Supporting Material
on Cost Bases for Charges
and Unit Rates for Air Navigation Services

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1 Introduction

1.1 Purpose

This document provides technical supporting material for Member States, their national supervisory authorities (NSAs) and air navigation service providers (ANSPs) for 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. The purpose is to facilitate the work of all relevant stakeholders through technical supporting material. This document does not constitute interpretative legal guidance.

This technical supporting material is provided in respect of the Article 11 of Regulation (EC) 549/2004 laying down the framework for the creation of the single European sky and Article 15 of Regulation (EC) No 550/2004 on the provision of air navigation services in the single European sky, which establish the basic rules on performance review and on cost bases and unit rates. Furthermore, technical supporting material covers the detailed requirements set out in Commission Implementing Regulation (EU) 2019/317 laying down a performance and charging scheme in the single European sky and, where applicable, in 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.

This document was developed upon request of DG MOVE, but it does not necessarily reflect the official opinion of the European Commission. All the information and views set out in this document are those of the authors.

1.2 Structure

The technical supporting material contained in this document is divided into the following five chapters:

- Chapter 2 covers the establishment of **charging zones**, including the related principles, consultation and notification requirements.
- Chapter 3 encompasses the setting of **determined costs** and the reporting of **actual costs**, including cost eligibility and transparency requirements.
- Chapter 4 addresses the rules on **unit rate calculation**, including all unit rate adjustments applicable for RP3.
- Chapter 5 outlines the process, reporting and consultation requirements for the **setting of unit rates**.
- Chapter 6 presents the principles and methodologies for the **calculation of *en route* and terminal service units and ANS charges**.

This document contains both citations from the legislation as well as some practical supporting material on possible ways to comply with the legal requirements. When referring to the legislation, the wording may not perfectly in each specific instance paraphrase the legislation but rather outline the legal requirements in a summarized or simplified manner. This technical supporting material does not intend to amend or interpret the legislative text. When expressing advice, this document uses

terminology such as “should”, “are advised to” and “may”. It should be noted that only the Court of Justice of the European Union is competent to authoritatively interpret Union law.

2 Charging zones

This chapter provides supporting material relating to the charging zones in which charges for en route and terminal air navigation services are levied.

2.1 Establishment of charging zones

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 Implementing Regulation (EU) 2019/317, first subparagraph

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 Implementing Regulation (EU) 2019/317

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.

Recital 27 of Implementing Regulation (EU) 2019/317

The determined costs of air navigation services should be financed by charges imposed on airspace users. These charges should be levied in charging zones established for en route and terminal air navigation services. Member States should ensure that the geographical scope of these charging zones is clearly defined and that the charging zones are consistent with the provision of air navigation services. It may be necessary to modify a terminal charging zone during a reference period due to changes in the operation of airports.

2.1.1 Principles

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 able to establish one or more charging zones for both *en route* air navigation services and terminal air navigation services. Each charging zone shall have a single cost base and a single unit rate (Articles 22(5) and 25(2) of Implementing Regulation (EU) 2019/317). The geographical scope of charging zones should be defined consistently with operational arrangements in place as regards the provision of ANS.

Implementing Regulation (EU) 2019/317 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. A terminal charging zone covers the provision of terminal services at one airport or at a group of airports, in accordance with Article 21(3).

For terminal charging zones, in accordance with Article 1(3), it should be noted that airports with fewer than 80 000 IFR air transport movements per year are exempted from the RP3 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). 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 on the basis of Article 1(4), this entails that the Member State concerned will have no terminal charging zone within the meaning of Implementing Regulation (EU) 2019/317.

In accordance with Article 21(4) of Implementing Regulation (EU) 2019/31, two or several Member States may jointly decide to establish a charging zone extending across their airspace. Similarly, a charging zone may include, if appropriate and where the Member States concerned jointly so decide, cross-border airspace where 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 have to ensure the consistent and uniform application of the charging scheme to the provision of air navigation services in the airspace concerned. 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.

For charging purposes, the distance to be taken into account for *en route* charges shall be reduced by 20 kilometres for each take-off from and for each landing in the charging zone, according to point 1.2 of Annex VIII of Implementing Regulation (EU) 2019/317. According to point (e) of Article 15(2) of Regulation (EC) 550/2004[1], cross-subsidies between *en route* and terminal air navigation services are not allowed.

2.1.2 Consultation

According to the second subparagraph of Article 21(1) of Implementing Regulation (EU) 2019/31, Member States shall consult the airspace users' representatives prior to establishing or amending of either an *en route* or terminal charging zone. The consulted stakeholders may include (but not be 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. This may include:

- Number and list of *en route* and terminal charging zones
- Number and list of airports (with number of IFR movements per year) under each terminal charging zone

2.1.3 Notification

In accordance with the third subparagraph of Article 21(1), Member States shall 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. The established charging zones are subsequently used for the purpose of setting the determined costs and local cost-efficiency performance targets as part of the performance plans. In case of modification of existing charging zone(s) between reference periods,

[1] Amended by Regulation (EC) No 1070/2009 of the European Parliament and of the Council of 21 October 2009

this information should also be communicated to the CRCO and to Eurocontrol STATFOR for any implications on the traffic forecast for the charging zones concerned.

2.2 Modification of charging zones

This section outlines the principles and the requirements that need to be fulfilled in order to modify charging zones that were established under the SES performance and charging scheme.

Article 21(5) of Implementing Regulation (EU) 2019/317

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 Implementing Regulation (EU) 2019/317

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

Although *en route* charging zones cannot be modified during a reference period, in specific circumstances, a terminal charging zone may be modified. 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.

If a terminal charging zone is to be modified, the following conditions of Article 21(5) of Implementing Regulation (EU) 2019/317 must be met:

a) Consultation of airspace users' representatives and air navigation service providers

   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.

b) Notification, without undue delay, to the Commission and the CRCO of Eurocontrol of the modification

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 by the CRCO. As a result, it is important that both the Commission and the CRCO are informed of any modification of a terminal charging zone without delay.

c) Provision to the Commission, without undue delay, of the following information

(i) 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 (in line with reporting table requirements set out in Annex VII).

(ii) 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 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.

(iii) an assessment of the expected impact of the modification on the achievement of the national performance targets or functional airspace block (FAB) 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 KPA 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.

(iv) 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 point (i) 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.

The update of the performance plan within the meaning of point (iv) of Article 21(5)(c) of Implementing Regulation 2019/317 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 Implementing Regulation (EU) 2019/317, 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.

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

This chapter presents supporting material 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 Eligibility of costs

This section outlines the requirements relating to the eligibility of costs to be charged to airspace users under the SES performance and charging scheme.

Article 22(1) of Implementing Regulation (EU) 2019/317, 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 12(3) of Regulation (EC) 550/2004

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(1) of Regulation (EC) 550/2004

The charging scheme shall be based on the account of costs for air navigation services incurred by service providers for the benefit of airspace users. The scheme shall allocate these costs among categories of users.

Article 15(2) of Regulation (EC) 550/2004, points (a) to (d)

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

(a) the cost to be shared among airspace users shall be the determined cost of providing air navigation services, including appropriate amounts for interest on capital investment and depreciation of assets, as well as the costs of maintenance, operation, management and administration. Determined costs shall be the costs determined by the Member State at national level or at the level of functional airspace blocks either at the beginning of the reference period for each calendar year of the reference period referred to in Article 11 of the framework Regulation, or during the reference period, following appropriate adjustments applying the alert mechanisms set out in Article 11 of the framework Regulation;

(b) the costs to be taken into account in this context shall be those assessed in relation to the facilities and services provided for and implemented under the ICAO Regional Air Navigation Plan, European Region. They may also include costs incurred by national supervisory authorities and/or qualified entities, as well as other costs incurred by the relevant Member State and service provider in relation to the provision of air navigation services. They shall not include the costs of penalties imposed by Member States according to Article 9 of the framework Regulation nor the costs of any corrective measures imposed by Member States according to Article 11 of the framework Regulation;

(c) in respect of the functional airspace blocks and as part of their respective framework agreements, Member States shall make reasonable efforts to agree on common principles for charging policy;

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

According to Article 15(1) of Regulation (EC) 550/2004, the charging scheme shall be based on the account of costs for air navigation services incurred by service providers for the benefit of airspace users.

The determined cost is a concept introduced in Article 15(2) of Regulation (EC) 550/2004, and is used to establish, as part of the performance plan, a stable cost base for charges for each reference period. According to Article 15(2)(a), the cost to be shared amongst airspace users shall be the determined cost of providing air navigation services, including appropriate amounts for interest on capital investment and depreciation of assets, as well as cost of maintenance, operation, management and administration. Maintenance, operation, management and administration costs include, but are not limited to, staff costs. The determined costs included in the cost base for en route and terminal charges are established, broken down and reported in accordance with the detailed requirements included in Article 22 of Implementing Regulation (EU) 2019/317. Article 22(1) of Implementing Regulation (EU) 2019/317, requires Member States to establish cost bases for charges at charging zone level.

Article 15(2)(a) of Regulation (EC) 550/2004 requires that the costs to be shared among airspace users reflect the determined costs incurred in respect of the provision of air navigation services. According to Article 15(2)(b) of Regulation (EC) 550/2004 the costs to be taken into account when establishing the cost-base for charges shall be those assessed in relation to the facilities and services provided for and implemented under the ICAO Regional Air Navigation Plan, European Region. They may also include costs incurred by national supervisory authorities and/or qualified entities, as well as other costs incurred by the relevant Member State and service provider in relation to the provision of air navigation services. The abovementioned costs are considered eligible under the SES performance and charging scheme, and hence form part of the ANSP's regulatory accounts.

However, Article 15(2)(b) 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 Regulation (EC) 549/2004 (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 that Regulation.

For any services delivered by the ANSP concerned which are not part of the cost bases for charges under the performance plan, separate accounts must be kept in accordance with Article 12(3) of Regulation (EC) 550/2004. The principle of accounting separation requires that costs and revenues are allocated to those services that cause those costs or revenues to arise. In practice, the NSAs supervising the ANSP(s) should assess whether regulated costs (i.e. determined costs for the purpose of the implementation of the SES performance and charging scheme) are clearly separated from those costs incurred for 'non-regulated' services. The costs incurred for these 'non-regulated' services should be registered as if they were provided by separate entities and should thus be excluded from the ANSP's chargeable cost base, i.e. not included in determined costs.

To enable the NSAs to conduct an appropriate assessment of whether separate accounting principles are followed, ANSPs may be requested to provide the following elements (non-exhaustive list):

- a statement of accounting policies used in the preparation of the accounts;
- a reconciliation of the regulated accounts (reporting tables), separated accounts and the overall statutory accounts of the ANSPs to demonstrate consistency between accounts and revenues other than ANS charges,

- a matrix summarising the total costs related to transfer pricing between different accounts (e.g. purchases of services from companies owned in total or partially by the ANSP or its holding company)
- Additional information about the methodologies employed to prepare separate accounts.

Therefore, the NSA bears ultimate responsibility for overseeing that the cost information communicated by the ANSP(s) complies with the principle of account separation and that only eligible costs are included in the costs bases set as part of the performance plan (Article 22(7)). Accordingly, the assessment by the NSA must be focused on identifying any cost items that are deemed ineligible under the SES performance and charging scheme. This is because several ANSPs conduct operations or provide commercial services other than regulated ANS and which costs are not eligible to be charged to airspace users under the SES performance and charging scheme.

Given the diversity of activities conducted by ANSPs, there are many ineligible cost items which could be improperly assessed and unduly considered eligible. The following non-exhaustive list of ineligible services provided by ANSPs of EU Member States to be excluded from the regulatory cost base has been identified:

- terminal air navigation services provided at an airport with fewer than 80.000 IFR air transport movements per year and which are outside of the scope of Implementing Regulation (EU) 2019/317[2];
- provision of ATCO training or other training activities (e.g. when an ANSP owns an Air Traffic Control Officer (ATCO) Training Organisation which is delivering services based on contractual arrangements with companies external to the ANSP organisation);
- sales of consulting services to other ANSPs or any other external entities;
- calibration flights performed for other ANSPs or airports;
- ANS provided under market conditions (e.g. terminal ANS subject to market conditions and exempted from the charging scheme);
- ANS provided outside of the geographic scope of the SES performance and charging scheme, either subject to economic regulation or under market conditions;
- costs related to operational air traffic (OAT) services.

Furthermore, it should be noted that the costs related to airport drone detection and airport drone defence systems are considered eligible under Article 15(2)(a) and 15(2)(b) of Regulation 550/2004 only where those costs are directly and primarily incurred in relation to the provision of terminal air navigation services. This entails that the costs of security measures incurred mainly for the protection of aerodrome operations and facilities on the ground against unlawful interference by drones should not be included in the cost base for air navigation services.

[2] The Performance and Charging Regulation (Implementing Regulation (EU) 2019/317) does not apply to terminal air navigation services provided at airports with fewer than 80.000 IFR air transport movements per year, unless the Member State has expressly decided to apply the provisions of the Regulation to these services and has included these services in the scope of its performance plan.

3.1.1 Costs of new ATM systems and major systems of existing ATM systems

> ***Article 22(1) of Implementing Regulation (EU) 2019/317, second subparagraph***
> *Determined costs stemming from new ATM systems and major overhauls of existing ATM systems shall only be included in the cost base where those systems are consistent with the implementation of the European ATM Master Plan, and, in particular, with the common projects referred to in Article 15a(3) of Regulation (EC) No 550/2004.*

In accordance with Article 22(1), the determined costs for the purposes of investing in new ATM systems and major overhauls of existing ATM systems shall only be included in the cost base if they are consistent with the implementation of the European ATM Master Plan and SESAR common projects.

NSAs are expected to confirm in the performance plan that consistency with the European ATM Master Plan is ensured and, where applicable, to specify which ATM sub-functionality of the Common Project One[3] will be implemented through a new or overhauled ATM system (Recital 35 of Implementing Regulation (EU) 2019/317). Reference to the deployment schedules defined in the latest SESAR Deployment Programme is also advised.

When demonstrating consistency with the latest version of the European ATM Master Plan, NSAs are advised to consider how investments in new or overhauled ATM systems relate to:

- SESAR performance objectives;
- Pilot Common Project (PCP) Essential Operational Changes, which support the performance ambitions identified for one or more of the four types of Operating Environments (i.e. Airport, *En route*, TMA and Network);
- New Essential Operational Changes, defined as those beyond the PCP as well as additional operational changes related to safety;
- Operational Changes, subject to local needs and business cases;
- Stakeholder deployment roadmaps for ATM Technology Changes which support PCP Essential Operational Changes.

3.1.2 Costs of NSAs, qualified entities and Eurocontrol

Article 15(2)(b) of Regulation (EC) 550/2004 allows Member States to include, in their cost bases for charges, determined costs incurred by national supervisory authorities and/or qualified entities, as well as other costs incurred by the relevant Member State and service provider in relation to the provision of air navigation services.

The abovementioned cost items are spelled out to cover certain cost categories in accordance with the third sub-paragraph of Article 22(1) of Implementing Regulation (EU) 2019/317.

