
7	23-05-2025	Section 4.5 - <i>Principles</i>	<p>Clarified that the 5% cap on investment cost differences under Article 28(4)(b) must be applied per charging zone.</p> <p>Specified that the chosen approach to comparing actual and determined costs (annual vs. reference period) must be applied consistently across all entities within a charging zone.</p>
8	23-05-2025	Section 4.8 - <i>Adjustments</i>	Clarified no fixed threshold for interest rate changes; Member States/NSAs can define their own, if transparent and proportionate.
9	23-05-2025	Section 4.9 - <i>Adjustments</i>	Clarified that costs resulting changes in social security contributions can be considered as unforeseeable changes in national taxation law.
10	23-05-2025	Section 4.10 - <i>Principles</i>	Clarified that the costs arising from salary indexation mechanisms should be included in the determined costs bases, and that resulting overspend should not be recovered through the cost risk sharing mechanism.

COPYRIGHT NOTICE AND DISCLAIMER	<p data-bbox="427 1684 671 1715">© European Union, 2025</p> <p data-bbox="427 1715 1436 1776">This report has been prepared for the European Commission by the Performance Review Body of the Single European Sky (PRB).</p> <p data-bbox="427 1776 1436 1890">Reproduction is authorised provided the source is acknowledged. However, neither the European Commission, nor any person acting on its behalf, may be held responsible for the use which may be made of the information contained in this publication, or for any errors which may appear, despite careful preparation and checking.</p> <p data-bbox="427 1917 1436 2011">This document does not constitute interpretative legal guidance. Its purpose is to provide technical guidance material for Member States, their national supervisory authorities and air navigation service providers for the implementation of the Single European Sky performance and charging scheme.</p>
------------------------------------	--

TABLE OF CONTENTS

CHANGE LOG	1
1 INTRODUCTION	2
1.1 Structure of the report	3
2 CHARGING ZONES	4
2.1 Establishment of charging zones	4
2.2 Modification of charging zones during the reference period	6
3 COST BASES FOR CHARGES	8
3.1 Determined costs	8
3.2 Actual costs	9
3.3 Costs by entities	10
3.4 Costs by nature	12
3.5 Costs by service	20
3.6 Cost of exempted flights	23
3.7 Specific cost items	26
3.8 Cost allocation	28
3.9 Verification by the NSA	34
4 UNIT RATES	35
4.1 Inflation adjustment	36
4.2 Traffic risk sharing adjustment	37
4.3 Traffic adjustments	40
4.4 Cost risk sharing mechanism	42
4.5 Costs of new and existing investments	46
4.6 Costs of competent authorities, qualified entities and Eurocontrol	48
4.7 Pension costs	49
4.8 Costs from changes in interest rates on loans	50
4.9 Costs resulting from unforeseeable changes in national taxation law	52
4.10 New cost items not covered in the performance plan but required by law	53
Financial incentives	54
4.11 Adjustments relating to the modulation of charges	56
4.12 Deduction of other revenue in accordance with Article 25(3)	58
4.13 Voluntary unit rate reduction in accordance with Article 29(6)	61
4.14 Cross-financing between en route or between terminal charging zones	62
4.15 Adjustments for differences in revenue resulting from the temporary application of a unit rate	63
4.16 Adjustments deriving from previous reference periods	67
5 SETTING OF THE UNIT RATE	69
5.1 Procedure	69
5.2 Initial unit rate submission	69
5.3 Stakeholder consultation	70
5.4 Updated unit rate submission	71
5.5 Adoption of unit rates	71
5.6 Verification of unit rates	72
6 CALCULATION OF SERVICE UNITS AND CHARGES	73
6.1 En route service units	73
6.2 Terminal service units	74
6.3 ANS charges	74
ANNEX I – GLOSSARY OF KEY TERMS	76
ANNEX II – REPORTING TABLES AND ADDITIONAL INFORMATION	80
ANNEX III – TEMPLATE FOR THE NOTIFICATION OF PIVOT VALUES	84

1 INTRODUCTION

- 1 This document is intended to support Member States, their national supervisory authorities (NSAs), and air navigation service providers (ANSPs) in the implementation of the Single European Sky (SES) performance and charging scheme as regards the establishment of cost bases for charges and unit rates for air navigation services in the fourth reference period (RP4) covering calendar years 2025-2029.
- 2 This document provides guidance material for the implementation at local level of Article 11 of Regulation (EC) No 549/2004 laying down the framework for the creation of the Single European Sky (framework Regulation) and Article 15 of Regulation (EC) 550/2004 on the provision of air navigation services in the Single European Sky (service provision Regulation). The detailed requirements for the performance and charging scheme are set out in Commission Implementing Regulation (EU) 2019/317 (hereafter referred to as 'the Implementing Regulation') laying down a performance and charging scheme in the Single European Sky.
- 3 In particular, this document covers the following provisions of the Implementing Regulation:
 - Chapter V - Financing of air navigation services, establishment of charging zones, establishment of cost bases for charges and transparency;
 - Chapter VI - Calculation of unit rates and charges;
 - Annex VII – Determined and actual costs;
 - Annex VIII – Requirements for the calculation of en route and terminal service units referred to in Article 25; and
 - Annex IX – Unit rates.
- 4 Where relevant, reference is also made to Commission Implementing Regulation (EU) 2020/1627 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 (referred to as 'the exceptional measures Regulation'), insofar as those legal provisions have an effect on the unit rates charged during RP4.
- 5 This document also refers to other provisions of SES regulations that are relevant from the perspective of the establishment of cost bases for charges and unit rates for air navigation services, and in particular from:
 - Regulation (EC) 549/2004 of the European Parliament and of the Council laying down the framework for the creation of the Single European Sky ('the framework Regulation');
 - Regulation (EC) No 550/2004 of the European Parliament and of the Council on the provision of air navigation services in the Single European Sky ('the service provision Regulation'), which defines the "charging schemes" in its Chapter III;
 - Commission Implementing Regulation (EU) 2017/373 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight ('the common requirements Regulation');
 - Regulation (EU) 2018/1139 of the European Parliament and of the Council on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency ('the EASA basic Regulation');
 - Commission Implementing Regulation (EU) No 409/2013 on the definition of common projects, the establishment of governance and the identification of incentives supporting the implementation of the European Air Traffic Management Master Plan ('the common projects Regulation'); and
 - Commission Implementing Regulation (EU) 2021/116 on the establishment of the Common Project One supporting the implementation of the European Air Traffic Management Master Plan provided for in Regulation (EC) No 550/2004 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) No 409/2013 and repealing Commission Implementing Regulation (EU) No 716/2014 ('the CP1 Regulation').
- 6 This document contains both citations from the legislation as well as some practical guidance material on possible ways to comply with the legal requirements. When referring to the legislation, the wording may not, in each specific instance, exactly paraphrase the legislation but rather outline the legal requirements in a summarised or simplified manner. When expressing advice, this document

uses terminology such as “should”, “are advised to” and “may”. Only the Court of Justice of the European Union is competent to authoritatively interpret Union law.

- 7 This document is complementary to the guidance material developed by the Performance Review Body (PRB) to assist Member States, NSAs and AN-SPs in the preparation of the draft performance plans for RP4 under the Implementing Regulation (Guidance Material for the Development of Draft RP4 Performance Plans).

1.1 *Structure of the report*

- 8 This report is divided into the following sections:
 - Section 2 covers the establishment of charging zones, including the related principles, consultation and notification requirements;
 - Section 3 encompasses the setting of determined costs and the reporting of actual costs,

including cost eligibility and transparency requirements;

- Section 4 addresses the rules on unit rate calculation, including the unit rate adjustments applicable for RP4;
- Section 5 outlines the process, reporting and consultation requirements for the setting of unit rates; and
- Section 6 presents the principles and methodologies for the calculation of en route and terminal service units and ANS charges.

- 9 This document is supported by three Annexes:

- Annex I – Glossary of key terms;
- Annex II – Reporting tables and additional information; and
- Annex III – Template for the notification of pivot values.

2 CHARGING ZONES

- 10 This section provides guidance relating to the charging zones in which charges for en route and terminal air navigation services are levied.

2.1 Establishment of charging zones

- 11 The establishment of clearly defined charging zones is one of the cornerstones of the SES performance and charging scheme. Relevant principles and reporting requirements are outlined in the section below.

Article 21(1) of the Implementing Regulation

Member States shall, in the airspace under their responsibility where air navigation services are provided to airspace users, establish one or more charging zones for the purposes of incurring en route charges (“en route charging zone”) and one or more charging zones for the purposes of incurring terminal charges (“terminal charging zone”).

Article 21(2) of the Implementing Regulation

Member States shall ensure that the geographical scope of charging zones is clearly defined. The charging zones shall be consistent with the provision of air navigation services, and may include services provided by an air navigation service provider established in another Member State in relation to cross-border airspace.

Principles

- 12 For the purpose of levying air navigation charges, Member States have to establish charging zones in the airspace under their responsibility, where air navigation services are provided to airspace users. Member States are to establish one or more charging zones for both en route air navigation services and terminal air navigation services. Each charging zone is to have a single cost base and a single unit rate. The geographical scope of charging zones should be defined consistently with operational arrangements in place as regards the provision of ANS.
- 13 In accordance with Article 21(4) of the Implementing Regulation, two or several Member States may jointly decide to establish a charging zone extending across their airspace. To this end, Member States should also agree on the principles and criteria for the sharing of ANS revenues generated from the single unit rate.
- 14 Similarly, a charging zone may include, where the Member States concerned jointly so decide, cross-border airspace where air navigation services (ANS) are provided in one Member State by an ANSP based in another Member State (Article 21(2)). Where Member States decide to establish a cross-border or common charging zone, they must ensure the consistent and uniform application of the charging scheme to the provision of air navigation services in the airspace concerned. The cross-border arrangements for the provision of ANS services between charging zones should be detailed in the performance plan.
- 15 In respect of those cross-border areas where ANS are provided in one Member State by an ANSP based in another Member State, it is advised to establish the charging zone on the basis of the provision of ANS instead of the Flight Information Region (FIR) under the responsibility of the Member State. Such approach would allow for a better reflection of the costs and service units for the ANSPs concerned, as well as better alignment in respect of financial incentives for capacity.
- 16 The Implementing Regulation defines en route charging zones and terminal charging zones in Articles 2(8) and 2(21):
- An en route charging zone covers the airspace from the ground up to (and including) upper airspace; and
 - A terminal charging zone covers the provision of terminal services at one airport or at a group of airports.
- 17 For terminal charging zones, in accordance with Article 1(3) of the Implementing Regulation, airports with fewer than 80,000 instrument flight rules (IFR) air transport movements per year are exempted from the Regulation, unless the Member State concerned expressly decides to apply the Regulation in respect of some, or all, of these airports as set out in article 1(4).¹

¹ The sum of take-offs and landings performed under IFR, calculated as the yearly average over the three calendar years preceding the year of submission of the draft performance plan (average 2021-2023 for RP4), as defined in Article 2(10) of the Implementing Regulation).

- 18 Consequently, where a Member State has no airport with a minimum of 80,000 IFR movements and does not opt for the voluntary application of the performance and charging scheme based on Article 1(4), this entails that the Member State concerned will have no terminal charging zone within the meaning of the Implementing Regulation.
- 19 Some airports which were meeting the 80,000 IFR movements threshold for RP3 may have fallen below the threshold for RP4 calculated on the 2021-2023 average due to the significant traffic reduction resulting from the COVID-19 pandemic and the ongoing Russia's war of aggression against Ukraine. On account of these exceptional circumstances and in order to ensure stability in the reporting of terminal services, NSAs should aim to retain these airports within the scope of the performance plans for RP4 through the application of Article 1(4) of the Implementing Regulation.
- 20 According to point (e) of Article 15(2) of the service provision Regulation, cross-subsidies between en route and terminal air navigation services are not allowed. Cross-financing is only allowed between en route charging zones or between terminal charging zones (only "when justified for objective reasons" and "subject to clear identification"), not between the two types of charging zones.

Consultation

- 21 According to the second subparagraph of Article 21(1) of the Implementing Regulation, Member States must consult the airspace users' representatives prior to establishing or amending either an en route or a terminal charging zone.
- 22 The consulted stakeholders may include (but are not limited to) airline associations, individual airlines, military airspace users, representatives of general aviation, and representatives of business aviation. It is advised that complete information is provided to stakeholders no later than three weeks before the consultation.

Notification

- 23 In accordance with the third subparagraph of Article 21(1) of the Implementing Regulation, Member States must establish en route and terminal charging zones at the latest seven months before the start of each reference period and notify the

Commission and, where applicable, the Central Route Charges Office of Eurocontrol (hereafter the CRCO) accordingly.

- 24 This information should also be communicated to Eurocontrol STATFOR for any implications on the traffic forecast for the charging zones concerned.

Details on the charging zones in the performance plan

- 25 Member States shall specify the en route and terminal charging zones that are comprised in the scope of the draft performance plans in accordance with Article 21(1) of the Implementing Regulation, including the list of airports subject to the Regulation for each terminal charging zone, in accordance with items 1.1 and 1.4 of Annex II and the cross-border arrangements for the provision of ANS services between charging zones as per item 4.1 of Annex II.
- 26 In addition, Member States are required to provide the description and rationale for the establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones, in accordance with point 4(a) of Annex IX of the Implementing Regulation. If such cross-financing is applied, a clear identification of the arrangements concerned and justifications stating objective reasons need to be provided. The reporting tables and additional information from Annex IX of the Implementing Regulation form an integral part of the performance plan as Annexes A (for en route charging zones) and B (for terminal charging zones) in accordance with Article 24(2) of the Implementing Regulation. These are also to be updated annually in the context of unit rate setting in accordance with Article 29(2).

2.2 Modification of charging zones during the reference period

Article 21(5) of the Implementing Regulation

Member States may modify or establish a new terminal charging zone during a reference period, provided that they:

- (a) consult the airspace users' representatives and air navigation service providers concerned prior to the modification;*
- (b) notify, without undue delay, the Commission and the CRCO of Eurocontrol of the modification;*
- (c) provide the Commission, without undue delay, with all of the following:*
 - (i) the relevant cost and traffic data adequately reflecting the situation before and after the modification;*
 - (ii) the comments of airspace users' representatives and air navigation service providers consulted in accordance with point (a);*
 - (iii) an assessment of the expected impact of the modification on the achievement of the national performance targets or FAB performance targets in the key performance area of cost-efficiency and on performance monitoring;*
 - (iv) an update of the performance plan with the relevant data.*

Article 21(6) of the Implementing Regulation

Member States shall not modify an en route charging zone during a reference period.

- 27 In accordance with Article 21(6) of the Implementing Regulation, Member States shall not modify an en route charging zone during a reference period.
- 28 In accordance with Article 21(5), Member States may however modify or establish a new terminal charging zone during a reference period in specific circumstances. This may be necessary in the case that operational conditions in a terminal charging zone are significantly changed (e.g. the introduction of a new airport) or in cases where the responsibility for ANS provision is handed over to a different entity.
- 29 This section outlines the principles and the requirements that need to be fulfilled in order to establish or modify terminal charging zones under the SES performance and charging scheme during a reference period.
- 30 If a terminal charging zone is to be modified during the reference period, the following conditions of Article 21(5) of the Implementing Regulation must be met.

Consultation

- 31 The consulted airspace user representatives may include (but not be limited to) airline associations, individual airlines, military airspace users, representatives of general aviation, and representatives of business aviation. ANSPs providing aerodrome and approach services within that specific terminal charging zone should also be informed of and consulted on the intended modification.

Notification

- 32 The modification or establishment of a new terminal charging zone during the reference period could possibly impact the allocation of determined costs between charging zones and/or between the ANSPs concerned. This could impact the unit rate of charging zones, and therefore the calculation of charges that are billed and collected.

Provision of information

- 33 Member States are required to provide without undue delay, all of the following:
 - The relevant cost and traffic data adequately reflecting the situation before and after the modification. The latest cost and traffic data for before and after the modification must be provided. Costs must be detailed by nature, and by service, in nominal terms and in real terms (in line with reporting table requirements set out in Annex VII);
 - The comments of airspace users' representatives and air navigation service providers consulted. To ensure transparency, it is advised that NSAs establish a summary record of discussion of each formal consultation meeting. The description of the outcome of the stakeholder consultation should be published and communicated to the stakeholders involved, as well as to the Commission. It is advised that NSAs also register all detailed stakeholder views in a comment log. This comment log may be subsequently attached as a supporting document together with the notification of change;

- An assessment of the expected impact of the modification on the achievement of the performance targets in the key performance area of cost-efficiency and on performance monitoring. The modification or establishment of a new terminal charging zone during the reference period could possibly impact the allocation of determined costs between charging zones and/or between the ANSPs concerned. Accordingly, it could result in a revision of local performance targets in the key performance area of cost-efficiency, in which case the procedure for revision of performance plans and targets set out in Article 18 of the Implementing Regulation will apply. Therefore, both a quantitative and qualitative impact assessment of the charging zone modification should be provided to the Commission without delay; and
 - An update of the performance plan with the relevant data. The relevant cost and traffic data reflecting the situation after the modification (as requested in the first point above) should be used to update the performance plan. This data should be used to re-calculate the unit rates per charging zone under the ANSP's area of responsibility, in accordance with reporting tables on unit rate calculation in Annex IX.
- 34 The update of the performance plan within the meaning of point (iv) of Article 21(5)(c) of the Implementing Regulation may require a revision of the relevant local performance targets in the key performance area of cost-efficiency. Where this is the case, the Member State concerned is advised to submit a request for revision in accordance with point (ii) of Article 18(1)(a) of the Implementing Regulation, subject to adequate justification that the terminal charging zone modification effectively leads to a significant and lasting change in the initial data, assumptions and rationales underpinning the performance plan and that this change cannot be sufficiently mitigated by other means than the revision of one or several local cost-efficiency targets.
- 35 The Commission will subsequently assess the proposed revision of local performance targets in accordance with Article 18(1)(b) and Annex IV.

3 COST BASES FOR CHARGES

- 36 This section presents guidance for the establishment of cost bases for ANS charges, and outlines the requirements relating to the eligibility, identification, allocation and disclosure of costs under the SES performance and charging scheme.

3.1 Determined costs

- 37 This section outlines the requirements relating to the determined costs to be charged to airspace users under the SES performance and charging scheme.

Article 22(1) of the Implementing Regulation, first subparagraph

The cost base for en route and terminal charges shall consist of the determined costs related to the provision of air navigation services in the charging zone concerned.

Article 22(2) of the Implementing Regulation

Without prejudice to Article 18, the determined costs included in the cost bases for en route and terminal charges shall be set prior to the start of each reference period as part of the performance plan in real terms and specified for each calendar year of that period in real terms and in nominal terms, with the exception of the determined costs referred to in the third subparagraph of paragraph 1 and the determined costs referred to in points (c) and (d) of paragraph 4, which shall be set in nominal terms where historical cost accounting is applied.

Article 22(3) of the Implementing Regulation

Determined costs included in the cost bases for en route and terminal charges shall be calculated in national currency. Where a common charging zone with a single unit rate has been established, the Member States concerned shall ensure conversion of determined costs into a single currency, which may be the euro or another national currency of one of the Member States concerned to ensure a transparent calculation of the single unit rate in application of Article 25(4).

Principles

- 38 The determined cost is a concept introduced in Article 15(2) of the service provision Regulation,

which is used to establish, as part of the performance plan, a fixed cost base for charges for each reference period.

- 39 In accordance with Article 22 of the Implementing Regulation, the cost bases for en route and terminal charges consist of the determined costs for ANS established as part of the performance plan for each charging zone concerned. The determined costs are to be specified for each year of the period, in national currency, and in real and nominal terms.
- 40 The transparency of the determined costs is ensured by filling out and communicating to airspace users the reporting tables contained in Annex VII of the Implementing Regulation, i.e. "Table 1 on Total Costs and Unit Costs".
- 41 Based on Article 1(2) of the Implementing Regulation, the determined costs deemed eligible are those planned for the provision of air navigation services to general air traffic (GAT).²
- 42 Member States must establish the cost bases and unit rates in a transparent manner and the NSAs have to verify, in respect of each charging zone, that the cost bases comply with the SES requirements laid out in the service provision Regulation and the Implementing Regulation.
- 43 The determined costs have to be allocated in a transparent way to the charging zone(s) concerned and have to be broken down by nature and by service and by entity for each charging zone.
- 44 The determined costs are established separately for each charging zone and are set as part of performance plans, in conjunction with the local cost-efficiency performance targets for en route and terminal air navigation services.
- 45 In accordance with Article 10(2)(b) and point 4.1 of section 2 of Annex I of the Implementing Regulation, the local en route and terminal cost-efficiency targets are expressed as the determined unit cost (DUC) for air navigation services, which represents the ratio between the determined costs in real terms and the forecast traffic expressed in service units at charging zone level and

² General air traffic is defined in Article 2(26) of Regulation (EC) No 549/2004 as all movements of civil aircraft, as well as all movements of State aircraft (including military, customs and police aircraft) when these movements are carried out in conformity with the procedures of the ICAO.

for each calendar year of the reference period concerned.

- 46 Subject to conditions, Article 18(1) of the Implementing Regulation provides the possibility for Member States to request a revision of their performance plans during the reference period, including a possible revision of local cost-efficiency targets and hence of determined costs.

Real and nominal terms

- 47 In application of Article 22(2) of the Implementing Regulation, the determined costs in real terms reflect the combination of the two components below:

- Determined costs which are set in nominal terms and further converted into real terms using the “forecast inflation index” as defined in Article 2(11) of the Implementing Regulation. This concerns the ANSP’s operating costs (staff, other operating costs and exceptional items, as well as the costs for exempted VFR flights); and
- Determined costs which are set in nominal terms only and which are not corrected for inflation. This concerns the ANSP’s depreciation costs and cost of capital set according to historical cost accounting, as referred to in points (c) and (d) of Article 22(4), and the costs relating to NSAs, qualified entities and Eurocontrol, referred to in the third subparagraph of Article 22(1).

- 48 According to Article 2(11) of the Implementing Regulation, the “forecast inflation index” is calculated using as a basis the third year before the start of a reference period (i.e. base 100 in 2017 for RP3, base 100 in 2022 for RP4) and computed by using the latest available inflation forecast of average Consumer Price Index percentage change published by the International Monetary Fund for the Member State concerned at the time of drafting the performance plan.

National currency

- 49 In accordance with Article 22(3) of the Implementing Regulation, the determined costs have to be calculated in national currency, except in cases where a common charging zone has been established by Member States having different national currencies. In this case, the Member States concerned are to choose a single currency, which may

be the euro or another national currency of one of the Member States concerned and have to ensure the conversion of determined costs into that currency for a transparent calculation of the single unit rate in application of Article 25.

Details on the determined costs in the performance plan and the reporting tables

- 50 In accordance with items 3.3 (a) and (f) of Annex II, the determined costs have to be set in the performance plan for each year of the reference period, as well as the inflation assumptions and resulting indexes.
- 51 These have also to be presented in the reporting tables, as set out in Annex VII. These reporting tables form an integral part of the performance plan as Annexes A (for en route charging zones) and B (for terminal charging zones) in accordance with Article 24(2) of the Implementing Regulation.
- 52 In addition, for each entity, the NSAs need to describe the composition of each item of the determined costs, the methodology applied to allocate them to the charging zone concerned and the main factors explaining the planned variations over the reference period. The details pertaining to each cost item are detailed in the sub-sections below.

3.2 Actual costs

- 53 This section outlines the requirements as regards costs which are actually incurred in a calendar year for the provision of ANS (“actual costs”).

Article 2(1) of the Implementing Regulation

“Actual cost” means a cost actually incurred in a calendar year for the provision of air navigation services which are subject to certified accounts or, in the absence of such certified accounts, subject to a final audit;

Article 23 of the Implementing Regulation

The provisions of Article 22 shall apply mutatis mutandis to the establishment of actual costs.

Principles

- 54 The Implementing Regulation defines “actual costs” under Article 2(1) in reference to the costs which have been validated through a certification of account or (in absence of this) through a final

audit. Similarly to determined costs, actuals costs are reported over a calendar year.

- 55 In accordance with Article 23, the rules contained in Article 22 regarding the eligibility, composition and allocation of the determined costs are also applicable, *mutatis mutandis*, to the establishment of the actual costs. The NSA should therefore ensure that the reported actual and determined costs are presented consistently according to the same breakdown per entity, nature and service in order to ensure consistency and transparency. All reported actual costs have to be eligible under the SES performance and charging scheme, within the meaning of Article 15(2) of the service provision Regulation and Article 22 of the Implementing Regulation.

Details on the actual costs in the NSA monitoring report and in the reporting tables

- 56 NSAs are required to report annually their actual costs alongside the determined costs in their monitoring report, as well as in the reporting tables, as set out in Annex VII of the Implementing Regulation. In addition, they have to provide, for each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined cost as laid out in point 2.2 of Annex VII of the Implementing Regulation.
- 57 The reporting tables form an integral part of the monitoring report and the reporting of actual costs is subject to consultation with stakeholders in accordance with Article 24(3) of the Implementing Regulation.
- 58 The accurate and comprehensive reporting of actual costs is essential for the transparent and effective implementation of the cost risk sharing mechanism defined in Article 28 of the Implementing Regulation, including as regards the specific cost risk sharing arrangements applicable to the cost categories referred to in Article 28(3). It should be noted that in the context of performance target setting, actual costs of the preceding reference period are used for the calculation, as part of performance plans, of the baseline values referred to in Article 10(2)(a) of the Implementing Regulation.
- 59 The reporting of actual inflation in line with the actual inflation rate published by the Commission in the Eurostat Harmonised Index of Consumer Price

for the Member State concerned in April of year $n+1$, as defined in Article 2(12) is key for the calculation of the inflation adjustments to the unit rates in accordance with Article 26.

3.3 Costs by entities

- 60 This section presents the types of entities incurring eligible costs to be recovered through user charges under the charging scheme for air navigation services as specified in point (b) of Article 15(2) of the service provision Regulation.
- 61 The determined costs recovered through user charges under the charging scheme for air navigation services are primarily those of the ANSPs.
- 62 ANSPs are defined as per Article 2(5) of the framework Regulation, i.e. any public or private entity providing air navigation services for general air traffic. They include:
- Certified ANSPs providing air navigation services for general air traffic where Member States are responsible for the provision of air navigation services, as per points 2(a) and 5(a) of Article 1 of the Implementing Regulation; and
 - ANSPs having the permission to provide air navigation services without certification, in accordance with Article 7(5) of the service provision Regulation, as laid out in point 5(b) of Article 1 of the Implementing Regulation. This concerns ANSPs offering ANS primarily to aircraft movements other than GAT, on the condition that the Member State concerned has informed the Commission of the decision to include such an ANSP and that the duration of this decision corresponds to the duration of a reference period.
- 63 As specified in the third subparagraph of Article 22(1) of the Implementing Regulation, Member States may decide to include in the cost base the determined costs incurred in relation to the provision of air navigation services by competent authorities and qualified entities, as well as determined costs stemming from the Eurocontrol International Convention relating to cooperation for the safety of air navigation of 13th December 1960 as last amended.

Costs of ANSPs

- 64 The determined costs eligible for the ANSPs are defined in point (b) of Article 15(2) of the service provision Regulation as those assessed in relation to the facilities and services provided for and implemented under the International Civil Aviation Organization (ICAO) Regional Air Navigation Plan, European Region.
- 65 The ICAO Regional Air Navigation Plan contains requirements related to the facilities and services to be implemented by States in accordance with regional air navigation agreements to form with those of other States an integrated system adequate for the foreseeable future. The requirements relate to the following services: Air Traffic Management, Communication, Navigation, Surveillance, Search and Rescue, Aeronautical Information and Meteorological services. More details are provided in sub-section 3.5 below relating to the costs by service.
- 66 In accordance with Article 12(1) and (2) of the service provision Regulation, ANSPs have to draw up, submit to independent audit and publish financial accounts compliant with the international accounting standards adopted by the European Union. Where, owing to the legal status of the ANSP, full compliance with the international accounting standards is not possible, the ANSP is to achieve such compliance to the maximum possible extent. Article 12(3) of the same Regulation requires that ANSPs providing a bundle of services identify and disclose the costs and income deriving from air navigation services, broken down in accordance with the charging scheme and, where appropriate, keep consolidated accounts for other, non-air navigation services, as they would be required to do if the services in question were provided by separate undertakings. Hence, the regulated costs (i.e. costs for the purpose of the implementation of the SES performance and charging scheme) must be clearly separated from the costs incurred for “non-regulated” services which have to be excluded from the ANSP’s cost-base.
- 67 Although the ANSPs’ cost bases are derived from their statutory accounts drawn up in compliance with International Financial Reporting Standards (IFRS) rules, they have to be established based on the specific requirements set out in Article 15 of the service provision Regulation and Articles 22, 23 and 24 of the Implementing Regulation. Those

requirements, which apply *inter alia* to the eligibility of costs chargeable to users and to the allocation of those costs between en route and terminal services may differ from the general accounting obligations stemming from the application of IFRS.

- 68 In particular, the determined costs included in the ANS cost bases in respect of a given year are to reflect the eligible costs planned to be incurred for the air navigation services provided during that year. However, with the exception of pension costs, accounting provisions for long-term liabilities or one-off events are not eligible as such as part of the determined costs. More details are provided in sub-section 3.4 relating to the costs by nature.
- 69 Similarly, the determined and actual costs relating to fixed assets (when historical cost-accounting is applied) should be based on the historical value of the assets and should not reflect any re-evaluation of assets although this may be allowed or required under IFRS. More details are provided in sub-section 3.4 relating to the costs by nature.