[3] Within the meaning of Commission Implementing Regulation (EU) 2021/116

Article 22(1) of Implementing Regulation (EU) 2019/317, third subparagraph

Member States may decide to include in the cost base the following determined costs incurred in relation to the provision of air navigation services, in accordance with the second sentence of point (b) of Article 15(2) of Regulation (EC) No 550/2004:

(a) determined costs incurred by competent authorities;

(b) determined costs incurred by the qualified entities referred to in Article 3 of Regulation (EC) No 550/2004;

(c) determined costs stemming from the Eurocontrol International Convention relating to cooperation for the safety of air navigation of 13 December 1960 as last amended.

As specified above, it is important to highlight that only costs incurred in relation to the provision of air navigation services may be established as determined costs.

The terms 'competent authority' and 'qualified entity' should be understood as defined in the 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 (EASA Basic Regulation or Regulation (EU) 2018/1139) and Implementing Regulation (EU) 2017/373 on ATM/ANS common requirements and oversight:

- Point 11 on 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 on 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 Regulation (EC) No 549/2004.
- Article 4(1) of Implementing Regulation (EU) 2017/373 states that the competent authority shall be the national supervisory authority referred to in Article 4(1) of Regulation (EC) 549/2004, unless the Agency is the competent authority pursuant to Article 22a of Regulation (EC) No 216/2008.

3.2 Principles for the setting of determined costs

This section outlines the principles for the setting of determined costs as part of the performance plan, for each reference period of the SES performance and charging scheme.

Article 10(2) of Implementing Regulation (EU) 2019/317, point (b)

The performance plans shall be drawn up in accordance with the template set out in Annex II and shall include:

(b) determined costs for en route and terminal air navigation services set in accordance with points (a) and (b) of Article 15(2) of Regulation (EC) No 550/2004 and with this Regulation;

Article 22(2) of Implementing Regulation (EU) 2019/317

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 Implementing Regulation (EU) 2019/317

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).

In accordance with Articles 10(2)(b) and 22(2) of Implementing Regulation (EU) 2019/319, each Member State, on the basis of the information submitted by their respective NSA, shall establish the determined costs related to the provision of air navigation services in its performance plan, prior to the start of each reference period. The determined costs have to be set in national currency, for each calendar year of the reference period.

Determined costs are established separately for each charging zone and are set in conjunction with the local cost-efficiency targets for *en route* and terminal air navigation service. In accordance with Article 10(2)(b) and point 4.1 of section 2 of Annex I of Implementing Regulation (EU) 2019/317, the local *en route* and terminal cost-efficiency targets are set as the determined unit cost (DUC), which represents the ratio between the determined costs and forecast traffic expressed in service units at local (i.e. charging zone) level and for each calendar year of the reference period concerned.

It should be noted that as regards the DUC for calendar years 2020 and 2021, exceptional provisions are applied at both Union-wide (*en route* cost-efficiency targets) and local level (*en route* and terminal cost-efficiency targets) due to the exceptional circumstances caused by the COVID-19 crisis. In accordance with Article 4 of Implementing Regulation (EU) 2020/1627, a single average DUC for calendar years 2020 and 2021 shall be calculated both at Union-wide and at local level respectively as a ratio between the total *en route* determined costs for those two calendar years and the total *en route* service units for those two calendar years. The DUC on the local level shall be calculated in respect of the charging zone concerned.

Subject to conditions, Article 18(1) of Implementing Regulation (EU) 2019/317 provide the possibility for Member States to request a revision of their performance plans, including a possible revision of local cost-efficiency targets and hence of determined costs.

In accordance with Article 22(2) of Implementing Regulation (EU) 2019/317, determined costs are set in the performance plan both in real terms and in nominal terms. The determined costs in real terms reflect the combination of the two components below:

- Determined costs which are set in nominal terms and which are then converted into real terms using the 'forecast inflation index' as defined in Article 2(11)[4] of Implementing Regulation (EU) 2019/317: this concerns the ANSP's operating costs (staff, other operating costs and exceptional items, as well as the costs for exempted VFR flights);
- Determined costs which are set in nominal terms only and which are not corrected for inflation. This is different than in RP2, where all costs were corrected for inflation – in RP3, a subset of costs are not adjusted for inflation for the calculation of the total determined costs in real terms (in line 5.3 of Table 1 in Annex VII of Implementing Regulation (EU) 2019/317) and of the DUC (in line 5.5 of previously mentioned Table 1). This concerns the ANSP's depreciation costs and cost of capital (historical cost accounting) referred to in points (c) and (d) of Article 22(4), and the costs relating to Member States, NSAs, qualified entities and Eurocontrol, referred to in the third subparagraph of Article 22(1).

In filling out the reporting tables contained in Annexes VII and IX of Implementing Regulation (EU) 2019/317, Member States are required to break down their determined costs for each charging zone by nature, per service and per entity. In addition, the determined costs of new and existing investments, and the determined costs incurred for common projects, are to be separately identified.

3.3 Costs by nature

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.

In accordance with Article 22(4) and point 2.1(f) of Annex VII of Implementing Regulation (EU) 2019/317, determined costs for each charging zone shall be broken down by nature into the following cost categories and presented under point 1 of the reporting table (Table 1) contained in Annex VII:

- Staff costs;
- Operating costs other than staff costs (also commonly referred to as 'other operating costs');
- Depreciation costs;
- Cost of capital;
- Exceptional costs.[5]

The scope and requirements pertaining to the various categories of determined costs are outlined in the sub-sections below.

[4] In respect of the third Reference Period, this entails that the inflation index of calendar year 2017 constitutes the baseline for setting determined costs in real terms.

[5] Exceptional costs 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.

3.3.1 Staff costs

In accordance with the second subparagraph of Article 22(4), staff costs 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
- Costs of other benefits awarded to employees.

Member States have to set out, for each year of the reference period, the total determined costs incurred in respect of staff costs under point 1.1 of the reporting table (Table 1) contained in Annex VII.

Member States are required to set pension costs using prudent assumptions considering the applicable pension schemes and the relevant national legislation. The assumptions underlying the calculation of pension costs have to be detailed in the performance plan, in accordance with Article 22(4) and point 3(3)(f) of Annex II. Assumptions shall be described in terms of the relevant national pension regulations and pension accounting regulations as well as information on expected changes to those regulations affecting the calculation of pension costs over the reference period concerned.

Pursuant to Article 28(3)(c) and Article 28(6) of Implementing Regulation (EU) 2019/317, 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.

For this reason, Member States have to expressly specify in line 1.1 of Table 1 in Annex VII (which is annexed as an integral part of the performance plan), the total pension costs included in the determined costs for each year of the reference period.

3.3.2 Other operating costs

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.

Where an air traffic service provider purchases air navigation services from another certified provider, including in the case of cross-border service provision, the Member State concerned shall include the determined costs incurred for those services as part of other operating costs.

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;
- 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 ATM services;

Operating costs shall include non-recoverable taxes and be calculated net of ancillary revenues. In respect of write-offs, only costs related to debts that the NSA deems to be clearly and definitively impaired may be included in the cost base under the other operating cost category (also in Article 22(4)).

In this context, it should be further highlighted that the cost bases for ANS charges should in principle not contain any accounting provisions based on potential financial liabilities of the ANSP which are not confirmed and are unforeseeable in terms of timing or amount. Therefore, the build-up of "financial buffers" in the form of provisions for operating or investment costs is not allowed as part of cost bases for RP3. It should be recalled that Article 28(3) of Implementing Regulation (EU) 2019/317 provides for flexibility in respect of unforeseen changes during the reference periods for certain cost categories, including in respect of elements beyond the control of ANSP stemming from changed financial market conditions or legislative changes.

Member States have to set out, for each year of the reference, the total determined costs incurred in respect of other operating costs in line 1.2 of Table 1 in Annex VII of Implementing Regulation (EU) 2019/317. For the purpose of Article 28(3) and (4) of that Implementing Regulation, which govern new and existing investments, other operating costs related to the leasing of fixed assets are also to be expressly specified for each year of the reference period, as required in line 3.12 of Table 1.

3.3.3 Depreciation costs

According to the fourth subparagraph of Article 22(4) of Implementing Regulation (EU) 2019/317, depreciation costs relate to the total fixed assets in operation for the purpose of providing air navigation services. Member States have to set out, for each year of the reference, the total determined costs incurred in respect of depreciation costs in line 1.3 of Table 1 in Annex VII of that Implementing Regulation.

Fixed assets should be understood as comprising the tangible and intangible assets that are permanent in nature and held by the air navigation service provider concerned for a period of time exceeding one year. 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. Land is to be considered part of fixed assets but no depreciation shall be calculated for it.

Depreciation costs consist of the annual decrease in the value of the fixed assets which is calculated over the expected operating life of each asset and applying a straight-line method. 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. Any assets in operation beyond the defined depreciation period shall be regarded as fully depreciated. Thus, they are not anymore part of the asset base within the meaning of Article 22(4) of Implementing Regulation (EU) 2019/317 and no further depreciation costs shall be charged in respect of those assets.

Member States may apply either historical cost accounting or current cost accounting for the purpose of establishing the depreciation costs. Where historical cost accounting is applied, the value of an

asset for depreciation purposes is defined on the basis of their 'historical cost', 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. Where current cost accounting is applied, the historical cost is subject to specific adjustments in order to re-evaluate the value of the asset at its replacement cost, the objective being to reflect the fair market value of the asset.

The fourth subparagraph of Article 22(4) Implementing Regulation (EU) 2019/317 requires the chosen depreciation method to be applied consistently in respect of both depreciation costs and the cost of capital. Accordingly, the chosen method may not be altered in the course of a reference period. Member States are required to explain the applied depreciation method in their performance plan, in accordance with point 2.1(g) of Annex VII of Implementing Regulation (EU) 2019/317. Where current cost accounting is applied, the Member State concerned has to provide, for information purposes only and in order to enable comparison, equivalent historical cost accounting figures (Article 22(4)).

Member States have to define, for each year of the reference, the total determined costs incurred in respect of depreciation costs in line 1.3 of Table 1 of Annex VII. The associated net book value of fixed assets shall be identified in line 3.1 of the aforementioned table. For the purpose of Article 28(3) and (4), deprecation costs are also to be expressly specified in respect of new and existing investments, as required in line 3.10 of the table.

3.3.4 Cost of capital

The fifth subparagraph of Article 22(4) of Implementing Regulation (EU) 2019/317 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 pre-tax rate of return (expressed as a percentage). The cost of capital enables ANSPs to charge a 'reasonable return on assets to contribute towards necessary capital improvements', in line with Article 15(3)(d) of Regulation (EC) 550/2004.

The two components of the cost of capital, i.e. the asset base and the pre-tax rate, are presented in the sub-sections below.

3.3.4.1 Regulatory asset base

The regulatory asset base for any given year shall be the sum of the average net book value of fixed assets and of the average value of net current assets[6] (excluding interest-bearing accounts). Current assets are consumed as part of standard business operations, usually within a year, and include items such as cash, accounts receivable and inventory. Fixed assets, on the other hand, are those expected to generate value for more than one year, such as systems and equipment, buildings and land.

For the purpose establishing the regulatory asset base, both assets in operation and under construction are taken into account, with the exception of leased assets which shall not be included in the regulatory asset base used for the calculation of the cost of capital (see the sixth subparagraph of Article 22(4) of Implementing Regulation (EU) 2019/317).

In addition, the regulatory asset base may be adjusted, where justified, by the national supervisory authority. Such adjustments are in principle reported in line 3.2 of Table 1 in Annex VII. The NSA may deem necessary to apply such adjustments where certain unjustified elements should not be included

[6] Net current assets refer to the working capital of the ANSP, i.e. the operating liquidity used for day-to-day activities, and calculated as the difference between current assets and current liabilities.

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:

- NSAs should review the investments in fixed assets planned by the ANSP in terms of their need and costs before approving them for inclusion in the regulatory asset base. Based on the 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 so as to exclude any unjustified amounts. This will also impact the determined costs charged for the depreciation of fixed assets.
- 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 so as to ensure that no cost of capital is charged on amounts received as financial assistance.

As a result of such adjustments, the composition of the regulatory asset base (set out in the performance plan in lines 3.1 to 3.4 of Table 1 of Implementing Regulation (EU) 2019/317) may differ from corresponding values established in the audited financial statements.

3.3.4.2 Cost of capital pre-tax rate

The cost of capital pre-tax rate is composed of the cost of equity and the cost of debt. This pre-tax rate of return (expressed as a percentage) therefore reflects a weighted average cost of capital (WACC), which is calculated as a weighted average of the interest rate on debts of the ANSP and of its return on equity.

The averaging period for both WACC parameters must correspond to the reference period covered by the performance plan. NSAs are advised to use an arithmetic average for the purpose of the WACC calculation.

The weighted average interest rate on debts must be calculated taking account of all the debt-based funding of the ANSP, considering the existing loans held by the ANSP and the most likely evolution of its debts during the reference period. The evolution of the ANSP's debt portfolio can be evaluated by the NSA in light of the future financing needs of the ANSP, considering the maturity of existing loans, available credit facilities, as well as needs fir additional debt financing for the purpose of new investments in fixed assets.

The return on equity represents the return that a company needs to deliver to its shareholders to compensate for the risk of investing or owning a portion of the company. In accordance with Article 22(4) of Implementing Regulation (EU) 2019/317, a reasonable return on equity has to be determined in light of the financial risk incurred by the ANSP in respect of its regulated business covered by the performance plan.

The 'Capital Asset Pricing Model' (CAPM) provides a framework for estimating this financial risk. According to this model, an organisation's cost of capital is equal to the risk-free rate of return (typically the yield on a ten-year treasury bond) plus a premium to reflect the extra risk of the investment or its 'Beta'. Specific consideration should be given to the (maximum) potential impact of risk sharing mechanisms associated with the performance and charging scheme:

- traffic risk sharing mechanism referred to in Article 27 of Implementing Regulation (EU) 2019/317;
- cost risk sharing arrangements referred to in Article 28 of Implementing Regulation (EU) 2019/317;
- incentive schemes referred to in Article 11 of Implementing Regulation (EU) 2019/317.

The financial risk faced by an ANSP may be different in respect of the various en route and terminal charging zones covered in the performance plan. However, where the pre-tax rate applied for the cost of capital of the ANSP concerned differs across the various charging zones, adequate justifications should be provided in the performance plans, including objective reasons demonstrating that the ANSP is indeed faced with a different financial risk exposure with regard to the services concerned.

In the event that an air navigation service provider does not have any equity capital, this component of the WACC shall be replaced by a value corresponding to the difference between the value of the total assets and the debts of the ANSP (Article 22(4)).

3.3.4.3 Required information

Performance plans should include detailed information on the cost of capital, in particular on the following aspects:

- In accordance with point 3.3(e) of Annex II of Implementing Regulation (EU) 2019/317, NSAs are expressly required to describe and justify in their performance plans the return on equity applied, the gearing ratio, as well as the level and composition of the regulatory asset base used for the calculation of the cost of capital.
- Point 3.3(f) of Annex II includes the requirement for Member States to describe and justify the financial assumptions including those used in respect of interest rates for loans and to explain the weighted average interest rate on debt used to calculate the cost of capital pre-tax rate. This comprises the presentation of detailed information on loans including as regards amounts and duration.
- Detailed financial data on cost of capital including lines 1.4, 3.1-3.8, and 3.11 of Table 1 in Annex VII.
- In accordance with Annex VII (Table 1 and point 2.1(i) in additional information section), the cost of capital has to be specified, and detailed in terms of assumptions used, in respect of each charging zone and entity concerned. NSAs should also describe the impact (if any) of pension-related assets and liabilities on the cost of capital.

For the purposes of Article 28(3) and (4), the cost of capital shall also to be expressly specified in respect of new and existing investments, as required in line 3.11 of Table 1 in Annex VII). According to the seventh subparagraph of Article 22(4), costs from leasing fixed assets shall not be included in the calculation of cost of capital. Costs relating to leasing shall accordingly be reported under other operating costs instead.

3.4 Costs by service

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 Regulation (EC) 550/2004***
>
> *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 Regulation (EC) 550/2004***
>
> *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);*

In accordance with Articles 12(3) and 15(2)(d) of Regulation (EC) 550/2004, the costs (and income) deriving from different air navigation services are to be identified separately. Accordingly, Implementing Regulation (EU) 2019/317 requires the Member State concerned to provide, for each charging zone, a breakdown of determined costs per service and to fill in accordingly the data required under line 2 of Table 1 in Annex VII.

The determined costs of air traffic management (ATM), referred to in line 2.1 of Table 1, 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 ATC services (area, approach and aerodrome control services).[7] ATFM and ASM are functions supporting the provision of ATS.

The determined costs of communication services, referred to in line 2.2 of Table 1, comprise costs incurred for the provision of aeronautical fixed and mobile services to enable ground-to-ground, air-to-ground and air-to-air communications for air traffic control purposes.

The determined costs of navigation services, referred to in line 2.3 of Table 1, 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.

The determined costs of surveillance services, referred to in line 2.4 of Table 1, 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.

[7] Eurocontrol ATM Lexicon

In line 2.5 of Table 1, 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[8] and mobile[9] facilities.

The determined costs incurred for aeronautical information services (AIS), referred to in line 2.6 of Table 1, are charged for the provision of aeronautical information and data necessary for the safety, regularity, and efficiency of air navigation.

The determined costs of meteorological services (MET), referred to in line 2.7 of Table 1, 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.

The figures concerning the determined costs of MET services have to be substantiated with additional information as required in point 2.1(d) of Annex VII. In this respect, Member States have to present a breakdown of MET costs between direct MET costs and MET core costs,[10] (i.e. the costs of supporting meteorological facilities and services that also serve meteorological requirements in general). Furthermore, point 2.1(e) of Annex VII requires each Member State to describe the methodology used for allocating MET core costs to civil aviation and between charging zones.

Under the category of 'supervision costs' referred to in line 2.8 of Table 1 in Annex VII, Member States have the possibility to recover determined costs of competent authorities[11] or qualified entities in accordance with points (a) and (b) of the third subparagraph of Article 22(1) of Implementing Regulation (EU) 2019/317. Line 2.9 of Table 1 in Annex VII of the same regulation covers 'other State costs' which comprise the determined costs incurred by Member States in relation to the Eurocontrol International Convention,[12] which Member States may decide to include in their cost bases in accordance with point (c) of the third subparagraph of Article 22(1). Eurocontrol costs are also separately reported in lines 3.13 to 3.15 of Table 1, where the conversion of these determined costs from EUR to the national currency is presented where applicable. 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.

The supervision and other state costs referred to in lines 2.8 and 2.9 of Table 1 in Annex VII of Implementing Regulation (EU) 2019/317 may be charged as determined costs 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 Regulation (EC) 550/2004.

In respect of terminal air navigation services, it should be noted that a further breakdown per service is required at the level of each airport subject to the performance and charging scheme. This requirement derives from point 1.1 of Annex VII. Where a Member State has voluntarily opted for the

[8] Fixed SAR facilities comprise rescue coordination centres (RCCs) and rescue sub-centres (RSCs)

[9] 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.

[10] As defined under point 2.1(f) of Annex VII, MET core costs include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration.

[11] Member States may recover the costs of national supervisory authorities (NSAs) nominated in accordance with Article 4 of Regulation (EC) 549/2004.

[12] EUROCONTROL International Convention relating to co-operation for the safety of air navigation of 13 December 1960, as last amended.

inclusion of terminal air navigation services at airports with fewer than 80 000 IFR movements per year in the scope of the regulation, the determined costs for these airports may be presented in a consolidated manner in Table 1. However, the total determined costs and unit cost (line 4.2 of Table 1) must nonetheless be specified in respect of each individual airport pursuant to the second subparagraph of point 1.1 of Annex VII of Implementing Regulation (EU) 2019/317.

3.5 Costs by entity

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

As required in points 1.1 and 1.2 of Annex VII, 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.

In order to comply with this requirement, Member States shall ensure that Table 1 of Annex VII, is 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, is also required for each charging zone.

The relevant entities to be covered include:

- Each ANSP (including providers of ATS, CNS, MET, and AIS) which operates in the charging zone constitutes a separate entity;
- Each NSA and/or qualified entity which incurs eligible costs in relation to the charging zone concerned. It should be noted that a single reporting table, covering surveillance costs and other State costs, may be filled in respect of all costs relating the third subparagraph of Article 22(1).

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 (see sub-section 3.3 above) and by service (see sub-section 3.4 above). Member States must outline as part this required additional information which main factors explain the planned evolution of the various cost items during the reference period.

3.6 Costs in the scope of Article 28(3)

This section explains the specific reporting requirements relating to the setting of determined costs in the scope of Article 28(3) of Implementing Regulation (EU) 2019/317.

In addition to the breakdown of determined costs outlined in section 3.5, some cost categories subject to specific cost risk sharing rules have to be identified and categorised separately in the performance plan, in accordance with Article 28(3) and point 3.3(h) of Annex II of Implementing Regulation (EU) 2019/317.

Accordingly, the following cost categories are subject to specific reporting requirements as part of the performance plan:

- Costs of new and existing investments;
- Costs referred to in the third subparagraph of Article 22(1), i.e. costs of competent authorities, qualified entities and Eurocontrol;
- Pension costs;

- Cost of interest.

This section focuses on the reporting of determined costs and/or specific information required in the performance plan as regards the cost items referred to in Article 28(3). The reporting requirements for costs referred to in the third subparagraph of Article 22(1) have already been covered under section 3.1.2 and they are therefore not repeated here.

It should be noted that the rules related to the application, during the reference period, of the cost risk sharing provisions and other requirements contained under Article 28 of Implementing Regulation (EU) 2019/317 are addressed in section 4.5 of this document.

3.6.1 Costs of new and existing investments

According to Article 2(15) of Implementing Regulation (EU) 2019/317, '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 covered by the performance plan.

Member States have to identify the determined costs of new and existing investments in their performance plan. In accordance with point 2.2(a) of Annex II of Implementing Regulation (EU) 2019/317, these costs have to be further broken down between depreciation costs, cost of capital and the costs of leasing over the whole reference period and in respect of each calendar year thereof. The costs are also reported in lines 3.10-3.12 of Table 1 in Annex VII of the Regulation.

In accordance with point 2.2(b) of Annex II of Implementing Regulation (EU) 2019/317, further details are required in the performance plan in respect of 'major investments' which are defined as any investment in fixed assets of a total value of at least 5 million EUR (as per definition in Article 2(13) of that Implementing Regulation).

3.6.2 Pension costs

In accordance with point 3.3(f) of Annex II of Implementing Regulation (EU) 2019/317, NSAs have to present in their performance plans the relevant data and assumptions regarding the pension costs for the reference period. For practical reasons, it is foreseen that the body of the performance plan presents detailed information on the pension costs of the main ANSP or ANSPs[13], whilst corresponding information regarding other entities covered by the performance plan is presented in 'Explanations on how to fill the additional information to the reporting tables for the purpose of the RP3 performance plans (Annexes A and B)'.[14]

NSAs are required to identify the determined costs of pensions for each calendar year of the reference period. Those determined costs should be broken down by activity, i.e. for *en route* services, terminal services (if applicable), and exclude other activities (if applicable). The NSA should outline the methodology used to calculate the pension costs for the reference period concerned.

In presenting the assumptions underlying the pension costs, NSAs should distinguish between the different pension schemes in place at local level, i.e. the State pension scheme(s), 'defined

[13] The main ANSP(s) is (are) those responsible, in particular, for the provision of ATS and representing the highest share of the total *en route* and terminal cost bases.

[14] Pension assumptions of other entities are to be presented in accordance with point 2.1(f) of Annex VII of the Performance and Charging Regulation, as part of 'Explanations on how to fill the additional information to the reporting tables for the purpose of the RP3 performance plans (Annexes A and B)'. This document can be found in the 'Useful materials for RP3' section on the EU Single Sky website.

contribution' pension scheme(s) and/or 'defined benefits' pension scheme(s). The number of employees covered by each pension scheme should be expressly identified and broken down per staff category as appropriate. Where the employer contribution rates in any given scheme are not uniform for the various staff categories, the data and assumptions should be detailed separately for each staff category.

NSAs should describe the relevant national pension regulations and pension accounting regulations on which the presented assumptions are based. Where those regulations are expected to change during the reference period, the NSA concerned should outline which changes are expected and explain how these are estimated to impact the ANSP cost base over RP3.

NSAs should consider the cost risk related to the applicable pension schemes and describe actions to minimize this risk and mitigate the impact of any unforeseen costs that could potentially arise during the reference period.

3.6.3 Cost of interest

NSAs are requested to present in the performance plan the loans which finance the costs arising from the provision of air navigation services. Only the loans which have a material impact on the ANSP's financial position should be presented separately. For each loan having a material impact, the NSA should provide the following details:

- 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 (bank loan, bond, shareholder loan, other); and
- Type of interest rate applicable to the loan (fixed/variable rate).

The following financial data should be broken down for each loan and for each calendar year of the reference period:

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

3.7 Specific cost items

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

3.7.1 Cost of common projects

Member States are required to identify, for each charging zone and for each year of the reference period, the determined costs included in the cost base with regard to the implementation of SESAR common projects. This data shall be provided in line 3.9 of the Table 1 in Annex VII of Implementing Regulation (EU) 2019/317. In addition to the data provided in the reporting table, Member States have to describe the composition of the determined costs of common projects, pursuant to point 2.1(j) of Annex VII and point 4(l) of Annex IX of Implementing Regulation (EU) 2019/371. In providing this

description, reference should be made to the ATM functionalitiesin the scope of Implementing Regulation (EU) No 2021/116 on the establishment of the Common Project One[15].

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 as regards the 'description of recent and expected progress in the deployment of SESAR common projects referred to in Article 15a of Regulation 550/2004' (point 4.2 of Annex II).

It is also important to note that the Table 4 in Annex IX titled 'Complementary information on common projects and on revenues from Union-assistance programmes allocated to the charging zone' requires further information on the costs and financing of common projects. This table relates specifically to the common projects benefiting from financial assistance from the Union and provides transparency on amounts returned to users as 'other revenue'.

3.7.2 Restructuring costs

In accordance with point 3.3(i) of Annex II of Implementing Regulation (EU) 2019/317, the draft performance plan shall contain, where applicable, the description of any significant restructuring planned during the reference period as well as the detail of the related restructuring costs.

According to Article 2(18), '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.

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 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.

The phrase 'one-time' in Article 2(18) should be interpreted in a way that restructuring costs are so-called initial costs and 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 operations 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 ratios:

- restructuring costs as a percentage of total costs compared to a base scenario (without the restructuring costs) during the applicable time period,
- the size of the restructuring costs per service unit during the applicable time period;
- the absolute amount of restructuring costs.

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

[15] Commission Implementing Regulation (EU) 2021/116 of 1 February 2021 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

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).

It should, however, be noted that 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 (RP3 trend and long-term trend). Accordingly, restructuring costs are always embedded in the different cost categories used for breaking down determined costs in accordance with Article 22(4) of Implementing Regulation (EU) 2019/317, i.e. staff costs, other operating costs, depreciation costs, cost of capital and exceptional costs.

3.8 Cost allocation

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

3.8.1 Principles

Article 15(2)(e) of Regulation (EC) 550/2004

2. 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 15(2)(e) of Regulation (EC) 550/2004 forbids Member States from establishing or applying cross-subsidies between *en route* and terminal services. Therefore, the determined costs of these services should 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 these services 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.

It should be noted that Article 15(2)(e) of Regulation (EC) 550/2004 permits cross-subsidies within charging zones of the same category (en route or terminal services). As established in Article 21(1) of Implementing Regulation (EU) 2019/317, Member states shall establish one or more *en route* charging zone(s) and one or more terminal charging zone(s). This implies that, where a Member State has more than one *en route* and/or terminal charging zone, cross-subsidies between the charging zones of the same category may be permitted, subject to clear identification.

3.8.2 Methodology

Article 22(5) of Implementing Regulation (EU) 2019/317, third subparagraph

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

In accordance with Article 15(2)(e) of Regulation (EC) 550/2004 and with the third subparagraph of Article 22(5) of Implementing Regulation (EU) 2019/317, the joint costs incurred in respect of several charging zones are to be allocated in a proportional way between these charging zones, on the basis of a transparent methodology.

For example, overhead costs would be split between several terminal charging zones on a pro rata basis considering the traffic levels (expressed in terminal service units or in IFR movements) forecasted in each of the charging zones concerned. Other factors which can be considered comprise the following:

- ATCO hours;
- Number of sectors;
- Number of workstations;
- Time of use of the equipment;
- Number of radio channels;
- Number of staff.

Article 22(5) of Implementing Regulation (EU) 2019/317, first subparagraph

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 support the allocation of determined costs between *en route* and terminal charging zones, Article 22(5) of Implementing Regulation (EU) 2019/317 expressly sets out the scope of services that shall be included in the cost bases for terminal charges. In particular, this includes the aerodrome control services (TWR) as well as approach services (APP) within a certain distance from the aerodromes concerned, defined on the basis of operational requirements.

Aerodrome control services (TWR) are provided from a tower ATS unit located at the airport concerned and their allocation to the relevant terminal charging zone is, in general, easily identifiable. It is advised that the following factors are considered when appraising the allocation of APP costs:

- Operational arrangements, i.e. from which ATS unit the services are provided, and to what extent this unit also provides services which are not related to the terminal charging zone concerned (e.g.

the APP services may be provided from the tower, from an ACC or from a joint ATS unit providing approach services in respect of several airports);

- Airspace structure, i.e. the geographical scope of the terminal manoeuvring area (TMA) around the airport and the handover points between *en route* and approach sectors.

Article 22(5) of Implementing Regulation (EU) 2019/317, second subparagraph

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.

With reference to Article 22(5), point 3.3(d) of Annex II and point 2.1(a) of Annex VII, Member States are required to provide, together with their performance plan and the reporting table (Table 1 in Annex VII), a description of the methodology used for allocating costs of facilities or services between different ANS and a description of the methodology used for allocating those costs between different charging zones.

3.9 Cost of exempted flights

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

Implementing Regulation (EU) 2019/317 foresees both mandatory and optional exemptions from *en route* charges for certain categories of flights. In addition, Member States are allowed to exempt certain categories of flights from terminal charges. The costs of exempted flights have to be deducted from the determined cost base charged to other airspace users, as those costs have to be covered by the Member State concerned, as further explained below.

The legal basis for the exemption of flights from ANS charges is laid out in Article 15(3)(b) of Regulation (EC) 550/2004, which is displayed in the box below, whilst detailed rules concerning the application of flight exemptions are contained in Article 31(3) to (5) of Implementing Regulation (EU) 2019/317.