Costs of NSAs

- 70 As specified above, Member States may decide to include in the cost base the determined costs incurred by competent authorities and qualified entities in relation to the provision of air navigation services, as well as the Eurocontrol costs.
- 71 The terms “competent authority” and “qualified entity” should be understood as defined in the EASA basic Regulation and in the common requirements Regulation:
- Point 11 of Article 3 of EASA basic Regulation defines “qualified entity” as an accredited legal or natural person which may be charged with certain certification or oversight tasks under that Regulation by and under the control and the responsibility of EASA or a national competent authority;
 - Point 34 of Article 3 of EASA basic Regulation defines “national competent authority” as one or more entities designated by a Member State and having the necessary powers and allocated responsibilities for performing the tasks related to certification, oversight and enforcement in accordance with that Regulation and with the delegated and implementing acts adopted on the basis thereof, and with the framework Regulation; and

- Article 4(1) of the common requirements Regulation states that the competent authority shall be the national supervisory authority referred to in Article 4 of the framework Regulation, unless the EASA is the competent authority. For the purpose of this document, the competent authorities and qualified entities are referred to as the NSAs.

72 The determined and actual costs eligible for the NSAs relate to supervision costs and other State costs, including Eurocontrol costs. More details are provided in sub-section 3.5 relating to the costs by service.

Details on the costs per entity in the performance plan and in the reporting tables

- 73 As required in points 1.1 and 1.2 of Annex VII to the Implementing Regulation, determined costs are to be detailed at charging zone level for each entity within the scope of the performance plan, in respect of each calendar year of the reference period.
- 74 In order to comply with this requirement, Member States shall ensure that the reporting tables of Annex VII are filled out separately for each entity subject to the performance plan and incurring determined costs in the charging zone concerned. Consolidated figures, aggregating the data for all relevant entities, are also required for each charging zone.
- 75 Reporting tables have to be filled in by:
- Each ANSP separately (including providers of ATS, CNS, MET, and AIS) which operates in the charging zone. However, in accordance with Article 10(1) of the service provision Regulation, ANSPs may avail themselves of the services of other ANSPs that have been certified in the European Union. In such case, the eligible costs of the contracted ANSP will be presented as other operating costs within the reporting tables of the contracting ANSP; and
 - The NSA(s) and/or qualified entity(ies) which incur eligible costs in relation to the charging zone concerned. A single reporting table, covering supervision costs and other State costs, may be filled in respect of all costs relating to the third subparagraph of Article 22(1) of the Implementing Regulation.

76 In respect of the provision of search and rescue services (SAR), the classification of the entity as an ANSP, as a sub-contracted ANSP or as an NSA depends on the legal arrangements governing the entity. These legal arrangements should be described and justified in the performance plan.

77 Furthermore, it is important to note that point 2.1(f) of Annex VII requires Member States to describe, for each entity, the composition of each item of the determined costs by nature (sub-section 3.4) and by service (sub-section 3.5) in their performance plans.

78 In respect of the annual monitoring, NSAs are required to report the actual costs for each entity in the reporting tables, as set out in Annex VII of the Implementing Regulation. In addition, they have to provide, for each entity and for each cost item, a description of the reported actual costs and the differences with the determined cost as laid out in point 2.2 of Annex VII.

3.4 Costs by nature

79 This section outlines how ANS costs should be broken down by nature as part of the cost bases for charges established under the SES performance and charging scheme and which cost elements are eligible subject to proper allocation.

80 In accordance with Article 22(4) of the Implementing Regulation, determined costs for each charging zone shall be broken down by nature into the following cost categories:

- Staff costs;
- Operating costs other than staff costs (referred to as “other operating costs”);
- Depreciation costs;
- Cost of capital; and
- Exceptional items.

81 Staff costs and other operating costs are for the purpose of this document together referred to as “operating costs”.

- 82 Depreciation and cost of capital are for the purpose of this document together referred to as “investment costs”.³
- 83 Exceptional costs items may relate to either operating costs or investment costs. Such items consist of non-recurring costs relating to the provision of air navigation services, including any non-recoverable taxes and customs duties. This cost category is not presented in detail here as the inclusion of costs within this category is always based on specific local considerations and an ad hoc examination by the NSA.

Treatment of operating costs

- 84 The determined operating costs included in the ANS cost bases in respect of a given year should reflect the costs planned to be incurred in relation to the provision of air navigation services during that year. This entails that, generally speaking, accounting provisions established by ANSPs for the purpose of their statutory accounts (for example, in order to cover long-term liabilities or one-off events), are not eligible to be charged to users as such as part of the determined costs, with the exception of accounting provisions related to pension costs (further explained below in the section on “staff costs”).
- 85 Examples of accounting provisions which are not eligible as such in the determined costs are:
- Long term employee benefits (other than pension costs for retirement and early retirement schemes): for such items, the determined amounts eligible in respect of a certain year are the related amounts planned to be settled during that year. Pre-existing schemes for which provisions have already been charged to users prior to RP4 may only continue to be accrued during a transitional period necessary for the phasing out of such provisions from the cost bases, in full transparency through the performance plan;
 - Unrecovered air navigation charges: for these, the actual write-offs of unrecovered ANS charges deriving from the preceding reference period(s) may be included in the determined costs under the other operating cost category, provided that the NSA deems the

debt to be clearly and definitively impaired and that the amounts were not charged to airspace users in previous reference period(s); and

- Potential liabilities of uncertain timing and amount stemming from court cases: when eligible, these may be recovered through charges only through the cost risk sharing mechanism, provided that such liabilities have actually materialised as costs for the ANSP on the basis of a final court ruling. Such costs can in such case be recorded as actual costs for the calendar year concerned (i.e. year of the final ruling) and subsequently charged to users pursuant Article 28(3)(e) and (6) of Commission Implementing Regulation (EU) 2019/317 concerning “unforeseeable new cost items not covered in the performance plan but required by law”.

- 86 In summary, only exceptionally could long-term accounting provisions for future liabilities accrued year-on-year or in relation to one-off events (as allowed or required under IFRS) be included in the determined cost bases for RP4. These cases should be duly justified in the performance plan and consulted with airspace users.
- 87 It is also understood that, in some cases, ANSPs have included in their cost bases charged to airspace users prior to RP4 amounts in respect of provisions or contingencies which have not yet been settled. The relevant NSA should provide full justification and transparency on these amounts in the RP4 performance plan, whether changes in these provisions are considered in the RP4 determined costs or not.

Staff costs

- 88 In accordance with the second subparagraph of Article 22(4), staff costs attributed to the ANS cost bases include in particular the following elements:
- Gross remuneration of employees;
 - Overtime payments;
 - Employers’ contributions to social security schemes;
 - Employer contribution to pensions (“pension costs”); and

³ Not to be confused with the costs of “new and existing investments”, which, in addition to investment costs relating to fixed assets also includes the cost of leasing of fixed assets, which is to be presented as operating cost.

- Costs of other benefits awarded to employees.

89 As far as pension costs are concerned (retirement and early retirement schemes), Article 22(4) specifies that these shall be calculated using prudent assumptions based on the applicable pension scheme and the relevant national legislation. The amounts eligible in the ANS cost bases depend on the type of pension schemes in place:

- For State pension schemes and defined contributions schemes, the amounts qualifying as determined and actual costs are the contributions (planned to be) paid annually to the scheme; and
- For defined benefits schemes, the eligible amounts consist of the annual past and current service costs relating to the scheme, as well as the net interest costs on the defined benefit liabilities/assets.

90 Pension costs are to be identified separately in the reporting tables as a subset of staff costs. When interest costs on the pension liabilities/assets are included in the cost-base, these should also be reflected in the staff costs and the pension costs entries in the reporting tables (and not as part of the cost of capital).

91 The assumptions underlying the calculation of pension costs are to be detailed in the performance plan, in accordance with Article 22(4) and point 3(3)(f) of Annex II. The determined pension costs and assumptions underlying their calculation are subject to review by the Commission in the context of the assessment of the local draft performance plans as indicated in point 2.1(d)(v) of Annex IV.

92 Pursuant to Article 28(3)(c) and Article 28(6) of the Implementing Regulation, unforeseen and significant changes in pension costs during the reference period are exempt from the general cost risk sharing rule set out in Article 28(2), where this results from changes in national pensions law, pensions accounting law or unforeseeable changes in financial market conditions (sub-section 4.7).

93 As far as long-term staff benefits (other than pension costs for retirement and early retirement schemes) are concerned, as explained above, provisions accrued year-on-year are not eligible as such as part of the ANS cost bases. For such costs, the amounts eligible for a certain year are those

(planned to be) settled during that year (and not those accrued in respect of that year).

Other operating costs

94 According to the third subparagraph of Article 22(4), operating costs (other than staff) cover the costs incurred for the purchase of goods and services used to provide air navigation services, in particular outsourced services, material, energy, utilities, rental of buildings, equipment and facilities, maintenance, insurance costs and travel expenses.

95 The eligible other operating costs amounts include non-recoverable taxes (VAT) and should be established net of ancillary revenues.

96 Other examples of other operating costs comprise (but are not limited to) the following elements:

- Rental costs for land transmission lines;
- Rental costs of land, buildings and other facilities including taxes and other charges, where applicable;
- Cost in respect of the leasing of fixed assets;
- Costs of utilities including water, heating and all energy supplies;
- Rental costs for communication lines;
- Repairs and maintenance costs, excluding internal staff costs, but including non-capitalised equipment, e.g. spare parts or other small expensed items;
- Operating costs of other operational and technical support facilities, including administrative support, legal, consultancy and audit;
- Costs of application software unless considered as an investment;
- Bank charges and commissions, and exchange rate differences arising from the provision of air traffic management (ATM) services; and
- Write-offs of air navigation charges in respect of the preceding reference period(s), provided that such amounts are deemed to be clearly and definitively unrecoverable based on objective reasons.

97 Article 15(2)(b) of the service provision regulation expressly forbids the inclusion, as part of cost bases for ANS charges, of any costs resulting from penalties imposed by Member States pursuant to Article 9 of the framework Regulation. Similarly, Member States are not allowed to include as part of those cost bases any costs deriving from

corrective measures imposed by Member States pursuant to Article 11 of the framework Regulation.

Details on operating costs in the performance plan and the reporting tables

- 98 On the basis of point 2(1)(f) of Annex VII of the Implementing Regulation, the elements included in the staff costs and in the other operating costs should be detailed separately in the performance plan and this for each entity.
- 99 The definition of the different elements should reflect the “building blocks” stemming from the (analytical) accounting of each ANSP concerned which are used to establish the determined costs for the reference period. These are linked to the elements recorded as expenses relating to staff and other operating costs in the annual accounts.
- 100 NSA(s) are to separately disclose any amount accrued in relation to accounting provisions included in total staff, other operating and exceptional costs items and provide a description of each item, the rationale for including such amounts, as well as the latest available value for the accrued provision and the amounts planned for each year of RP4.
- 101 The performance plan also has to lay down the main factors explaining the planned variations over the reference period and the assumptions used to set the determined costs for each year of the reference period.
- 102 In respect of pension costs, the performance plan has to include, in accordance with point 3.3 (f) of Annex II, the description and justification of the assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations on which those assumptions are based, as well as information whether changes of those regulations are to be expected. This information is subject to review as part of the assessment of the cost-efficiency targets and is key for the proper application of Article 28(3) and (4), which governs the unforeseen and significant changes in pension costs established in accordance with Article 22(4) (subsection 4.7).
- 103 During the reference period, the actual operating costs are to be presented annually in the reporting

tables of Annex VII of the Implementing Regulation for each entity, as well as:

- A description of the reported actual costs and the difference between those costs and the determined costs, as per point 2.2 (a) of Annex VII; and
- Any changes to assumptions underlying the calculation of pension costs, as per the last paragraph of point 2.1 of Annex VII.

Investment costs

- 104 Investment costs correspond to the depreciation and cost of capital for each year of the reference period, based on the assets used for the provision of air navigation services allocated to the charging zone concerned.
- 105 Fixed assets should be understood as comprising the tangible and intangible assets that are permanent in nature and effectively held by the air navigation service provider concerned. Tangible fixed assets have a physical form and include (but are not limited to) buildings and equipment. Intangible fixed assets, on the other hand, do not have physical substance and include in particular software, goodwill, and intellectual property rights. ANSPs typically hold intangible assets such as software systems which can be purchased or developed internally.
- 106 For the purpose of calculating investments costs eligible for each charging zone for the existing investments, ANSPs have to maintain an inventory of their fixed assets used for the provision of ANS, containing all the necessary information for each individual asset (date of purchase, purchase price/costs, asset category, date of entry in operation, depreciation period, method, location and allocation to the types of services provided). This inventory of assets should provide the link with the balance sheet of the financial accounts.
- 107 For the purpose of calculating and allocating the costs of new investments (to be) included in the performance plan, the inventory of assets has to be complemented by the ANSP’s investment plan containing the investments in fixed assets planned to be realised during the reference period and beyond.
- 108 As per Articles 22(1) and 23 of the Implementing Regulation, the costs for the purposes of investing in new ATM systems and major overhauls of

existing ATM systems can only be included in the cost base if they are consistent with the implementation of the European ATM Master Plan and Single European Sky ATM Research (SESAR) common projects.

- 109 According to the seventh subparagraph of Article 22(4), costs from the leasing of fixed assets shall not be included in the calculation of depreciation and cost of capital, but reported under other operating costs and shall not generate any depreciation costs and cost of capital.
- 110 For the purposes of Article 28(3) and (4), depreciation and cost of capital are also to be expressly specified in respect of new and existing investments (sub-section 4.5).

Depreciation costs

- 111 According to the fourth subparagraph of Article 22(4) of the Implementing Regulation, depreciation costs relate to the total fixed assets in operation for the purpose of providing air navigation services, with the exception of leased assets. These fixed assets are those recorded in the inventory of assets and in the investment plan, as described above.
- 112 Land is to be considered part of fixed assets but no depreciation shall be calculated for it.
- 113 In accordance with point (c) of Article 22(4), the value of the fixed assets shall be depreciated in accordance with their expected operating life, using the straight-line method applied to the costs of the assets being depreciated. The straight-line method entails that the total value of the asset is divided linearly by the expected lifetime of the asset (expressed as a number of years). This leads to a constant amount to be charged annually as part of the cost base during the defined lifetime of the asset.
- 114 Any assets in operation beyond the defined depreciation period shall be regarded as fully depreciated. Thus, such assets are not anymore part of the asset base within the meaning of Article 22(4) of the Implementing Regulation and no further depreciation costs shall be charged in respect of those assets.
- 115 The depreciation of the fixed assets used for the calculation of the cost of capital for a given ANSP, may be calculated either by applying historical cost accounting or current cost accounting:

- Where historical cost accounting is applied, the value of an asset for depreciation purposes is defined based on its “historical value”, which should be construed as the original cost of the asset at the time of its acquisition by the air navigation service provider. The cost of any subsequent upgrade may either be added to the residual historical cost of the asset or, especially where the upgrade leads to an extended operating life of the asset, may be separately depreciated. When applying the historical method, the actual value of the fixed assets included in the asset base is not re-evaluated during the lifetime of the assets and thus any changes in the actual value have no effect on the depreciation costs and cost of capital charged to users. and
 - Where current cost accounting is applied, the actual value of the fixed assets included in the asset base is re-evaluated during the lifetime of the assets and thus any changes in the actual value impact the depreciation costs and cost of capital charged to users.
- 116 The methodology used to calculate depreciation costs cannot be altered during the duration of the depreciation and must be consistent with the cost of capital applied, namely nominal cost of capital for historical cost accounting and real cost of capital for current cost accounting. Where current cost accounting is applied, the cost of capital pre-tax rate shall not include inflation and the equivalent historical cost accounting figures shall also be provided to allow for comparison and assessment.

Cost of capital

- 117 This sub-section outlines the requirements for the calculation of the cost of capital.

Article 22(4) of the Implementing Regulation

As regards point (d), the cost of capital shall be equal to the product of the following elements:

- (i) the sum of the average net book value of fixed assets in operation or under construction and possible adjustments to total assets determined by the national supervisory authority and used by the air navigation service provider and of the average value of the net current assets, excluding interest-bearing accounts, that are required for the purposes of providing air navigation services;*
- (ii) the weighted average of the interest rate on debts and of the return on equity. For air navigation service providers without any equity capital, the weighted average shall be calculated on the basis of a return applied to the difference between the total of the assets referred to in point (i) and the debts.*

For the purpose of establishing the cost of capital, the factors to which weight is to be given shall be based on the proportion of financing through either debt or equity. The interest rate on debts shall be equal to the weighted average interest rate on debts of the air navigation service provider. The return on equity shall be that provided in the performance plan for the reference period and shall be based on the financial risk incurred by the air navigation service provider.

Where air navigation service providers incur costs from leasing fixed assets, those costs shall not be included in the calculation of cost of capital.

Principles

- 118 The fifth subparagraph of Article 22(4) of the Implementing Regulation allows air navigation service providers to charge a cost of capital which is calculated by multiplying the value of the regulatory asset base (expressed as a monetary value) by a weighted average cost of capital (WACC) pre-tax rate (expressed as a percentage).

Cost of capital

= Regulatory asset base

x Cost of capital pre-tax rate (WACC pre-tax rate)

- 119 The cost of capital enables ANSPs to recover the costs of interest incurred on debt contracted to

finance air navigation services and to charge a “reasonable return on assets to contribute towards necessary capital improvements”, in line with Article 15(3)(d) of the service provision Regulation.

Regulatory asset base

- 120 The regulatory asset base for any given year is the sum of the average net book value of fixed assets and of the average value of net current assets. It represents the capital employed by the ANSP. The average regulated asset base and actual gearing are calculated as the average of 1st January and 31st December values.
- 121 For the purpose of establishing the regulatory asset base, both fixed assets in operation and under construction are considered, with the exception of leased assets. Facilities put into operation during the year are to be taken into account on a pro-rata basis. The average net book value of fixed assets and the costs of depreciation must be consistent.
- 122 Net current assets refer to the working capital of the ANSP, i.e. the operating liquidity used for day-to-day activities, and are calculated as the difference between current assets and current liabilities, excluding interest-bearing accounts.
- 123 In addition, the regulatory asset base may be adjusted, where justified, by the national supervisory authority. The NSA may deem necessary to apply such adjustments where certain unjustified elements should not be included in the regulatory asset base. The following two examples describe possible situations in which related adjustments to the asset base might be deemed necessary at the time of establishing the cost bases for charges as part of the performance plan:
- Based on its review of the investments projected by the ANSP, the NSA may conclude that the costs indicated for one or several fixed asset(s) to be developed or acquired would not be efficiently incurred or that the investments in those fixed assets would not be justified or fully allocated for the purpose of air navigation service provision. After consultation of the ANSP and detailed analysis of the underlying investment(s), the NSA may decide to adjust the asset base in respect of the net book value of fixed assets to exclude any unjustified amounts. This also impacts the

determined costs charged for the depreciation of fixed assets; and

- Where an ANSP has received or is expected to receive financial assistance from the Member State concerned in the form of operating aid or as an equity injection, this may lead for a certain period of time to a significantly higher average value of the net current assets of the ANSP. This will mechanically increase the size of the regulatory asset base and accordingly the determined costs charged for the cost of capital. The NSA should consider applying an adjustment to the regulatory asset base in respect of the net current assets to ensure that no cost of capital is charged on amounts received as financial assistance.

124 Financial assets underlying the discharge by the ANSP of its pension liabilities are not to be included in the regulatory asset base. Net interest on pension liabilities/assets, if any, are to be recorded in the pension costs included in the staff costs.

Cost of capital pre-tax rate (WACC pre-tax rate)

125 As laid out in Article 22(4) of the Implementing Regulation, the cost of capital pre-tax rate is the weighted average of the interest rate on debts and of the return on equity (RoE). The cost of capital pre-tax rate (expressed as a percentage) therefore reflects a weighted average cost of capital (WACC).

Cost of capital pre-tax rate (WACC pre-tax rate)

= (Average interest rate on debt x share of financing through debt)

+ (RoE pre-tax rate x share of financing through equity)

126 For ANSPs without any equity capital, as laid out in Article 22(4), the weighted average could be calculated on the basis of a return applied to the difference between the total of the assets (i.e. the capital employed) and the debts.

Interest on debt

127 For the determined costs, the weighted average interest rate on debts is to be calculated taking account of all the debt-instruments of the ANSP for air navigation services in respect of the existing loans held by the ANSP and the future financing needs of the ANSP, considering the maturity of existing loans, available credit facilities, as well as

needs for additional debt to finance the planned new investments in fixed assets and the ANSP's working capital.

128 The rate of interest of new debt instruments for the reference period will be either those already known at the time of drafting the performance plan or when not known be based on market interest rate plus a premium based on the conception of risk of the ANSP on the part of lenders.

129 The actual average interest rate on debts is the weighted average of the actual interest rates on debt effectively incurred in the calendar year for the loans contracted for air navigation services. It should reflect the cost of actual borrowing (i.e. interest rates attached to the loans). It should correspond to the amounts of interest costs on loans incurred by the ANSP for the financing of ANS divided by the total remaining balance of these loans.

130 Financial charges and fees, such as bank charges or legal fees, must be excluded from the cost of capital and reported as other operating costs.

Return on equity

131 In accordance with Article 22(4) of the Implementing Regulation the RoE is to be determined in the performance plan for each year of the reference period for each ANSP in light of the financial risk it incurs. In this respect, specific consideration should be given to the (maximum) potential impact of risk sharing mechanisms associated with the Implementing Regulation:

- Traffic risk sharing mechanism referred to in Article 27 of the Implementing Regulation; and
- Cost risk sharing arrangements referred to in Article 28 of Implementing Regulation.

132 As a general rule, the financial risk faced by an ANSP for ANS within the scope of the Implementing Regulation is established at ANSP level and is the same for all charging zones concerned, as en route and terminal services face comparable levels of competition and bear similar levels of business and financial risk. Therefore, the WACC pre-tax rate applied by an ANSP should be the same for en route and terminal services in all the charging zones concerned.

133 However, the WACC pre-tax rate may be different if terminal services face more competition than en

route services. A different WACC pre-tax rate for en route and terminal services will impact both the cost of capital and the overall cost allocation between en route and terminal services. The performance plans submitted by NSAs should justify any difference in the business or financial risks between en route and terminal services that results in a different WACC pre-tax rate. This should rule out potential cross subsidisation between en route and terminal services. Cross subsidies between en route and terminal charging zones are not permitted under EU law (Article 15(2)(e) of the service provision Regulation). The RoE is an estimate of a reasonable rate of return on the shareholders' or owners' investment.

- 134 In accordance with Article 22(4) and 23 of the Implementing Regulation, the actual rate of return on equity of an ANSP is that provided in the performance plan. In other words, for an ANSP, the actual RoE rate in a given year is equal to the determined RoE rate for that year.

Share of financing through equity and debt

- 135 For the purpose of calculating the cost of capital pre-tax rate, the factors to which weight is to be given is to be based on the proportion of financing through either debt or equity.
- 136 For the actual costs, the proportion of financing the capital employed for ANS through debt and equity is to be established based on the actual capital structure from the balance sheet of the ANSP, excluding non-ANS activities.
- 137 For the determined costs, the proportion of financing the capital employed for ANS through debt and equity is to be calculated taking account of both the existing and planned loans and the existing and planned equity. It is important to highlight that, while optimal gearing may be used to determine the RoE and WACC (in the CAPM model for example), the data to be reflected in the reporting tables in item 3.8 is the genuine share of financing through equity of the ANSP (or proportion of financing the capital employed through equity) for the purpose of calculating the cost of capital in value.
- 138 ANSPs should aim to reach the optimal capital structure and the corresponding efficient WACC to not pass through the cost of economically inefficient decisions to airspace users.

Details on investment costs in the performance plan and the reporting tables

- 139 As laid out in point 2 of Annex II to the Implementing Regulation, extracts and summaries of the inventory of assets and the investment plan are required to be reported as part of the performance plan. In particular, detailed information is required to be produced separately for each new major investment for which costs will appear during the reference period. For transparency purposes, the new major investments from RP3 are also to be presented separately in the performance plan for RP4.
- 140 Member States have to report in the performance plans, for each year of the reference period and for each entity, the total determined costs incurred in respect of depreciation and cost of capital in the reporting tables of Annex VII, together with complementary information on the components of the cost of capital.
- 141 On the basis of point 2.1(f) of Annex VII, the performance plan also has to lay down the main factors explaining the planned variations over the reference period and the assumptions used to set the determined costs for each year of the reference period. This also refers to:
- The description and justification of the method adopted for the calculation of depreciation costs, as per point 2.1 (g) of Annex VII; and
 - The description and justifications on the different components of the cost of capital, in respect of each charging zone and entity concerned, as per points 3.3 (e) and (f) of Annex II and 2.1 (h) and (i) of Annex VII.
- 142 For the purpose of Article 28(3) and (4), depreciation and cost of capital are also to be expressly specified in respect of new and existing investments (sub-section 4.5).
- 143 During the reference period, the actual investment costs are to be presented annually in the reporting tables of Annex VII for each entity, as well as:
- A description of the reported actual costs and the difference between those costs and the determined costs, as per point 2.2 (a) of Annex VII; and

- Any changes to assumptions underlying the calculation of investment costs, as per the last paragraph of point 2.1 of Annex VII.

3.5 Costs by service

- 144 This section outlines how ANS costs should be broken down by service as part of the cost bases for charges established under the SES performance and charging scheme.

Article 12(3) of the service provision Regulation

When providing a bundle of services, air navigation service providers shall identify and disclose the costs and income deriving from air navigation services, broken down in accordance with the charging scheme for air navigation services referred to in Article 14 and, where appropriate, shall keep consolidated accounts for other, non-air-navigation services, as they would be required to do if the services in question were provided by separate undertakings.

Article 15(2)(d) of the service provision Regulation

The following principles shall be applied when establishing the cost-base for charges:

(d) the cost of different air navigation services shall be identified separately, as provided for in Article 12(3);

- 145 The Implementing Regulation requires Member States to provide, for each charging zone and for each entity under their responsibility, a breakdown of the determined costs per service and to fill in accordingly the data required under part 2 of Table 1 in Annex VII:⁴

- Air Traffic Management;
- Communication;
- Navigation;
- Surveillance;
- Search and rescue;
- Aeronautical information;
- Meteorological services;
- Supervision costs; and
- Other State costs.

Air traffic management

- 146 The determined costs of air traffic management (ATM) encompass the determined costs of air traffic services (ATS) as well as determined costs incurred for air traffic flow management (ATFM) and airspace management (ASM). ATS comprise the various flight information services, alerting services, air traffic advisory services, and air traffic control (ATC) services (area control, approach control, and aerodrome control services).⁵ ATFM and ASM are functions supporting the provision of ATS.

Communication

- 147 The determined costs of communication services comprise costs incurred for the provision of aeronautical fixed services, aeronautical mobile services and/or aeronautical mobile satellite services to enable ground-to-ground, air-to-ground and air-to-air communications for air traffic control purposes.

Navigation

- 148 The determined costs of navigation services encapsulate the costs of those facilities and services that provide aircraft with positioning and timing information. Navigation services basically comprise ground-based radio navigation equipment (e.g. Instrument Landing System (ILS), VHF Omnidirectional Radio Beacon (VOR), Distance Measuring Equipment (DME), and Non-Directional Radio Beacon (NDB)), and satellite-based systems.

Surveillance

- 149 The determined costs of surveillance services cover the costs of those facilities and services used to determine the respective positions of aircraft to allow safe separation. Surveillance systems comprise primary surveillance radar (PSR), secondary surveillance radar (SSR), surface movement radar (SMR) as well as systems that provide automatic dependent surveillance (ADS and ADS-B), including the supporting network and maintenance personnel.

⁴ In respect of terminal air navigation services, a further breakdown per service is required at the level of each airport mandatorily subject to the performance and charging scheme and in a consolidated manner for airports that a Member State has voluntarily opted to include.

⁵ Eurocontrol ATM Lexicon.

Search and rescue

- 150 Member States are allowed to include in the cost base determined costs for search and rescue services (SAR) provided to civil aviation by any permanent establishment of facilities and personnel in charge of providing such services, including relevant fixed and mobile facilities.
- 151 According to paragraph 5.73 of ICAO Document 9161, fixed SAR facilities comprise rescue coordination centres (RCCs) and rescue sub-centres (RSCs), while mobile SAR facilities comprise, where available, long-, medium- and short-range aircraft, including helicopters, rescue boats and vessels, mountain rescue units and any other units or forces that may be designated primarily or exclusively to perform search and rescue functions or made available when required.

Aeronautical information

- 152 The determined costs incurred for aeronautical information services (AIS) are charged for the provision of aeronautical information and data necessary for the safety, regularity, and efficiency of air navigation.
- 153 According to paragraph 5.74 of ICAO Document 9161, AIS comprises the staff, facilities and equipment employed to collect, collate, edit, publish and distribute aeronautical information concerning the entire territory of a State as well as any other areas for which it has undertaken to provide air navigation services. Included are the preparation and dissemination of aeronautical information publications (AIPs), notices to airmen (NOTAM), and aeronautical information circulars (AICs) and the provision of plain language pre-flight information bulletins to flight crews as part of the pre-flight information service.

Meteorological services

- 154 The determined costs of meteorological services (MET) are composed of the costs of those facilities and services that provide aircraft with meteorological forecasts, briefs, and observations as well as any other meteorological information and data provided by the Member State concerned for aeronautical use.
- 155 According to paragraph 5.70 of ICAO Document 9161, meteorological services for air navigation include meteorological observations, reports and

forecasts; briefing, and flight documentation; SIGMET and AIRMET information; world area forecast system (WAFS) forecasts for computerized flight planning; meteorological information for inclusion in broadcasts (such as VOLMET) and data link services (such as D-VOLMET); aeronautical meteorological telecommunications (if not included in COM) and any other meteorological data required from States for aeronautical use. The facilities required to provide such services include world area forecast centres (WAFCs), volcanic ash advisory centres (VAACs), tropical cyclone advisory centres (TCACs), meteorological watch offices (MWOs), aerodrome meteorological offices, aeronautical meteorological stations (including observational and telecommunications equipment used for aeronautical meteorological purposes).

- 156 Certain MET providers (METSPs) based in EU Member States have engaged in the provision of space weather information services to civil aviation and operate global space weather information centres designated by ICAO. The costs incurred for those global space weather information centres may not be included in the cost bases for charges established as part of performance plans, as far as those costs relate to services provided to users outside of the charging zone concerned.
- 157 In accordance with points 2.1(d) and (e) of Annex VII of the Implementing Regulation, Member States have to present a breakdown of MET costs between direct MET costs and MET core costs and describe the methodology used for allocating MET core costs to civil aviation and between charging zones.
 - MET core costs are defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general (i.e. that serve civil aviation and other sectors). These include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems or data processing centres and supporting core research, training and administration (Annex VII, 2.1 (d) of the Implementing Regulation). The ICAO Doc. 9161 and World Meteorological Organisation (WMO) Doc. 904 guidelines complement this definition where core activities are defined as the fulfilment of a primary system

requirement for meteorological information that is jointly used by all service recipients; and

- MET direct costs are the costs associated with meteorological facilities and services that exclusively serve aeronautical purposes. These may include MET observations, reports, and forecasts tailored to aeronautical use; briefing and flight documentation; SIGMET and AIRMET information for aircraft safety; world area forecast system forecasts for computerised flight planning; MET information for broadcasts; data link services; as well as aeronautical MET telecommunications and any other MET data required from States for aeronautical use. This sample of MET services is provided in ICAO Doc. 9161 and the WMO Doc.904.

Supervision costs

158 Under the category of supervision costs, Member States have the possibility to recover determined costs of competent authorities or qualified entities, provided that they are incurred in relation to the provision of air navigation services, in accordance with the second sentence of point (b) of Article 15(2) of the service provision Regulation.

Other State costs

159 Other State costs comprise the costs incurred by Member States in relation to the Eurocontrol International Convention, which Member States may decide to include in their cost bases in accordance with point (c) of the third subparagraph of Article 22(1) of the Implementing Regulation.⁶

160 Eurocontrol costs are also separately presented in the reporting tables of Annex VII, where the conversion of these determined costs from EUR to the national currency is presented where applicable. In this respect, Member States are advised to take into account the most recent exchange rate information published by the Central Route Charges Office of Eurocontrol in April and September of each year.

161 Other State costs may be included, provided that they are incurred in relation to the provision of air navigation services, in accordance with the second sentence of point (b) of Article 15(2) of the

service provision Regulation. These have to be described in the performance plan.

162 The Implementing Regulation requires the Member State concerned to provide, for each charging zone, for each entity and for each airport, a breakdown of the determined costs per service in the reporting tables of Annex VII, as well as:⁷

- A description of the methodology used for allocating costs of facilities or services between different air navigation services and between the different charging zones, as per point 2.1(a) of Annex VII;
- A description of the composition of each determined cost item by service, including a description of the main factors explaining the planned variations over the reference period as per point 2.1(f) of Annex VII;
- For the meteorological costs, a breakdown between direct and core costs, as per point 2.1(d) of Annex VI; and
- Any changes occurring in the above during the reference period.

163 During the reference period, the actual costs per service are to be presented annually in the reporting tables of Annex VII for each entity, as well as:

- A description of the reported actual costs and the difference between those costs and the determined costs, as per point 2.2 (a) of Annex VII; and
- Any changes to assumptions underlying the establishment of these costs, as per the last paragraph of point 2.1 of Annex VII.

⁶ Eurocontrol International Convention relating to co-operation for the safety of air navigation of 13th December 1960, as last amended.

⁷ These may be presented in a consolidated manner for airport of less than 80,000 IFR air transport movements per year.

3.6 Cost of exempted flights

164 This section outlines the principles related to the calculation of costs incurred for flights exempted from en route or terminal charges.

Article 22(6) of the Implementing Regulation

The determined costs incurred for flights exempted in accordance with Article 31(3) to (5) shall be composed of:

(a) the determined costs of exempted VFR flights, calculated through a marginal cost methodology;

(b) the determined costs of exempted IFR flights, calculated as the product of the following elements:

(i) the determined costs incurred for IFR flights, which shall consist of the total determined costs less the determined costs of VFR flights;

(ii) the ratio of the number of exempted service units to the total number of service units which shall consist of the service units in respect of IFR flights and, where they are not exempted, of VFR flights.

The determined costs of exempted VFR flights shall be separated from the determined costs incurred for IFR flights for the purpose of calculating the unit rate.

Article 31(6) of the Implementing Regulation

Member States shall cover the costs for the services that air navigation service providers have provided to flights exempted from en route charges or terminal charges in accordance with paragraph 3, 4 or 5.

165 The legal basis for the exemption of flights from ANS charges is laid out in Article 15(3)(b) of the service provision Regulation, which permits the exemption of certain users from air navigation charges, provided that the cost of such exemption is not passed on to other users. As a result, the costs for the services provided to exempted flights have to be covered by the Member State concerned, as laid out in Article 31(6) of the Implementing Regulation.

166 The detailed rules concerning the application of flight exemptions are contained in Article 31(3) to (5) of the Implementing Regulation. They provide several mandatory and optional exemptions of certain flight categories from en route charges, all of which are optional for terminal charges.

Exemptions from en route charges

167 Article 31(3) of the Implementing Regulation requires the following flight categories to be mandatorily exempted from en route charges:

- Flights performed by aircraft with a maximum authorised take-off weight which is less than two metric tons;
- Mixed VFR/IFR flights in the charging zones where they are performed exclusively under VFR and where an en route charge is not levied for VFR flights;
- Flights performed exclusively for the purpose of transport, on official mission, of reigning Monarchs and their immediate family, heads of state, heads of government and government ministers, where it is substantiated by the appropriate status indicator or remark on the flight plan that the flight is performed exclusively for that purpose; and
- Search and rescue flights authorised by the appropriate competent body.

168 It should be emphasised that the flights exempted under Article 31(3)(b) of the Implementing Regulation consist of flights which are, over different portions of airspace, flying under either IFR or VFR. Accordingly, such a flight is exempted from en route charges in a given charging zone if both of the conditions below are fulfilled:

- The aircraft flew in that charging zone under VFR (thus not using air traffic control services); and
- The Member State concerned has decided to exempt VFR flights from route charges pursuant to Article 31(4)(e).

169 Furthermore, Article 31(4) of the Implementing Regulation details a number of flight categories which a Member State may decide to exempt from the en route charges. These optional exemptions include the following:

- Military flights performed by aircraft of a Member State or any third country;
- Training flights performed solely within the airspace of the Member State concerned and exclusively for the purpose of obtaining a licence, or a rating in the case of cockpit flight crew, where it is substantiated by an appropriate remark on the flight plan that the flight is performed exclusively for that purpose;

- Flights performed exclusively for the purpose of checking or testing equipment used or intended to be used as ground aids to air navigation, excluding positioning flights by the aircraft concerned;
- Flights terminating at the airport from which the aircraft has taken off and during which no intermediate landing has been made;
- VFR flights;
- Humanitarian flights authorised by the appropriate competent body; and
- Customs and police flights.

170 For the application of Article 31(4)(a) of the Implementing Regulation which concerns military flights performed by aircraft of a Member State or any third country, it is important to distinguish between military flights operated as General Air Traffic Flight (GAT) and those operated as Operational Air Traffic (OAT). In accordance with Article 1(2) of the Implementing Regulation, the performance and charging scheme applies to the provision of air navigation services and network functions for general air traffic (GAT). This means that costs related to OAT, which are costs incurred for the purpose of national defence or security, for example in connection with military trainings and missions, are by default excluded from the application of the Implementing Regulation and the cost of those flights cannot be funded through route charges levied on other airspace users.

Exemptions from terminal charges

171 In accordance with Article 31(5) of the Implementing Regulation, Member States may decide to exempt from terminal charges one or several of the flight categories spelled out in Article 31(3) and (4) (referred to above) which are subject to a mandatory or optional exemption from en route charges.

Costs for exempted VFR flights

172 Where a Member State has opted for the exemption of VFR flights from en route and/or terminal charges, in accordance with Article 31(5) and (6) of the Implementing Regulation, it results from point (a) of Article 22(6) that the determined costs incurred for services provided to those flights have to be calculated using a marginal cost methodology, taking into account the benefits to IFR flights stemming from the services granted to VFR flights. In this respect, it is acknowledged that the

vast majority of services are put in place for IFR services and thus the incremental costs incurred for services provided to exempted VFR flights may be negligible.

Article 22(6) of the Implementing Regulation, point (a)

The determined costs incurred for flights exempted in accordance with Article 31(3) to (5) shall be composed of:

the determined costs of exempted VFR flights, calculated through a marginal cost methodology;

Article 22(6) of the Implementing Regulation, last paragraph

The determined costs of exempted VFR flights shall be separated from the determined costs incurred for IFR flights for the purpose of calculating the unit rate.

173 In accordance with the last sentence of Article 22(6) of the Implementing Regulation, Member States are required to identify the determined costs for exempted VFR flights separately from the determined costs of IFR flights for the purpose of calculating the unit rate. The determined costs for exempted VFR flights are therefore to be deducted from the determined cost base and are consequently not taken into account for the calculation of the local cost efficiency performance targets (set against the determined unit cost) and for the unit rate calculation.

174 In accordance with Article 31(6) of the Implementing Regulation, the Member States shall cover these costs for exempted VFR flights in addition to those for exempted IFR flights described in the following sub-section.

Costs for exempted IFR flights

175 In practice, the cost bases and unit rates cover air navigation services provided to both chargeable and exempted IFR flights. Similarly, the service units used for the calculation of the unit rate as per Article 25(2) and to compute the user charges as per Article 31(1) and (2) of the Implementing Regulation are the total service units covering both chargeable and exempted service units in respect of IFR flights. As a result, the unit rates and the unit costs are the same in respect of chargeable and exempted IFR flights.

176 Where VFR flights are not exempted in accordance with Article 31(3), 31(4) and 31(5) of the Implementing Regulation, the cost bases and unit rates also cover the costs for ANS provided to VFR flights and service units include those in respect of VFR flights (as per Annex VIII of the Implementing Regulation).

177 Based on the “user pays” principles, airspace users should only be charged for costs related to a service provided to them. Therefore, the charging scheme requires the allocation of costs among categories of users and in particular the distinction between the cost of the exempted and chargeable flights. In accordance with Article 15(3)(b) of the service provision Regulation, the principle is that the cost of exempted flights is not to be passed on to other users of air navigation services.

178 In accordance with Article 31(6) of the Implementing Regulation, Member States must cover themselves the costs for air navigation services provided to exempted flights through funding provided to the ANSPs concerned so as to ensure that other airspace users are not charged for those costs.

179 Different methodologies are used to compute these amounts to be financed by the Member States concerned:

- Methodology based on the product of the costs incurred for IFR flights and the ratio of the number of service units for exempted IFR flights to the total number of service units, as laid down in Article 22(6)(b) of the Implementing Regulation for the determined costs of exempted IFR flights and by analogy in Article 23 for the actual costs of exempted IFR flights; and

Costs of exempted IFR flights

$$= \text{Costs for IFR flights} \times \frac{\text{Service units exempted IFR flights}}{\text{Total Service Units}}$$

- Methodology based on the unit rate for the charging zone multiplied by the actual service units for exempted military GAT IFR flights. This simple and transparent methodology is also recognised as being compliant with the Regulation and is recommended as it ensures that the exempted flights are treated according to the same rules as the chargeable flights

and hence that the chargeable users are not burdened with costs for exempted flights in accordance with Articles 15(3) (a) and (b) of the service provision Regulation.

Costs of exempted IFR flights

$$= \text{Applied unit rate} \times \text{actual service units exempted IFR flights}$$

Details on costs for exempted flights in the performance plan and the reporting tables

180 Member States are required to provide transparency on the applied exemptions from ANS charges (policy on exemptions) and on the financing means to cover the related costs for each charging zone. These exemptions are defined as part of the performance plans, in accordance with point 4(b) of Annex IX of the Implementing Regulation.

181 The Implementing Regulation also requires the Member State concerned to provide the determined costs for exempted VFR flights for each charging zone, for each entity (generally only the ANSPs) and for each calendar year of the reference period in the reporting tables of Annex VII, as well as a description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, as required in point 2.1(b) of Annex VII.

182 During the reference period, the actual costs for exempted VFR flights are to be presented annually in the reporting tables of Annex VII for each entity, as well as:

- A description of the reported actual costs and the difference between those costs and the determined costs, as per point 2.2 (a) of Annex VII; and
- Any changes to assumptions underlying the establishment of these costs, as per the last paragraph of point 2.1 of Annex VII.

183 In the additional information required as per point 4(b) of Annex IX, Member States also have to provide annually the actual costs incurred in relation to services to flights exempted from ANS charges in the charging zone and explain how ANSPs are compensated for these costs in accordance with Article 31(6) of the Implementing Regulation.

3.7 Specific cost items

184 This section provides an overview of reporting requirements as regards specific cost items, in cases where such items are included in the cost base.

Cost of common projects

185 In accordance with Article 15a(3) of the service provision Regulation, common projects are set up by the Commission for network-related functions which are of particular importance for the improvement of the overall performance of air traffic management and air navigation services in Europe. Such common projects are also eligible for Community funding within the multiannual financial framework.

Article 5(7) of the Common Projects Regulation

Member States and the Network Manager shall include the investments related to the implementation of common projects in the performance plans and the Network performance plan.

Recital 15 of the Implementing Regulation

Performance plans should provide full transparency on the determined costs of new and existing investments in respect of the purchase, development or leasing of fixed assets. Major investments should be detailed and justified, as well as consistent with SESAR deployment and with expected performance gains.

186 According to Article 5(7) of the common projects Regulation and Recital 15 of the Implementing Regulation, the performance plans should provide full transparency on the determined costs of new and existing investments in respect of the purchase, development or leasing of fixed assets.

Details on costs of common projects in the performance plan and the reporting tables

187 Member States are required to identify in the reporting tables of Annex VII of the Implementing Regulation, for each charging zone, for each entity (generally only the ANSPs) and for each year of the reference period, the determined costs included in the cost base regarding the implementation of SESAR common projects. As per point 2.1 (j) of Annex VII they have to describe the composition of the determined costs of common projects, together with the reference to the ATM

functionalities in the scope of the CP1 Regulation. They also have to report on the costs of common projects and other funded projects broken down per individual project, as well as on public funds obtained from public authorities for these projects, as per points 3 and 4(l) of Annex IX.

188 The information on the determined costs of common projects should be prepared in conjunction with the elements to be set out by the Member State concerned in its performance plan as regards the description of recent and expected progress in the deployment of SESAR common projects as per point 4.2 of Annex II of the Implementing Regulation.

189 During the reference period, the actual costs incurred in relation to common projects have to be presented annually in the reporting tables of Annex VII for each entity, as well as the breakdown of the actual costs of common projects per individual project as per point 2.2 (c) of Annex VII and on public funds obtained for these projects, as per points 3 and 4(l) of Annex IX of the Implementing Regulation.

Restructuring costs

190 According to Article 2(18) of the Implementing Regulation, “restructuring costs” means significant one-time costs incurred by air navigation service providers in the process of restructuring for introducing new technologies, procedures or business models to stimulate integrated service provision, compensating employees, closing air traffic control centres, shifting activities to new locations, writing off assets or acquiring strategic participations in other air navigation service providers.

Recital 23 of the Implementing Regulation

The introduction of new technologies and business models to stimulate integrated service provision should lead to significant cost reductions to the benefit of users over time but can lead to initial restructuring costs. If a Member State demonstrates that restructuring measures bring a net benefit to users, it should also be able to request a revision of local cost-efficiency targets in order to recover the associated restructuring costs through a revision of the determined costs contained in their performance plans, subject to the Commission's authorisation.

Article 2(18) of the Implementing Regulation

“Restructuring costs” means significant one-time costs incurred by air navigation service providers in the process of restructuring for introducing new technologies, procedures or business models to stimulate integrated service provision, compensating employees, closing air traffic control centres, shifting activities to new locations, writing off assets or acquiring strategic participations in other air navigation service providers;

Annex IV of the Implementing Regulation, point 1.4 (d)(ii)

(A deviation from the criteria referred to in points (a) to (c) may be deemed necessary and proportionate in order to:

(ii) implement restructuring measures that lead to restructuring costs referred to in Article 2(18), provided that the deviation is exclusively due to those restructuring costs and that a demonstration is provided in the performance plan that the restructuring measures concerned will deliver a net financial benefit to airspace users at the latest in the subsequent reference period.

operations linked to the restructuring measures do not classify as one-time costs. Also, one-time costs should not mean that if in the future another genuine restructuring project appears, the restructuring costs cannot be filed again. The phrase “significant” follows an examination of the following:

- Restructuring costs as a percentage of total costs compared to a base scenario (without the restructuring costs) during the applicable time period; and
- The absolute amount of restructuring costs.

193 Restructuring costs are considered as part of the assessment of the consistency of the local en route cost-efficiency targets with the Union-wide targets, in accordance with the assessment criterion stipulated in point 1.4(d)(ii) of Annex IV. By virtue of this criterion, restructuring costs (within the meaning of Article 2(18)) may justify a deviation from Union-wide targets where it has been found that the deviation is exclusively due to those restructuring costs and the NSA has demonstrated that the restructuring measures will deliver a net financial benefit to AUs at the latest in the next reference period.

194 Restructuring costs may be included in a draft performance plan regardless of whether they are necessary to justify a deviation from the Union-wide DUC trends. Accordingly, restructuring costs are always embedded in the different cost categories used for breaking down determined costs in accordance with Article 22(4) of the Implementing Regulation (i.e. staff costs, other operating costs, depreciation costs, cost of capital, and exceptional costs).

Details on restructuring costs in the performance plan and the reporting tables

195 In accordance with point 3.3(i) of Annex II of the Implementing Regulation, the draft performance plan shall contain, where applicable, the description of any significant restructuring planned during the reference period, including the details of the related restructuring costs and the demonstration that these qualify for restructuring costs in the meaning of the Regulation.

191 The underlying objective of such restructuring should be to improve performance over time by enabling defragmentation of the industry and promoting synergies in service provision. The categories of measures which are eligible under restructuring costs are defined in Article 2(18), as referred above. Those measures may be of an operational, technological, organisational, or financial nature. They should lead to permanent, structural changes in respect of the service provision.

192 The phrase “one-time” in Article 2(18) should be interpreted in a way that restructuring costs are typically incurred at a specific point in time. However, depending on the case, they can be incurred over one or several years. Ongoing costs of

3.8 Cost allocation

- 196 This section outlines the principles and methodology related to the allocation of costs between ANS and non-ANS, between en route and terminal services, as well as between charging zones.

Article 20(3) of the Implementing Regulation

Revenues derived from en route charges or terminal charges shall not be used to finance commercial activities of air navigation service providers.

Article 22(5) of the Implementing Regulation

The determined costs shall be allocated in a transparent way to the charging zones in respect of which they are incurred. Determined costs that are incurred in respect of several charging zones shall be allocated in a proportional way, on the basis of a transparent methodology.

To this end, national supervisory authorities shall lay down, before the start of each reference period, the criteria used to allocate determined costs to charging zones, including in respect of points (b) and (c) of this paragraph, and the criteria to allocate the determined costs between en route and terminal services, and shall include this information in the performance plan in accordance with point 3.3(d) of Annex II.

The determined costs included in the cost bases for terminal charging zones shall cover the cost of the following services:

(a) aerodrome control services or aerodrome flight information services which include air traffic advisory services and alerting services;

(b) air traffic services related to the approach and departure of aircraft within a certain distance of an airport which shall be defined on the basis of operational requirements;

(c) the proportional part of the air navigation services common to en route and terminal services.

Exclusion of ineligible costs

- 197 As described above, the costs eligible under the SES performance and charging scheme are those relating to the provision of ANS to GAT in the charging zones within the scope of the performance plan.
- 198 Therefore, the costs which are not relating to the provision of ANS services (costs for non-ANS) and the costs relating to the provision of ANS outside

the charging zones in the scope of the performance plan, provided to non-GAT users or on a commercial basis (costs for other ANS), must be excluded from the determined and actual cost bases. The costs of overheads or joint costs should be identified, and the share related to non-ANS and other ANS should also be excluded from the determined and actual cost bases.

- 199 Costs to be excluded from the regulatory cost base comprise:

- Costs for air navigation services provided at airports or in charging zones which are outside of the scope the performance plan, including for services in cross-border areas situated in the charging zone(s) of another State;
- Costs for the provision of ATCO training to other ANSPs or other training activities (e.g. when an ANSP owns an Air Traffic Control Officer Training Organisation which is delivering services based on contractual arrangements with companies external to the ANSP organisation);
- Costs relating to sales of consulting services to other ANSPs or any other external entities;
- Costs relating to calibration flights performed for other ANSPs or airports;
- Costs relating to ANS provided under market conditions (e.g. terminal ANS subject to market conditions and exempted from the charging scheme);
- Costs relating to services provided to flights performed under operational air traffic (OAT);
- Costs relating to the provision of U-space services (including common information services (CIS));
- Costs relating to the provision of global space weather information services outside of the geographical scope of the performance and charging scheme;
- The share of drone detection costs **not** related to the provision of air navigation services. For example, ineligible costs may relate to equipment and operations necessary for the purpose of securing air traffic operations at and around the airports from unlawful interference and deterring the entry of uncooperative drones in the controlled airspace, including through the setting and policing of no-fly zones for drones, the detection of drones to prevent them from entering such zones, and

actions required to remove drones from no-drone-flight zones.

- However, if specific equipment (e.g., radars) used for drone detection is also employed by ANSPs to determine the position of drones for the purpose of preventing collisions with aircraft, the associated costs may be partially eligible. In such cases, only the portion of costs directly related to collision prevention should be included in the cost base. The allocation of these shared costs must be based on a transparent and justified methodology, approved by the NSA, to ensure compliance with regulatory requirements and fairness in cost distribution; and
- Costs relating to apron management services which according to Regulation (EU) 2018/1139 (EASA basic Regulation) pertain to aerodrome operations. Apron costs should therefore be covered by airport charges and not by air navigation charges, which exclude apron management services as clarified by the ICAO Doc 4444 and the EASA Certification Specifications and Guidance Material for Aerodrome Design (CS-ADR-DSN).

Principles for allocation of eligible costs between services and charging zones

- 200 Article 15(2)(e) of the service provision Regulation forbids Member States from establishing or applying cross-subsidies between en route and terminal services. Therefore, the determined costs of these services have to be differentiated for charging purposes, and joint costs pertaining to both en route and terminal services have to be allocated in a proportional manner between the charging zones concerned. It is the responsibility of the Member State concerned to establish a transparent and sound methodology for the purpose of cost allocation between en route and terminal services.
- 201 In accordance with Article 22(1) of the Implementing Regulation, the determined costs eligible to be charged to airspace users are to be established at charging zone level. The allocation of costs between the charging zones should reflect the “user pays” principle as laid out in Article 15 of the service provision Regulation. This entails that airspace users should pay for the costs they generate at, or as close as possible to, the point of use, as

explained in Recital 22 of the service provision Regulation.

- 202 To this end, as specified in Article 22(5) of the Implementing Regulation, NSAs must lay down, before the start of each reference period, the criteria used to allocate determined costs between en route and terminal services and between charging zones, including in respect of the costs relating to approach control services and common costs. Those criteria should ensure the transparent setting of determined costs and guarantee that there are no cross-subsidies between en route and terminal services as required in Article 15(2)(e) of the service provision Regulation.
- 203 To support the allocation of determined costs between en route and terminal charging zones, Article 22(5) of the Implementing Regulation expressly sets out the scope of services included in the cost bases for terminal charges. Accordingly, the terminal cost bases must include the determined costs incurred for aerodrome control services (TWR), the costs incurred for approach control services (APP) within a certain distance of the airport defined on the basis of operational requirements, and a proportional share of the common costs between en route and terminal services. Conversely, the cost bases for en route charges consist of the determined costs eligible for ANS, after excluding the costs incurred in respect of terminal services.
- 204 Aerodrome control services (TWR) are provided from a tower ATS unit concerned in order to manage air traffic within a control zone located in an airport’s vicinity and for the safe and efficient flow of aircraft on runways. The costs of aerodrome control services and the costs for the equipment used to provide those services (including Instrument Landing Systems) are to be fully allocated to the relevant terminal charging zone. In respect of airports with fewer than 80.000 IFR movements per year which have not been included in the scope of the performance plan, the aerodrome control services must be excluded from the cost bases for charges and must be financed outside of the scope of the performance and charging scheme.
- 205 Approach control services (APP) are provided within a terminal manoeuvring area (TMA), established for the purpose of managing air traffic departing from or arriving to one or several

aerodromes. TMAs surround the control zones located around the aerodrome(s) concerned (and within which aerodrome control services are provided). ATS facilities for approach control consist either of working positions integrated within Area Control Centres (ACCs) or aerodrome control towers, or of separate approach control units. The principles for the identification of the costs relating to approach services and their allocation between en route and terminal charging zones is detailed in the next sub-section below.

- 206 Certain cost items can be directly associated to a segment of activity (en route, approach or aerodrome control services). This is the case for the salaries of the ATCOs for example. However, in many cases, cost items relate to ANS provided to more than one segment of activity. This is often the case for the ATM systems, which comprise functionalities serving all three segments. Such cost items must be allocated based on a transparent methodology according to allocation keys reflecting as best as possible the share of services provided to each of the segments. Those allocation keys should be defined on a statistical basis where possible. In accordance with Article 22(5) of the Implementing Regulation, determined costs that are incurred in respect of several charging zones shall be allocated in a proportional way, on the basis of a transparent methodology.
- 207 For the purpose of allocating its costs to the relevant segments of activity and the different charging zones, an ANSP has to have a cost accounting system based on the allocation rules laid down by the NSA. The complexity of such cost accounting systems depends on the types of services provided by the ANSP, its business size, etc.
- 208 For the operating costs (staff costs and other operating costs), the individual expense items are allocated to the different services, activities and charging zones, while for the costs of investments relating to fixed assets, the allocation to the different segments of activities should take place at the level of each individual asset.
- 209 The following sub-sections provide specific requirements and guidance for the allocation of costs incurred by the different entities to their different segments of activities.

Principles for identifying and allocating approach (APP) costs

- 210 Approach control services are air traffic control services for arriving or departing controlled flights. These services include separating aircraft during the departure and arrival phases of flight and providing initial and final sequencing of aircraft traffic flows for handover to either the aerodrome or en route controllers.
- 211 The costs for approach control services comprise certain directly identifiable cost items as well as a proportional share of the costs which are common with en route and/or aerodrome control services.
- 212 The costs which can be directly allocated to approach services include for example:
- Staff costs incurred for the ATCOs rostered on approach sectors (within the TMAs), including for the ATCOs in training for the purpose of obtaining or maintaining an approach control rating as part of their licence;
 - Other operating costs incurred for the training of approach controllers;
 - Depreciation costs and cost of capital relating to the infrastructure and equipment used solely for approach services.
- 213 The costs which should be proportionally allocated among the different activities (approach, as well as en route and/or aerodrome control) include for example:
- Staff costs and other operating costs relating to the maintenance of infrastructure and equipment;
 - Depreciation costs and cost of capital incurred for the ATM system, including for a new ATM system or upgrades of an existing system. For these, consideration should be made of the main cost drivers of the different functionalities and their scope of use between en route, approach and aerodrome;
 - Depreciation costs and cost of capital relating to CNS equipment;
 - Administrative/overhead costs.
- 214 Such common costs are to be allocated to the different services on a case-by-case basis to the maximum possible extent on a statistical basis. In many cases, the number of sector-hours provided per segment could provide a basis for defining the allocation keys. The methodology for defining the

allocation keys used for the different cost items should be duly justified and consulted with airspace users.

- 215 Once the costs for approach services have been calculated in respect of the relevant airport(s), those costs are to be allocated between the relevant en route and terminal charging zones.
- 216 214. As a first step, the costs relating to services provided to transiting overflights within the TMA (i.e. not taking off or landing from the serviced airport or airports), if any, are to be deducted from the total approach costs and allocated to the en route activity. Such costs should be calculated on the basis of the share of the distance flown or time spent by these overflights in the TMA as a proportion of all flights controlled in the TMA.
- 217 As a second step, the approach costs for inbound and outbound traffic within the TMA are to be allocated in accordance with Article 22 (5)(b) of the Implementing Regulation within a certain distance of the airport concerned, on the basis of operational requirements.
- 218 As a general rule, for a given airport, this distance should reflect the distance from the outer edge of the aerodrome control sector (handover point to/from the TWR, point A) to the outer edge of the approach control sector (handover point to/ from en route/area control, point B), consisting of a radius around the airport representing the TMA or the approach sector(s) concerned. The distance can be calculated as an average radius if the outer edges of the approach sectors do not form a perfect circle. It follows from this general rule that all approach costs should in principle be fully allocated to the terminal activity/charging zone(s) concerned.
- 219 Should the distance considered be defined based on another point (point C), this should be duly justified on the grounds of operational requirements and consulted with airspace users. In this case, the approach costs would be allocated between the en route and terminal activity/charging zone(s) concerned on the basis of the difference between the (average) radius around the airport concerned representing the TMA or the approach sector(s) concerned (points A and B) and the (average) radius between the airport concerned and the other point defined based on operational requirements (points A and C). Under this approach, a share of approach costs is allocated to the en route activity

/ charging zones. This share can be either calculated on the basis of the average distances (average distance BC / average distance AC) or on the basis of the specific distances for each traffic flow.

- 220 The distance between the airport and the “operational point” may exceed the TMA radius when approach begins prior to the handover point between en route sectors and approach sectors (e.g. in case of extended AMAN) or may be shorter when approach begins after the handover point between the en route sectors and approach sectors. For a given airport, the defined “operational point” is not to be closer to the tower than the (average) initial approach fix (IAF) in case of arriving flights and not closer to the tower than the distance measured on the ground at the (average) transition altitude point for departing flights.
- 221 It is important to note that the 20 kilometres distance applied for the calculation of the en route service units as per the second paragraph of point 1.2 of Annex VIII does not apply by analogy for cost allocation purposes.