Article 15(3)(b) of Regulation (EC) 550/2004

Member States shall comply with the following principles when setting charges in accordance with paragraph 2:

(b) exemption of certain users, especially light aircraft and State aircraft, may be permitted, provided that the cost of such exemption is not passed on to other users;

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 is important. Therefore in accordance with Article 15(3)(b) of Regulation (EC) 550/2004 the principle is that the cost of exempted flights is not to be passed on to other users of air navigation services.

Article 31(6) of Implementing Regulation (EU) 2019/317

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.

In accordance with Article 31(6) of Implementing Regulation (EU) 2019/317, Member States shall cover themselves the costs for air navigation services provided to exempted flights through funding provided to the ANSPs concerned.

3.9.1 Exemptions from *en route* charges

Article 31(3) of Implementing Regulation (EU) 2019/317 requires the following flight categories to be mandatorily exempted from *en route* charges:

(a) flights performed by aircraft with a maximum authorised take-off weight which is less than two metric tons;

(b) 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;

(c) 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;

(d) search and rescue flights authorised by the appropriate competent body.

It should be emphasised that the flights exempted under Article 31(b) consist of flights which are, over different portions of airspace, flying under either IFR or VFR. Accordingly, such a flight is exempted from 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).

Furthermore, Article 31(4) of Implementing Regulation (EU) 2019/317 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:

(a) military flights performed by aircraft of a Member State or any third country;

(b) 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;

(c) 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;

(d) flights terminating at the airport from which the aircraft has taken off and during which no intermediate landing has been made;

(e) VFR flights;

(f) humanitarian flights authorised by the appropriate competent body;

(g) customs and police flights.

For the application of Article 31(4)(a) regarding 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 of Implementing Regulation (EU) 2019/317, the Regulation 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 Implementing Regulation (EU) 2019/317 and the cost of those flights cannot be funded through route charges levied on other airspace users.

3.9.2 Exemptions from terminal charges

In accordance with Article 31(5) of Implementing Regulation (EU) 2019/317, 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.

3.9.3 Reporting

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. These exemptions are defined as part of the performance plans, in accordance with point 4(b) of Annex IX of Implementing Regulation (EU) 2019/317. This constitutes additional information related to the reporting table on the calculation of unit rates (Table 2 in Annex IX), which is annually updated in the context of unit rate setting in accordance with Article 29(2) of Implementing Regulation (EU) 2019/317.

3.9.4 Calculation of the determined costs of exempted flights

Rules on the calculation of the determined cost incurred for flights exempted from ANS charges (in accordance with Article 31(3) to (5)) of Implementing Regulation (EU) 2019/317 are detailed in Article 22(6). This comprises distinct provisions for the calculation of the determined costs of exempted VFR flights and the determined costs of exempted IFR flights.

The calculation of the determined costs of exempted flights is done as part of the development of the performance plans. In conjunction with this, Member States have to explain (in accordance with point (b) of Table 2 in Annex IX of Implementing Regulation (EU) 2019/317) how ANSPs will be compensated for the costs incurred for these exemptions, bearing in mind that Article 15(3)(b) of Regulation (EC) 550/2004 strictly prohibits these costs to be levied on other users of air navigation services.

In practice, unit rates cover air navigation services provided both to chargeable or exempted flights.. Accordingly, the determined service units set out in Table 2 in Annex IX are total service units (i.e. the sum of chargeable and exempted service units). Importantly, Member States are however required to separately cover the costs of these exemptions by refunding the air navigation service provider(s) concerned in accordance with Article 31(6) of Implementing Regulation (EU) 2019/317, in order to ensure that other airspace users are not charged for those costs.

3.9.4.1 Determined costs of exempted VFR flights

> ***Article 22(6) of Implementing Regulation (EU) 2019/317, point (a)***
>
> *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;*

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 Implementing Regulation (EU) 2019/317, it results from point (a) of Article 22(6) of that Implementing Regulation 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. However, 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.

In accordance with the last sentence of Article 22(6) of Implementing Regulation (EU) 2019/317, 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. As part of their performance plan and in accordance with Annex VII, Member States have to insert in Table 1 in Annex VII the determined costs for exempted VFR flights for each calendar year of the reference period. Article 22(6) of Implementing Regulation (EU) 2019/317 requires the determined costs for exempted VFR flights to be deducted from the total determined cost base. Those costs 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.

Member States need to provide qualitative additional information, together with the reporting tables comprised in Annexes VII and IX of Implementing Regulation (EU) 2019/317, concerning the methodology and assumptions used for calculating the determined costs incurred for exempted VFR flights. This additional information must be provided in accordance with point 2.1(b) of Annex VII and point 4(b) of Annex IX of that Implementing Regulation.

3.9.4.2 Determined costs of exempted IFR flights

Article 22(6)(b) of Implementing Regulation (EU) 2019/317

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

(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.

In accordance with Article 22(6)(b), the determined costs of exempted IFR flights are calculated by applying the formula below:

$$DC_{exempted.IFR} = (DC_{total} - DC_{VFR}) * (\text{Exempted SU} / \text{Total SU})$$

The above calculation relates to *en route* services made available to IFR flights only. The determined costs incurred for IFR flights consist of the total determined costs less the determined costs for VFR flights.

Where a Member state has decided not to apply the optional exemptions in respect of VFR flights, the total determined costs consist of the sum of the determined costs incurred for IFR flights and the determined cost incurred for chargeable VFR flights. In this case, the total service units is the sum of service units in respect of IFR flights and service units in respect of not exempted VFR flights. For matters of clarity, not exempted VFR flights are the flights in accordance with Article 31(4)(e) of Implementing Regulation (EU) 2019/317, where Member States decided to not apply the optional exemption.

3.10 Actual costs

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

3.10.1 Principles

Article 2(1) of Implementing Regulation (EU) 2019/317

For the purpose of this Regulation, the following definitions apply:

(1) '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;

Implementing Regulation (EU) 2019/317 defines 'actual costs' under Article 2(1) in reference to the costs which have been validate through a certification of account or (in absence of this) through a final audit. Similarly as determined costs, actuals costs are reported over a calendar year.

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 according to the same breakdown per nature, service and entity. Similarly, all reported actual costs have to be eligible under the SES performance and charging scheme, within the meaning of Article 15(2) of Regulation (EC) 550/2004 and Article 22(1) of Implementing Regulation (EU) 2019/317.

3.10.2 Reporting

Member States are required to report actual costs alongside the determined costs in Table 1 of Annex VII (reporting table on Total Costs and Unit Costs) in Implementing Regulation (EU) 2019/317. The reporting of actual costs is done annually and is subject to consultation with stakeholders in accordance with Article 24(3).

In accordance with point 2.2 of Annex VII of Implementing Regulation (EU) 2019/317, Member States are annually required to provide the following additional information on actual costs, together with the reporting table on Total Costs and Unit Costs (Table 1):

- 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;
- the breakdown of the actual costs of common projects per individual project;
- justification of the difference between the determined and the actual costs of new and existing investments of the air navigation service providers, as well as the difference between the planned and the actual date of entry into operation of the fixed assets financed by those investments for each year of the reference period.

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 Implementing Regulation (EU) 2019/317, 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 Implementing Regulation (EU) 2019/317. These baseline values provide the starting point for the setting of local cost-efficiency targets for *en route* services as regards the *en route* determined unit cost key performance indicator (KPI).

4 Unit rate calculation

This chapter provides technical supporting material on the calculation of unit rates for en route and terminal charging zones, including the adjustments and reporting requirements associated with those unit rates.

4.1 Principles and components

Article 25(1) of Implementing Regulation (EU) 2019/317

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 Implementing Regulation (EU) 2019/317

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.

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 Implementation Regulation (EU) 2019/317. 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 is outlined in Article 29(2) of Implementing Regulation (EU) 2019/317.

It should be noted that Implementing Regulation (EU) 2020/1627 sets out, in response to the extraordinary circumstances caused by the COVID-19 pandemic, certain exceptional provisions for RP3 derogating from Implementing Regulation (EU) 2019/317. These exceptional provisions impact the calculation of unit rates and of related components such as the risk sharing mechanisms and incentive schemes. This technical supporting material fully covers, where applicable, the exceptional provisions contained in Implementing Regulation (EU) 2020/1627.

The unit rate calculation is done using the reporting tables contained in Annex IX, i.e. Table 2 on Unit rate calculation as well as Table 3 on Complementary information on adjustments. Technical instructions on the completion of these reporting tables is provided in annex to this document.

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 the single currency agreed between the participating Member States as required under Article 25(4). 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). Inflation adjustments to be applied to the cost base of common charging zones should be calculated on the basis of the information provided in the latest inflation index that corresponds to the chosen currency (see Section 0 – Inflation adjustment).

In accordance with Article 25(2) of Implementing Regulation (EU) 2019/317, the unit rate 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 relevant carry-overs from previous years and after deduction of other revenue (as applicable), and divided by the relevant service unit forecast (i.e. traffic forecast) set in the performance plan.

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 Implementing Regulation (EU) 2019/317 stipulates that the 'most recent version' of the draft performance plan is applied on a provisional basis. This principle is reiterated in Article 5(4) of Implementing Regulation (EU) 2020/1627 on exceptional measures for RP3.

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 at the time of establishing the unit rate for year n in accordance with Article 29(2)(b) of Implementing Regulation (EU) 2019/317, i.e. by 1 November of year n-1.

Determined costs are adjusted for the purpose of unit rate calculation in accordance with the following elements and mechanisms, which are presented in detail in the following sections of this chapter:

- Inflation adjustments (Article 25(2)(b) and Article 26 of Implementing Regulation (EU) 2019/317);
- Traffic risk sharing adjustments (Article 25(2)(c)and Article 27(2) to (5) of Implementing Regulation (EU) 2019/317);
- Cost risk sharing adjustments (Article 25(2)(d) and Article 28(4) to (6) of Implementing Regulation (EU) 2019/317);
- Incentive schemes associated with capacity targets, and incentive schemes associated with environment targets where the Member State concerned has decided to apply such a voluntary incentive scheme (Article 25(2)(e), and Article 11(3) and (4) of Implementing Regulation (EU) 2019/317);
- Adjustments relating to the modulation of unit rates (Article 25(2)(f) and Article 32 of Implementing Regulation (EU) 2019/317);
- Adjustments relating to traffic variations (Article 25(2)(g) and (h), and Article 27(8) and (9) of Implementing Regulation (EU) 2019/317);
- Deduction of 'other revenue' (Article 25(2)(i) and (3) of Implementing Regulation (EU) 2019/317);
- Cross-financing between *en route* charging zones or between terminal charging zones, in accordance with Article 15(2)(e) of Regulation (EC) 550/2004 (Article 25(2)(j) of Implementing Regulation (EU) 2019/317);
- Adjustments for differences in revenue resulting from the temporary application of the unit rate in accordance with Article 29(5) of Implementing Regulation (EU) 2019/317;
- Adjustments for differences in revenue resulting from the temporary application of the unit rate in accordance with Article 29(4) of Implementing Regulation (EU) 2019/317;

- Adjustments relating to carry-overs from previous reference periods (Article 25(2)(l) of Implementing Regulation (EU) 2019/317).

Furthermore, a Member State may decide in accordance with Article 29(6) of Implementing Regulation (EU) 2019/317 to voluntarily set the unit rate at a level lower than the unit rate calculated in accordance with Article 25(2) of that Implementing Regulation, based on the principles and adjustments mentioned above.

4.2 Adjustments relating to inflation

This section outlines the rules for the inflation adjustment of unit rates foreseen under Article 25(2)(b) and Article 26 of Implementing Regulation (EU) 2019/317.

4.2.1 Principles

Article 26 of Implementing Regulation (EU) 2019/317

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.

Performance plans must contain for each charging zone a 'forecast inflation index'. According to Article 2(11) of Implementing Regulation (EU) 2019/317, the 'forecast inflation index' is calculated using as a basis the third year before the start of a reference period 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. In accordance with Article 22(2) of Implementing Regulation (EU) 2019/317 and subject to the limitations set out therein, the determined costs established in real terms are to be converted, in the performance plan, into determined costs in nominal terms in line with the forecast inflation index.

In accordance with Article 26, inflation adjustments are subsequently applicable during the reference period for the calculation of the unit rate in n+2, hence two years after the respective calendar year. This adjustment is established based on the difference between the 'actual inflation index' and the 'forecasted inflation index' for year n.

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. As per Article 2(12), in case of deflation in year n (e.g. negative percentage change of inflation in a State) a zero value shall be used and there shall be no unit rate adjustment deriving from year n in respect of inflation.

The annual inflation adjustments of determined costs in nominal terms are not to be applied to the total determined costs. In fact, as per the second paragraph of Article 26, certain cost categories (if present in the performance plan) are to be excluded. These are:

- Determined costs incurred by competent authorities;
- Determined costs incurred by the qualified entities referred to in Article 3 of Regulation (EC) 550/2004;
- Determined costs stemming from the Eurocontrol International Convention relating to cooperation for the safety of air navigation of 13 December 1960 as last amended;
- Determined costs of depreciation costs;
- Determined costs of cost of capital.

4.2.2 Exceptional provisions regarding RP3

Article 5 of Implementing Regulation (EU) 2020/1627 introduces derogations concerning the calculation and setting of unit rates and related adjustments. Those derogations, read together with Article 29(5) of Implementing Regulation (EU) 2019/317, also have an impact on the calculation of inflation adjustments and related unit rate adjustments in respect of RP3.

Accordingly, it should be noted that as for calendar year 2020, the inflation data to be comprised in the revised draft performance plan to be submitted by 1 October 2021 should be based on the actual inflation index. Hence, no further inflation adjustment in the form of a unit rate adjustment should occur in respect of calendar year 2020.

As regards the other calendar years of RP3, for which inflation forecasts are to be updated in the revised draft performance plan to be submitted by 1 October 2021, it should be noted that the related unit rate adjustments deriving from Article 25(2)(b) and Article 26 of Implementing Regulation (EU) 2019/317 have to be calculated and applied on the basis of the final performance plan. Those unit rate adjustments should be made in year n+2 or at the earliest subsequent opportunity, if an adjustment in year n+2 is not technically possible due to a delayed adoption of a final performance plan[16].

4.3 Adjustments relating to traffic risk sharing

This section outlines the rules for adjustments to unit rates relating to traffic risk sharing under the SES performance and charging scheme.

In accordance with the general principles specified in Articles 11(1) and 11(2), a traffic risk sharing mechanism is established in Article 27 of Implementing Regulation (EU) 2019/317 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.

The traffic risk sharing mechanism applies in respect of the determined costs set out in the performance plan for each calendar year, excluding the determined costs referred to in Article 27(6) and (7) of Implementing Regulation (EU) 2019/317 which lead to unit rate adjustments calculated in accordance with Article 27(8) of that Regulation.

Furthermore, in line with Article 27(9) of Implementing Regulation (EU) 2019/317, the determined costs subject to traffic risk sharing shall exclude any adjustments applied for the purpose of unit rate calculation in accordance with Article 25(2) of Implementing Regulation (EU) 2019/317.

[16] This could be the case if a final performance plan is adopted in 2023, in which case the inflation adjustment for calendar year 2021 could be comprised only in the unit rate of 2024.