Costs incurred by ANSPs for the provision of services in a charging zone under the responsibility of another Member State

- 222 The cost base for a charging zone “shall consist of the determined costs related to the provision of air navigation services in the charging zone concerned”. The geographic scope of charging zones must be “consistent with the provision of air navigation services” and “may include services provided by an air navigation service provider established in another Member State in relation to cross-border airspace”.
- 223 In order to fulfil the abovementioned legal requirements, the costs incurred for air navigation services provided in cross-border areas have to be properly allocated to the airspace users generating those costs. To this end, it is recommended that the geographic scope of each charging zone also comprises the cross-border areas over the territory of one or several neighbouring Member States where the ANSP concerned is providing services. Where a cross-border area located in the airspace of a neighbouring State is part of the charging zone in the scope of the performance plan, both the costs for services provided in that cross-border area and the service units relating to that area are comprised in the charging zone in

the scope of the performance plan. In this case, no further allocation between charging zones and/or financial arrangements between the entities concerned need to be established.

- 224 In respect of cross-border area(s) where the ANSP(s) of the Member State provide(s) services in another State's charging zone(s), the Member States concerned have to ensure appropriate cost and revenue allocation (compliant with the legal requirements) by setting up financial arrangements between them. Those arrangements have to result in the ANSP being duly remunerated for the provided services, whilst ensuring the transparency of costs. Such cross-border areas, as well as the related financial arrangements are to be reported in the performance plan.
- 225 However, it may be concluded that services provided in cross-border areas of a very limited geographic scope or traffic volume do not have a material financial impact. Based on technical analysis conducted by the PRB, cross-border areas which size does not exceed 500 km² or which traffic volume does not exceed 7,500 IFR movements per year on average are presumed to have an insignificant financial impact on the costs and revenue of the ANSP providing the services. Therefore, such cross-border areas and the related financing arrangements do not need to be reported as part of the performance plan.
- 226 When applying the abovementioned materiality thresholds, cross-border areas are to be understood as continuous blocks of airspace, irrespective of sector boundaries. In other words, cross-border airspace blocks directly adjacent to each other and/or directly below or above each other, where services are provided by one ANSP in the same charging zone should be reported as one area and should not be broken down into smaller blocks.
- 227 In light of the above, NSAs are to identify, in their performance plans, the cross-border area(s) where the ANSP(s) of the Member State provide(s) services in another State's charging zone(s) which do not fall below the abovementioned materiality thresholds and provide detailed information on the financial arrangements regarding those cross-border areas.

Costs incurred by ANSPs for the provision of services to operational air traffic (OAT)

- 228 The costs incurred for the provision of services to OAT (whether provided by military or civilian entities) must be identified and excluded from the cost base charged to users for the en route and terminal charging zone(s). These should be financed by the State or the military under proper financial arrangements.
- 229 The costs for services and equipment made available for the purpose of providing ANS exclusively or primarily to OAT should be excluded from the determined costs of the relevant en route and terminal charging zones. In such case, only the share of costs attributable to services to GAT may be included in the performance plan, subject to an objective methodology defined and applied by the NSA. The costs for services and equipment made available for the purpose of providing ANS to both GAT and OAT may be allocated to GAT, provided that the share of costs incurred for OAT is deducted. The costs relating to OAT may in such case be determined through a marginal cost methodology on the grounds that these services and equipment are provided for the benefit of GAT IFR flights.
- 230 The costs incurred in respect of the implementation and operation of the Flexible Use of Airspace (FUA) concept are not considered as services provided to OAT and may be included in the ANS cost bases. These comprise the set-up and operations of the Airspace Management Cells (AMC) and Air Traffic Services under cooperation of civil and military stakeholders for FUA.

Costs incurred by the providers of MET services

- 231 National and international METSPs providing MET services to ANS users often provide also a wide range of MET services to the non-aeronautical community, including meteorological information for other transport modes (e.g. maritime, road), agriculture, tourism, etc.
- 232 It is important to identify the costs for the MET services which are provided to ANS users. For this reason, as explained in sub-section 3.5, a distinction is made between the costs directly attributable to ANS (direct costs) and those serving jointly a multiplicity of users and sectors (core costs).

- 233 While MET “core costs” should be proportionally distributed between aviation and other industries depending on the nature of the individual MET services involved, MET “direct costs” are by definition entirely attributable to civil aviation.
- 234 Once the MET costs attributable to civil aviation have been identified, they should be allocated to the different segments of ANS activities, to ensure a proper allocation between en route and terminal charging zones and the exclusion of the costs attributable to other ANS, such as services to OAT or VFR flights, or services provided to users at airports outside the scope of the performance plan.

Costs incurred by the providers of SAR services

- 235 As for METSPs, national and international providers of SAR services serving civil aviation often also provide SAR to non-aeronautical users, including maritime users.
- 236 It is therefore important to identify the costs for the SAR services which are provided to civil aviation and hence chargeable to airspace users through the ANS cost bases. In this respect, only the costs provided to civil aviation by any permanent establishment of facilities and personnel in charge of providing such services are eligible (subsection 3.5).
- 237 However, as these facilities and personnel may also be used to provide search and rescue to other sectors, their costs must be allocated between ANS and non-ANS services.
- 238 The fixed costs incurred by any permanent establishment with a view to maintaining a capability to perform SAR missions may be taken into account on the basis of the average actual use of this capability for civil aviation rescue missions. This average should be calculated for a significant period of time (e.g. the last 10 years).
- 239 Once the SAR costs attributable to ANS have been identified, they should be allocated to the different segments of activities, to ensure a proper allocation between the different charging zones and the exclusion of the costs attributable to other ANS, such as services to OAT or VFR flights, or services provided outside the scope of the performance plan.

Costs incurred by the national supervisory authorities

- 240 Where established as a separate entity for the supervision of ANS, all the costs of the NSA should normally be incurred in relation to ANS. However, where the NSA is part of a larger body (e.g. DGCA or Ministry of Transport), as a first step, direct costs should first be allocated between ANS and non-ANS and the costs for ANS further allocated between ANS in the scope of the performance plan and ANS outside the scope of the performance plan (e.g. to en route or terminal services outside the scope of the performance plan). The costs of overheads should then also be identified, and the share related to non-ANS and other ANS should also be excluded from the determined and actual cost bases.
- 241 The allocation of NSA costs related to ANS between en route and terminal services should reflect the costs of the NSA activities provided to each service. For example, to allocate NSA staff costs, the staff time spent on the NSA activities for each service can be taken as a proxy. Also, for instance, when the oversight of ATS facilities between en route and terminal services cannot be allocated on a statistical basis and are provided to the same extent for en route and terminal, a 50/50 split could be used.

Details on cost allocation in the performance plan and the reporting tables

- 242 Based on Article 22(5), point 3.3(d) of Annex II and points 2.1(a) and (c) of Annex VII of the Implementing Regulation, a description of the methodology used for allocating costs of facilities or services between different air navigation services and between different charging zones, as well as the criteria used to allocate costs between terminal and en route services should be provided for each entity concerned, including:
- A detailed description of the services provided by each entity within the scope of the performance plan, as well as outside the scope of the performance plan and in that case the arrangements in place to finance them;
 - A detailed description of the methodology used for establishing approach costs and allocating them between en route and terminal services, including the distance from the relevant airport(s) used for allocating these costs and a description of the operational

requirements on the basis of which that distance has been defined;

- The allocation of individual fixed assets to en route and terminal activities in the scope of the plan; and
- For MET costs, based on points 2.1(d) and (e) of Annex VII, a description of the MET costs and of the methodology for allocating these costs between “direct” and “core costs” to ANS in the scope of the performance plan and across charging zones.

243 All the above information is subject to review as part of the assessment of the cost-efficiency targets in accordance with point 2.1 (d) (vii) of Annex IV.

244 For the monitoring, in accordance with the last paragraph of point 2.1 of Annex VII, any change in the cost allocation methodologies during the reference period must be reported together with the information provided on actual costs in the reporting tables as per Annex VII.

3.9 Verification by the NSA

Article 22(7) of the Implementing Regulation

The national supervisory authorities shall verify, in respect of each charging zone, that the cost bases for en route and terminal charges comply with the requirements of Article 15(2) of Regulation (EC) No 550/2004 and with this Article. For this purpose, the national supervisory authorities shall examine the relevant accounting documents, including any asset book and other material relevant to the establishment of the cost base for charges.

245 As recalled in Recital 29 of the Implementing Regulation, NSAs are responsible for verifying that the established determined costs only comprise cost items that are eligible under the performance and charging scheme.

246 In this respect, Article 22(7) of the Implementing Regulation sets out the obligation for the NSAs to verify, in respect of each charging zone, that the cost bases for en route and terminal charges comply with the requirements of Article 15(2) of the service provision Regulation and with the provisions set out in Article 22 of the Implementing Regulation. For this purpose, the NSAs are to examine the relevant accounting documents, including any asset book and other material relevant to the establishment of the cost base for charges.

247 Article 4(1) specifies the information which is to be provided by the ANSP to the NSA, upon request and without delay:

- Information about local conditions relevant to the setting of national performance targets or performance targets set at the level of functional airspace block;
- Data for establishing the return on equity rate for air navigation charges;
- Information about planned investments in the five years following the date of the request, showing the profile of planned expenditure for new and existing investments during and beyond the reference period and how major investments contribute to performance in each key performance area;
- Their business plan referred to in point ATM/ANS.OR.D.005 of Annex III of the common requirements Regulation; and
- Data on cost bases and information on the allocation of costs among en route and terminal ANS (see sub-section 3.8 above), as well as data on revenues from commercial activities and the data on public funds received (see sub-section 4.14 below).

248 In addition, Article 4(2) of the Implementing Regulation requires ANSPs to facilitate the activities necessary for the purposes of the monitoring referred to in Article 37(1) carried out by or on behalf of the competent NSAs in accordance with the national law of the Member State of the authority concerned, in particular by providing relevant documents, data, information and oral explanations upon request and, where the national law of that Member State so permits and in accordance with that national law, by giving access to relevant premises, land or vehicles.

4 UNIT RATES

249 This section provides guidance on the calculation of unit rates for en route and terminal charging zones, including the adjustments and reporting requirements associated with those unit rates.

Article 25(1) of the Regulation

Member States shall calculate the en route and terminal unit rates before the start of each year of the reference period.

Article 25(4) of the Regulation

Unit rates shall be calculated in national currency.

Where Member States decide to establish a common charging zone in accordance with Article 21(4), the unit rate shall be calculated in a single currency, which may be the euro or another national currency of one of the Member States concerned. The Member States concerned shall notify the Commission and the CRCO of Eurocontrol of the applicable currency.

Principles

250 Unit rates shall be calculated annually, in national currency, by Member States for each en route and terminal charging zone in accordance with the rules set out in Article 25 of the Implementing Regulation. Unit rates are calculated and set before the start of each year of the reference period. The timeline and procedure for the setting of unit rates by Member States are outlined in Article 29(2) of the Implementing Regulation.

251 The unit rate calculation is done using the reporting tables contained in Annex IX of the Implementing Regulation, i.e. Table 2 on Unit rate calculation as well as Table 3 on Complementary information on adjustments.

252 In case two or more Member States decide to establish a common charging zone as per Article 21(4), the applicable unit rate for this charging zone shall be calculated in a single currency agreed between the participating Member States as required under Article 25(4) of the Implementing Regulation. The chosen currency is to be notified to the Commission and to the CRCO, together with the request to establish a common en route or terminal charging zone, at least seven months before the start of a reference period, or without undue delay as regards a new common terminal

charging zone established during the reference period in accordance with Articles 21(1) and 21(5).

Components

253 In accordance with Article 25(2) of the Implementing Regulation, the unit rate for a charging zone for each calendar year is calculated on the basis of the determined costs in nominal terms set in the performance plan, adjusted in accordance with the relevant carry-overs from previous years and after the deduction of other revenues (as applicable), and divided by the relevant service unit forecast (i.e. traffic forecast) set in the performance plan.

254 Where a Member State has not been able to adopt a (final) performance plan by the beginning of the reference period, due to the time needed to complete the procedures for the assessment, possible revision(s) and adoption of the performance plans, Article 17(1) of the Implementing Regulation stipulates that the “most recent version” of the draft performance plan is applied on a provisional basis.

255 It follows from this rule that until the adoption of the final performance plan, unit rates are to be calculated and set on the basis of the determined costs and traffic forecasts contained in the most recent version of the draft performance plan. This “most recent version” should be understood as the draft performance plan which is in force (and has been submitted to the Commission) at the time of setting the unit rate for year n in accordance with Article 29(2)(b) of the Implementing Regulation, i.e. by 1st November of year n-1.

256 Determined costs are adjusted for the purpose of unit rate calculation in accordance with the following elements and mechanisms listed in Article 25(2) of the Implementing Regulation, which are presented in detail in the following sub-sections:

- The inflation adjustment in accordance with Article 26 (as listed in Article 25 (2)(b));
- The adjustments resulting from the application of the traffic risk sharing mechanism in accordance with Article 27(2) to (5) (as listed in Article 25 (2)(c));

- The adjustments resulting from traffic variations, in accordance with Articles 27(8) and 27(9) (as listed in Article 25 (2)(g) and (h));
- The adjustments resulting from the application of the cost risk sharing mechanism in accordance with Article 28(4) to (6) (as listed in Article 25 (2)(d));
- The adjustments resulting from the application of the financial incentive schemes in accordance with Article 11(3) and (4) (as listed in Article 25 (2)(e));
- The adjustments resulting from the modulation of air navigation charges in accordance with Article 32 (as listed in Article 25 (2)(f));
- The deduction of other revenue, in accordance with Article 25(3) (as listed in Article 25 (2)(i));
- Cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of the service provision Regulation (as listed in Article 25(2)(j));
- Adjustments for differences in revenue resulting from the temporary application of the unit rate in accordance with Article 29(5) (as listed in Article 25(2)(k));
- Adjustments for differences in revenue resulting from the temporary application of the unit rate in accordance with Article 29(4) (as listed in Article 25(2)(k)); and
- Adjustments relating to previous reference periods⁸ (as listed in Article 25(2)(l)).

257 Furthermore, a Member State may decide in accordance with Article 29(6) of the Implementing Regulation to voluntarily set the unit rate at a level lower than the unit rate calculated based on the principles and adjustments mentioned above in accordance with Article 25(2).

4.1 Inflation adjustment

258 This section outlines the rules for the inflation adjustment of unit rates foreseen under Article 25(2)(b) and Article 26 of the Implementing Regulation.

Article 26 of the Implementing Regulation

For each year of the reference period, the determined costs included in the cost bases for en route and terminal charges of year n expressed in nominal terms shall be adjusted on the basis of the difference in percentage between the actual inflation index and the forecast inflation index for that year n and included as an adjustment for the calculation of the unit rate for year $n+2$.

The determined costs referred to in the third subparagraph of Article 22(1), and the determined costs referred to in points (c) and (d) of Article 22(4) where historical cost accounting is applied, shall not be subject to any inflation adjustment.

Principles

259 The cost-efficiency targets set in the performance plans as per point 4.1 of Section 2 of Annex I of the Implementing Regulation, including the underlying determined costs, are expressed in real terms (i.e. based on the level of prices for a given year and excluding subsequent inflation) to enable the evaluation of performance over time (sub-section 3.1).

260 The determined costs included in the cost bases for en route and terminal charges of year n expressed in nominal terms on the basis of a “forecast inflation index” set in the performance plan. In accordance with Article 2(11) of the Implementing Regulation, the forecast inflation index is calculated using as a basis the third year before the start of a reference period and is computed by using the latest available inflation forecast of average Consumer Price Index percentage change published by the International Monetary Fund for the Member State concerned at the time of drafting the performance plan. In case the percentage change published by the International Monetary Fund for a given year is negative, a zero value shall be used.

261 The determined costs in nominal terms calculated on the basis of the forecast inflation index are subsequently annually adjusted, during the reference period, on the basis of the difference in percentage between the actual inflation index and the forecast inflation index for that year n . The resulting balance is included as an adjustment for the calculation of the unit rate for year $n+2$. For a

⁸ To be understood as reference periods preceding RP3, i.e. the reference periods (RP1 and RP2) in respect of which Implementing Regulation (EU) 2019/317 did not apply and for which the adjustments are not calculated on the basis of that Implementing Regulation.

given year, it corresponds therefore to the cumulative difference between the planned inflation for the year (used for the establishment of the cost-efficiency target in the performance plan) and the actual inflation for the year.

262 According to Article 2(12), the “actual inflation index” is calculated using as a basis the third year before the start of a reference period and computed by using the actual inflation rate published by the Commission in the Eurostat Harmonised Index of Consumer Price for the State concerned in April of year $n+1$. In case the percentage change published by the Commission for a given year is negative, a zero value shall be used.

263 The inflation adjustment is hence an automatic adjustment set out in the Implementing Regulation which ensures that the revenue of air navigation service providers follows the actual evolution of prices measured through the Consumer Price Index. It is applied on the determined costs with the exception of the cost categories specified in Article 26(2) of the Implementing Regulation, i.e.:

- The determined costs incurred by competent authorities and qualified entities, as well as those stemming from the Eurocontrol International Convention relating to cooperation for the safety of air navigation (referred to as costs of NSAs as described in sub-section 3.3); and
- The determined costs of depreciation costs and cost of capital of the ANSPs (including METSPs).

Adjustments

264 In accordance with Article 26, the inflation adjustment calculated in respect of a given year n is passed on to users through the unit rate in $n+2$.

Inflation adjustment

= Determined costs subject to inflation adjustment
x (actual inflation index / forecast inflation index - 1)

265 The unit rate adjustments for inflation are presented in the reporting tables as defined in Annex IX to the Implementing Regulation.

4.2 Traffic risk sharing adjustment

266 This section outlines the rules for adjustments of unit rates relating to traffic risk sharing under

Article 25(2)(c) and Article 27(1) to (5) of the Implementing Regulation.

Principles

267 In accordance with the general principles specified in Articles 11(1) and 11(2) of the Implementing Regulation, a traffic risk sharing mechanism is established in Article 27 of the Implementing Regulation as an incentive scheme in the key performance area of cost-efficiency. This mechanism determines how surpluses and losses due to deviations from the traffic forecast (expressed in service units) established in the performance plan, are shared between the ANSP(s) concerned and airspace users during the reference period. It is implemented at charging zone level.

Article 27(1) of the Implementing Regulation

In respect of the incentive schemes referred to in Article 11(2), a traffic risk sharing mechanism shall be applied. Under that mechanism, the risk of revenue changes due to deviations from the service unit forecast set out in the performance plan shall be shared between air navigation service providers and airspace users, in accordance with the provisions of this Article.

Article 27(6) of the Implementing Regulation

The following determined costs shall not be subject to the provisions of paragraphs 2 to 5:

- (a) *the determined costs established in accordance with the third subparagraph of Article 22(1);*
- (b) *the determined costs for meteorological services.*

Article 27(7) of the Implementing Regulation

Member States may exempt from the application of paragraphs 2 to 5 the determined costs of providers of air navigation services which have received permission to provide air navigation services without certification, in accordance with Article 7(5) of Regulation (EC) No 550/2004.

268 In order to determine the difference between the forecasted and actual service units, Member States have to use the actual figures at charging zone level provided by the entity that is billing and collecting charges, as specified in point 1.2 of Annex VII of the Implementing Regulation. They are advised to make use of the actual service units

data reported by the CRCO in its annual “Report on the operation of the route charges system”. Any difference from these figures shall be duly justified in the additional information to the reporting tables in Annex VII.

- 269 The traffic risk sharing mechanism applies in respect of the determined costs of ANSPs set out in the performance plan for each calendar year. Member States may however exempt from traffic risk sharing the ANSPs which have the permission to provide services without certification pursuant to Article 7(5) of the service provision Regulation. The determined costs referred to in Article 27(6) of the Implementing Regulation, which include the costs of NSAs, Eurocontrol and the costs of MET service provision, are not subject to the traffic risk sharing mechanism.
- 270 The determined costs which are not subject to traffic risk sharing are subject to a traffic adjustment in accordance with Article 27(8) of the Implementing Regulation, which results in the traffic risk being fully borne by airspace users in respect of those cost categories (sub-section 4.3 for more details on the related unit rate adjustments).
- 271 Furthermore, it is clarified in Article 27(9) of the Implementing Regulation, that any adjustments applied for the purpose of unit rate calculation in accordance with Article 25(2) of the Implementing Regulation shall not be subject to traffic risk sharing.
- 272 Article 27(5) enables some flexibility for NSAs in respect of the definition of the traffic risk sharing arrangements applicable at local level over the reference period. NSAs may either decide to apply the default traffic risk sharing mechanism as defined in the Implementing Regulation, or they may decide to adapt certain default values of the traffic risk sharing parameters, subject to the conditions set out in Article 27(5) of the Implementing Regulation as further explained below.
- 273 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 27 regarding the traffic risk sharing mechanism are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.
- 274 Hence, the traffic risk sharing mechanism only starts to produce financial effects once the final

figures on determined costs and traffic forecasts for their calculation have been set as part of the final performance plan. The unit rate adjustments stemming from traffic risk sharing are to be calculated and applied as soon as possible (in accordance with the year n+2 rule outlined above) once the final performance plan has been adopted.

Deadband

- 275 It results from Article 27(2) of the Implementing Regulation that the traffic risk sharing only starts producing effects when the traffic deviation, i.e. the difference between the actual recorded traffic over a calendar year and the traffic forecast set in the performance plan for that calendar year, exceeds a certain threshold (also commonly referred to as “deadband”).
- 276 In accordance with Article 27(2) of the Implementing Regulation, this threshold is set by default at a level corresponding to a deviation of $\pm 2\%$ between the actual number of recorded service units and the traffic forecast. Member States are allowed to modulate this percentage subject to the conditions set in Article 27(5).
- 277 Hence, where the traffic deviation falls within the deadband, the resulting additional revenue or the resulting revenue loss is borne in full by the air navigation service provider or providers concerned. No carry-over and corresponding unit rate adjustment is applied in that case.

Adjustments

- 278 The traffic risk sharing mechanism, as applied in respect of year n, produces effects through an adjustment of the unit rate for the charging zone concerned in year n+2.
- 279 This unit rate adjustment will occur when the traffic deviation over any calendar exceeds the $\pm 2\%$ threshold delineating the deadband referred to in the previous sub-section. The amounts to be carried over are calculated based on the following rules pursuant to Article 27(3) and 27(4) of the Implementing Regulation:
- 70% of additional revenue received for traffic in excess of 2% and up to 10% of the service unit forecast set in the performance plan is to be returned to airspace users, whilst the ANSP is able to recover 70% of the revenue loss incurred in excess of 2% and up to 10% of the service unit forecast set in the performance

plan. Member States are allowed to modulate these percentages subject to the conditions set in Article 27(5); and

- In respect of additional revenue or revenue losses due to actual traffic deviating from the service unit forecast set in the performance plan by more than $\pm 10\%$ (i.e. exceeding 110% of the service unit forecast or being lower than 90% of the service unit forecast), all additional revenue gained beyond this limit is to be passed on in full to airspace and any revenue loss is to be fully recovered from airspace users.

280 The figure below outlines the revenue loss incurred or the additional revenue retained by the ANSPs and the airspace users (AUs) under the traffic risk sharing mechanism depending on the difference between the traffic forecast and actual traffic (in service units) under the default mechanism.

281 However, Member States are allowed to adapt the deadband and other values of the traffic risk sharing mechanism as described in the sub-section below.

282 In accordance with point 5.1 of Annex II to the Implementing Regulation, NSAs are required to specify in the performance plans the values of the traffic risk sharing parameters (default or adapted) that they have chosen to apply in respect of each charging zone in the scope of the performance plan.

283 The values of the traffic risk sharing parameters and, in the event that the NSA has adapted the values also the justifications provided for those values are subject to review by the Commission in the context of the assessment of the local draft performance plans, as indicated in point 2.1 (e) of Annex IV.

Adaptation of traffic risk sharing parameters

284 As laid out in Article 27(5), NSAs may adapt the values of the following parameters of the traffic risk sharing mechanism:

- The deadband (default $\pm 2\%$);
- The % loss to be recovered from airspace users between the deadband and the risk sharing band of -10% (default 70%); and
- The % additional revenue to be returned to users between the deadband and the risk sharing band of $+10\%$ (default 70%).

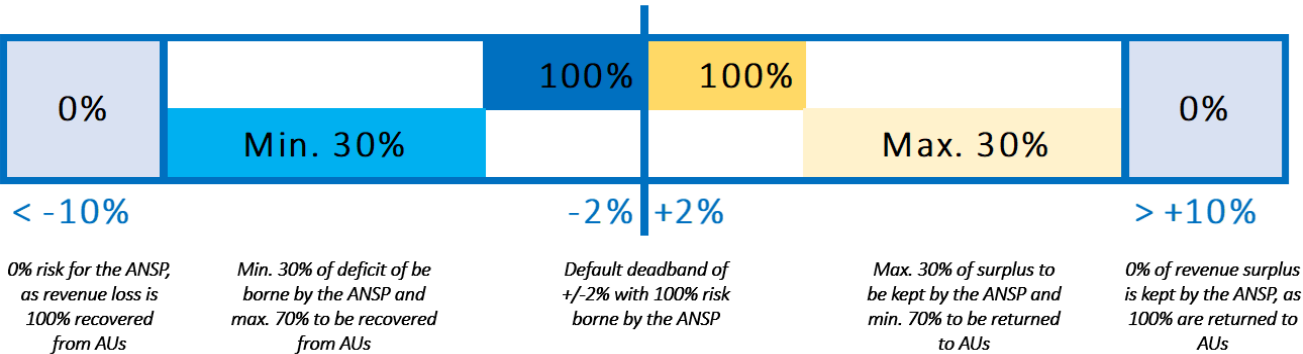
285 As explained earlier, it should be noted the traffic risk sharing parameters set out in Article 27(4), which concern traffic deviations beyond 10% of the service unit forecast, are not subject to any possible adaptation.

286 When adapting the values of the parameters of the traffic risk sharing mechanism, the national supervisory authorities shall, as laid out in Article 27(5):

- Consult on the intended values the airspace users' representatives and ANSPs concerned;
- Ensure that the resulting risk exposure of the air navigation service providers is not lower than the maximum revenue at risk under the default mechanism; and
- Consider the variation of costs of capacity provision by the ANSP concerned due to variation in traffic.

287 The adapted values shall be presented in the performance plan as required under point 5(1)(b) of Annex II together with:

- The justification of the defined adapted values of the traffic risk sharing parameters. In particular, the NSA should explain in the performance plan how they have considered the variation of the costs of capacity provision by the ANSP concerned as a result of variations



in traffic, as required in Article 27(5)(c), and include the conclusions of any relevant analysis conducted by the NSA itself or by external experts. As appropriate, related materials should also be annexed to the performance plan;

- The description of the consultation process of airspace users and ANSPs on the setting of the values of the traffic risk sharing parameters and of the outcome of the consultation. This information should be included in Section 1.3 of the performance plan (section on stakeholder consultation); and
- The calculation of the risk exposure of the ANSP resulting from the adjusted values for traffic risk sharing. As point (b) of Article 27(5) does not allow the risk exposure to be lower than under the default traffic risk sharing parameters, the maximum risk exposure for any given year shall not be lower than 4.4% of the ANSP's determined costs.

Details on traffic risk sharing in the performance plan and in the reporting tables

288 In accordance with point 5.1 of Annex II of the Implementing Regulation, the parameters applied for the calculation of the traffic risk sharing are to be laid out in the performance plan. Details on the traffic risk sharing adjustment are reported in the reporting tables as defined in Annex IX to the Implementing Regulation.

4.3 Traffic adjustments

289 This section outlines the rules for adjustments to unit rates relating to the adjustment traffic risk sharing under Article 25(2)(c) and Article 27(2) to (5) of the Implementing Regulation.

Article 27(8) of the Implementing Regulation

In respect of the determined costs referred to in paragraph 6 and, if applicable, in paragraph 7, any additional revenue in year n due to differences between actual service units and the service unit forecast included in the performance plan for that year shall be passed on to airspace users, and any revenue loss shall be recovered from airspace users, through an adjustment of the unit rate in year $n+2$.

Article 27(9) of the Implementing Regulation

The adjustments to the unit rates referred to in points (b), (c), (d), (e), (f), (g), (h), (i), (j), (k) and (l) of Article 25(2) shall not be subject to the provisions of paragraphs 2 to 5. In respect of the adjustments referred to in points (b), (c), (d), (e), (f), (g), (i), (j) and (k) of Article 25(2), any additional revenue in year n due to differences between actual service units and the service unit forecast included in the performance plan for that year shall be passed on to airspace users, and any revenue loss shall be recovered from airspace users through an adjustment of the unit rate in year $n+2$.

Principles

290 For those elements of the determined costs which are not subject to traffic risk sharing adjustments as described in sub-section 4.2, the traffic risk is borne by airspace users, in accordance with Article 27(8) of the Implementing Regulation. This is also true for the adjustments to the determined costs entering in the calculation of the unit rate, as listed in Article 25(2) (b) to (l), which are subject to the rules laid out in Article 27(9) of the Implementing Regulation.

Adjustments referred to in Article 27(8)

291 Adjustments relating to traffic variations as established in Article 27(8) of the Implementing Regulation apply to the cost categories which are not subject to the traffic risk sharing mechanism set out in Article 27(2) to (5) of the Implementing Regulation. These are:

- The costs incurred by competent authorities, qualified entities, and Eurocontrol, in accordance with Article 27(6)(a);
- The costs of meteorological services, in accordance with Article 27(6)(b); and
- The costs associated with ANSPs not subject to certification in accordance with Article 7(5) of the service provision Regulation, where the

Member State concerned has decided to exempt such costs from traffic risk sharing pursuant to Article 27(7).

292 The determined costs not subject to traffic risk sharing are subject to the following adjustments relating to traffic variations in accordance with Article 27(8) of the Implementing Regulation:

- Any additional revenue in year n due to differences between actual service units and the service unit forecast included in the performance plan for that year shall be passed on to airspace users, and any revenue loss shall be recovered from airspace users; and
- The related unit rate adjustments shall be made in year n+2.

293 It follows from Article 27(8) that the traffic risk concerning the abovementioned cost items referred to in Articles 27(6) and 27(7) is fully borne by airspace users.

294 In accordance with the last sentence of the second sub-paragraph of Article 29(5), the provisions of Article 27 of the Implementing Regulation regarding the adjustments for traffic variations are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

295 Hence, adjustments for traffic variations in accordance with Article 27(8) of the Implementing Regulation produce financial effects only once the final determined cost and traffic forecast figures for their calculation have been set as part of the final performance plan. The unit rate adjustments stemming from Article 27(8) are to be calculated and applied as soon as possible (in accordance with the year n+2 rule outlined above) once the final performance plan has been adopted.

Adjustments referred to in Article 27(9)

296 Differences between the actual recorded traffic over a calendar year and the traffic forecast set in the performance plan for that calendar year also entail that a negative or positive balance remains in respect of carry-overs from previous calendar years.

297 In accordance with Article 27(9) of the Implementing Regulation, this balance is in turn carried over to year n+2, where it will translate into a final unit rate adjustment. No further carry-overs are to be

applied in respect of any remaining balance resulting from traffic deviations in year n+2.

298 The mechanism set out under Article 27(9) is necessary due to the fact the adjustments of the unit rate in year n, which are based on the carry-overs from previous years, is calculated ex ante on the basis of a service unit forecast, whilst the actual impact of those adjustments materialises ex post on the basis of the actual service units recorded over that calendar year.

299 In accordance with the last sentence of the second sub-paragraph of Article 29(5), the provisions of Article 27 of the Regulation regarding the adjustments for traffic variations are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

300 The adjustments under Article 27(9) do not apply to carry-overs from previous reference periods. Therefore, adjustments to unit rates originating from the second reference period are calculated and applied based on Implementing Regulation (EU) 391/2013 and are not in the scope of Article 27(9) of Implementing Regulation (EU) 2019/317. This means, in accordance with point 2.2. of Annex IV of Implementing Regulation (EU) 391/2013 that the over- or under-recoveries resulting from traffic variation relating to RP2 adjustments will continue to be rolled over as long a balance remains in respect of those adjustments (and not only once as foreseen for RP3 and RP4 adjustments in Article 27(9)) until those adjustments are fully settled in respect of traffic variation.

301 It should also be noted that the adjustments under 27(9) also do not apply to the reduction of the unit rate as per Article 29(6) of the Implementing Regulation, where no adjustment is made for the difference between the actual and forecast traffic for the related year (sub-section 4.15).

302 Details on the traffic adjustments are reported in the reporting tables as defined in Annex IX to the Implementing Regulation.

4.4 Cost risk sharing mechanism

303 In accordance with the general principles specified in Articles 11(1) and 11(2), a cost risk sharing mechanism is established in Article 28 of the Implementing Regulation as an incentive scheme in the key performance area of cost-efficiency.

Article 28(1) of the Implementing Regulation

In respect of the incentive schemes referred to in Article 11(2), a cost risk sharing mechanism shall be applied.

Under that mechanism, differences between determined costs included in the performance plan and actual costs shall be shared between air navigation service providers and airspace users, in accordance with the provisions of this Article.

304 The cost risk sharing mechanism is a fundamental aspect of the SES performance and charging scheme which determines how surpluses and losses, due to differences between the determined costs set in the performance plan and actual costs recorded over the reference period, are to be shared between the ANSPs (or Member States) concerned and the airspace users. In respect of certain cost items, the cost risk sharing mechanism leads to carry-overs and related unit rate adjustments during the reference period concerned and/or the subsequent reference period(s).

305 The cost risk sharing mechanism constitutes a means to incentivise ANSPs or Member States to properly manage their costs during a reference period. The underlying prerequisite is that the ANSP concerned has taken reasonable and identifiable steps to control its costs in an appropriate manner not only in respect of the establishment of the cost base included in the performance plan, but also proactively during the reference period. As such, the cost risk sharing mechanism is important in ensuring the achievement of efficiency gains in the key performance area of cost-efficiency.

306 As stipulated under Recital 34 of the Implementing Regulation, ANSPs should bear the cost risk with regard to differences between determined and actual costs, except for a limited number of cost items subject to specific requirements. As such, a distinction should be made, in accordance

with Article 28 of that Implementing Regulation, between the general cost risk sharing principles and specific provisions relating to the sharing of cost risk between ANSPs and airspace users. These are further detailed in the following sub-sections.

General cost risk sharing principles

Article 28(2) of the Implementing Regulation

The differences referred to in paragraph 1 shall be shared as follows:

(a) where, over the whole reference period, actual costs fall below the determined costs, the air navigation service

provider or the Member State concerned shall retain in full the resulting difference;

(b) where, over the whole reference period, actual costs exceed the determined costs, the air navigation service provider or Member State concerned shall cover in full the resulting difference.

307 The general principles governing cost risk sharing are stipulated in Article 28(1) and 28(2) of the Implementing Regulation. Those rules concern primarily the differences between determined and actual costs in respect of staff costs (with the exception of unforeseen changes in pension costs) and other operating costs (with the exception of unforeseen changes related to operating costs incurred for leasing of fixed assets). These cost categories are to be understood in accordance with the provisions of Article 22(4) of the Implementing Regulation.

308 For those cost categories, if actual costs are lower than determined costs over the whole reference period (or over any single calendar year), the ANSP or Member State concerned shall retain in full the resulting difference. Conversely, if actual costs exceed the determined costs over the whole reference period (or over any single calendar year), the ANSP or Member State concerned shall cover in full the resulting difference. ANSPs and Member States hence fully bear the cost risk under this general provision.

Specific cost risk sharing principles

Article 28(3) of the Implementing Regulation

Paragraph 2 does not apply if the differences between determined costs and actual costs result from at least one of the following changes:

(a) unforeseen changes in costs of new and existing investments;

(b) unforeseen changes in costs referred to in the third subparagraph of Article 22(1);

(c) unforeseen and significant changes in pension costs established in accordance with Article 22(4) resulting from unforeseeable changes in national pensions law, pensions accounting law or unforeseeable changes in financial market conditions, on the condition that such changes in pension costs are outside the control of the air navigation service provider and, in the case of cost increases, that the air navigation service provider has taken reasonable measures to manage cost increases during the reference period;

(d) unforeseen and significant changes in costs resulting from unforeseeable changes in interest rates on loans that finance costs arising from the provision of air navigation services, on the condition that such changes in costs are outside the control of the air navigation service provider and, in the case of cost increases, that the air navigation service provider has taken reasonable measures to manage cost increases during the reference period;

(e) unforeseen and significant changes in costs resulting from unforeseeable changes in national taxation law or other unforeseeable new cost items not covered in the performance plan but required by law.

The determined costs relating to the costs referred to in this paragraph shall be identified and categorised in the performance plan, in accordance with point 3.3(h) of Annex II.

The differences between determined and actual costs referred to in this paragraph shall be identified and explained annually in accordance with Annex VII and Annex IX.

309 Specific cost risk sharing provisions are set out in Articles 28(4) to 28(6) of the Implementing Regulation in respect of the following cost categories referred to in Article 28(3) of the Implementing Regulation:

- Costs resulting from unforeseen changes in new and existing investments (Articles 28(3)(a) and 28(4));

- Costs resulting from unforeseen changes in costs referred to in the third subparagraph of Article 22(1) (Articles 28(3)(b) and 28(5));
- Costs resulting from unforeseen and significant changes in pension costs (Articles 28(3)(c) and 28(6));
- Costs resulting from unforeseen and significant changes in interest rates on loans (Articles 28(3)(d) and 28(6));
- Costs resulting from unforeseen and significant changes in national taxation law (Articles 28(3)(e) and 28(6)); and
- Other unforeseeable new cost items not covered in the performance plan but required by law (Article 28(3)(e) and 28(6)).

310 As a result, the differences between determined and actual costs listed above are carried over as adjustments of unit rates under rules specified for each cost category in the corresponding sub-sections below.

311 In accordance with the last sentence of the second sub-paragraph of Article 29(5), these adjustments stemming from the differences between determined and actual costs are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

312 In accordance with point 3.3(h) of Annex II of the Implementing Regulation, the determined costs relating to the above cost items have to be identified and categorised in the performance plan. Furthermore, in accordance with the last sentence of Article 28(3) of the Implementing Regulation, the differences between determined and actual costs for cost risk sharing purposes shall be identified and explained annually in accordance with Annex VII and Annex IX of the Implementing Regulation. The reporting tables (on costs and unit rates) contained in these Annexes are filled out at entity and charging zone level in the context of the annual unit rate setting process set out under Article 29(2) of the Implementing Regulation. The cost risk sharing adjustments are subject to consultation of airspace users' representatives and to review and verification by the NSA concerned in accordance with Article 28(7) of the Implementing Regulation.

313 Article 28(3) of the Implementing Regulation refers to differences between determined and actual costs resulting from "unforeseen" changes. In

respect of the cost categories specified in Article 28(3)(c) to (e), specific cost risk sharing provisions apply to changes that are both “unforeseen” and “significant”, with the exception of the “unforeseeable new cost items not covered in the performance plan but required by law” referred in Article 28(3)(e) in respect of which no materiality threshold is applied (i.e. there is no condition relating to “significant” changes).

314 It is the role of the NSA to assess the effort made by the ANSP concerned to mitigate differences relating to the cost items covered under Article 28(3)(c) to (e), especially where those differences are not material in terms of financial impacts. Such requirements of proactive cost control and risk management do not contradict the notion of “unforeseen” and “significant” cost differences, but should rather be regarded as a prerequisite for it.

315 Accordingly, specific cost risk sharing provisions may not be applied where a change resulting in a difference between determined and actual costs was foreseen at the time of drafting the performance plan, or (for the cost categories concerned) when this change is deemed insignificant following verification by the NSA. In such cases, the general principle applies, even in respect of the cost categories referred to in Article 28(3).

316 For the purpose of clarity, NSAs are advised to take into consideration the following definitions associated with the specific cost risk sharing provisions as applicable under Article 28(3) of the Implementing Regulation:

- “Unforeseen” means an event, circumstance, or an outcome that could not be anticipated or predicted at the time of drawing up the performance plan;
- “Significant” as a concept could induce subjectivity in the assessment of the claim for the application of specific risk sharing provisions in respect of the cost categories specified under Article 28(3)(c) to (e), namely the pension costs, the cost of interest on loans and changes in law. As such, when considering a measure as “significant”, NSAs are advised to take into account the following considerations: (i) Materiality as regards the magnitude of the change (i.e. using a relative threshold such as a percentage of total costs or total revenues). (ii) Objectivity (i.e. using an

objective threshold such as interest costs to determine a significant change in the interest rates on loans). To ensure the fair treatment of actual costs, after consultation with the respective ANSP(s) and in line with their responsibilities under Article 28(7), NSAs are advised to consistently appraise and apply the qualification as “significant” in respect of each calendar year of the reference period; and

- “Changes in law” applies to changes in national pensions law and pensions accounting law (Article 28(3)(c), and changes in national taxation law or unforeseeable new legal requirements or new legal obligations leading to additional costs not foreseen in the performance plan (Article 28(3)(e)). For the purpose of this guidance material, a change in law encompasses all changes in legal acts as well as obligations stemming from final rulings before the competent courts at national or EU level, irrespective of the nature of the actual field of law. The underlying change in law should always be duly explained and substantiated by the ANSP in order to enable NSAs to verify in accordance with Article 28(7), that the specified changes in costs are eligible under Article 28(3)(e). Situations arising from the non-adoption of expected legal measures, such as a failure to implement national legislation enabling the redistribution of charges, do not qualify as unforeseeable new cost items required by law. Only costs resulting from a new legal obligation or a change in law, which was not foreseeable at the time the performance plan was established, may be considered under Article 28(3)(e). The absence of legislative action or failure of anticipated legal reform does not constitute a qualifying event.

317 The following sections provide guidance material as regards the application of the specific cost risk sharing provisions for the various cost categories referred to in Article 28(3) in conjunction with the specific provisions for cost risk sharing as stipulated in Article 28(4) to (6), provided that the differences between determined and actual costs were unforeseen and, where this is required, significant.

318 In accordance with Articles 22(7), 23 and 28(7) of the Implementing Regulation, the NSA is responsible for checking the data and documentation received from the ANSP concerned in terms of its

completeness and adequacy in respect of the cost items referred to in Article 28(3) of the Implementing Regulation. In case of incompleteness or inaccuracies, the NSA should request clarifications or additional information from the ANSP concerned.

NSA report on the application of the cost risk sharing mechanism

Article 28(7) of the Implementing Regulation

National supervisory authorities shall verify annually whether air navigation service providers apply correctly the provisions of this Article. National supervisory authorities shall draw up a report by 1 September of year n+1 on the changes in costs referred to in paragraph 3 which occurred in year n. The report shall be subject to consultation of airspace users' representatives.

National supervisory authorities shall also include in the report which is due by 1 September of the year following the final year of the reference period the balance over the whole reference period in respect of the unforeseen changes in the costs referred to in points (a), (c), (d) and (e) of paragraph 3.

319 The Implementing Regulation requires NSAs to draw up a report in year n+1 on the changes in costs in year n referred to in Article 28(3). As presented above, these unforeseen costs are subject to specific cost risk sharing principles and attention should therefore be given to verifying the underlying circumstances and justifications for the application of the risk sharing mechanism in respect of the changes in cost concerned.

320 The NSAs shall verify that the report contains the determined costs, as per the adopted performance plan, per ANSP, per charging zone, and for every year of the reference period. In the report drawn up in year n+1, the NSAs shall fill in the actual costs related to year n, and the resulting adjustments to the unit rates, if any. The NSAs should clearly indicate in the report whether the unit rate adjustments are carried over to year n+2 or to the following reference period(s). The NSAs shall ensure that the determined costs, actual costs, and the adjustments to the unit rate and their timing contained in the report are consistent with the reporting tables that NSAs shall submit by 1 November of year n+1.

321 The report shall contain the assessment performed by the NSA to verify that the ANSPs have

correctly applied the provisions set out in Article 28(3) to 28(6). The information presented should be sufficiently detailed to provide airspace users' representatives with a comprehensible summary of the assessment conducted by the NSA.

322 Further to this latter point, it should be highlighted that the consultation of airspace users on the report to be drawn up by the NSA is a legal requirement laid down in Article 28(7) of the Implementing Regulation. The consultation on the draft report could be organised as follows:

- NSAs may use the opportunity to present the draft report for year n as part of the stakeholder consultation meetings on the actual costs of year n and the unit rates of year n+2 required in accordance with Article 24(3) and 30(1) of the Implementing Regulation;
- NSAs may decide to organise a dedicated stakeholder consultation meeting (which may be held online) to present the draft report and invite stakeholders for feedback; and
- If the organisation of a meeting is not possible, NSAs should ensure that the requirement to consult stakeholders on the report can still be met. This may be done by organising a written consultation (e.g. dissemination of the draft report for comments) to reflect stakeholders' views.

323 Following the consultation of relevant stakeholders, NSAs should ensure that the final report also reflects the points raised by stakeholders, e.g. in the form of a summary of comments and clarifications provided by the NSAs.

324 In accordance with Article 28(7), the report shall be completed by 1 September of year n+1. The report can be submitted to the Commission through the ESSKY platform which includes a specific submission category for the report. The Commission will examine the information and justifications provided in the reports. In case of inconsistencies or missing information, the Member State concerned may be contacted, possibly in advance of the submission and adoption of the unit rates of year n+2, to provide and/or correct the relevant data.

325 Concerning the report to be submitted in the year following the final year of the reference period (i.e. in 2025 for RP3), NSAs shall include in this report the balance over the whole reference period

in respect of the unforeseen changes in the costs referred to in points (a), (c), (d) and (e) of Article 28(3).

4.5 Costs of new and existing investments

- 326 According to Article 2(15) of the Implementing Regulation, “new and existing investments” means the acquisition, development, replacement, upgrade or leasing of fixed assets where depreciation costs, cost of capital, or in the case of leasing, operating costs, for that investment are incurred during the reference period.
- 327 The concept of “new and existing investments” entails that a distinction is made between “new” and “existing” investments. As a general rule, existing investments should be understood to comprise assets which have already started generating costs before the beginning of the reference period, whilst new investments relate to assets which are planned to start generating relevant costs in the reference period concerned (i.e. RP4). Generally, an investment should start generating relevant costs (e.g. depreciation) as from the moment in which the acquired asset (or assets) enters into operation. However, there might be cases in which relevant costs are incurred already during the pre-operational phase, in which the specific asset is still under development (e.g. cost of capital).

Principles

- 328 As stipulated under Recital 35 of the Implementing Regulation, ANSPs should not be allowed to generate financial surpluses as a result of the cancellation or postponement of new and existing investments during a reference period. Accordingly, Article 28(4) of the Implementing Regulation outlines specific provisions applied in respect of differences between the determined and actual costs of new and existing investments resulting from unforeseen changes during the reference period.
- 329 In particular, where the actual costs of new and existing investments exceed the corresponding determined costs over a year or a reference period, NSAs are responsible for verifying the detailed justifications provided by ANSPs and for authorising any subsequent recovery of additional costs from airspace users in accordance with the provisions of Articles 28(4) and 28(7) of the
- Implementing Regulation. The NSAs may allow additional costs to be recovered from airspace users on the basis of a detailed justification provided by the ANSP in particular as regards the need to increase capacity and after consultation with airspace users' representatives. The difference between actual and determined costs over a calendar year or over the whole reference period that may be recovered from airspace users cannot exceed 5%, and this should be assessed separately per charging zone.
- 330 Where the actual costs of new and existing investments are below the corresponding determined costs over a year or a reference period, the ANSP concerned must reimburse the resulting difference to airspace users unless the NSA has decided otherwise based on detailed justifications provided by the ANSP. NSAs are required to consult airspace users on the abovementioned decisions which they intend to take in application of Article 28(4).
- 331 Where multiple entities are subject to cost risk-sharing within the same charging zone, the approach chosen for comparing actual and determined costs (whether annually or over the reference period) shall be uniform across all such entities.
- 332 The provisions set out in Article 28(3) of the Implementing Regulation, which apply to the differences between the determined and actual costs of new and existing investments, can only be applied in respect of a cost of capital computed as a product of the net book value of fixed assets and the WACC rate, given that the net current assets (which are part of the total asset base) are already covered under Article 28(3)(d) and Article 28(6), which regulate the differences in the costs of interest rates on loans, shown in section 4.8 below.
- 333 When fixed assets are sold, the revenues from the sales can sometimes exceed the book value of these assets. In such case, the surplus (revenues exceeding the book value) should be deducted as ‘other revenues’ in SES reporting tables.”

Adjustments

- 334 In accordance with Articles 28(4)(a) and 28(4)(b) of the Implementing Regulation, Member States have to apply one of the following two approaches to carry over differences between determined

costs and actual costs of new and existing investments:

- Member States may decide to implement Article 28(4) on the basis of an annual application with unit rate adjustments to be applied in year $n+2$; and
- Member States may also opt for an application of Article 28(4) over the reference period. In this case, the NSAs are to apply the 5% limit on possible additional costs to be charged to airspace users on the difference between the sum of total actual costs and the sum of total determined costs over the whole reference period. This means that any amount above the 5% cap over the reference period has to be excluded from the amount to be recovered from airspace users in the following reference period.

335 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 28(4) are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

Addition, cancellation, or replacement of major investments during a reference period

336 In accordance with the last subparagraph of Article 28(4), during a reference period, ANSPs may submit requests to amend their investment plans (as presented in the performance plans) through the addition, cancellation, or replacement of major investments. As outlined in the last sentence of Article 28(4) and Recital 35 of the Implementing Regulation, any changes to an ANSP's major investment requires the provision of a detailed justification by the ANSP and is subject to the formal approval of the NSA concerned, following the consultation of airspace users.

337 Ahead of the submission of initial reporting tables for the setting of unit rates, i.e. prior to 1st June of each calendar year, NSAs are advised to query the ANSPs in the scope of the performance plan as to whether they intend to amend their major investments in accordance with the last subparagraph of Article 28(4).

338 On the basis of the information received from the ANSP concerned regarding any changes relating to the major investments, the NSA shall initially

complete the additional information requested under point 2.2(e) of Annex VII of the Implementing Regulation. This information is to be provided together with the reporting tables contained in Annexes VII and IX of the Implementing Regulation as part of the initial unit rate submission for year n , by 1st June of $n-1$, in accordance with Article 29(2)(a) of the Implementing Regulation. This additional information should indicate the estimated cost impact of the foreseen changes related to the major investments.

339 Following this initial step, the NSA should undertake the process for the formal review and approval of the proposed changes.

340 To facilitate the NSA approval process, it is advised that NSAs take into consideration the following information provided by ANSPs as regards the addition or replacement of major investments:

- Overview of the asset to be acquired, developed or replaced;
- Total value of the investment;
- Information on the benefit of the investment for airspace users and on the results of the consultation of airspace users' representatives;
- Indication of whether the investment relates to new systems, overhaul of existing systems, or for replacement purposes;
- Justification of the relevance of the investment with reference to the European ATM Master Plan, and the common projects referred to in Article 15a of the service provision Regulation; and
- Detail of synergies achieved at the level of FABs, or through other cross-border cooperation initiatives as appropriate, in particular in terms of common infrastructure and common procurement.

341 Additionally, it is advised that NSAs take into consideration the following information from ANSPs as regards the cancellation of major investments:

- Overview of the investment to be cancelled;
- Total value of the investment to be cancelled;
- Reasons why the investment is to be cancelled; and
- Potential effects of the cancellation of the investment on airspace users and on the ANSP's ability to achieve local performance targets.

342 Before deciding on the matter, the NSA should consult airspace users on its draft conclusions, including the rationale and analysis underlying its intention to approve or reject the proposed changes. It is advisable that this is done in a combined manner in respect of all aspects concerning Article 28(4) (i.e. both in respect of changes to major investments and as regards the application of carry-overs under Article 28(4)).

343 The NSA shall conclude this review process by October of year n-1 and shall publish its decision together with the reporting tables and additional information submitted for the setting of updated unit rates, by 1st November of year n-1. Depending on the outcome, the decision of the NSA may also entail changes, compared with the reporting tables submitted by 1st June, in respect of the calculation of the unit rate for year n. Those changes should be clearly explained as part of the additional information submitted.

Details on cost of new and existing investments in the performance plan and the reporting tables

344 NSAs are to present the assumptions used for establishing the costs of new and existing investments in detail in the performance plans.

345 In respect of actual costs and monitoring, NSAs are to report, for each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period.

346 The adjustments relating to unforeseen changes in costs of new and existing investments are presented in the reporting table of Annex IX to the Implementing Regulation and have to be in line with the NSA report on the application of the cost risk sharing mechanism described in 4.4 above.

4.6 Costs of competent authorities, qualified entities and Eurocontrol

Principles

347 The third subparagraph of Article 22(1) of the Implementing Regulation refers to the possibility for Member States to include in the cost bases for charges:

- Determined costs of competent authorities (e.g. NSAs);

- Determined costs of the qualified entities referred to in Article 3 of the service provision Regulation; and
- Determined costs stemming from the Eurocontrol International Convention related to the provision of ANS.

348 These costs are subject to specific cost risk sharing provisions detailed in Article 28(5) of the Implementing Regulation.

Adjustments

349 Article 28(5) prescribes that, if actual costs in year n are lower than determined costs in year n, the unit rate in year n+2 is adjusted such that the Member State concerned reimburses the full resulting difference to airspace users. Conversely, if actual costs in year n are higher than determined costs in year n, the unit rate in year n+2 is adjusted such that the Member State recovers the full resulting difference from airspace users. Hence, the cost risk is fully borne by airspace users in the case of unforeseen changes in the cost categories detailed in the third subparagraph of Article 22(1).

350 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 28(5) are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

Details on cost of competent authorities, qualified entities and Eurocontrol in the performance plan and the reporting tables

351 NSAs are to present the assumptions used for establishing the costs of competent authorities, qualified entities and Eurocontrol in detail in the performance plans.

352 In respect of actual costs and monitoring, NSAs are to report, for each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period.

353 The related adjustments are presented in the reporting table of Annex IX to the Implementing Regulation.

4.7 Pension costs

Principles

354 In accordance with Article 22(4) of the Implementing Regulation, pension costs are comprised within the category of staff costs. The second subparagraph of Article 22(4) requires pension costs to be calculated using prudent assumptions based on the applicable pension scheme or on national law, and for such assumptions to be separately specified in the performance plan.

355 Two main types of pension schemes exist for ANSPs: “defined contributions pension scheme(s)” and “defined benefits pension scheme(s)”, both of which can be provided through the State, an independent third-party pension fund, or via an occupational pension organised by the ANSP. In some instances, ANSPs may use more than one type of pension scheme in different categories, as well as make use of hybrid pension schemes.

356 As outlined in Recital 36 of the Implementing Regulation, it is recognised that, during a reference period, an ANSP may encounter unforeseen and significant changes in pension costs resulting from unforeseeable changes in national pensions law, pensions accounting law, and financial market conditions. Those unforeseeable changes in applicable legal provisions or financial conditions may lead to significant deviations of actual pension costs from the determined pension costs set out in performance plans, in which case those cost differences are to be passed on to airspace users through adjustments in unit rates.

357 Numerous parameters influence an ANSP’s pension costs – for example, the level of salaries within an ANSP. However, aside from unforeseen and significant changes in national pensions law and pensions accounting law, only variations in pension costs resulting from unforeseen financial market conditions qualify for the application of the specific cost risk sharing provisions under Article 28(6) of the Implementing Regulation. This relates to changes in market-related assumptions that are considered relevant for the accounting of pension costs (e.g. the discount rate, inflation rate, return on assets). As a result, factors such as staff numbers and benefits’ accrual rates cannot be eligible for exemption from the generic cost risk sharing provision unless they are directly

attributed to changes in national pensions law and/or pensions accounting law.

358 Furthermore, Article 28(3)(c) of the Implementing Regulation prescribes that the specific cost risk sharing provisions only apply on the condition that the changes in pension costs are outside the control of the ANSP and, in case of pension cost increases, that the ANSP concerned has taken “reasonable measures” to address those cost increases during the reference period. Accordingly, only cost increases which cannot be managed or mitigated by the ANSP through appropriate measures can be charged to users.

359 Given this, NSAs should ensure that the justifications provided by ANSPs make a clear distinction as regards differences arising from “controllable” elements and differences arising from “uncontrollable” elements. Furthermore, as a substantive requirement under Article 28(3)(c), NSAs are advised to conduct a detailed assessment to determine whether the ANSP has taken reasonable measures to manage cost increases during the reference period.

360 On this basis, as part of an NSA’s annual verification activities in accordance with Article 28(7) of the Implementing Regulation, NSAs are advised to review the factors having led to the observed pension costs differences and, if necessary, weight these factors to determine whether there is a degree of controllability within each factor. Any changes in national pensions law, pension accounting law and market conditions, and their related impact on the ANSP pension costs should be validated through an independent assessment, with actuarial support, if necessary.

361 Furthermore, NSAs should identify any mitigation actions available to the ANSP concerned to manage the cost risk and limit additional costs to be recovered from users, where applicable. For example, the NSA should take into account possible additional amounts which the ANSP may be entitled to recover through the inflation adjustment (Article 26 of the Implementing Regulation) applied on the determined pension costs. It is reasonable to expect that the ANSP concerned will make use of any additional amount stemming from the inflation adjustment on pension costs to offset any pension cost increases which have been incurred for the related calendar year. This also ensures that airspace users are not over-charged

for additional pension costs which have already been either partially or fully compensated to the ANSP concerned through the inflation adjustment applied on pension costs.

- 362 The NSA assessment should be carried out based on the supporting documentation provided by the ANSP, which should be complemented as necessary through further information and data requested from the ANSP.

Adjustments

- 363 On the condition that ANSPs are able to demonstrate that the difference between determined and actual costs is attributed to the criteria set out under Article 28(3)(c) of the Implementing Regulation, the provision as detailed under Article 28(6) for sharing the cost risk associated with unforeseen and significant changes in pension costs shall be applied.
- 364 As regards resulting unit rate adjustments, Article 28(6) prescribes that, if actual costs are less than determined costs over a calendar year or over the entire reference period, the ANSP or Member State concerned shall reimburse the full resulting difference to airspace users through a reduction in the unit rate. Conversely, if actual costs are higher than determined costs over a calendar year or over the entire reference period, the ANSP or Member State concerned may decide to recover the full resulting difference from airspace users through an increase in the unit rate.
- 365 Article 28(6)(a) further prescribes that Member States have the discretion to decide whether the adjustments to unit rates are calculated and applied on an annual basis, or whether they are calculated over the whole reference period and then carried over and spread over the following reference period. Member States may decide to spread the carry-overs over the following two reference periods if the amounts to be recovered would otherwise impact the unit rate in a disproportionate manner.
- 366 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 28(6) are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

Details on pension costs in the performance plan and the reporting tables

- 367 NSAs shall present the assumptions used for establishing the pension costs in detail in the performance plans.
- 368 In respect of actual costs and monitoring, NSAs are to report, for each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period.
- 369 The adjustments relating to unforeseen and significant changes in pension costs resulting from unforeseeable changes in national pensions law, pensions accounting law or unforeseeable changes in financial market conditions are presented in the reporting table of Annex IX to the Implementing Regulation and have to be in line with the NSA report on the application of the cost risk sharing mechanism described in 4.4 above.