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 Article 27(2), (3) and (4), or they may decide to adapt the values of the traffic risk sharing parameters laid out in Article 27(2) and 27(3), subject to the conditions set out in Article 27(5) and which are further explained in section 4.3.4 below. In accordance with point 5.1 of Annex II of Implementing Regulation (EU) 2019/317, NSAs are required to specify in their performance plans the values of the traffic risk sharing parameters that they have chosen to apply in respect of each charging zone in the scope of the RP3 performance plan.

As further outlined in sub-section 4.3.3 below, exceptional provisions apply in respect of the application of the traffic risk sharing mechanism in calendar years 2020 and 2021, pursuant to Article 5(1) of Implementing Regulation (EU) 2020/1627.

4.3.1 Deadband

It results from Article 27(2) of Implementing Regulation (EU) 2019/317 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, exceeds a certain threshold (also commonly referred to as 'deadband'). To determine the difference between the forecasted and actual service units, Member States are advised to make use of the actual service units data reported by Eurocontrol, in particular in its annual 'Report on the operation of the route charges system'.

In accordance with Article 27(2) of Implementing Regulation (EU) 2019/317, this threshold is set by default at a level corresponding to a deviation of ±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).

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 apply in that case.

4.3.2 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from traffic risk sharing. The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

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. This unit rate adjustment will occur when the traffic deviation over any calendar exceeds the ±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 Implementing Regulation (EU) 2019/317:

- 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).

- 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 ±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.

We present below a graph outlining the revenue loss incurred or the additional revenue retained by the air navigation serivce providers (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).

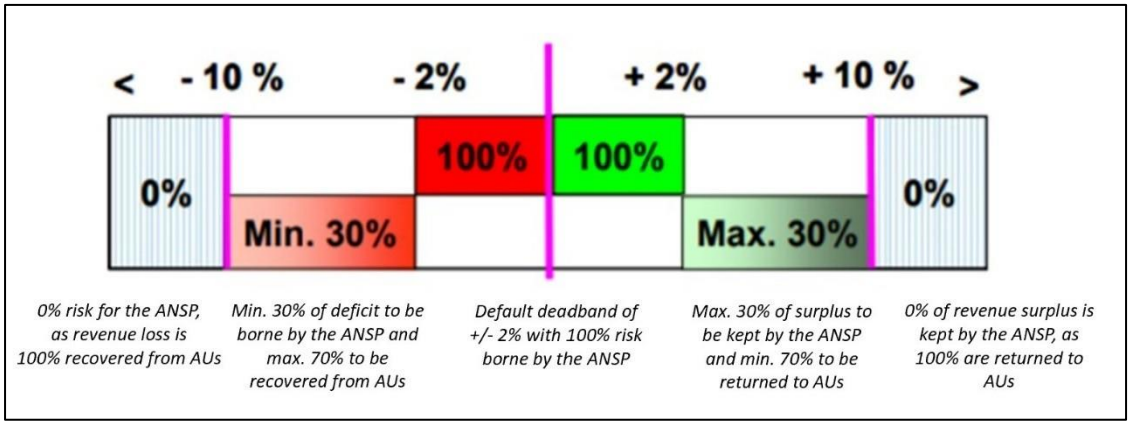


Figure 1 – Overview of traffic risk sharing mechanism

However, Member States are allowed to modulate the deadband and the values of the traffic risk sharing mechanism set out in Article 27(3), subject to the conditions specified in Article 27(5).

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, the provisions of Article 27 of that Implementing Regulation 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.

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.

4.3.3 Exceptional provisions regarding calendar years 2020 and 2021

Article 5(1) of Implementing Regulation (EU) 2020/1627 introduces exceptional measures concerning the implementation of the traffic risk sharing mechanism and subsequent unit rate adjustments in respect of calendar years 2020 and 2021.

Article 5(1) of Implementing Regulation (EU) 2020/1627

In respect of calendar years 2020 and 2021, adjustments to unit rates under Article 27(2) to (5) of Implementing Regulation (EU) 2019/317 shall be calculated on the basis of the relevant total determined costs for those two years and of the total revenue loss or total additional revenue resulting from the difference between the service units forecasted in the performance plan and the actually recorded service units for those two years. Those two years shall be referred to as a single period and replace the period referred to in those provisions as 'year n'. Without prejudice to the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, the adjustments to unit rates shall be made in calendar year 2023 and 2024.

Accordingly, the traffic risk sharing mechanism is to be applied for those two years in a combined manner, as a single time period. The resulting unit rate adjustments are to be calculated in accordance with the rules set out in Article 27(2) to (5) of Implementing Regulation (EU) 2019/317, but on the basis of:

- the relevant total determined costs for those two years (considering the relevant determined costs subject to traffic risk sharing, set in the performance plan); and
- the total revenue loss or total additional revenue resulting from the difference between the service units forecasted in the performance plan and the actually recorded service units for those two years.

Furthermore, Article 5(1) of Implementing Regulation (EU) 1627/2020 stipulates that the unit rate adjustments resulting from Article 27(2) to (5) in respect of calendar years 2020 and 2021 are to be made in calendar years 2023 and 2024. However, it is not prescribed in that legal provision how Member States are to split the adjustments between those two years. Hence, that choice is left to the discretion of Member States who may either opt for two equal adjustments or a different allocation between the two calendar years.

As explained in section 4.3.2 above, the application of all traffic risk sharing adjustments for RP3 shall be done only on the basis of the final performance plan in accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317. Article 5(1) of Implementing Regulation (EU) 2020/1627 is 'without prejudice to' that legal requirement. Therefore, in the event that a performance plan is adopted only in 2023, the whole traffic risk sharing adjustment referred to in Article 5(1) of Implementing Regulation (EU) 2020/1627 would have to be applied in respect if the unit rate of calendar year 2024.

4.3.4 Adaptation of traffic risk sharing parameters

Where an NSA decides to adapt the values of the traffic risk sharing mechanism in application of Article 27(5), the adapted values shall be presented in the performance plan together with the additional elements and justifications required under point 5(1)(b) of Annex II.

Where applicable, the performance plan shall expressly indicate adapted values regarding the following elements:

- The scope, in percentage terms, of the dead-band referred to in Article 27(2) within which additional revenue or revenue losses due to traffic variations (versus the forecast) are borne in full by the ANSP concerned;

- The traffic risk sharing keys referred to in Article 27(3), as regards additional revenue or revenue losses stemming from traffic deviations beyond the dead-band referred to in Article 27(2).

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

Any NSA opting for the adaptation of traffic risk sharing values shall include in its performance plan the information required to verify that the specific conditions set out in Article 27(5) have been met, namely:

- It is necessary to demonstrate that AU representatives and the relevant ANSP(s) have been consulted on the adjusted values of the traffic risk sharing parameters, as foreseen in Article 27(5)(a). The NSA shall therefore provide in the performance plan a description of the relevant consultation and of its outcome – this information should be included in Section 1.3 of the performance plan (section on stakeholder consultation).
- The performance plan should contain a 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 risk exposure for any given year shall not be lower than 4.4% of the ANSP's determined costs.
- Justification is needed in respect of the adjusted values chosen. In particular, the NSA should explain in the performance plan how they have taken into account the variation of ANS costs at local level in connection with the provision of capacity under different traffic scenarios. Article 27(5)(c) specifically requires NSAs, in setting the adjusted values, to consider the variation of the costs of capacity provision by the ANSP concerned as a result of variations in traffic. The NSA should provide in the performance plan the relevant information that has been considered in this respect, including the conclusions of any relevant analysis conducted by the NSA itself of by external experts. As appropriate, related materials should also be annexed to the performance plan.

4.4 Adjustments relating to traffic variations

Adjustments relating to traffic variations as established in Article 27(8) of Implementing Regulation (EU) 2019/317 apply to the cost categories which are not subject to the traffic risk sharing mechanism set out in Article 27(2) to (5) of Implementing Regulation (EU) 2019/317. Those adjustments are calculated on the basis of the traffic variation (actual traffic versus traffic forecast) in year n and result in a unit rate adjustment in year n+2.

The cost categories in the scope of Article 27(8) of Implementing Regulation (EU) 2019/317 comprise the following:

- The costs incurred by competent authorities, qualified entities, and EUROCONTROL, in accordance with Article 27(6)(a) of Implementing Regulation (EU) 2019/317 ;
- The costs of meteorological services, in accordance with Article 27(6)(b) of Implementing Regulation (EU) 2019/317 ;

- The costs associated with ANSPs not subject to certification in accordance with Article 7(5) of Regulation (EC) 550/2004, where the Member State concerned has decided to exempt such costs from traffic risk sharing pursuant to Article 27(7) of Implementing Regulation (EU) 2019/317.

4.4.1 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from traffic adjustments in accordance with Article 27(8). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

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 Implementing Regulation (EU) 2019/317:

- 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;
- the related unit rate adjustments shall be made in year n+2.

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.

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, 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.

Hence, adjustments for traffic variations in accordance with Article 27(8) of Implementing Regulation (EU) 2019/317 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.

4.4.2 Exceptional provisions regarding calendar years 2020 and 2021

Article 5(2) of Implementing Regulation (EU) 2020/1627 introduces exceptional measures concerning the implementation of the adjustments for traffic variations under Article 27(8) of Implementing Regulation (EU) 2019/317 deriving from calendar years 2020 and 2021.

Article 5(2) of Implementing Regulation (EU) 2020/1627

In respect of calendar years 2020 and 2021, adjustments to unit rates under Article 27(8) of Implementing Regulation (EU) *2019/317 shall be calculated on the basis of the relevant total determined costs for those 2 years and of the total revenue loss or total additional revenue resulting from the difference between the service units forecasted in the performance plan and the actually recorded service units for those 2 years. Those 2 years shall be referred to as a single period and replace the period referred to in those provisions as 'year n'. Without prejudice to the last sentence of the second subparagraph of Article 29(5) of Implementing Regulation (EU) 2019/317, the adjustments to unit rates shall be made in calendar year 2023 and 2024.*

Those adjustments are to be calculated in a combined manner for calendar years 2020 and 2021, on the basis of:

- the relevant total determined costs (costs subject to Article 27(8) of Implementing Regulation (EU) 2019/317, set in the performance plan) for those two years; and
- the total revenue loss or total additional revenue resulting from the difference between the service units forecasted in the performance plan and the actually recorded service units for those two years.

Furthermore, Article 5(2) of Implementing Regulation (EU) 1627/2020 stipulates that the unit rate adjustments resulting from Article 27(8) in respect of calendar years 2020 and 2021 are to be made in calendar years 2023 and 2024. However, it is not prescribed in that legal provision how Member States are to split the adjustments between those two years. Hence, that choice is left to the discretion of Member States who may either opt for two equal adjustments or a different allocation between the two calendar years.

It should be noted that the application of all adjustments under Article 27(8) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317.

4.4.3 Adjustments referred to in Article 27(9)

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. In accordance with Article 27(9) of Implementing Regulation (EU) 2019/317, 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.

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.

Hence, in the hypothetical scenario where the total carry-overs from previous years and carried over to year n would amount to 100K EUR to be reimbursed to airspace users and that the traffic forecast for year n amounts to 100K service units, those carry-overs will ex ante correspond to a unit rate reduction of 1 EUR. If the actual traffic over year n is 5% lower than the forecast, which would amount

to 95K service units, it would mean that airspace users would only be refunded an amount corresponding to 95K EUR. Hence, the difference of 5K EUR to be reimbursed to airspace users, would be carried over to year n+2 in accordance with Article 27(9).

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 in Article 27(9)) until those adjustments are fully settled in respect of traffic variation.

4.5 Cost risk sharing

The cost risk sharing mechanism constitutes an incentive mechanism in the key performance area of cost-efficiency within the meaning of Article 11(2) of Implementing Regulation (EU) 2019/317. The detailed requirements are set out in Article 28 of that Regulation, whilst detailed requirements as regards to the other mandatory incentive mechanisms within the SES performance and charging scheme are set out in Article 11 (capacity incentive schemes) and Article 27 (traffic risk sharing) of that Regulation.

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).

The cost risk sharing mechanism constitutes a fundamental means to incentivise ANSPs or Member States to control 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 an important factor in ensuring continual gains in the key performance area of cost-efficiency

As further detailed in the following sub-sections, there are two methods for which cost risks are shared between ANSPs and airspace users. For the purpose of this document, they are hereafter referred to as the ‘general cost risk sharing principles’ and ‘specific cost risk sharing provisions’. It should be noted that exceptional provisions apply in respect of the application of the cost risk sharing mechanism in calendar years 2020 and 2021, pursuant to Article 5(3) of Implementing Regulation (EU) 2020/1627.

4.5.1 General cost risk sharing principles

As stipulated under Recital 34 of Implementing Regulation (EU) 2019/317, 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 Regulation, between the general principles and specific provisions relating to the sharing of cost risk between ANSPs and airspace users.

The general principles governing cost risk sharing are stipulated in Article 28(1) and (2) of Implementing Regulation (EU) 2019/317. This rule concerns primarily the differences between determined and actual costs in respect of staff costs (with the exception of unforeseen changes in pension costs) and operating costs other than staff costs (with the exception of unforeseen changes related to operating costs incurred for leasing). These cost categories are to be understood in accordance with the provisions of Article 22(4) of that Regulation.

The general provisions prescribe that, 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.

4.5.2 Specific cost risk sharing principles

Specific cost risk sharing provisions are set out in Articles 28(4) to 28(6) of Implementing Regulation (EU) 2019/317 in respect of the following cost categories referred to in Article 28(3) of that 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));
- Other unforeseeable new cost items not covered in the performance plan but required by law (Article 28(3)(e) and 28(6)).

In accordance with point 3.3(h) of Annex II of Implementing Regulation (EU) 2019/317, it should be noted that the identification and categorisation of the determined costs relating to the above cost items has to be included in the performance plan. Furthermore, in accordance with points 4(d) and 4(e) of Annex IX of that Implementing Regulation, NSAs are reminded that the differences between determined and actual costs and the related adjustments for any given calendar year due to changes in costs referred to in Article 28(3) must be verified in accordance with Article 28(7) of Implementing Regulation (EU) 2019/317 and subsequently reported to the Commission through the reporting tables on unit rate calculation and on complementary information on adjustments as part of the annual unit rate setting process set out under Article 29(2) of that Implementing Regulation.

Article 28(3) of Implementing Regulation (EU) 2019/317 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).

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.

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

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 Implementing Regulation (EU) 2019/317:

- '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:
    - Materiality as regards the magnitude of the change (i.e. using a relative threshold such as a percentage of total costs or total revenues).
    - 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.
- '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 technical supporting 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).

The following sections provide technical supporting 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. The following sections also provide technical supporting material as regards the application

of the exceptional provisions in respect of calendar years 2020 and 2021 laid down in Article 5(3) of Implementing Regulation (EU) 2020/1627.

In accordance with Articles 22(7), 23 and 28(7) of Implementing Regulation (EU) 2019/317, 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 Implementing Regulation (EU) 2019/317. In case of incompleteness or inaccuracies, the NSA should request clarifications or additional information from the ANSP concerned.