4.8 Costs from changes in interest rates on loans

Principles

- 370 During a reference period, ANSPs can make use of debt financing to support the operation or development of activities relating to the provision of ANS. This includes the use of debt-based funding to finance investments in fixed assets, which is accompanied by an interest rate on debt(s), also used to calculate the weighted average cost of capital pre-tax rate and subsequently the cost of capital of the ANSP.
- 371 As required under point 3.3(f) of Annex II of the Implementing Regulation, the performance plan should provide a detailed overview of the loans foreseen by the ANSP over the reference period, as well as of the relevant interest rate assumptions associated with those loans. This information should include in the description, at least the following:
- Face value (original amount) of the loan as stated in the loan contract;
 - Date of subscription of the loan;
 - Maturity date of the loan;
 - Type of loan (e.g. bank loan, bond, shareholder loan); and

- Type of interest rate applicable to the loan (e.g. fixed/variable rate).

372 Furthermore, for each loan and for each calendar year of the reference period, the performance plan should also provide details concerning:

- Remaining balance at the end of the financial year;
- Interest rate payable; and
- Interest amount (planned cost of interest payments for the calendar year concerned).

373 The specific provisions set out in Article 28(6) of the Implementing Regulation, which apply to differences between the determined and actual costs stemming from changes in interest rates, can only be applied in respect of the share of the debt financing the net current assets, given that the costs of financing fixed assets is already covered under Article 28(3)(a) and Article 28(4) which regulate the differences in the costs of new and existing investments.

374 This is to ensure that differences between determined and actual costs associated with Article 28(3)(c) and (d) are only reported once so as to avoid the double charging of airspace users. It is the responsibility of the NSA, under Article 28(7), to verify that no such double charging occurs and to request adequate clarifications or corrections where this is necessary to remedy any identified inconsistencies.

375 The NSA is responsible for verifying that the difference between determined and actual costs reported by the ANSP are outside of the control of the ANSP and, in case of cost increases due to higher than forecast interest rates, that the ANSP concerned has taken reasonable measures to address those cost increases during the reference period. Only cost increases which cannot demonstrably be managed or mitigated by the ANSP through appropriate measures can be charged to users.

376 The purpose of Article 28(3)(d) of the Implementing Regulation is to address the cost balance resulting from the differences between the interest rate assumptions used in the performance plan and the effectively incurred weighted average interest rate on the loans subscribed by the ANSP in relation to the provision of air navigation services. For the purpose of calculating the cost differences within the meaning of Article 28(3)(d), the NSAs

shall use as a reference of the actual average interest rate, the effectively incurred average weighted interest rate on loans of the ANSP concerned over the calendar year.

377 It is important to emphasise that any practice which, for cost risk sharing purposes, consists of adding a premium to the actual average weighted interest rate of the ANSP concerned inevitably leads to an over-compensation of that ANSP under the cost risk sharing mechanism and is consequently not in line with the Regulation.

Adjustments

378 Article 28(3)(d) of the Implementing Regulation applies only for differences between determined and actual costs which result from an “unforeseen” and “significant” change in costs resulting from unforeseeable changes in interest rates on loans, on the condition that such changes in costs are outside the control of the ANSP and, in the case of cost increases, that the ANSP has taken reasonable measures to manage cost increases during the reference period.

379 On this basis, when verifying whether an ANSP is eligible to apply the specific cost risk sharing provision set out in Article 28(3)(d) and Article 28(6), NSAs are advised to consider the following:

- The upper and lower bounds of the threshold used for determining a significant change in costs resulting from unforeseeable changes in interest rates (e.g. % of total costs or revenues). There is no predefined threshold for determining the significance of interest rate changes under the cost risk sharing mechanism. Member States and their respective NSA may set their own thresholds, provided these thresholds are transparent, consistently applied, and proportionate to the financial realities of each MS and ANSP;
- The financial structure of the ANSP;
- The source and type of loans;
- The reasons for the change that has occurred;
- Confirmation that the changes in costs resulting from unforeseeable changes in interest rates were outside the control of the ANSP. Accordingly, NSAs are reminded that any unforeseeable change in the size of debt or in net current assets is under the direct control of the ANSP and is thus not eligible for exemption from Article 28(2);

- Evidence that the ANSP had taken reasonable measures to manage cost increases (if relevant);
- Mitigation actions are in place within the ANSP to manage future cost risk associated with unforeseeable changes in the interest rates on loans; and
- The conditions surrounding the time when the loan was contracted. For example, if a loan is applied for and a higher rate of interest is incurred than planned, the ANSP will be required to justify this difference. It cannot simply be assumed that the ANSP naturally accepted a higher interest rate without evidence that it had looked for alternative sources of funding, considered financial restructuring, or engaged in further negotiation with the loan provider.

380 As regards resulting unit rate adjustments, Article 28(6) prescribes that, if actual costs are less than determined costs over a calendar year or over the entire reference period due to changes in interest rates on loans, the ANSP or Member State concerned shall reimburse the full resulting difference to airspace users through a reduction in the unit rate. Conversely, if actual costs are higher than determined costs over a calendar year or over the entire reference period due to changes in interest rates on loans, the ANSP or Member State concerned may decide to recover the full resulting difference from airspace users through an increase in the unit rate.

381 Article 28(6)(a) further prescribes that Member States have the discretion to decide whether the adjustments to unit rates are calculated and applied on an annual basis, or whether they are calculated over the whole reference period and then carried over and spread over the following reference period. Member States may decide to spread the carry-overs over the following two reference periods if the amounts to be recovered would otherwise impact the unit rate in a disproportionate manner.

382 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 28(6) are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

Details on interest on loans in the performance plan and the reporting tables

383 NSAs are to present the assumptions used for establishing the average interest rate on loans in detail in the performance plans.

384 In respect of actual costs and monitoring, NSAs are to report, for each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period.

385 The adjustments relating to unforeseeable changes in interest rates on loans are presented in the reporting tables of Annex IX to the Implementing Regulation (Tables 2 and 3) and have to be in line with the NSA report on the application of the cost risk sharing mechanism described in 4.4 above.

4.9 Costs resulting from unforeseeable changes in national taxation law

Principles

386 Within the meaning of Article 28(3)(e) of the Implementing Regulation, costs resulting from unforeseeable changes in national taxation law concern all costs that result from unforeseen changes in national taxation legislation. In particular, unforeseen changes could apply in the context of a revision of the percentage of the value-added tax (VAT) in the case of ANSPs subject to it, or unforeseen changes in the level of import duties, excises, or payroll taxes (including social security contributions) paid by employers.

387 Corporate tax is not eligible as part of the determined and actual cost bases, as this relates to a tax on the profit of the ANSP. Hence, no amounts can be claimed in respect of changes in the corporate tax rate.

388 The application of Article 28(3)(e) should include an assessment by the NSA to verify the content and status of the law, its date of promulgation, as well as the assumptions made at the time of the drafting of the performance plan (e.g. the determined costs subject to an irrecoverable tax that changed).

Adjustments

- 389 On the condition that ANSPs are able to demonstrate that the difference between determined and actual costs is attributable to the criteria set out under Article 28(3)(e), the provision as detailed under Article 28(6) of the Implementing Regulation for sharing the cost risk associated with unforeseen and significant changes in the national taxation law shall be applied.
- 390 As regards resulting unit rate adjustments, Article 28(6) prescribes that, if actual costs are less than determined costs over a calendar year or over the entire reference period, the ANSP or Member State concerned shall reimburse the full resulting difference to airspace users through a reduction in the unit rate. Conversely, if actual costs are higher than determined costs over a calendar year or over the entire reference period, the ANSP or Member State concerned may decide to recover the full resulting difference from airspace users through an increase in the unit rate.
- 391 Article 28(6)(a) further prescribes that Member States have the discretion to decide whether the adjustments to unit rates are calculated and applied on an annual basis, or whether they are calculated over the whole reference period and then carried over and spread over the following reference period. Member States may decide to spread the carry-overs over the following two reference periods if the amounts to be recovered would otherwise impact the unit rate in a disproportionate manner.
- 392 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 28(6) of that Implementing Regulation are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

Details on changes in taxation law in the reporting tables

- 393 In respect of actual costs and monitoring, NSAs are to report, for each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period.

- 394 The adjustments relating to unforeseen and significant changes in costs resulting from unforeseeable changes in national taxation law are presented in the reporting tables (Tables 2 and 3) of Annex IX to the Implementing Regulation and have to be in line with the NSA report on the application of the cost risk sharing mechanism described in 4.4 above.

4.10 New cost items not covered in the performance plan but required by law

- 395 In principle, within the meaning of Article 28(3)(e) of the Regulation, unforeseeable new cost items required by law concern all costs that:
- Are required by a new legal obligation or a change in law at domestic or European level;
 - Were not covered in the scope of the performance plan (i.e. unforeseeable); and
 - Do not fall under the category of unforeseen changes in national pensions law (Article 28(3)(c), pensions accounting law (Article 28(3)(c), or national taxation law (Article 28(3)(e)).
- 396 The term “unforeseeable new cost items” under Article 28(3)(e) should be understood to cover also financial liabilities deemed eligible and which stem from legal proceedings which were still ongoing at the time of drawing up the performance plan and in respect of which the outcome was not yet known at that point in time. In respect of such cases, NSAs are advised to wait that the proceedings before the relevant courts have been closed and that a final ruling on the matter has been issued, thus providing clarity on any additional costs incurred by the ANSP and their eligibility for recovery under the SES charging scheme. Hence, such costs can only be charged through the mechanism set out under Article 28(3)(e) and 28(6) after they have been confirmed by a final court ruling.

Principles

- 397 Article 28(3)(e) stipulates that the general risk sharing provision detailed under Article 28(2) shall not apply if differences between determined and actual costs result from other unforeseeable new cost items not covered in the performance plan but required by law. Hence, in order to apply Article 28(6), it is essential for the NSA to verify that the cost items concerned were not already

included in the determined costs set as part of the performance plan.

398 Furthermore, the introduction of new cost items under the category of new and existing investments) including for the purpose of implementing the SESAR common projects, cannot be used as a rationale for applying the specific risk sharing provisions set out in Article 28(6) of the Implementing Regulation. However, those changes fall in the scope of differences between the determined and actual costs of new and existing investments under Article 28(4), as described above.

399 Where an indexation mechanism applies by law in respect of the salaries of ANSP employees, the expected financial effect of that mechanism has to be factored in as part of the assumptions underlying the determined staff costs. Subsequently, the ANSP bears during the reference period any difference between the determined and actual staff costs resulting from such an indexation of salaries. In the event of a higher or lower indexation of salaries than assumed in the performance plan, the related cost differences may not be carried over through the cost risk sharing mechanism as they do not result from changes in the legal framework (except in the case where it is the parameters set out in the legislation for the indexation of salaries which are revised during the reference period). It should be noted that the ANSP is however protected against the financial risk of unexpected staff cost increases during the reference period as a result of actual inflation being higher than forecasted in the performance plan, through the inflation adjustment set out Article 26 of the Implementing Regulation.

Adjustments

400 On the condition that the ANSP concerned is able to demonstrate that the difference between the determined and actual costs is attributable to the changes referred to under Article 28(3)(e) of the Implementing Regulation, the resulting unit rate adjustments are to be established in accordance with Article 28(6). Accordingly, any additional (actual) costs incurred by the ANSP which qualify under Article 28(3)(e) may be recovered through an increase in the unit rate.

401 Article 28(6)(a) further prescribes that Member States have the discretion to decide whether the adjustments to unit rates are calculated and

applied on an annual basis, or whether they are calculated over the whole reference period and then carried over and spread over the following reference period. Member States may decide to spread the carry-overs over the following two reference periods if the amounts to be recovered would otherwise impact the unit rate in a disproportionate manner.

402 In accordance with the last sentence of the second sub-paragraph of Article 29(5) of the Implementing Regulation, the provisions of Article 28(6) of that Implementing Regulation are to be applied only on the basis of the adopted final performance plan and shall apply retroactively as from the first day of the reference period.

Details on new cost items required by law in the reporting tables

403 In respect of actual costs and monitoring, NSAs are to report, for each entity and for each cost item, a description of the reported (additional) actual costs due to new cost items not covered in the performance plan but required by law, for each year of the reference period.

404 The adjustments relating to the cost risk associated with unforeseeable new cost items not covered in the performance plan but required by law are presented in the reporting tables (Tables 2 and 3) of Annex IX to the Implementing Regulation and have to be in line with the NSA report on the application of the cost risk sharing mechanism described in 4.4 above.

Financial incentives

Article 25(2)(e) of the Implementing Regulation

Those rates shall be calculated by dividing the forecast number of total en route or terminal service units for the relevant year, calculated in accordance with points 1 and 2 of Annex VIII respectively, into the algebraic sum of the following elements:

(e) the adjustments resulting from the application of the financial incentive schemes in accordance with Article 11(3) and (4);

405 The adjustments referred to in Article 25(2)(e) of the Implementing Regulation stemming from the financial incentive schemes in the key performance area of capacity and environment are based on the detailed rules set out in Article 11(3) and (4) of the Implementing Regulation.

Principles

- 406 Financial incentives in the capacity KPA are mandatory pursuant to Article 11(3) of the Implementing Regulation. Those incentives are linked with the local capacity targets set for en route and terminal services, expressed in average minutes of ATFM delay per flight attributable to ANS. For the purpose of calculating the financial advantages and disadvantages resulting from the capacity incentive schemes, pivot values set annually by the NS in accordance with point (c) of Article 11(3) of the Implementing Regulation, are used. Those pivot values are either equal to the capacity performance targets or modulated in accordance with point 1 of Annex XIII of the Implementing Regulation, following consultation with airspace users and air navigation service providers.
- 407 Their impact of the capacity incentive scheme established in the performance plan for en route and, where applicable, terminal services, has to be ‘material’ in terms of the revenue at risk – in order for incentives to be effective in terms of driving the desired outcomes, it is necessary that they have a potentially significant financial impact on the incentivised entity (i.e. the ANSP). The Regulation specifies that the maximum level of potential bonuses shall not exceed the maximum level of potential penalties and shall not exceed 2% of the determined costs of any given year. The Commission has indicated in its Decisions on RP3 performance plans that a maximum financial disadvantage equal or higher than 1% of determined costs is necessary for ensuring a material impact of any incentive scheme on the revenue at risk in accordance with the Implementing Regulation.
- 408 The financial incentives also have to be “proportionate to the level of ATFM delay” – this entails that the level of bonuses and penalties stemming from the incentive schemes ought to be commensurate with the actual performance of the ANSP concerned in terms of ATFM delay as compared with the applicable pivot values set by the NSA, which are the values used for the purpose of calculating the financial advantages or disadvantages. A tolerance margin is also defined as part of the incentive scheme as a “symmetric range” applied around the pivot value applicable for each year.
- 409 Furthermore, Member States are allowed to introduce financial incentives in the KPA of

environment or for the achievement of the additional performance targets referred to in Article 10(3) of the Implementing Regulation, provided that they are effective and proportional. Those incentive schemes should be applied in addition to and independently from the mandatory incentive scheme on the capacity targets. The aggregated financial advantage or financial disadvantage from those additional incentive schemes shall not exceed 2 % and 4 % of the determined costs of any given year. The setting of additional incentives is governed by Article 11(4) of the Implementing Regulation.

- 410 All incentive schemes applied pursuant to Article 11(3) of the Implementing Regulation and, where applicable, Article 11(4) of the Implementing Regulation have to be presented in the performance plan in accordance with the requirements of point 5.2 of Annex II of the Implementing Regulation and duly consulted with all stakeholders in accordance with Article 10(4) of the Implementing Regulation.
- 411 In accordance with point 2.1 (f) of Annex IV of the Implementing Regulation, the incentive scheme or schemes, referred to in Article 11 are subject to review by the Commission as part of the assessment of the performance plans and targets at national and FAB level.
- 412 Further details on the establishment of the incentive schemes in accordance with Article 11 and of the related numerical parameters are provided in the PRB “Guidance Material for the Development of Draft RP4 Performance Plans”.

Adjustments

- 413 Articles 11(3)(e) and 11(3)(f) of the Implementing Regulation refer to point 2 of Annex XIII where the calculation of the financial advantages and disadvantages, i.e. the unit rate adjustment in year $n+2$, is detailed.
- 414 For en route air navigation services, the financial advantage (when ATFM delay is lower than the pivot value and beyond the range) shall be calculated as a percentage of the determined costs of year n and recovered from airspace users. This recovery occurs through an increase of the unit rate in year $n+2$. The amount of the financial advantage to be charged shall be calculated from the lower bound of the symmetric range up to the

alert threshold, following a linear function of the determined costs in year n.⁹

- 415 For en route air navigation services, the financial disadvantage (when ATFM delay is higher than the pivot value and beyond the range) shall be calculated as a percentage of the determined costs of year n and reimbursed to airspace users. This reimbursement occurs through a reduction of the unit rate in year n+2. The amount of the financial disadvantage to be deducted shall be calculated from the upper bound of the symmetric range up to the alert threshold, following a linear function of the determined costs in year n.
- 416 For terminal air navigation services, the financial advantage (when arrival ATFM delay is lower than the pivot value and beyond the symmetric range) shall be calculated as a percentage of the determined costs of year n and recovered from airspace users. This recovery occurs through an increase of the unit rate in year n+2. The percentage of the determined costs shall follow a smooth sliding scale, from the lower bound of the symmetric range down to 50% of the pivot value.
- 417 For terminal air navigation services, the financial disadvantage (when arrival ATFM delay is higher than the pivot value and beyond the range) shall be calculated as a percentage of the determined costs of year n and reimbursed to airspace users. This reimbursement occurs through a reduction of the unit rate in year n+2. The percentage of the determined costs shall follow a smooth sliding scale, from the upper bound of the symmetric range up to 150% of the pivot value.

Details on financial incentives in the performance plan, for the monitoring and in the reporting tables

- 418 NSAs shall present the incentive schemes established in accordance with Article 11 in detail in the performance plans.
- 419 In accordance with the last paragraph of Article 11(3)(c), the NSAs shall inform the Commission about the pivot values annually. This notification of annual pivot values is to be made for the following year n at the latest by the 20 December of year n-1, together with the setting of the unit rate for

year n as per Article 29(2)(c), by using the template in Annex III of this document.¹⁰

- 420 Details on the financial incentives are reported in the reporting tables as defined in Annex IX to the Implementing Regulation.

4.11 Adjustments relating to the modulation of charges

- 421 This section provides an overview of the adjustments stemming from the modulation of charges and guidance on the underlying principles.

Article 32 of the Implementing Regulation

1. Member States may, on a non-discriminatory and transparent basis, modulate air navigation charges for airspace users to:

- (a) optimise the use of air navigation services;*
- (b) reduce the environmental impact of flying;*
- (c) reduce the level of congestion of the network in a specific area or on a specific route at specific times.*
- (d) accelerate the deployment of SESAR ATM capabilities in anticipation of the time period set out in the common projects referred to in Article 15a(3) of Regulation (EC) No 550/2004, in particular with a view to giving incentives to equip aircraft with systems included in those common projects.*

Member States shall ensure that modulation of charges in respect of points (a) to (c) of this paragraph does not result in any overall change in annual revenue for the air navigation service provider compared to the situation where charges would not have been modulated. Over- or under recoveries shall result in an adjustment of the unit rate in year n+2.

2. Modulation of air navigation charges shall be applied in respect of the en route charge or the terminal charge, or both.

Before the application of the modulation of charges, Member States shall consult airspace users' representatives and air navigation service providers concerned on such intended modulation.

- 422 The provisions of Article 32 of the Implementing Regulation allow for the modulation of ANS

⁹ As defined in point (b)(iii) of Article 9(4) of the Regulation as the variation of the reference values as a result of the seasonal updates of the Network Operations Plan in comparison to the reference values from the latest version of the Network Operations Plan available at the time of drawing up the performance plan.

¹⁰ A word version of the template is available for download on the EU Single Sky Performance website.

charges as means to progress objectives such as greater efficiency in the use of ANS services, environmental performance, and the acceleration in deployment of SESAR ATM capabilities.

Principles

423 Article 32(1) of the Implementing Regulation allows Member States to modulate ANS charges for airspace users for the following purposes:

- Optimised use of ANS (Article 32(1)(a)): This could entail for example modulation for the purpose of supporting the implementation of procedures and technology enabling an optimal use of available air navigation services, such as datalink to enhance communication between pilots and air traffic controllers;
- Reducing the environmental impact of flying (Article 32(1)(b)): This could comprise modulated charges in order to encourage airspace users to support improvements in climate and environmental performance, including the use of the most fuel-efficient available routing, increased use of alternative clean propulsion technologies or initiatives to reduce air and noise pollution;
- Reducing the level of congestion of the network in a specific area or on a specific route at specific times (Article 32(1)(c)). Modulation could be set up to foster optimised flight operations through the favouring or avoidance by airspace users of specific volumes of airspace, routes or time windows; and
- Accelerate the deployment of SESAR ATM capabilities (Article 32(1)(d)): This provision enables Member States to incentivise airspace users, through modulated air navigation charges, to invest in equipage of their fleets with the relevant ATM functionalities (AF) included in SESAR common projects.

424 One of the challenges related to the abovementioned SESAR functionalities is that the benefits for airspace users only materialise once a critical level of deployment is reached. It could be argued that airspace users may have an incentive to invest in equipping their aircraft only once a high level of deployment has been achieved to maximise their own benefits. In turn, this behaviour could theoretically delay the time by which deployment is achieved even further. In this context, modulation can play a role to create an additional

incentive for airlines to invest and equip aircraft with the required onboard equipment.

425 For a modulation scheme to create incentives and be effective, it should be set in a way that is proportionate to the cost incurred by airspace users when altering their behaviour. In this context, the term cost can be understood in different ways, for example (in respect of accelerating the deployment by airspace users of SESAR common projects):

- The cost of upgrading aircraft with onboard equipment;
- The additional cost of capital of advancing an investment in equipage otherwise made at a later stage; and
- The cost for failing to adequately invest in due time.

426 The SESAR Deployment Manager provides guidance on the costs and benefits for ATM stakeholders from the deployment of each ATM functionality in the Deployment Programme. These costs and benefits need to be evaluated by Member States to better understand to what extent airlines have an economic incentive to invest in onboard equipment. Depending on the cost of the equipment, the expected benefit and the lead time until the desired network effects fully materialise, the modulation of ANS charges can be a tool to close the gap between the costs and benefit in the shorter term.

Adjustment of unit rates and revenue neutrality

427 According to the second subparagraph of Article 32(1) of the Implementing Regulation, the modulation of ANS charges in respect of points (a) to (c) of Article 32(1) must be defined in such a way that it does not result over time in any overall change in the revenue of ANSPs compared to a situation where ANS charges would not have been modulated. This requires that modulated “lower” user charges are compensated by “higher” user charges paid by another group of airspace users, and vice versa.

428 Where it decides to apply a modulation scheme, the Member State concerned is responsible for determining the modulation criteria and the subsequent modulation values. For example, this could be based on a cost benefit analysis performed by the Member State or NSA to estimate

the local benefits for each ATM (sub-) functionality expressed per flight, and subsequently expressed in monetary terms.

429 For the purpose of ensuring revenue neutrality for the ANSP(s) concerned, the balance (either an over- or under-recovery) of the modulation mechanisms under points (a) to (c) of Article 32(1) in year n shall be carried over and shall result in an adjustment of the applicable en route or terminal unit rate in year $n+2$, in accordance with Article 25(2)(f) and the second subparagraph of Article 32(1) of the Implementing Regulation.

430 It should be noted that revenue neutrality (and the related unit rate adjustments) are not required in respect of modulation under point (d) of Article 32(1), namely where modulation serves the purpose of accelerating the deployment of SESAR ATM capabilities. Accordingly, when Article 32(1)(d) applies, any related over- and under-recoveries in year n do not need to be carried over into year $n+2$.

Stakeholder consultation

431 According to the second subparagraph of Article 32(2) of the Implementing Regulation, Member States shall consult with airspace users and ANSPs prior to the implementation of a modulation scheme. The consultation process should seek feedback on the relevance and effectiveness of the intended modulation scheme, and on the estimated impact on airspace users and ANSPs. The consultation should be initiated by a written description of the scheme which the NSA distributes to airspace users and ANSPs, including:

- A description of the modulation scheme, the charging zone(s) concerned as well as the criteria and/or thresholds by which the modulation is applied;
- Underlying rationale of introducing the modulation scheme, including explanations as regards how modulated ANS charges help to achieve the desired outcome and as regards the duration of the scheme;
- Description of the financial and operational impact on airspace users. It should be demonstrated that the scheme is non-discriminatory, for example with respect to domestic carriers versus foreign carriers;
- Description of the financial and operational impact on ANSPs; and

- If the modulation scheme is related to the deployment of SESAR ATM capabilities, an estimate of modulated charges over several years should be provided, showing the expected evolution of modulated ANS charges as deployment increases over time.

Details on the modulation of charges in the reporting tables

432 Data on the unit rate adjustments deriving from the modulation of ANS charges shall be included as part of the reporting tables (Tables 2 and 3) in Annex IX of the Implementing Regulation submitted in accordance with Article 29(2) as part of the annual unit rate setting process.

4.12 Deduction of other revenue in accordance with Article 25(3)

433 This section outlines the rules for the deduction of other revenue under Article 25(2)(i) and Article 25(3) of the Implementing Regulation.

Article 25(3) of the Implementing Regulation

For the purpose of point (i) of paragraph 2, the following revenues of air navigation service providers obtained in year n shall be deducted from the determined costs as "other revenue":

- (a) public funds obtained from public authorities, including financial support from Union assistance programmes;*
- (b) revenue obtained from commercial activities, where the Member State or Member States concerned have decided that those revenues are to be deducted;*
- (c) with regard to terminal air navigation services, revenue obtained from contracts or agreements concluded between air navigation service providers and airport operators, where the Member State or Member States concerned have decided that those revenues are to be deducted.*

434 The charging scheme for air navigation services laid down in the service provision Regulation is based on the 'user pays' principle, which entails that the costs incurred for the air navigation services are charged to airspace users and that the charges have to be proportionate to the costs.

435 However, pursuant to Articles 20(1) and 20(2) of the Implementing Regulation, Member States may decide to finance a part of the determined

costs by ‘other revenue’ of the air navigation service providers as defined under Article 25(3) and subject to the conditions set out in that Article.

436 Three categories of other revenue are identified in Article 25(3):

- Public funds obtained from public authorities, including financial support from Union assistance programmes;
- Revenue obtained from commercial activities, where the Member State or Member States concerned have decided that those revenues are to be deducted; and
- With regard to terminal air navigation services, revenue obtained from contracts or agreements concluded between air navigation service providers and airport operators, where the Member State or Member States concerned have decided that those revenues are to be deducted.

437 When other revenue is used to fund the provision of air navigation services, this entails a reduction of the unit rate charged to airspace users. The deduction of other revenue from determined costs for the purpose of the unit rate calculation is regulated by Articles 25(2)(i) and Article 25(3) of the Implementing Regulation.

438 Member States may also decide to reduce a unit rate voluntarily pursuant to Article 29(6) of the Implementing Regulation, but this provision is only applied in respect of sources of revenue which are not already covered by the provisions laid down in Article 25(3). More detailed guidance material on the application of Article 29(6) is provided in subsection 4.13.

Public funds obtained from public authorities

439 Pursuant to Article 25(3)(a) of the Implementing Regulation, financial support awarded to ANSPs in the form of public grants must be deducted from the relevant unit rate(s) in order to avoid that airspace users are charged for costs which are already financed through public funds.

440 This concerns funds received by an ANSP from the national or EU budget for the purpose of a specific project (e.g. the purchase and deployment of a fixed asset allocated to one or several charging zones) should deduct the sum received from the unit rate(s) of the charging zone(s) concerned. In this respect, Article 25(3)(a) specifies that

financial support from Union assistance programmes shall be deducted as “other revenue”. This includes funds granted by the Connecting Europe Facility, the Cohesion Fund and Horizon Europe.

441 In accordance with Article 25(3) of the Implementing Regulation, the costs of air navigation services or facilities funded through public funds are not to be charged to airspace users. This also applies in respect of costs covered by revenue obtained by the ANSP from the Member State for the purpose of directly financing the provision of air traffic services in a given charging zone, providing that this revenue is granted in the form of direct operating aid for air traffic service provision for the calendar year and charging zone concerned.

442 Special rules are set out in the second subparagraph of Article 25(3) of the Implementing Regulation and apply regarding the unit rate adjustments resulting from the deduction of other revenue in the form of financial support from public authorities awarded for any given year. In this respect, amounts to be deducted are differentiated depending on the nature of the costs that they cover between operating costs and investment costs. The applicable rules are as follows:

- When public funding covers staff costs and other operating costs within the meaning of Article 22(4) of the Implementing Regulation, the deduction of the related amounts shall occur at the latest in year n+2 following the receipt of the related grant; and
- When public funding covers depreciation costs within the meaning of Article 22(4), the public funds received shall be deducted according to the depreciation schedule of the financed asset. Accordingly, the deduction of the related amounts shall follow the same linear depreciation duration and annuity as the relevant depreciation costs incurred in accordance with the fourth subparagraph of Article 22(4) and as reflected in the performance plan. In the event that a fixed asset is written off, any remaining balance of public funding should be deducted as other revenue during the final year of operation of the asset, irrespective of its initial depreciation schedule.

443 Pursuant to the second subparagraph of Article 25(3), where the Member State concerned so decides, the ANSP(s) concerned may retain (and

hence not deduct as part of the unit rate calculation) the share of public funding that relates to administrative costs incurred due to reporting obligations related to the grant (e.g. reporting to CINEA for CEF grants), provided that those costs were not initially planned and therefore already included as determined costs in the cost base. In practice, this provision may apply for example when the ANSP procures services from an external contractor in respect of the reporting tasks on a funded project, and the contract for the procurement of those services was not foreseen in the cost base set out in the performance plan.

444 However, the abovementioned administrative costs referred to in the second sub-paragraph of Article 25(3) of the Implementing Regulation only relate to the reporting requirements concerning funded projects. Accordingly, costs incurred for the development of applications or proposals for the obtention of public grants are by definition not covered in this context.

445 The amounts retained in respect of administrative costs should be reported, based on transparent methodology and for each charging zone separately, through Table 4 of Annex IX of the Implementing Regulation. The related amounts should be reported across the entire duration of the project and should reflect the reporting cycle and requirements as stipulated in the relevant Grant Agreement.

446 NSAs are responsible for verifying that airspace users are not charged for any costs which are already covered by public funds. Should an ANSP receive grants for activities or projects which were not planned or foreseen at the time of drafting the performance plan for the reference period concerned, the Member State concerned may decide not to apply a deduction of those public funds from determined costs for the purpose of the unit rate calculation. However, this should be understood and interpreted restrictively, as follows:

- It should first be considered whether the requirements set out in Article 28(4), concerning the costs of new and existing investments (including major investments), enable the possibility for the additional costs of the unforeseen investment to be recovered from airspace users. If this is the case and those costs are indeed recovered pursuant to Article 28(4), any public funding granted to finance

the investment concerned has to be deducted in accordance with the principles set out in Article 25(3);

- The ANSP and the Member State concerned should provide, together with the reporting tables for unit rate setting, a detailed justification including information on the project concerned, the amount of allocated public funding, as well as an explanation as to why the project and its related costs were not foreseen as part of the performance plan and could not be covered under Article 28(4); and

Revenue obtained from commercial activities or from contracts or agreements between ANSPs and airport operators

447 Within the performance and charging scheme, ANSPs are regulated entities subject to economic regulation and charging principles. The regulated cost bases are those covered by the performance plans. Nonetheless, ANSPs have the possibility to provide other services on a commercial basis and under competitive conditions. Where this is the case, Article 12(3) of the service provision Regulation requires ANSPs to maintain separate and consolidated accounts for activities within and outside of the scope of the regulated ANS activities, as if these activities were treated as separate undertakings. Accordingly, ANSPs are forbidden to cross-finance commercial activities with revenues from the regulated part of their business.

448 This principle is also expressly stipulated in Article 20(3) of the Implementing Regulation, which stipulates that “Revenues derived from en route charges or terminal charges shall not be used to finance commercial activities of air navigation service providers”. NSAs are therefore required to verify that commercial activities of the ANSP are not supported financially through the services provided and regulated under the SES performance and charging scheme.

449 Without prejudice to the aforementioned principles, points (b) and (c) of Article 25(3) of the Implementing Regulation allow an ANSP, subject to authorisation by the Member State concerned, to voluntarily use revenues obtained from commercial activities (i.e. non-ANS related services) or from contracts for the provision of terminal ANS under market conditions, in order to finance services provided under the regulated part of their business. Should this be the case, revenues from

commercial activities and revenues obtained from contracts or agreements between ANSPs and airport operators for the provision of terminal ANS are to be deducted from the unit rate no later than in year $n+2$, year n being the year when the revenue was generated.

Details on other revenues in the reporting tables

450 Details on the amounts deducted as other revenues are to be included as part of the reporting table in Annex IX of the Implementing Regulation for the annual unit rate setting process, in accordance with Article 29(2) of the Implementing Regulation.

4.13 Voluntary unit rate reduction in accordance with Article 29(6)

Article 29(6) of the Implementing Regulation

By derogation from Article 25(2), Member States may decide to set the unit rate referred to in paragraph 1 at a level lower than the unit rate calculated in accordance with Article 25(2). In that case, they shall include that lower unit rate in the reporting tables on unit rates calculation in accordance with the template of Table 2 of Annex IX. The resulting difference in revenues shall not be recovered from airspace users.

451 Article 29(6) of the Implementing Regulation allows Member States to voluntarily reduce the unit rate charged to users for a given year and charging zone.

452 Contrarily to the deduction of other revenues explained in sub-section 4.12, which leads to a reduction of the determined costs for the purpose of the unit rate calculation in accordance with Article 25(2), the voluntary reduction of the unit rate under Article 29(6) is applied as a one-off discount of the unit rate calculated in accordance with Article 25(2). This has two consequences:

- Article 29(6) only applies after the deduction of other revenues in accordance with Articles 25(2)(i) and 25(3). In other words, where determined costs are covered by “other revenue” within the meaning of Article 25(3) of the Implementing Regulation, those legal provisions (i.e. not Article 29(6)) have to be applied for the purpose of reducing the unit rate charged to users. Accordingly, ANSPs and Member States may only apply the provisions

of Article 29(6) of the Implementing Regulation in circumstances which do not fall within the scope of Article 25(3); and

- The loss of revenue relating to the application of a lower unit rate under Article 29(6) for a given year is only known ex-post and corresponds to the reduction of the unit rate multiplied by the actual service units, which can be higher or lower than expected at the time of setting the unit rate. However, unlike the other revenues which are subject to a traffic adjustment, no subsequent traffic adjustment is to be made for over- or under-recoveries in respect of the application of Article 29(6).

453 Article 29(6) could be applied for example in the following circumstances (non-exhaustive list):

- The ANSP has received an equity capital injection from its shareholder(s) or has gained additional equity in the form of retained earnings (surpluses) from air navigation service provision in previous financial years. The ANSP then decides to make use of its equity capital for the purpose of voluntarily reducing the unit rate charged to airspace users, provided that the Member State concerned has accepted that the unit rate is to be reduced accordingly pursuant to Article 29(6) of the Implementing Regulation. The ANSP has full discretion on how to make use of its equity reserves for this purpose, subject to agreement with the Member State concerned on the magnitude and timing (calendar year or years) of applied unit rate reductions; and
- The Member State has decided, during the reference period, not to recover from airspace users determined costs which were initially established in the performance plan in respect of competent authorities and/or qualified entities, and/or determined costs stemming from Eurocontrol. In that case, the Member State has to finance those determined costs through other means. The Member State has full discretion on defining the related amounts not to be recovered from airspace users and the timing (calendar year or years) of the related unit rate reduction applied under Article 29(6).

454 Furthermore, Member States should be mindful of relevant EU law provisions pertaining to State aid. In its judgment in Case T-818/14 (BSCA), the

European Court of Justice (General Court) ruled in January 2018 that, whilst air traffic services are not activities of an economic nature and therefore not subject to EU Treaty rules on competition, other air navigation services (CNS, AIS, MET) are on the contrary regarded as economic activities.

- 455 Member States are reminded that they must ensure compliance with EU state aid provisions in respect of any financial assistance that they provide to ANSPs.

Details on the application of Article 29(6) in the reporting tables

- 456 When a Member State decides to voluntarily reduce the unit rate in application of Article 29(6) of the Implementing Regulation, it should ensure that such deductions are presented in a transparent manner in the reporting table (Table 2) in Annex IX of the Implementing Regulation for the annual unit rate setting process in accordance with Article 29(2) of the Implementing Regulation, which should present:

- The reduction of the unit rate for the relevant year(s); and
- Information on the application of a lower unit rate under Article 29(6) than the unit rate calculated in accordance with Article 25(2) and the means to finance the resulting difference in revenue.

4.14 Cross-financing between en route or between terminal charging zones

- 457 This section outlines the principles of cross-financing between en route charging zones or between terminal charging zones and provides guidance on related reporting requirements.

Article 15(2)(e) of the service provision Regulation

The following principles shall be applied when establishing the cost-base for charges:

(e) Cross-subsidy shall not be allowed between en-route services and terminal services. Costs that pertain to both terminal services and en-route services shall be allocated in a proportional way between en-route services and terminal services on the basis of a transparent methodology. Cross-subsidy shall be allowed between different air navigation services in either one of those two categories only when justified for objective reasons, subject to clear identification;

Article 25(2) of the Implementing Regulation, point (j)

Those rates shall be calculated by dividing the forecast number of total en route or terminal service units for the relevant year, calculated in accordance with points 1 and 2 of Annex VIII respectively, into the algebraic sum of the following elements:

(j) cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of Regulation (EC) No 550/2004;

- 458 Member States may decide to apply cross-financing between two or several en route charging zones or between two or several terminal charging zones under their responsibility in accordance with Article 25(2)(j) of the Implementing Regulation, which is applied in the form of adjustments to unit rates.

- 459 Cross-financing is only allowed between en route charging zones or between terminal charging zones; accordingly, no cross-financing is allowed between the two types of charging zones. This fulfils the requirements of a “cross-subsidy” in the sense of Article 15(2)(e) of the service provision Regulation. The terms “cross-financing” and “cross-subsidy” should thus be regarded as synonyms.

- 460 All the charging zones concerned should have a cost base established and monitored in accordance with the Implementing Regulation in order to

be eligible for cross-financing. Any cross-financing arrangement should be consistent and ensure that no double charging to airspace users of the same costs can occur.

- 461 Furthermore, it is important to note that services under market conditions or ANS provided outside of the scope of the performance plan may not be cross-financed by regulated services which are in the scope of the performance and charging scheme.
- 462 Cross-financing and the resulting adjustments of the unit rate have to be applied in a transparent manner to ensure alignment with point (e) of Article 15(2) of the service provision Regulation.
- 463 Where a Member State decides to apply “cross-financing” as laid down in Article 25(2)(j) of the Implementing Regulation, this results in adjustments of the unit rates of year n for the en route charging zones or for the terminal charging zones concerned. Concretely, an amount is transferred from one charging zone (leading to an increased unit rate in that charging zone) to another charging zone (leading to a lower unit rate in that charging zone).
- 464 In this respect, point 2(a) of Annex XII of the Implementing Regulation highlights cross-financing between terminal charging zones (where applicable) as an essential element for the consultation on the transparency of unit rates.

Details on cross-subsidies in the performance plan and the reporting tables

- 465 When a Member State decides to apply cross-subsidies between en route charging zones or between terminal charging zones, it has to provide in the performance plan a description of the methodology used for allocating costs between the charging zones concerned, as per point 2.1 (a) of Annex VII, as well as the description and rationale for the establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones, as per point 4(a) of Annex IX (sub-section 2.1).
- 466 In addition, as part of the annual unit rate setting process in accordance with Article 29(2) of the Implementing Regulation, it must ensure that cross-subsidies are reported in a transparent manner in

the reporting tables in Annex IX of the Implementing Regulation, including in respect of :

- The amounts of cross-financing to/from other charging zone(s) relating to the year, charging zone(s) and entity(ies) concerned and the year in which these amounts will be carried out for the calculation of the unit rate;
- A clear identification of the arrangements concerned and justifications stating objective reasons as required under point 4(a) of Annex IX of the Implementing Regulation. The information provided should include the identification of the type of air navigation services concerned as well as quantified data for each service as regards the amounts allocated to cross-financing; and
- In addition to the disclosure of amounts deducted from or allocated to services within each charging zone, a comprehensive description and rationale for the amounts should be provided.

4.15 Adjustments for differences in revenue resulting from the temporary application of a unit rate

- 467 This section outlines the principles related to adjustments for differences in revenue resulting from the temporary application of a unit rate as described under Articles 29(3) to 29(5) and provides practical guidance material on related reporting requirements.

Article 29(3) of the Implementing Regulation, second paragraph

Where the Commission finds that a unit rate does not comply with the requirements set out in Article 25(2), it shall notify the Member State concerned and invite it to submit a revised unit rate.

Article 29(4) of the Implementing Regulation, first paragraph

Where, as a consequence of the time needed to complete the procedure referred to in paragraph 3, a unit rate for year n is revised after the start of the year to which it relates and such revision causes a difference in revenues, the unit rate shall be adjusted

Article 29(5) of the Implementing Regulation, first paragraph

If Member States have not adopted a performance plan before the start of the reference period, or where the performance plan is revised in accordance with Article 18 during the reference period, the unit rates shall, where necessary, be recalculated and applied as soon as possible on the basis of the adopted performance plan or adopted revised performance plan.

Principles

468 An adjustment for the retroactive application of a unit rate for a given year is necessary when the unit rate applied for that year differs from that resulting from the related cost-efficiency target in the adopted performance plan and compliant with Article 25(2) of the Implementing Regulation.

469 Such situation may occur:

- Under Article 29(5), when a performance plan is adopted in accordance with points (a) and (b) of Article 16 after the beginning of a reference period;
- Under Article 29(5), when a performance plan is adopted in accordance with point (c) of Article 16 during a reference period; and
- Under Article 29(4), when the Commission finds that a unit rate does not comply with the requirements set out in Article 25(2).

Article 29(5) - Performance plans adopted in accordance with points (a) and (b) of Article 16

470 Article 17(1) of the Implementing Regulation stipulates that, when a Member State has not been able to adopt a final performance plan before the

start of the reference period as a consequence of the time needed to complete the procedures set out in Articles 14 and 15, the most recent version of the draft performance plan submitted by the Member State is to be applied on a provisional basis until the final performance plan is adopted in accordance with points (a) and (b) of Articles 16.

Article 29(5) of the Implementing Regulation, second subparagraph

Where a performance plan is adopted after the start of the reference period, any difference in revenue due to the application of the unit rate or unit rates calculated on the basis of the draft performance plan, instead of the unit rate or unit rates calculated on the basis of the adopted performance plan, shall result in a first adjustment of the unit rate in the year following the adoption of the performance plan and a final adjustment of the unit rate two years after that year. The provisions of Articles 27 and 28 shall be applied on the basis of the adopted performance plan and shall apply retroactively as from the first day of the reference period.

471 It follows from this rule that, until the Commission has adopted a decision on the consistency of a draft performance and the Member State concerned has consequently adopted a final performance plan in accordance with points (a) and (b) of Articles 16, each unit rate for the charging zones concerned is calculated and set based on the determined costs and traffic forecast contained in the most recent version of the draft performance plan in force at the time it is established.

472 This “most recent version” refers to the draft performance plan which is in force at the time of establishing the unit rate for year n in accordance with Article 29(2)(b), i.e. by 1 November of year n-1. To be considered in force, a draft performance plan or revised draft performance plan must have been duly adopted by the Member State or Member States concerned and must have been formally submitted to the Commission for assessment.

473 Article 17(2) of the Implementing Regulation sets out that, when a final performance plan is adopted after the beginning of a reference period, the performance targets in the key performance area of cost-efficiency contained in that final performance plan shall apply retroactively through adjustments of the unit rates in accordance with Article 29(5).

Adjustments

474 For any year when the unit rate charged to air-space users (“applied unit rate”) differs from that calculated on the basis of the final adopted performance plan (“recalculated unit rate”) in a given charging zone, the difference in revenue resulting from the difference between the applied unit rate and the recalculated unit rate is carried-over to subsequent calendar years, in accordance with the principles set out in Article 29(5).

475 The concept of “difference in revenue” should be understood as the difference between:

- The actual revenue collected over the calendar year based on the “applied unit rate”, i.e. the number of actual service units for year n multiplied by the applied unit rate for year n ; and
- The actual revenue that would have been collected over the calendar year should the “recalculated unit rate” have been applied, i.e. the number of actual service units for year n multiplied by the recalculated unit rate for year n .

476 In accordance with the second paragraph of Article 29(5), the difference in revenue shall result in a first adjustment of the unit rate in the year following the adoption of the final performance plan and a final adjustment of the unit rate two years after that year.

477 The “first unit rate adjustment” to be applied in the year following the adoption of the performance plan (in year $n+1$) reflects:

- The total aggregated difference in revenue resulting from the application of the temporarily applied unit rate(s) instead of the recalculated final unit rate(s) for the calendar years for which the actual service units are available to compute the actual difference in revenue; and
- An estimated difference in revenue, for the calendar year(s) for which the preliminary unit rate has already been established on the basis of point (c) of Article 29(2) but the actual service units are not yet available. This concerns the year of adoption of the final performance plan (n) and if applicable, the following year ($n+1$).

478 The “final unit rate adjustment” to be applied in ($n+3$) should reflect the difference between the actual revenue difference for the year of adoption of the final performance plan computed on the basis of the actual service units and the estimated difference included in the “first unit rate adjustment”.

Article 29(5) - Performance plans revised during a reference period pursuant to Article 18

479 In accordance with Article 18(1) of the Implementing Regulation, Member States may request a revision of their respective performance plans and targets during the reference period subject to specific conditions. Where the Commission approves the requested revision, the Member State adopts in accordance with Article 16(c) of the Implementing Regulation a revised performance plan containing the revised performance targets approved by the Commission.

Article 29(5) of the Implementing Regulation, third subparagraph

Where a performance plan is revised during the reference period in accordance with Article 18, any difference in revenue due to the application of the unit rate or unit rates calculated on the basis of the adopted performance plan, instead of the unit rate or unit rates calculated on the basis of the adopted revised performance plan, shall result in a first adjustment of the unit rate in the year following the adoption of the revised performance plan and a final adjustment of the unit rate two years after that year. The provisions of Articles 27 and 28 shall be applied on the basis of the adopted revised performance plan and shall apply retroactively as from the first day of the year to which the revised performance plan applies.

480 Article 18(2) of the Implementing Regulation stipulates that such revised performance targets shall not apply retroactively. Hence, requests for revision may not concern targets relating to any calendar year which has already ended.

481 However, for the year of submission of the revision of the targets (year n) and, if applicable for the following year (year $n+1$), for which the preliminary unit rate has already been established based on point (c) of Article 29(2) of the Implementing Regulation, the provisions of the third subparagraph of Article 29(5) apply.

482 Indeed, due to the time foreseen for the assessment of the Member State's request for revision, the adoption of a revised performance plan may take place during the year of submission (n) or in the following year (n+1).

Adjustments

483 Accordingly, where a performance plan is revised during the reference period in accordance with Article 18, any difference in revenue due to the application of the unit rate or unit rates calculated on the basis of the performance plan adopted previously in accordance with points (a) or (b) of Article 16, instead of the unit rate or unit rates calculated on the basis of the adopted revised performance plan in accordance with point (c) of Article 16, shall result in a first adjustment of the unit rate in the year following the adoption of the revised performance plan and a final adjustment of the unit rate two years after that year.

484 The "first unit rate adjustment" to be applied in the year following the adoption of the revised performance plan (in year n+1) reflects an estimated difference in revenue, for the calendar year(s) for which the preliminary unit rate has already been established on the basis of point (c) of Article 29(2) but the actual service units are not yet available. This concerns the year of adoption of the revised performance plan (n) and if applicable, the following year (n+1), as explained above.

485 The "final unit rate adjustment" to be applied in (n+3) should reflect the difference between the actual revenue difference resulting from the revision of the targets computed on the basis of the actual service units and the estimated difference included in the "first unit rate adjustment".

Article 29(4) - Unit rate revised to comply with Article 25(2)

486 The annual setting of unit rates for each charging zone concerned follows a specific procedure to ensure a transparent approach. Article 29(2) describes the initial submission, the possible update, the final submission and the formal setting of unit rates. Accordingly, this process is finalised through the setting of unit rates for each charging zone by 20 December of year n-1.

487 In accordance with Article 29(3) of the Implementing Regulation, the Commission is required to

Article 29(4) of the Implementing Regulation

Where, as a consequence of the time needed to complete the procedure referred to in paragraph 3, a unit rate for year n is revised after the start of the year to which it relates and such revision causes a difference in revenues, the unit rate shall be adjusted as follows:

- a) a first adjustment of the unit rate in the year following the revision of the unit rate, and*
- b) a final adjustment of the unit rate two years after that year.*

verify the compliance of unit rates with the requirements contained in Article 25(2).

488 Where a unit rate is deemed non-compliant by the Commission, the Member State in question is invited to submit a revised unit rate.

489 Where the revision of the unit rate occurs during the calendar year to which the unit rate applies, Article 29(4) of the Implementing Regulation sets out a retroactive application of the revised unit rate from the beginning of that calendar year through future unit rate adjustments.

Adjustments

490 Where a unit rate for year n is revised after the beginning of that year and such revision causes a difference in revenues, this results in a first adjustment of the unit rate in year n+1, and a final adjustment in year n+3.

491 The concept of "difference in revenue" should be understood as the difference between:

- The actual revenue collected from the beginning of the calendar year to which it relates based on the "temporarily applied unit rate", i.e. the number of actual service units for year n multiplied by the applied unit rate for year n; and
- The actual revenue that would have been collected over the same period should the "recalculated unit rate" have been applied, i.e. the number of actual service units for year n multiplied by the recalculated unit rate for year n.

492 Accordingly, the "first unit rate adjustment" in accordance with Article 29(4)(a) to be applied in the year following the revision of the unit rate reflects the total difference in revenue resulting from the

application of the temporarily applied unit rate instead of the recalculated final unit rate.

- 493 The “final unit rate adjustment” in accordance with Article 29(4)(b) should be understood to refer to the unit rate adjustment set out in Article 27(9) in respect of the balance of the initial carry-over due to traffic variations (“traffic risk sharing”).

Details on the retroactive application of unit rates in the reporting tables

- 494 The computation and carry-overs related to the retroactive application of the unit rate should be reported in a transparent manner as part of the reporting tables and additional information in Annex IX of the Implementing Regulation for the annual unit rate setting process, in accordance with Article 29(2) of the Implementing Regulation.
- 495 Although the adjustments in accordance with Article 29(4) are not expressly listed in Article 25(2), the reporting of such adjustments is still required to ensure compliance with the Implementing Regulation.

4.16 Adjustments deriving from previous reference periods

- 496 This section provides an outline of adjustments stemming from previous reference periods.
- 497 In accordance with Article 25(2)(l), adjustments to the unit rate of year *n* also comprise carry-overs from previous reference periods, to be understood as the reference periods preceding the application of the Implementing Regulation (namely, RP1 and RP2). Those adjustments are calculated and applied in accordance with the relevant implementing acts for the reference period concerned, i.e. Commission Regulation (EC) 1794/2006 (as amended by Commission Regulation (EC) 1191/2010) for RP1 and Commission Implementing Regulation (EU) 391/2013 for RP2.
- 498 Outstanding carry-overs from RP1 and RP2 should normally have all been allocated to unit rates applicable by the end of RP3. An exception to this relates to the traffic adjustment on adjustments stemming from previous RPs. Indeed, the over- or under-recoveries resulting from traffic variation relating to RP1 and RP2 adjustments will continue to be rolled over as long as a balance remains in respect of those adjustments (and not only once

as foreseen in Article 27(9)) until those adjustments are fully settled in respect of traffic variation. The amounts concerned, if any, are however insignificant in respect of RP4 unit rates.

- 499 The adjustments stemming from RP3 are those spelled out in Article 25(2) (a) to (k) of the Implementing Regulation and are therefore not considered as ‘adjustments deriving from previous reference periods’, within the meaning of that Implementing Regulation.

- 500 It should be noted that Article 5(4) of the exceptional measures Regulation introduced (in response to the impact of the COVID-19 pandemic) a derogation from the basic rule set out in the second subparagraph of Article 29(5) of Implementing Regulation (EU) 2019/317 concerning unit rate adjustments relating to the temporary application of the unit rate. As a result, Member States were required to spread those adjustments deriving from RP3 equally over a period of 5 calendar years instead of the two calendar years, starting in the year following the year in which the performance plan has been adopted. Pursuant to Article 5(5) of Implementing Regulation (EU) 2020/1627, NSAs were allowed to extend the spreading of those adjustments over a period of up to 7 years where this was deemed necessary in order to mitigate the financial effect of those adjustments on the unit rates.

Details on the adjustments deriving from previous reference periods in the reporting tables

- 501 The remaining adjustments deriving from previous reference periods (RP1 and RP2) are provided in the reporting tables and additional information in Annex IX of the Implementing Regulation for the annual unit rate setting process, in accordance with Article 29(2) of the Implementing Regulation.
- 502 These adjustments are detailed in Table 3 of Annex IX, which specifies the year(s) when they were incurred and the year(s) they are carried-over to. They are grouped together with the adjustments incurred in the current reference period and summed with them before being transferred to Table 2B for the calculation of the unit rates. Therefore, Table 2B does not separately show the adjustments from previous periods.
- 503 The additional information provided by the Member State should include the breakdown of the

adjustments relating to previous reference periods impacting the unit rate calculation, as well as information on the origin of each of these adjustments.

5 SETTING OF THE UNIT RATE

504 This section provides the annual procedure to set unit rates for each charging zone as laid down in Article 29 of the Implementing Regulation. As outlined in the previous section, the calculation of unit rates is done in accordance with Article 25(2), without prejudice to the possibility for Member States to apply exceptional unit rate reductions in accordance with Article 29(6).

505 Pursuant to Article 17(2) of the Implementing Regulation, the calculation and setting of unit rates are based on the determined costs and traffic forecasts set in the final version of the performance plan, or in the absence of such a final performance plan, based on the determined costs and traffic forecasts included in the most recent version of the draft performance plan.

Article 29(1) of the Implementing Regulation

Member States shall set a unit rate for each charging zone on an annual basis in accordance with Article 25. Without prejudice to paragraph 3, unit rates shall not be modified in the course of a year.

506 Unit rates are set for each charging zone by Member States on an annual basis following the principles for the calculation of unit rates set out under Article 25 of the Implementing Regulation. A unit rate is set for the entire calendar year and cannot be modified after its formal adoption unless the Commission has found, pursuant to Article 29(3), that the unit rate does not meet the requirements laid down in Article 25(2) and hence has to be revised at the earliest opportunity by the Member State concerned (see sub-section 4.15 above).

5.1 Procedure

507 The annual setting of unit rates follows a specific procedure to ensure a transparent and synchronised approach across Member States, as regards the applicable milestones and timeline. Article 29(2) of the Implementing Regulation describes the initial submission, the possible update, the final submission and the formal setting of unit rates.



5.2 Initial unit rate submission

508 The calculated unit rates have to be submitted by the NSA on behalf of the respective Member State to the Commission and to the CRCO of Eurocontrol by 1st June of year n-1. The June submission allows Member States to submit preliminary data on calculated unit rates, including information on carry-overs from previous years.

509 This submission shall include the reporting tables and additional information set out in Annex VII and Annex IX to the Implementing Regulation.

510 In order to facilitate the process, the Eurocontrol Performance Review Unit (PRU), in cooperation with the CRCO, prepares the templates to be used by the Member States for their submissions (Excel reporting tables and Word additional information documents), including all formulas needed for the submission and pre-filled data where possible. These templates are made available to the Member States via the CRCO Common Platform (ETNA) in April. It is the responsibility of the Member

States to verify that the templates are correct, to provide the latest actual data for n-2 and to present the calculation of their unit rates for year n in line with their final performance plans (or in the absence of such a final performance plan, based on the determined costs and traffic forecasts included in the most recent version of the draft performance plan.

- 511 Based on the current working arrangements, NSAs have to ensure that the required information on calculated en route and terminal unit rates is uploaded on the ESKY portal of the Commission. For this, when launching the documents publication on ETNA, Member States are requested to confirm their intention to submit the reporting tables to the Commission, thus enabling their submissions to be transferred automatically to the Commission's ESKY platform through a gateway.

5.3 Stakeholder consultation

- 512 After the information on the calculated unit rates is submitted to the Commission and Eurocontrol, Member States shall initiate a consultation procedure with the ANSPs, airspace users' representatives, and, where relevant, airport operators and airport coordinators.¹¹ This consultation is required in accordance with Article 30(1) of the Implementing Regulation.

Scope of the consultation

- 513 The scope of this annual consultation on unit rates shall comprise in particular the following elements set out in point 2 of Annex XII of the Implementing Regulation:
- Charging policy, including, inter alia, timing of adjustments to the unit rates and cross-financing between terminal charging zones;
 - Evolution of traffic compared to the traffic forecast set out in the performance plan;
 - The application of the traffic risk sharing mechanism referred to in Article 27 and of the incentive scheme or schemes implemented on the basis of Article 11;
 - If applicable, intended modifications of terminal charging zones in accordance with point (a) of Article 21(5); and

- If applicable, services foreseen to be subject to market conditions in accordance with point (b) of Article 35(3).

- 514 As indicated in Article 30(1), the annual consultation on unit rates described above may be conducted together with the annual consultation on actual costs referred to in Article 24(3) of the Implementing Regulation and under point 1 of Annex XII concern in particular the following essential elements related to the transparency of costs:

- Actual costs incurred during the previous year and the difference between the actual costs and the determined costs contained in the performance plan; and
- Evolution of costs referred to in Article 28(3).

- 515 The evolution of costs referred to in Article 28(3) is indeed of direct relevance for the setting of the unit rate for year n, as this concerns the cost risk sharing adjustments implemented in accordance with the provisions of Article 28(4), (5) and (6) of the Implementing Regulation.

- 516 In particular, Article 28(4) prescribes that the NSA has to consult stakeholders before deciding on the approval of changes to the list of major investments set out in the performance plan or on the implementation of carry-overs stemming from differences between the actual and determined costs of new and existing investments. It is strongly advised to include these matters as part of the annual consultation on unit rates for the sake of consistency and in order to reduce the administrative burden for all parties involved.

Consultation arrangements

- 517 In accordance with Article 30(1), the annual consultation on unit rates must be held by 1st August.
- 518 For the purpose of conducting the annual consultation, Member States should provide relevant information to the consulted parties and the Commission at least three weeks ahead of the consultation meeting. The information must be provided to the Commission on the same day when it is provided to the consulted parties, this is a requirement laid down in Article 30(2) of the Implementing Regulation. Member States should also inform the Commission about the outcome of the

¹¹ This does not exclude the possibility for NSAs to conduct consultations before the submission of information on the calculated unit rate by 1st June of year n-1.

consultation once the stakeholder consultation has been concluded.

- 519 Meeting participants should be given the opportunity to ask Member State/NSA representatives to provide further clarification on the information received ahead of the consultation meeting. If the organisation of a face-to-face meeting is impossible, Member States should inform stakeholders about the alternative process in due course and provide instructions to take part in an online meeting and/or to submit comments in written form.
- 520 In addition to the local consultations on en route and terminal charges at Member State level, airspace users' representatives are consulted by the enlarged Committee for Route Charges of Eurocontrol, which usually convenes in late June, on the en route charges component of the Member States' respective submission.