4.5.3 Costs of new and existing investments

According to Article 2(15) of Implementing Regulation (EU) 2019/317, '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. According to the second subparagraph of Article 22(1) of Implementing Regulation (EU) 2019/317 that the "determined costs stemming from new ATM systems and major overhauls of existing ATM systems shall only be included in the cost base where those systems are consistent with the implementation of the European ATM Master Plan, and, in particular, with the common projects referred to in Article 15a(3) of Regulation (EC) 550/2004".

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 relate to fixed assets which have been acquired and have entered into operation before the beginning of the reference period, whilst 'new investments' relate to assets which are planned to enter into operation during the reference period.

4.5.3.1 Principles

As stipulated under Recital 35 of Implementing Regulation (EU) 2019/317, 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. As such, Article 28(4) of Implementing Regulation (EU) 2019/317 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.

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 Implementing Regulation (EU) 2019/317. Where the actual costs of new and existing investments are below the corresponding determined costs over a year or a reference period, the ANSP or Member State 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).

Member States and NSAs are advised to use Article 28(3)(a) and Article 28(4) as the default mechanism for sharing the cost risk associated with unforeseen changes in new and existing investments. As such, only in exceptional circumstances, where Article 28(3)(a) and Article 28(4) are deemed inapplicable, can the higher costs associated with the financing of investments (i.e. higher interest rates on loans) result in the application of Article 28(3)(d) and Article 28(6) which cover unforeseeable changes in interest rates on loans. Importantly, NSAs should ensure that the differences between determined

and actual costs associated with Article 28(3)(b) and (d) are reported only once (i.e. either under Article 28(4) or under Article 28(6), but not under both of them) so as to rule out any double charging of airspace users.

4.5.3.2 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from cost risk sharing under Article 28(4). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

In accordance with Articles 28(4)(a) and 28(4)(b) of Implementing Regulation (EU) 2019/317, 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.
- Member States may also opt for a multi-annual application of Article 28(4), in which case the balance is calculated on an aggregated basis for the reference period and unit rate adjustments occur over the following reference period. Should this be the case, a maximum cap of 5% has to be strictly applied for each calendar year of the reference period as regards any additional costs to be recovered under Article 28(4)(b). This means that any amount above the 5% cap for any given year has to be excluded from the balance to calculated over the entire reference period.

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, the provisions of Article 28(4) 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.

4.5.3.3 Exceptional provisions regarding calendar years 2020 and 2021

Article 5(3) of Implementing Regulation (EU) 2020/1627

In respect of calendar years 2020 and 2021, reductions or increases of unit rates under Article 28(4) to (6) of Implementing Regulation (EU) 2019/317 shall be calculated on the basis of the relevant total determined costs and the relevant total actual costs for those two years. Those two years shall be referred to as a single period and replace the calendar year period referred to in those provisions. Without prejudice to the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, the reductions or increases of unit rates to be applied in year n+2 shall be made in calendar year 2023.

As regards the application of adjustments in respect of calendar years 2020 and 2021, Article 5(3) of Implementing Regulation (EU) 2020/1627 stipulates that those two calendar should be exceptionally regarded as a single period. Accordingly, differences between the determined and actual costs of new and existing investments and resulting adjustments in accordance with Article 28(4) of Implementing Regulation (EU) 2019/317 need to be calculated for 2020 and 2021 combined.

In practice, those adjustments are to be calculated and approved by the NSAs only after the end of calendar year 2021, when actual costs incurred for both 2020 and 2021 are known:

- If a Member State has decided to implement Article 28(4) on the basis of an annual application with unit rate adjustments applied in year n+2, then the first adjustment for RP3 would take effect only in 2023 for both calendar years 2020 and 2021 combined, under the assumption that the final performance plan has been adopted in 2022.
- Similarly, if a Member State has decided to opt for a multi-annual application of Article 28(4) over the whole RP3, the balance for years 2020 and 2021 is to be calculated jointly subject to the conditions set out in Article 28(4) (see Section above). In that case, any result in unit rate adjustment is to be applied in the following reference period in accordance with Article 28(4).

The application of all adjustments under Article 28(4) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317.

4.5.3.4 Scenarios

This sub-section provides an overview of three scenarios featuring working examples to illustrate the potential applications as regards unit adjustments stemming from Article 28(4).

As regards the scenarios outlined below, the following notation has been used:

D_n –The determined costs for year n

A_n –The actual costs for year n

Scenario 1 (Application of exceptional provisions in respect of calendar years 2020 and 2021 laid down in Article 5(3) of Implementing Regulation (EU) 2020/1627)

$$If\ A_n < D_n$$

If actual costs in year n are lower than determined costs in year n, the unit rate in year n+2 is adjusted so that the ANSP or the Member State concerned reimburses the full resulting difference to airspace users. In this scenario, as stipulated under Article 5(3) of Implementing Regulation (EU) 2020/1627, the period of 2020 and 2021 combined corresponds to “year n”.

For example:

The Member State has opted for an annual application of adjustments under Article 28(4) of Implementing Regulation (EU) 2019/317.

2020 and 2021 combined – determined costs are 1.07 million EUR

2020 and 2021 combined – actual costs are 1 million EUR

The relevant determined costs for 2020 and 2021 combined were above the actual costs and therefore the difference of 70K EUR is fully reimbursed to airspace users in 2023 through a reduction in the unit rate.

It should be noted that the NSA may, following consultation with airspace users, decide that airspace users are only partially reimbursed or not reimbursed based on a justification provided by the ANSP. When examining the request made by an ANSP, NSAs are thus advised to take note of the following:

- Overview of the reasons resulting in unforeseen changes in costs (e.g. postponement of an investment that was not foreseen at the time of adoption of the performance plan);
- Evidence that the unforeseen change was beyond the control of the ANSP;
- Overview of the actions considered but not taken by the ANSP to help manage the cost risk;
- Overview of the reasonable measures taken by the ANSP to help manage the cost risk.

Scenario 2 (Application of default provisions laid down in Article 28(4) of Implementing Regulation (EU) 2019/317)

$$D_n \leq A_n \leq 1.05 D_n$$

If actual costs in year n are higher than the determined costs in year n but less than or equal to 5% higher than the determined costs in year n, the unit rate in year n+2 is adjusted so that the resulting difference is recovered from airspace users by the ANSP.

For example:

The Member State has opted for an annual application of adjustments under Article 28(4) of Implementing Regulation (EU) 2019/317.

2022 – determined costs are 1 million EUR

2022 – actual costs are 1.05 million EUR

The relevant determined costs for 2022 were below the actual costs and therefore the resulting difference of 50KEUR is recovered from airspace users in 2024 through an increase in the unit rate. Note that the full 50K EUR is recovered as actual costs fall in the range of 100% and 105% of determined costs in 2022.

Scenario 3 (Application of default provisions laid down in Article 28(4) of Implementing Regulation (EU) 2019/317)

$$If\ A_n \geq 1.05 D_n$$

If actual costs in year n are higher than determined costs in year n by more than 5%, the unit rate in year n+2 should be adjusted so that only a maximum cap of 5% of determined costs in year n is recovered from airspace users.

For example:

The Member State has opted for an annual application of adjustments under Article 28(4) of Implementing Regulation (EU) 2019/317.

2023 – determined costs were 1 million EUR

2023 – actual costs are 1.07 million EUR

The relevant determined costs for 2023 were below the actual costs, however the ANSP's overspend of 70KEUR due to unforeseen changes in new and existing investments cannot be fully recovered from airspace users as this exceeds 105% of determined costs in 2023. As a result, only the maximum cap of 5% of determined costs in 2023 (i.e. 50K EUR) can be recovered from airspace users through an increase in the unit rate in 2025 (i.e. the first year of the subsequent reference period).

Furthermore, the application of the specific provisions presented under Scenarios 2 and 3 above are subject to the approval by the NSA following a detailed justification provided by the ANSP.

4.5.3.5 Process for application of Article 28(4)

As part of the submission of calculated unit rates by NSAs to the Commission by 1 June of year n-1 (Article 29(2)(a) of Implementing Regulation (EU) 2019/317), NSAs should ensure the following considerations are reflected in Table 1 of Annex VII and Table 2 of Annex IX of Implementing Regulation (EU) 2019/317 when calculating unit rates:

- Where the actual costs of new and existing investments are lower than the corresponding determined costs (Article 28(4)(a)) – for the purpose of the June submission of reporting tables, the NSA shall use the default assumption that the ANSP or Member State concerned shall reimburse the resulting difference to airspace users through a unit rate adjustment in year n+2 or in the following reference period, subject to further review and a subsequent decision by the NSA as outlined below.
- Where the actual costs of new and existing investments are higher than the corresponding determined costs (Article 28(4)(b)) – the NSA shall use the default assumption that the ANSP or Member State concerned shall recover up to 5% of the resulting difference from airspace users through a unit rate adjustment in year n+2 or in the following reference period, subject to further review and a subsequent decision by the NSA as outlined below.

Following the submission of the calculated unit rates on 1 June, NSAs are required to analyse the detailed justifications provided by ANSPs for deviating from the full reimbursement of costs to airspace users, or as regards the detailed justifications for the recovery (of up to 5%) of additional costs from airspace users. In either case, it should be noted that the NSA approval process has to comprise the consultation of airspace users on the draft decision of the NSA.

In the case an NSA decides that the ANSP shall not reimburse a part of the resulting difference following the 1 June submission deadline (Article 28(4)(a)), the NSA shall ensure this deviation is reflected accordingly in the updated calculated unit rate prior to the 1 November submission deadline.

Likewise, in the case an NSA decides that the additional costs (up to 5%) shall be charged to users (Article 28(4)(b)), the NSA shall ensure this deviation is reflected accordingly in the updated calculated unit rate prior to the 1 November submission deadline.

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

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 Implementing Regulation (EU) 2019/317, any changes to an ANSP's major investments 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.

Ahead of the submission of initial reporting tables for the setting of unit rates, i.e. prior to 1 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).

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 IX of Implementing Regulation (EU) 2019/317. This information is to be provided together with the reporting tables contained in Annexes VII and IX of that Implementing Regulation as part of the initial unit rate submission for year n, by 1 June of n-1, in accordance with Article 29(2)(a) of Implementing Regulation (EU) 2019/317. This additional information should indicate the estimated cost impact of the foreseen changes related to the major investments.

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

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 Regulation (EC) 550/2004; 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.

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 for why the investment is to be cancelled; and
- Indication on what effects the cancellation of the investment will have on airspace users and on the ANSP's ability to achieve local performance targets.

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).

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 1 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 1 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.

4.5.4 Costs of competent authorities, qualified entities and Eurocontrol

The third subparagraph of Article 22(1) of Implementing Regulation (EU) 2019/317 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 Regulation (EC) 550/2004;
- Determined costs stemming from the Eurocontrol International Convention related to the provision of ANS.

The specific cost risk sharing provision as regards the costs referred to in the third subparagraph of Article 22(1) are detailed in Article 28(5) of Implementing Regulation (EU) 2019/317.

4.5.4.1 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from cost risk sharing under Article 28(5). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

Article 28(5) prescribes that, if actual costs in year n are less 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 the third subparagraph of Article 22(1).

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, the provisions of Article 28(5) 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.

4.5.4.2 Exceptional provisions regarding calendar years 2020 and 2021

As regards adjustments in respect of calendar years 2020 and 2021, Article 5(3) of Implementing Regulation (EU) 2020/1627 stipulates that those two calendar should be regarded as a single period. Accordingly, in respect of calendar years 2020 and 2021, the resulting unit rate adjustment related to costs referred to in the third subparagraph of Article 22(1) is calculated as one combined value for both years, and applied in 2023 under the assumption that the final performance plan has been adopted in 2022.

It should be noted that the application of all adjustments under Article 28(5) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317.

4.5.5 Pension costs

In accordance with Article 22(4) of Implementing Regulation (EU) 2019/317, pension costs are comprised within the category of determined staff costs. The second sub-paragraph of Article 22(4) expressly requires pension costs to be calculated using prudent assumptions based on the applicable pension scheme or on national law, and for such assumptions are separately specified in the performance plan.

Furthermore, it should be noted that two main types of pension schemes exist for ANSPs: 'defined contribution 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.

As highlighted in Recital 36 of Implementing Regulation (EU) 2019/317, 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 onto airspace users through adjustments in unit rates.

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 are eligible to enable the application of specific cost risk sharing provisions under Article 28(6) of Implementing Regulation (EU) 2019/317. This includes changes in market-related assumptions that are considered relevant for the accounting of pension costs (e.g. the discount rate, inflation rate, and 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. Nevertheless, it should be emphasised that Article 28(3)(c) prescribes that the specific risk sharing provisions shall only apply on the condition that the changes in pension costs are outside the control of the ANSP. As such, it is plausible that other factors out of the control of the ANSP (e.g. mortality rates, the investment policy of a pensions fund) may be considered sufficient to justify the application of the specific cost risk sharing provision set out under Article 28(6).

Given this, NSAs should ensure that the justifications provided by ANSPs provide 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.

On this basis, as part of an NSA's annual verification activities in accordance with Article 28(7) of Implementing Regulation (EU) 2019/317, NSAs are advised to review the influencing factors and, if necessary, weight these factors to determine whether there is a degree of controllability within each factor. It is therefore important that NSAs confirm any changes in national pensions or pension accounting law through an independent assessment, with actuarial support, if necessary, to also help identify any mitigation actions available to the ANSP concerned to manage the cost risk. It is also advised that this assessment is complemented by a consideration of local circumstances as well as any supporting documentation provided by the ANSP.

4.5.5.1 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from cost risk sharing for pension costs under Article 28(6). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

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 Implementing Regulation (EU) 2019/317, 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.

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.

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.

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, 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.

4.5.5.2 Exceptional provisions regarding calendar years 2020 and 2021

As regards adjustments in respect of calendar years 2020 and 2021, Article 5(3) of Implementing Regulation (EU) 2020/1627 stipulates that those two calendar years should be regarded as a single period. The exceptional provisions concern only the situation where the adjustments are applied on an annual basis (i.e. unit rate adjustments in n+2) instead of on the basis of the whole reference period (in which case adjustments are made in the following one or two reference period(s)).

Accordingly, in respect of calendar years 2020 and 2021, the resulting unit rate adjustment related to pension costs is calculated as one combined value for both years, and applied in 2023 under the assumption that the final performance plan is adopted in 2022.

It should be noted that the application of all adjustments under Article 28(6) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317.

4.5.6 Costs resulting from unforeseeable changes in interest rates on loans

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, also used to

calculate the weighted average cost of capital pre-tax rate and subsequently the cost of capital of the ANSP.

As required under point 3.3(f) of Annex II of Implementing Regulation (EU) 2019/317, the performance plan should provide a detailed overview of the main 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, but not be limited to:

- 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).

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).

It should be noted that the specific provisions set out in Article 28(6) of Implementing Regulation (EU) 2019/317, which apply to differences between the determined and actual costs stemming from changes in interest rates, can only be applied where costs have not already been covered under Article 28(4).

In other words, Article 28(3)(a) and Article 28(4) should be viewed by Member States and NSAs as the default mechanism for sharing the cost risk associated with unforeseen changes in new and existing investments. Accordingly only in exceptional circumstances where the aforementioned provisions are deemed inapplicable can the higher costs associated with the financing of investments (i.e. higher interest rates on loans) result in the application of Article 28(3)(d) and Article 28(6).