5.4 Updated unit rate submission

- 521 In the update of the calculated unit rates, the following elements should be considered:
- Initial feedback received from the Commission in respect of the compliance of the calculated unit rates with the requirements set out in Article 25(2) of the Implementing Regulation;
 - Feedback received during the consultation of stakeholders pursuant to Article 24(3), 28(4) and Article 30(1);
 - Updated information from the NSA on carry-overs in accordance with Article 28(4); and
 - Information included in the latest draft performance plan if submitted between 1st June and 1st November.
- 522 The Member State should ensure that the update of the calculated unit rates considers the feedback received and is aligned with the most recent submission of the draft performance plan. If a Member State has updated or revised its draft performance plan between the first and second submission of the calculated unit rates, then only the latest version of the draft performance plan will apply.
- 523 The NSA of the Member State concerned must submit the information on the updated calculated unit rate or rates before 1st November. Similar to

the submission of the calculated unit rates, NSAs have to ensure that the updated calculated unit rates (for both en route and terminal charging zones) are uploaded on the ESSKY portal of the Commission.

5.5 Adoption of unit rates

- 524 Following the submission of updated unit rates by 1st November of year n-1, the Enlarged Committee for Route Charges of Eurocontrol convenes in late November to adopt the en route unit rates. The Enlarged Commission of Eurocontrol will take a decision approving the en route unit rates and their entry into force. Simultaneously, the Commission verifies the updated calculated unit rates submitted by Member States in accordance with Article 29(3), as outlined above.
- 525 Member States are required to formally set en route and terminal unit rates at local level by 20th December of year n-1 through the applicable national procedures, and inform the Commission thereof (Article 29(2)(c) of the Implementing Regulation). To do so, Member States are to communicate to the Commission without undue delay the national legal or administrative instruments (e.g. a quote from the national official journal/publication or a ministerial note) for the setting of the en route and terminal unit rates via the relevant report category in ESSKY.
- 526 Member States should ensure that their respective final unit rates are transparently made publicly available in accordance with their national procedures. This can include a publication on the website of the competent authority or the Ministry of Transport.

5.6 Verification of unit rates

Article 29(3) of the Implementing Regulation

The Commission shall verify that the unit rates referred to in paragraph 2 are calculated in compliance with the requirements set out in Article 25(2).

Where the Commission finds that a unit rate does not comply with the requirements set out in Article 25(2), it shall notify the Member State concerned and invite it to submit a revised unit rate.

Where the Commission finds that the revised unit rate are calculated in compliance with the requirements set out in Article 25(2), it shall notify the Member State concerned accordingly.

- 527 Compliance with Article 25(2) of the Implementing Regulation is an integral requirement of the setting of unit rates. The verification by the Commission services ensures that the calculations and adjustments are made in accordance with the principles laid down in Article 25.¹² The verification itself is not bound by an end date. The verification process and the possible resulting unit rate revision may only be completed in the course of the calendar year for which the unit rate is set, which therefore requires subsequent adjustments in accordance with Article 29(4) in order to account for the difference in revenue between the applied unit rate and the revised unit rate (subsection 4.15).
- 528 After the first unit rate submission by 1st June of year n-1, the Commission services (supported Eurocontrol under the current working arrangements) proceed with an initial verification of the calculated unit rates provided by the Member State. If the initial verification leads to some findings, the Commission services inform the Member State concerned and require that Member State to update the unit rate or elements thereof accordingly. The raised findings may include (but not be limited to) inaccurate calculations due to technical mistakes.

- 529 Any request by the Commission services (or Eurocontrol acting on its behalf) are to be addressed by the Member State concerned either through an update of the unit rate calculation or, where appropriate or requested, through the provision of further clarifications or justifications to the Commission services. At this stage of the process, there is no formal decision on non-compliance by the Commission as stipulated under Article 29(3). However, Member States need to demonstrate in the subsequent submission by 1st November that such feedback was taken into account.
- 530 After the second submission by 1st November, the Commission services conduct a final assessment on the basis of the updated calculated unit rates and the additional information provided by the Member State. Here, the Commission services also assess whether the Member State has adequately addressed the feedback received after the first submission.
- 531 If the Member State has failed to address such issues, or if new shortcomings of the submission are identified, the Commission services notifies the Member State with a request to address the outstanding issues accordingly.
- 532 In contrast to the procedures that were applicable during RP2, under the current Regulation applicable to RP3 and RP4, the Commission no longer issues decisions on the compliance of the unit rates. However, if a Member State has set unit rates which are not compliant with the requirements set out in Article 25(2), the Commission will adopt a decision detailing the reasons for non-compliance and formally requesting the Member State concerned to submit a revised unit rate pursuant to the second sub-paragraph of Article 29(3).
- 533 If a Member State fails or refuses to revise the unit rate concerned following the Commission's decision, the Commission may commence infringement proceedings under Article 258 of the Treaty on the Functioning of the European Union.

¹² With the support of the Eurocontrol Performance Review Unit (PRU) based on an Agreement with the Commission.

6 CALCULATION OF SERVICE UNITS AND CHARGES

534 This section provides guidance material on the calculation of service units and charges for en route and terminal air navigation services in accordance with Article 31 and Annex VIII of the Implementing Regulation.

535 Service units for each flight are calculated separately for each charging zone in which services were provided to that flight by air traffic service units (ATSU). Hence, service units reflect the proportional use of air navigation services in each charging zone by the flight.

536 En route service units and terminal service units are calculated based on two different formulas, which are presented in the following sub-sections. The calculation of the en route service units is based on the provisions of point 1 of Annex VIII of the Implementing Regulation, while the calculation of terminal service units is done in accordance with point 2 of Annex VIII.

6.1 En route service units

537 The formula for the calculation of en route service units incurred in any given charging zone is presented below.

En route service units for a given flight in the charging zone concerned

$$= \text{Distance factor for the flight concerned} \\ \times \text{En route weight factor for the flight concerned}$$

En route distance factor

538 The distance factor is based on the actual route flown as recorded by the Network Manager. The distance factor is obtained as follows:

Distance factor

$$= \text{Distance flown in charging zone} / 100$$

539 The distance flown to be taken into account for any given charging zone shall be calculated as follows:

Distance flown for a given flight in the charging zone concerned

$$= \text{Actual great circle distance in km between entry point} \\ \text{to and exit point from the charging zone} \\ - 20 \text{ km, if entry point is aerodrome of departure}$$

540 The actual trajectory (also called M3 trajectory in NEST terminology) for any given flight is determined based on available radar information.¹³ This actual trajectory is directly used as a basis for the calculation of en route service units where the flight deviates from its last filed flight plan (in any of the crossed charging zones) by more than 5 minutes, 7 flight levels or 20 nautical miles. Conversely, where the deviation from the last filed flight plan is only minimal and remains below the abovementioned thresholds for all charging zones concerned, the actual trajectory of the flight is considered equal to the last filed flight plan trajectory for the purpose of the calculation of en route services units.

En route weight factor

541 The en route weight factor is calculated by the square root of the quotient obtained by dividing by 50 the number of metric tons of the certified maximum take-off weight (MTOW) of the aircraft. The number of metric tons shall be rounded to one decimal place and the weight factor shall be rounded to two decimal places.

¹³ "NEST" refers to the Network strategic modelling tool of Eurocontrol.

542 In accordance with points 1.3 and 1.4 of Annex VIII of the Implementing Regulation, the take-off weight taken into account is the certified maximum take-off weight (MTOW) of the aircraft performing the flight. Where an aircraft has multiple certified MTOW, the highest one shall be used for the calculation of the weight factor.

En route weight factor

$$= \sqrt{\frac{\text{Certified MTOW in metric tons}}{50}}$$

543 To ensure a correct calculation of service units, airspace users must inform the Eurocontrol CRCO about the composition of their fleet and of the certified MTOW of their aircraft as shown in the Aircraft Flight Manual (AFM). Also, airspace users have to inform the Eurocontrol CRCO without delay of any change in the composition of their fleet or in the certified MTOW as shown in the Aircraft Flight Manual, together with the date of change. In the event of no declaration or no certified MTOW, the weight factor shall be calculated by taking the certified MTOW of the heaviest aircraft of the same type known to exist to the CRCO (point 1.5 of Annex VIII of the Implementing Regulation).

544 Airspace users making use of aircraft under wet lease should confirm with the lessor that the certified MTOW has been declared to the CRCO, as the weight factor for that flight will be calculated based on the applicable MTOW for that aircraft.

545 Eurocontrol publishes and updates as required a document detailing the fleet declaration requirements.¹⁴

6.2 Terminal service units

546 The formula for the calculation of terminal service units incurred in any given charging zone is presented below.

Terminal service units for a given flight in the terminal charging zone concerned

$$= \text{terminal weight factor of the aircraft concerned}$$

Terminal weight factor

547 The weight of the aircraft is the only variable taken into account in the calculation of terminal service

units (contrary to en route service units for which the distance flown is also included in the formula).

548 As presented below, the terminal weight factor is quotient, obtained by dividing by 50 the number of metric tons in the highest maximum certified take-off weight of the aircraft, to the power of 0.7. The figure for the calculation of the weight factor shall be rounded to two decimal places.

Terminal weight factor

$$= \left(\frac{\text{Certified MTOW in metric tons}}{50} \right)^{0.7}$$

549 The principles for determining the take-off weight of the aircraft to be taken into account for the calculation of the terminal weight factor are the same as those for en route service units as set out in points 1.3 to 1.5 of Annex VIII of the Implementing Regulation, presented in the previous subsection.

6.3 ANS charges

Calculation

550 In accordance with Article 31(1) and (2) of the Implementing Regulation, air navigation charges for any specific flight are calculated in respect of each charging zone as a product of the applicable unit rate and the number of service units incurred for that flight.

Charge incurred for a given flight for services in the charging zone concerned

$$= \text{unit rate for the charging zone} \times \text{service units for that flight}$$

551 Unit rates are set for the calendar year and are not modified during the calendar year, except in the situation where the Commission has requested such a revision in accordance with Article 29(3). The charge is calculated based on the unit rate applicable at the time when the flight occurs.

552 For the terminal charge it should be noted that arrival and departure count as a single flight. Therefore, the unit rate to be counted for the terminal charging zone can be either the arriving or departure flight.

553 For the en route charge, when calculating the distance flown, a deduction of 20 kilometres from

¹⁴ The document can be found [here](#).

the great circle distance occurs for each take-off and landing. Therefore, if a flight crosses several charging zones, those 20 kilometres are deducted from the first charging zone and from the last charging zone, amounting to a deduction of total 40 kilometres on the distance flown by each flight. The purpose of this deduction is to avoid a so-called double charging of services between en route and terminal services.

Collection

- 554 As per Article 33(1) of the Implementing Regulation, Member States may collect charges through a single charge per flight. For the calculation of the total air navigation charge for any given flight, the charges for all the en route charging zones crossed by a single flight during its trajectory need to be summed up together with the terminal charge.
- 555 All SES Member States have entrusted Eurocontrol with the billing and collection of en route charges, on the basis of the Multilateral Agreement relating to route charges of 1981. The collection of terminal charges has either been delegated to the airports concerned or to Eurocontrol, as further described below. The Eurocontrol Member States have approved “Conditions of application of the route charges system and conditions of payment”.
- 556 Regarding the terminal charges, some Member States have entered into bilateral agreements with Eurocontrol, on the basis of which the CRCO of Eurocontrol is responsible for the collection of terminal charges on behalf of those Member States. In other cases, terminal charges are usually collected by the ANSP’s billing office for terminal charges at local level or by the airport who forwards the proceeds to the provider of the terminal air navigation service, if that is not the airport itself.
- 557 Article 33(3) of the Implementing Regulation requires airspace users to promptly and fully pay the air navigation charges which are invoiced to them. Where required, Article 33(4) foresees that Member States undertake effective and proportionate enforcement measures to recover air navigation charges that remain unpaid by airspace users. Those enforcement measures may include denial of services, detention of aircraft or other relevant measures in accordance with the law of the Member State concerned. A number of Member States and their ANSPs have made these measures available to Eurocontrol for the collection of en route charges.
- 558 Article 33(2) of the Implementing Regulation requires Member States to ensure that the amounts collected on their behalf are used to finance the determined costs incurred in accordance with the Implementing Regulation.
- 559 In accordance with Article 33(1), when charges are billed and collected on a regional basis, the billing currency may be the Euro and, in the case of en route charges, an administrative unit rate for billing and collection costs may be added to the unit rate concerned.
- 560 Also on the collection of charges by Member States, it is essential to recall that the payment of charges are based on the “user pays” principles, meaning that airspace users should only be charged for costs related to a service provided to them. Therefore, the charging scheme requires the allocation of costs between chargeable and exempted airspace users (or flights). Member States are required to cover the costs of air navigation service provided to flights exempted from en route and/or terminal charges in accordance with Article 31(6) of the Implementing Regulation.

ANNEX I – GLOSSARY OF KEY TERMS

Term	Source ¹⁵	Definition
Accounting provision	Paragraph 10 of international accounting standards (IAS) 37 ¹⁶	An accounting provision is a liability of uncertain timing or amount.
Actual cost	Article 2(1) of 2019/317	A cost actually incurred in a calendar year for the provision of ANS which are subject to certified accounts or, in the absence of such certified accounts, subject to a final audit.
Air Navigation Services	Article 2(4) of 549/2004	This term includes air traffic services; communication, navigation and surveillance services; meteorological services for air navigation; and aeronautical information services.
Air Navigation Service Provider	Article 2(5) of 549/2004	Any public or private entity providing air navigation services for general air traffic.
Air Traffic Management	Article 2(10) of 549/2004	The aggregation of the airborne functions and ground-based functions (air traffic services, airspace management and air traffic flow management) required to ensure the safe and efficient movement of aircraft during all phases of operations.
Airport coordinator	Article 2(3) of 2019/317	The natural or legal person appointed by a Member State to carry out the coordination duties at coordinated airports set out in Article 4 of Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports.
Airport operator	Article 2(4) of 2019/317	Any legal or natural person who operates one or more aerodromes.
Airspace Users	Article 2(8) of 549/2004	Operators of aircraft operated as general air traffic.
Airspace users' representatives	Article 2(6) of 2019/317	Any legal person or entity representing the interests of one or several categories of airspace users.
Alert threshold	Article 9(4)(b) of 2019/317	A threshold of numerical value (e.g. traffic forecast) beyond which Member States may request a revision of the performance targets contained in performance plans.
Area Control Centre	Article 2(7) of 2019/317	A unit providing air traffic services to controlled flights in its area of responsibility.
Asset	ICAO Doc 9161	A resource from which future economic benefits are expected to flow to the entity that owns or controls it.

¹⁵ Unless otherwise stated, the definitions in this glossary are derived from either Regulation (EC) No 549/2004 or Commission Implementing Regulation (EU) No 2019/317.

¹⁶ Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards.

Term	Source ¹⁵	Definition
Baseline values	Article 10(2)(a) of 2019/317	The values reflecting the starting point used for performance target setting in respect of en route cost-efficiency. Baseline values are calculated both in respect of the determined costs and the determined unit cost of the year preceding the start of the reference period. Baseline values apply at both Union-wide and local level.
Cost of capital	Article 22(4)(d) of 2019/317	It is calculated as the product of the sum of the average net book value of fixed assets in operation or under construction and possible adjustments to total assets determined by the national supervisory authority and used by the air navigation service provider and of the average value of the net current assets, excluding interest-bearing accounts, that are required for the purposes of providing air navigation services; and the weighted average of the interest rate on debts and of the return on equity. For air navigation service providers without any equity capital, the weighted average shall be calculated on the basis of a return applied to the difference between the total regulatory asset base and the debts.
Cross-border services	Article 2(41) of 549/2004	Any situation where air navigation services are provided in one Member State by a service provider certified in another Member State.
En route charging zone	Article 2(8) of 2019/317	A volume of airspace that extends from the ground up to, and including, upper airspace, where en route air navigation services are provided and for which a single cost base and a single unit rate are established.
Eurocontrol	Article 2(20) of 549/2004	The European Organisation for the Safety of Air Navigation set up by the International Convention of 13 December 1960 relating to Cooperation for the Safety of Air Navigation.
Fixed asset	ICAO Doc 9161	Tangible assets that are permanent in nature and generally held for a period of more than one year (normally buildings and equipment).
Functional Airspace Block	Article 2(25) of 549/2004	An airspace block based on operational requirements and established regardless of State boundaries, where the provision of air navigation services and related functions are performance-driven and optimised with a view to introducing, in each functional airspace block, enhanced cooperation among ANSPs or, where appropriate, an integrated provider.
IFR air transport movements per year	Article 2(10) of 2019/317	The sum of take-offs and landings performed under IFR, calculated as the yearly average over the three calendar years preceding the year in which the draft

Term	Source ¹⁵	Definition
		performance plan was to be submitted in accordance with Article 12.
Key Performance Areas	Article 11(1) of 549/2004	A way of categorising performance subjects related to high level ambitions and expectations. In accordance with Article 11(1) of Regulation (EC) No 549/2004, Union-wide and local performance targets are set in the areas of safety, environment, capacity and cost-efficiency.
Key Performance Indicators	Article 8 of 2019/217	Indicators used for the purpose of performance target setting and monitoring of Key Performance Areas, at Union-wide and local level.
Long term employee benefits (other than post-employment benefits, e.g. retirement benefits)	International accounting standards (IAS) 19, other benefits	Other long-term employee benefits include: <ol style="list-style-type: none"> 1. long-term paid absences such as long-service leave or sabbatical leave; 2. jubilee or other long-service benefits; and long-term disability benefits.
Major investment	Article 2(13) of 2019/317	Acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms.
New and existing investment	Article 2(15) of 2019/317	Acquisition, development, replacement, upgrade or leasing of fixed assets where depreciation costs, cost of capital, or in the case of leasing, operating costs, for that investment are incurred during the reference period covered by the performance plan.
Pivot value	Article 11(3)(c) of 2019/317	A value used for the purpose of calculating the financial advantages or disadvantages in the incentive schemes pertaining to the capacity KPA. The value shall be based on the performance targets at national level, or a modulated target in accordance with point 1 of Annex XIII of Implementing Regulation (EU) 2019/317.
Reference period	Article 2(16) of 2019/317	The period of validity and application of the Union-wide performance targets, as set out in point (d) of Article 11(3) of Regulation (EC) No 549/2004 and Article 7 of Implementing Regulation (EU) 2019/317.
Reference value	Article 2(17) of 2019/317	The value computed by the Network Manager of <i>en route</i> ATFM delay for each Member State and each FAB for the purpose of ensuring that the Union-wide <i>en route</i> ATFM delay target is met.
Restructuring costs	Article 2(18) of 2019/317	Significant one-time costs incurred by ANSPs in the process of restructuring for introducing new technologies, procedures or business models to stimulate integrated service provision, compensating employees, closing air traffic control centres, shifting activities to

Term	Source ¹⁵	Definition
		new locations, writing off assets or acquiring strategic participations in other ANSPs.
Terminal charging zone	Article 2(21) of 2019/317	An airport or a group of airports, located within the territories of a Member State, where terminal ANS are provided and for which a single cost base and a single unit rate are established.
Write-off (e.g., of unrecovered ANS charges)	International Financial Reporting Standard (IFRS) 9 ¹⁷	A write-off constitutes a derecognition event. It occurs when an entity has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. The entity shall directly reduce the gross carrying amount of the financial asset.

¹⁷ COMMISSION REGULATION (EU) 2023/1803 of 13 August 2023 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council

ANNEX II – REPORTING TABLES AND ADDITIONAL INFORMATION

- 561 Transparency of costs and transparency of the unit rate are provided through the reporting tables and additional information established for each charging zone and detailed in:
- Annex VII for determined and actual costs, as referred to in Article 24 (2) and (3); and
 - Annex IX for unit rates, as referred to in Articles 29(2) and 30 (1).
- 562 The reporting tables and additional information updated as necessary are provided for the following purposes:
- For the stakeholder consultations on the cost-efficiency targets included in the draft performance plans, and in particular for the intended establishment of the determined costs included in the cost base for en route and terminal charges, new and existing investments, service unit forecasts and charging policy for the reference period concerned, as laid out in Article 24(2);
 - For the stakeholder consultations on the cost-efficiency targets, where Member States intend to request a revision of the cost-efficiency targets in accordance with Article 18(1);
 - As part of the submission of any draft or final adopted performance plan, as specified in point 3.3 (k) of Annex II of the Implementing Regulation, in order to substantiate the national performance targets or FAB performance targets in the key performance area of cost-efficiency. For this purpose, the reporting tables and additional information are to be annexed to the performance plan (Annex A for en route charging zones and Annex B for terminal charging zones);
 - For the stakeholder consultations on the actual costs incurred during the previous year and the difference between the actual costs and the determined costs contained in the performance plan in accordance with Article 24(3) and point 1 of Annex XII;
 - For the stakeholder consultations on the unit rate as laid out in Article 30(1), and in particular on the essential elements relating to the implementation of this Regulation as set out in point 2 of Annex XII. These consultations have to take place by 1 August of each year and may be conducted together with the consultation on the actual costs referred to above; and
 - For the setting of the unit rates of the following year in accordance with Article 29(2), by 1 June for the calculated unit rates and by 1 November for the updated calculated unit rates, following the consultation with airspace users.
- 563 The reporting tables have to be made publicly available, in particular by electronic means, in accordance with point (e) of Article 38(1) of the Implementing Regulation.
- 564 In practice, the reporting tables 1 to 4 are presented for each charging zone in a combined Excel file (one tab per table per entity and/or consolidated at charging zone level) in order to enable the different links and calculations to be made between the costs, traffic and unit rates. The reporting tables also include one tab presenting the key data for the establishment of the cost-efficiency target, which is making the link with the performance plan in force.
- 565 Similarly, the additional information to reporting tables 1 to 4 are presented for each charging zone in a combined Word file.
- 566 This Annex provides an overview of the content and organisation of the different reporting tables and additional information.

Reporting tables 1 on total costs and unit costs (as per Annex VII of the Implementing Regulation)

- 567 Member States are required to submit a separate reporting table on total costs and unit costs for each entity (i.e. the respective ANSPs and the competent NSA) using Table 1 in Annex VII of the Implementing Regulation. This Table should also be used to aggregate the data from the relevant entities in one single reporting table per charging zone. In cases where charging zones extend across the airspace of more than one Member States, a joint reporting table following Table 1 should be submitted by the Member States concerned.

- 568 For terminal charging zones, in addition, Table 1 should also be used to report on total costs and unit costs for each airport that is subject to the Implementing Regulation (i.e. airports with more than 80,000 IFR movements per year). In Member States where the provisions of the Implementing Regulation are applied to airports with less than 80,000 IFR movements per year, a consolidated reporting table for those airports should be submitted, except for the total costs referred to in line 4.2 of Table 1 which need to be reported separately.
- 569 Overall, the information required under Annex VII – Reporting tables of total costs and unit costs should be composed of the following items:
- Reporting table for each ANSP and the competent NSA(s) incurring costs in a charging zone; and
 - Aggregated reporting table at charging zone level (including information on common charging zones extending across several Member States, if applicable).
- 570 In addition, for each terminal charging zone:
- Reporting table for each airport with more than 80,000 IFR movements per year; and
 - Consolidated reporting table for each airport with less than 80,000 IFR movements per year to which the provisions of the Implementing Regulation apply (if applicable).
- 571 The figures included in the reporting tables, such as determined costs and related elements, should always reflect the information that is also included in the performance plan of the Member State, or in its absence, the information included in the latest draft version submitted to the Commission.

Additional information to reporting tables 1 on total costs and unit costs (as per Annex VII of the Implementing Regulation)

- 572 Member States are required to provide additional information to the reporting tables 1 on total costs and unit costs.
- 573 These are divided into two parts:
- Part 1 - Determined costs and unit costs. The information on this part concerns qualitative information and details on the determined costs presented in the reporting table 1 and in the performance plan for the establishment of the local cost-efficiency target for the charging zone concerned. The requirements for part 1 are those listed under Annex VII, points 2.1 (a) to (j). Such requirements include a description of the methodology used for establishing or allocating costs, a description of the criteria used or justifications and the composition of each cost item. For RP4, these requirements are embedded in the performance plan template itself in order to provide a common format for reporting the information across the Member States. Cross-references are provided in the additional information Word file, with the corresponding item from the performance plan template; and
 - Part 2 - Actual costs and unit costs. The information on this part concerns qualitative information and details on the actual costs presented in the reporting table 2 and in the NSA monitoring report for the monitoring of the local cost-efficiency target for the charging zone concerned. The requirements for part 2 are those listed under Annex VII, points 2.2 (a) to (e).

Reporting tables 2 on the unit rate calculation (as per Annex IX of the Implementing Regulation)

- 574 Member States are required to provide a Table 2 on unit rate calculation separately for each relevant entity incurring costs in a charging zone for the reference period concerned (the same entities as for reporting tables 1). In addition, a consolidated reporting table 2 is to be provided, which aggregates the data from the relevant entities for the charging zone.
- 575 Table 2 is divided into two distinct parts:
- Table 2 A - Adjustments relating to year n. This sub-table is used to calculate and report the adjustments generated from the activity of year n - these are the carry-overs from year n. The positive amounts indicate amounts to be charged to airspace user, while the negative amounts indicate amounts to be reimbursed to

airspace users. These amounts are automatically feeding Table 3 (see below), which is used to allocate the carry-overs from year n to the unit rates, following the rules laid out in the Implementing Regulation; and

- Table 2 B - Calculation of the unit rate for year n. This sub-table is used to calculate the unit rate for year n and detail the adjustments taken into account for the calculation of the unit rate for year n, i.e. the carry-overs to year n. As for Table 2A, the positive amounts indicate amounts to be charged to airspace user, while the negative amounts indicate amounts to be reimbursed to airspace users. The amounts presented in Table 2B are automatically fed from Table 3 and also include adjustments relating to previous reference periods. No input is needed from the Member States, except for item 13.14 in case of application of Article 29(6) relating to the application of a lower unit rate.

Additional information to reporting tables 2 on the unit rate calculation (as per Annex IX of the Implementing Regulation)

- 576 Together with the numerical information included in the reporting tables on unit rate calculation, Member States must provide additional information to clarify the items listed in the tables. Point 4 (a) to (k) of Annex IX of the Implementing Regulation specifies the items for which additional descriptions and/or information are required for Table 2.

Reporting tables 3 on complementary information on adjustments (as per Annex IX of the Implementing Regulation)

- 577 Member States have to submit a consolidated reporting table for each charging zone in respect of complementary information on unit rate adjustments, using Table 3 contained in Annex IX of the Implementing Regulation.
- 578 One Table 3 is foreseen for each entity (and the consolidated table automatically produced) to facilitate the spreading and follow-up of carry-overs and to allow automatic feeding from Table 2A and to Table 2B as explained above.
- 579 Table 3 details the carry-overs of the adjustments calculated in Table 2A to future unit rates. The Member States is to allocate the amounts of each adjustment fed from Table 2B into the year for carry-over. This is to be done manually by the Member State, when the carry-over rules laid out in the Implementing Regulation allow flexibility.
- 580 Table 3 also includes the adjustments stemming from previous reference periods, which have not yet been allocated in past unit rates and are still to be carried over to unit rates in RP4 and beyond.

Additional information to reporting tables 3 on complementary information on adjustments (as per Annex IX of the Implementing Regulation)

- 581 Together with the numerical information included in the reporting tables on unit rate calculation, Member States must provide additional information to clarify the items listed in the tables. Point 4 (a) to (k) of Annex IX of the Implementing Regulation specifies the items for which additional descriptions and/or information are required for Table 2.

Reporting table 4 on complementary information on common projects and on revenues from Union assistance programmes (as per Annex IX of the Implementing Regulation)

- 582 Member States have to submit a consolidated reporting table for each charging zone on complementary information on common projects and on revenues from Union assistance programmes. The Table 4 specifies the information required for each project and distinguishes between amounts received by the entity on one hand and amounts to be reimbursed to airspace users on the other hand. For RP4 and in order to harmonise the reporting and the reconciliation with the Union funds managed by the SESAR Deployment Manager of Eurocontrol (SDM), Table 4 has been slightly modified and has been prefilled with the information available with the SDM. This new Table is inserted in the reporting tables' templates without yet deleting the previous version. Member States are encouraged to gradually move to this new presentation and to remove the previous Table 4 once fully aligned.

Additional information to reporting table 4 on complementary information on common projects and on revenues from Union assistance programmes (as per Annex IX of the Implementing Regulation)

- 583 Together with reporting table 4, Member States are to provide additional information on the costs of common projects and other funded projects broken down per individual project, as well as of public funds obtained from public authorities for these projects, as per point 4 (l) of Annex IX of the Implementing Regulation.

ANNEX III – TEMPLATE FOR THE NOTIFICATION OF PIVOT VALUES

**Capacity incentive scheme referred to in Article 11(3) of Commission
Implementing Regulation (EU) 2019/317**

Notification of annual pivot values

Member State

Air navigation service provider

Calendar year

Charging zone

The national supervisory authority (NSA) has set the following pivot value for the air navigation service provider, in respect of the charging zone indicated above.

Pivot value for the calendar year
(in minutes of ATFM delay per flight)

In accordance with the RP3 performance plan, the pivot value above is:

(1) Fixed¹ ☐

(2) Modulated

Based on significant and unforeseen changes in traffic² ☐

Limited to CRSTMP delay causes³ ☐

This notification is done in accordance with the last sentence of Article 11(3)(c) of Commission Implementing Regulation (EU) 2019/317.

Name of the notifying NSA

Name of NSA representative

(document electronically
signed)

¹ In accordance with point (i) of Article 11(3)(c) of Commission Implementing Regulation (EU) 2019/317, this means that this pivot value is based on the capacity performance target at national level, as broken down at the level of the navigation service provider concerned.

² For en route services, this modulation is to be understood in accordance with point 1.1(a) of Annex XIII to Commission Implementing Regulation (EU) 2019/317: the modulation is accordingly informed by updated capacity reference values communicated by the Network Manager in November of year n-1. For terminal services, this modulation is to be understood in accordance with point 1.2(a) of Annex XIII to Commission Implementing Regulation (EU) 2019/317 in respect of terminal services.

³ Point 1.1(b) or 1.2(b) of Annex XIII to Commission Implementing Regulation (EU) 2019/317.