In the case that unit rate adjustments in accordance with Article 28(6) are applied, it is reminded that its application should be accompanied by a justification for why the costs associated with Article 28(3)(d) were not already foreseen or covered by Article 28(3)(a) and Article 28(4). 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.

4.5.6.1 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from cost risk sharing for cost of interest under Article 28(6). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

In accordance with Article 28(3)(d) of Implementing Regulation (EU) 2019/317, the only difference between determined and actual costs that could result in an exemption from the generic risk sharing provision set out in Article 28(2) is 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 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.

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 take into account the following considerations:

- 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);
- 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 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;
- 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.

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)(d), 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.

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.

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.

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, 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.

4.5.6.2 Exceptional provisions regarding calendar years 2020 and 2021

As regards adjustments in respect of calendar years 2020 and 2021, Article 5(3) of Implementing Regulation (EU) 2020/1627 stipulates that those two calendar should be regarded as a single period. The exceptional provisions concern only the situation where the adjustments are applied on an annual basis (i.e. unit rate adjustments in n+2) instead of on the basis of the whole reference period (in which case adjustments are made in the following one or two reference period(s)).

Accordingly, in respect of calendar years 2020 and 2021, the resulting unit rate adjustment related to costs resulting from unforeseeable changes in interest rates on loans is calculated as one combined value for both years, and applied in 2023 under the assumption that the final performance plan is adopted in 2022.

It should be noted that the application of all adjustments under Article 28(6) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317.

4.5.6.3 Scenarios

This sub-section provides NSAs with two working examples of when the specific risk sharing provision detailed in Article 28(6) could be activated. These two examples are on the assumption that changes in costs were outside the control of the ANSP and, if applicable, the ANSP had taken reasonable measures to manage any unforeseen and significant increases in costs.

Scenario 1 – a loan is contracted with variable interest rates

When verifying an ANSP's eligibility to apply Article 28(6), NSAs must acknowledge that, when contracting a variable interest rate loan, the ANSP has made a conscious decision regarding its methodology for ANS financing (i.e. the level of periodic repayment). This is in the knowledge that the option of a fixed interest rate loan was most likely available.

As such, it can be assumed that there will be some degree of fluctuation in interest rates associated with normal market conditions, and that only the magnitude of the variation will be unknown. On this basis, a 'significant' (positive or negative) fluctuation beyond a threshold agreed between the NSA and ANSP (most likely in the performance plan) would need to be demonstrated in order to apply Article 28(6).

A non-exhaustive list of the factors that could result in a 'significant' change in costs is detailed in Scenario 2.

Scenario 2 – a new loan is contracted during the reference period with a different interest rate than what was assumed in the performance plan

In this scenario, a new loan is contracted during the reference period with a different interest rate than what was assumed in the performance plan. It should be noted that many external factors beyond the control of an ANSP could lead to unforeseeable changes in the interest rates on loans. These factors include, but are not limited to:

- High inflation;
- Increase in country-related financial risk;
- High exchange rate fluctuation; and
- Unforeseeable changes in monetary policy.

On this basis, a 'significant' change in costs resulting from the new interest rate (beyond an agreed threshold between the NSA and ANSP) could be sufficient to justify the application of Article 28(6).

4.5.7 Costs resulting from unforeseeable changes in national taxation law

This cost item concerns all costs that result from unforeseen changes in national taxation legislation. For example, 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.

The application should be preceded by 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).

4.5.7.1 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from cost risk sharing for change in national taxation law under Article 28(6). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

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)(d), the provision as detailed under Article 28(6) of Implementing Regulation (EU) 2019/317 for sharing the cost risk associated with unforeseen and significant changes in the national taxation law shall be applied.

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.

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.

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, 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.

4.5.7.2 Exceptional provisions regarding calendar years 2020 and 2021

As regards adjustments in respect of calendar years 2020 and 2021, Article 5(3) of Implementing Regulation (EU) 2020/1627 stipulates that those two calendar should be regarded as a single period. The exceptional provisions concern only the situation where the adjustments are applied on an annual basis (i.e. unit rate adjustments in n+2) instead of on the basis of the whole reference period (in which case adjustments are made in the following one or two reference period(s)).

Accordingly, in respect of calendar years 2020 and 2021, the resulting unit rate adjustment related to costs resulting from unforeseeable changes in national taxation law is calculated as one combined value for both years, and applied in 2023 under the assumption that the final performance plan is adopted in 2022.

It should be noted that the application of all adjustments under Article 28(6) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317.

4.5.7.3 Scenarios

This sub-section provides NSAs with three examples of when the specific risk sharing provisions detailed in Article 28(6) could be applied.

Scenario 1 – the change in taxation law was unforeseen in the performance plan

Given the unforeseeable nature of this scenario, it is clear that the change in taxation law was outside the control of the ANSP. As such, to facilitate the NSA's assessment as to whether the difference between determined and actual costs can be attributed to unforeseeable changes in national taxation law, NSAs must be presented with the relevant legislation, an indication of the entry-into-force of the legislation, and a quantitative overview of the impact of the legislation on the costs of the ANSP

Scenario 2 – the change in taxation law was foreseen in the performance plan

The change in taxation law was foreseen in the performance plan. However, there may be uncertainty as regards the entry-into-force of the legislation and the impact on the costs of the ANSP. Therefore, it should be noted that the NSA's assessment of the ANSP's intention to apply Article 28(6) should be based on the impacts of the provisions contained in the final legislation (i.e. following the date of promulgation).

Scenario 3 – the change in taxation law was foreseen in the performance plan but was aborted

There may be instances when an ANSP has included in its cost bases the costs associated with the anticipated change in national taxation law. However, if the foreseen change in law is aborted during the reference period, the full difference between those planned and actual costs is required to be reimbursed or charged to airspace users in accordance with Article 28(6). Subsequently, the NSA must verify that this has been transparently recorded by the ANSP to ensure true cost-reflectiveness in the charges incurred by airspace users.

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

In principle, within the meaning of Article 28(3)(e) of Implementing Regulation (EU) 2019/317, unforeseeable new costs 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)).

The term 'unforeseeable new cost items' under Article 28(3)(e) should be understood to cover also financial liabilities 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, national supervisory authorities are advised to wait that 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. 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.

4.5.8.1 General considerations

Article 28(3)(e) stipulates that the general risking 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. To apply Article 28(6), it is thus clear that these cost items would need to not have not been covered by the performance plan at the time of adoption.

Scenario 1 – the new law or change in law was unforeseen in the performance plan

Given the unforeseeable nature of this scenario, it is clear that the introduction of a new law or change in law was outside the control of the ANSP. As such, to facilitate the NSA's assessment as to whether the difference between determined and actual costs can be attributed to new cost items required by law, NSAs must be presented with the relevant legislation, an indication of the entry-into-force of the legislation, and a quantitative overview of the impact of the legislation on the costs of the ANSP.

Scenario 2 – the new law or change in law was foreseen in the performance plan

The introduction of a new law or change in law was foreseen in the performance plan. However, there may be uncertainty as regards the entry-into-force of the legislation and the impact on the costs of the ANSP. Therefore, it should be noted that the NSA's assessment of the ANSP's intention to apply Article 28(6) should be based on the impacts of the provisions contained in the final legislation (i.e. following date of promulgation). For example, if a change of law was anticipated to be introduced in 2021 but in practice was not introduced until 2023, or a change in law was anticipated to affect one category of staff, but in the final legislation covered two categories of staff.

Scenario 3 – the new law or change in law was foreseen in the performance plan but was aborted

There may be instances when an ANSP has included in its cost bases the new cost items associated with the anticipated change in national law. However, if the foreseen change in law is aborted during the reference period, the full difference is required to be reimbursed or charged to airspace users in accordance with Article 28(6). Subsequently, the NSA must verify that this has been transparently recorded by the ANSP to ensure true cost-reflectiveness in the charges incurred by airspace users.

4.5.8.2 New cost items related to the implementation of common projects

It should be emphasised that the introduction of new cost items (e.g. in new and existing investments) related to the implementation of the European ATM Master Plan cannot be used as a rationale for applying the specific risk sharing provision set out in Article 28(6) of Implementing Regulation (EU) 2019/317. However, those changes fall in the scope of differences between the determined and actual costs of new and existing investments under Article 28(4).

4.5.8.3 Adjustments

N.B.: This sub-section presents the rules established in Implementing Regulation (EU) 2019/317 for the calculation of unit rate adjustments stemming from cost risk sharing for new cost items required by

law under Article 28(6). The exceptional provisions applicable to calendar years 2020 and 2021 are covered in the following sub-section.

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)(e) of Implementing Regulation (EU) 2019/317, 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.

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.

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.

In accordance with the last sentence of the second sub-paragraph of Article 29(5) of Implementing Regulation (EU) 2019/317, 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.

4.5.8.4 Exceptional provisions regarding calendar years 2020 and 2021

As regards adjustments in respect of calendar years 2020 and 2021, Article 5(3) of Implementing Regulation (EU) 2020/1627 stipulates that those two calendar should be regarded as a single period. The exceptional provisions concern only the situation where the adjustments are applied on an annual basis (i.e. unit rate adjustments in n+2) instead of on the basis of the whole reference period (in which case adjustments are made in the following one or two reference period(s)).

Accordingly, in respect of calendar years 2020 and 2021, the resulting unit rate adjustment related to new cost items is calculated as one combined value for both years, and applied in 2023.

It should be noted that the application of all adjustments under Article 28(6) of Implementing Regulation (EU) 2019/317 for RP3 (including those relating to the combined period 2020 and 2021) shall be done only on the basis of the final performance plan, as explained above and required in the last sentence of the second sub-paragraph of Article 29(5).

4.6 Adjustments stemming from incentive schemes

Article 25(2)(e) of Implementing Regulation (EU) 2019/317

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);

The adjustments referred to in Article 25(2)(e) of Implementing Regulation (EU) 2019/317 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 that Implementing Regulation.

Financial incentives in the capacity KPA are mandatory pursuant to Article 11(3) of Implementing Regulation (EU) 2019/317. 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.

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 Implementing Regulation (EU) 2019/317. The setting of additional incentives is governed by Article 11(4) of that Implementing Regulation.

All incentive schemes applied pursuant to Article 11(3) of Implementing Regulation (EU) 2019/317 and, where applicable, Article 11(4) of Implementing Regulation (EU) 2019/317 have to be presented in the performance plan in accordance with the requirements of point 5.2 of Annex II of that Implementing Regulation.

In addition, it is important to note the requirement for NSAs to consult stakeholders on the incentive schemes comprised in the draft performance plans. In accordance with Article 10(4), this consultation shall cover ANSPs, AUs' representatives and, where relevant, airport operators and airport coordinators.

4.6.1 General principles

Article 11(3) of Implementing Regulation (EU) 2019/317 prescribes the underlying principles applicable to the *en route* and terminal incentive scheme in the capacity key performance area (KPA), but also leaves considerable discretion to Member States as regards the design of the incentive scheme and its implementing arrangements.

In accordance with Article 11(3)(a) of that Implementing Regulation, the basic principles for these incentives include:

a) Material impact

The impact of incentives 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).

In this respect, NSAs are advised to consider a maximum penalty amounting to 2% of determined costs in order to ensure that the incentive scheme has a material impact on the revenue at risk

and to incentivise the achievement of targets, in accordance with the requirements set out in Article 11(3) of Implementing Regulation 2019/317.

b) Proportionality to achieved performance

Incentives 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 value, which is the value to be set and used for the purpose of calculating the financial advantages or disadvantages stemming from the mandatory incentive scheme in the capacity KPA, and set by the NSA in accordance with Article 11(3)(c).

Article 11(3)(d) of that Implementing Regulation mandates a symmetric range to be set by the NSA around the pivot value. The symmetric range is a *dead band* set to ensure that minor variations on ATFM delay do not lead to any calculations for adjustments in year n+2, meaning minor variations in ATFM delay do not lead to any financial advantages or disadvantages.

Article 11(3)(e) and (f) describe the actual adjustment occurring in year n+2 based on the actual delay performance in year n. This entails that when the actual average ATFM delay per flight in year n is lower than the pivot value and are beyond the symmetric range, this results in a financial advantage in year n+2 through an increase in the unit rate. On the contrary, where the actual average ATFM delay per flight in year n is higher than the pivot value and beyond the symmetric range, this results in a financial disadvantage through a reduction of the unit rate in year n+2.

Both adjustments under Article 11(3)(e) and (f) are to be calculated in accordance with point 2 of Annex XIII of Implementing Regulation (EU) 2019/317. This calculation is detailed in the following sub-sections.

4.6.2 Mechanism for defining the pivot values

NSAs shall indicate in the performance plans on which basis they intend to set the pivot values used for the purpose of the incentive scheme. In accordance with Article 11(3)(c), NSAs may choose between the two options described below. It is important to note that the choice indicated by the NSA in its performance plan subsequently remains valid for the whole duration of the reference period and may not be amended during that reference period.

- Option a) Pivot values are based on the performance targets

The NSA may decide that the pivot values for each calendar year are to be equal to the local performance target set for that year. The incentive scheme will thus be articulated around the relevant capacity performance target values.

- Option b) Pivot values are based on 'modulated' performance targets

Alternatively, the NSA may decide, after consultation with AUs, to base the pivot values on annually 'modulated performance targets'. In this case, the NSA shall define in its performance plan the modulation mechanism to be applied for this purpose, in accordance with the provisions of point 1 of Annex XIII.

In respect of en route services, the modulation mechanism of pivot values may consist of an annual adjustment of the local en route capacity targets informed by the reference values published in the November release of the Network Operations Plan of year n-1. The modulation may also consist in the limitation of the scope of the incentive scheme to delay causes related to related to ATC capacity, ATC

routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. It is possible for the NSA to apply either one or both these features in respect of the modulation mechanism.

In respect of terminal services, the modulation mechanism of pivot values may comprise an annual adjustment of the local terminal capacity targets on the basis of objective and transparent principles defined in the performance plan, so as to take account of significant and unforeseen changes in traffic. The modulation may also consist in the limitation of the scope of the incentive scheme to delay causes related to related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. It is possible for the NSA to apply either one or both these features in respect of the modulation mechanism.

4.6.3 Numerical parameters used for calculating bonuses and penalties

NSAs shall present in the performance plans the numerical parameters of the incentive schemes underpinning the calculation of bonuses and penalties. In accordance with point 2 of Annex XIII, these numerical parameters are to be expressed as fixed percentages of the determined costs set for year n.

In defining these fixed percentages, NSAs should ensure compliance with the following requirements deriving from Article 11(3):

- the maximum level of potential bonuses shall not exceed the maximum level of potential penalties;
- the level of potential bonuses may not exceed 2% of the determined costs of any given year;[17]
- a tolerance margin (or dead-band) is to be included as part of the incentive scheme – this has to be defined as a 'symmetric range' applied around the pivot value applicable for each year.

As stated in point 2 of Annex XIII, a 'smooth sliding scale' shall be set by the NSA for the purpose of calculating the annual bonus or penalty payment stemming from the incentive scheme. This scale will enable the calculation of bonuses or penalties depending on the actual performance of the ANSP versus the applicable pivot value, where the difference between the pivot value and the actual ATFM delay falls beyond the tolerance margin (or dead-band) referred to above. The scale will also determine the difference between the pivot value and the actual ATFM delay beyond which the maximum bonus or penalty applies.

It is advised that NSAs include graphs and/or tables in their performance plans for the purpose of illustrating the defined incentive scheme in terms of the formula and numerical parameters to be applied.

The setting of numerical parameters used for calculating bonuses and penalties is subject to consultation with AU representatives and ANSPs. Information on the outcome of the relevant consultation should be included in Section 1.3 of the performance plan.

[17] The alert thresholds referred to in point (b)(iii) of Article 9(4), which are established together the adoption of the Union-wide performance targets, will apply in respect of all incentive schemes for the purpose of setting the upper or lower bound beyond which the maximum bonus of penalty applies, respectively. It should be noted that this parameter is not subject to adjustment.

4.6.4 Additional elements specific to FAB performance plans

Where the NSAs concerned have opted for the establishment of a performance plan at FAB level, they are required to set a capacity targets for en route services at FAB level pursuant to point 3.1(a)(iv) of Section 2 of Annex I of Implementing Regulation (EU) 2019/317.

Article 11(3)(g) prescribes additional requirements in respect of the definition and implementation of the incentive scheme associated with these FAB level en route capacity targets. Accordingly, the NSAs concerned should ensure that the incentive scheme set out in their FAB performance plan complies with the following principles which are additional to the general principles outlined in the sub-sections above:

- There shall be a uniform incentive scheme for all the Member States within the FAB, based on the same parameters and numerical values, and applied consistently across the FAB.
- There shall be both national and FAB level pivot values underpinning this incentive scheme. The FAB level pivot value shall be based either on the FAB-level target or the modulated FAB level target. The national pivot values shall derive from the breakdown of the FAB level targets in respect of each ANSP concerned. These ANSP-specific values shall be defined in the performance plan, without prejudice to a possible further modulation of these values where a modulated FAB target is applied for the incentive scheme.
- The NSAs of the Member States shall jointly decide on whether to base the applicable FAB level and national pivot values on the FAB performance targets or on modulated FAB performance targets. The possibilities for modulating a FAB level capacity targets are the same as with regard to national level capacity targets. As detailed in the previous sub-section, the modulation principles are set out in point 1 of Annex XIII. Where NSAs choose to modulate the FAB level targets, the same modulation mechanism shall apply similarly to all pivot values referred to above.

The NSAs concerned should provide the additional information required for the points above in an annex to the performance plan. They should confirm the agreement within the FAB on the numerical parameters of the incentive scheme and in respect of any modulation mechanism to be applied.

4.6.5 Optional financial incentive schemes

In accordance with Article 11(4), NSAs may decide to establish optional incentives on local environment targets or on additional targets set in accordance with Article 10(3). If an NSA decides to establish an optional incentive scheme for RP3, they should provide at least the following information as part of the performance plan:

- The KPA which the incentive applies to;
- The geographical scope which the incentive applies to (i.e. en route or terminal);
- A description of the incentive (including rationale);
- The parameters, formulas, metrics and data sources used to justify the application of the incentive;
- The maximum bonus and penalty for the optional incentive, noting that the aggregated financial advantage or disadvantage shall not exceed 2% and 4% of the determined costs of year n respectively.

4.6.6 Exceptional provisions for RP3

Article 3(3) of Implementing Regulation (EU) 2020/1627

By way of derogation from Article 11(1)(b) and Article 11(3) of Implementing Regulation (EU) 2019/317, the incentive schemes regarding performance targets in the key performance area of capacity referred to in Article 11(3) of that Implementing Regulation shall be subject to the following requirements in respect of RP3:

(a) the incentive schemes shall cover only the calendar years 2022 to 2024. Member States shall reflect this reduced period of the incentive schemes in their draft performance plans referred to in paragraph 1;

(b) the incentive schemes shall produce financial effects in the form of carry-overs and subsequent unit rate adjustments only as from the first year following the adoption of the performance plan.

The exceptional measures for RP3 laid down in Implementing Regulation (EU) 2020/1627 include a derogation from Implementing Regulation (EU) 2019/317 in respect of incentive schemes in the key performance area of capacity.

Article 3(3)(a) of Implementing Regulation (EU) 2020/1627 prescribes that the revised draft performance plans to be submitted by Member States by 1 October 2021 shall not include financial incentives on capacity targets for calendar years 2020 and 2021. Hence, Member States must ensure that those incentive schemes are limited in time to calendar years 2022, 2023 and 2024 in the revised draft performance plan for RP3.

Furthermore, in accordance with Article 3(3)(b) of that Regulation, those incentive schemes may only produce financial effects as from the first year following the adoption of the performance plan. For example, if a performance plan is adopted in 2022, financial effects in the form of carry-overs and subsequent unit rate adjustments would hence only be produced in respect of calendar years 2023 and 2024 respectively. The calculation and spreading of resulting unit rate adjustments follow the basic rules laid down in Implementing Regulation (EU) 2019/317 as described in the previous and following sub-sections.

4.6.7 Adjustments

This sub-section is focused on the calculation of unit rate adjustments resulting from the capacity incentive scheme laid down under Article 11(3) of Implementing Regulation (EU) 2019/317.

Articles 11(3)(e) and 11(3)(f) of Implementing Regulation (EU) 2019/317 refer to point 2 of Annex XIII of that Implementing Regulation where the calculation of the financial advantages and disadvantages, i.e. the actual unit rate adjustment in year n+2, is detailed.

For *en route* air navigation services, the financial advantage (when ATFM delay is lower than 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.

For *en route* air navigation services, the financial disadvantage (when ATFM delay is higher than 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.

For terminal air navigation services, the financial advantage (when arrival ATFM delay is lower than 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.

For terminal air navigation services, the financial disadvantage (when arrival ATFM delay is higher than 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.

4.7 Adjustments relating to the modulation of charges

This section provides an overview of the adjustments stemming from the modulation of charges as well as providing technical supporting material on the underlying principles.

Article 32 of Implementing Regulation (EU) 2019/317

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.

The provisions of Article 32 of Implementing Regulation (EU) 2019/317 allow for the modulation of ANS 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. Achieving those objectives can be viewed as being beneficial to airspace users and thereby the performance of the ATM network, both at local and network level, provided a critical level of deployment can be ensured to unlock network benefits.

4.7.1 Principles

Article 32(1) of Implementing Regulation (EU) 2019/317 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 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 associated with the implementation of new flight planning systems to accommodate Free Route Airspace (FRA), Performance Based Navigation (PBN), 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 of specific volumes of airspace, routes or time windows;
- 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. These may include, but are not limited to: equipage to enable Required Navigation Performance (RNP)-based operations, implementing flight planning systems to manage dynamic sectorisations and FRA, deployment of iSWIM – System-Wide Information Management (e.g. aeronautical, meteorological services (MET), cooperative network, and flight information exchange), and initial 4D (i4D, i.e. aircraft to downlink aircraft trajectory info using Automatic Dependent Surveillance-Contract, or ADS-C).

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 to correct their behaviour to equip aircraft with the required onboard equipment.

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 to become a first mover. In this context, the so-called ‘cost’ can be understood in different ways, for example:

- 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;
- the cost for failing to adequately invest in due time.

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.

4.7.2 Adjustment of unit rates and revenue neutrality

According to the second paragraph of Article 32(1) of Implementing Regulation (EU) 2019/317, 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 in any overall change in the annual revenue of ANSPs compared to a situation where ANS charges would not have been modulated. This requires that modulated 'lower' unit rates are subsidised by 'higher' unit rates paid by another group of airspace users, and vice versa.

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.

For the purpose of ensuring revenue neutrality for the ANSP(s) concerned, the balance of any modulation mechanism (either an over- or under-recovery) 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 Implementing Regulation 2019/317 .

It should be noted that revenue neutrality and the related unit rate adjustments are only required for modulation categories set out under points (a) to (c) of Article 32(1) of Implementing Regulation (EU) 2019/317. The requirement for revenue neutrality is thus not required in the case of point (d) of Article 32(1) 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.

4.7.3 Stakeholder consultation

According to the second subparagraph of Article 32(2) of Implementing Regulation (EU) 2019/317, 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 effectiveness of the intended modulation scheme and the 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 zones concerned as well as the criteria and/or thresholds by which the modulation is applied to airspace users.
- Underlying rationale of introducing the 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.

- 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.

4.7.4 Annual reporting

The following data specific to the modulation of ANS charges shall be included as part of the reporting table in Annex IX of Implementing Regulation (EU) 2019/317 submitted in accordance with Article 29(2) as part of the annual unit rate setting process:

- Table 2A – line 7.1 for carry-overs from year n to ensure revenue neutrality for modulation of charges;
- Table 2B – line 13.6 for amounts carried over into year n relating to the modulation of charges in year n-2;
- Table 3 – complementary information on adjustments related to the modulation of charges.

As part of the additional information required in point 4(g) of Annex IX of that Implementing Regulation, Member States must further provide a description and explanation of the modulation of air navigation charges applied in year n under Article 32 where applicable, and resulting adjustments.

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

Pursuant to Articles 20(1) and 20(2) of Implementing Regulation (EU) 2019/317, read together with Article 25(3) of that Implementing Regulation, Member States may decide to cover the determined costs of *en route* and/or terminal air navigation services through other revenue, in addition to the revenue derived from the air navigation charges levied on airspace users.

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 unit rate calculation is regulated by Articles 25(2)(i) and Article 25(3) of Implementing Regulation (EU) 2019/317.

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

(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.

It should be noted that Member States may also decide to reduce a unit rate voluntarily pursuant to Article 29(6), 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 technical supporting material on the application of Article 29(6) is provided in section 4.9 below.

4.8.1 Public funds obtained from public authorities

Pursuant to Article 25(3)(a) of Implementing Regulation 2019/317, 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.

For example, an ANSP receiving revenue (a grant) funded 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. It may also consist of 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.

It is relevant to note that Recital 32 of Implementing Regulation (EU) 2019/317 expressly states that services or facilities funded through public grants from national or EU financial support (including Union assistance programmes such as the Trans-European transport network, the Connecting Europe Facility and the Cohesion Funds) shall not be charged to airspace users.

Special rules set out in the second sub-paragraph of Article 25(3) of that Implementing Regulation apply regarding the unit rate adjustment through 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 capital expenditure (CAPEX) and operational expenditure (OPEX). The applicable rules are as follows:

- When public funding covers staff costs and other operating costs within the meaning of Article 22(4) of Implementing Regulation (EU) 2019/317, a deduction shall occur at the latest in year n+2 following the receipt of the related grant;
- 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 grants 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 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.

Where the Member State concerned so decides pursuant to the second sub-paragraph of Article 25(3), the ANSP(s) concerned may retain (and hence not deduct as part of the unit rate calculation) the share of a public grant that relates to administrative costs incurred due to reporting obligations to the grant provider (e.g. INEA for CEF grants), provided that those costs were not initially planned and therefore already included as determined costs in the chargeable cost base. Where this is demonstrated to be the case, the total deduction of a grant for a project may not equal the total amount of public funding received.

In practice, this provision may apply for example when the ANSP has procured 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. However, the administrative costs referred to in Article 25(3) only relate to the reporting requirements concerning funded project; accordingly, costs incurred for the development of applications or proposals for the obtention of public grants are by definition excluded.

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 Implementing Regulation (EU) 2019/317. 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.

NSAs are responsible for ensuring that airspace users are not be charged for any costs which are already covered by public funds. Should an ANSP receive grants for costs 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 unit rate calculation. However, this provision should be understood and interpreted restrictively, subject to the following conditions:

- 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 to be recovered pursuant to Article 28(4), any public funding granted to finance the investment concerned has to 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 covered under Article 28(4).

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

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 Regulation (EC) 550/2004 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.

This principle is also expressly stipulated in Article 20(3) of Implementing Regulation (EU) 2019/317, 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.

Without prejudice to the aforementioned principles, Article 25(3) of Implementing Regulation (EU) 2019/317 allows 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.

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

Article 29(6) of Implementing Regulation (EU) 2019/317 allows Member States to voluntarily reduce the unit rate for a given charging zone. This section aims to clarify its application which, similarly to

the provisions laid down in Articles 25(2)(i) and 25(3), consists of the financing of determined costs from sources other than the revenue stemming from ANS charges, thus leading to a reduction of the unit rate charged to users.

4.9.1 Application of Article 29(6)

Article 29(6) of Implementing Regulation (EU) 2019/317

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.

Article 29(6) of Implementing Regulation (EU) 2019/317 may be used for the purpose of setting the unit rate at a lower level than the unit rate calculated in accordance with Article 25(2). This entails that Article 29(6) only applies after the deduction of other revenues in accordance with Articles 25(2)(i) and 25(3).

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

a) 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 Implementing Regulation (EU) 2019/317. 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.

b) The Member State has decided not to recover from airspace users determined costs established 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 on the timing (calendar year or years) of applied unit rate reductions.

If a Member State decides to voluntarily reduce the unit rate under Article 29(6), it should be ensured that such deductions are reported to the Commission in a transparent manner. Deductions should be reported in line 13.14 of Table 2B in Annex IX of Implementation Regulation (EU) 2019/317 per calendar year. Furthermore, additional information on the calculation of the amounts reported in line 13.14 in Table 2B should be provided in accordance with point 4(j) of Annex IX. The additional information should allow the Commission to precisely identify how the reported amounts were applied and outline the rationale behind the reduction.

4.9.2 Conclusion

Where a unit rate reduction is implemented by financing the provision of determined costs with ‘other revenue’ within the meaning of Article 25(3) of Implementing Regulation (EU) 2019/317, those legal provisions 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 that Implementing Regulation in circumstances which do not fall within the scope of Article 25(3).

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.

When granting State aid to ANSPs, Member States shall therefore consider those providers as 'undertakings' within the meaning of EU competition law with regard to their economic activities. This observation also applies in respect of entities which are formally part of public administration. Consequently, Member States are reminded that they must ensure compliance with EU state aid provisions in respect of any financial assistance they provide to ANSPs.

4.10 Cross-financing between *en route* or between terminal charging zones

This section outlines the principles of cross-financing between *en route* or between terminal charging zones and provides practical technical supporting material on related reporting requirements.

Article 15(2)(e) of Regulation (EC) 550/2004

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 Implementing Regulation (EU) 2019/317, 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;

Member States may decide to apply cross-financing between two *en route* charging zones or between two terminal charging zones in accordance with Article 25(2)(j), which is applied in the form of adjustments to unit rates. In accordance with Article 15(2)(e) of Regulation (EC) 550/2004, cross-financing is only allowed to occur either between two *en route* charging zones or between two terminal charging zones. Both charging zones concerned should have a cost base established and monitored in accordance with Commission Implementing Regulation (EU) 2019/317 in order to be eligible for cross-financing.

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 Regulation (EC) 550/2004. *En route* and terminal unit rates are calculated annually, before the beginning of each calendar of the reference

period including as regards applicable adjustments on the cross-subsidy between *en route* charging zones, or between terminal charging zones.

The allocation of cross-subsidies have to be stated in the corresponding performance plan or plans (where the charging zones are covered by two different performance plans) as part of the reporting table on unit rate calculation (Table 2 of Annex VII in Implementing Regulation (EU) 2019/317. As required in point 4(a) of Annex IX of the Regulation, a description and rationale for the amounts allocated to cross-subsidies between charging zones has to be provided to substantiate the numbers presented in the reporting tables.

Where the Member States decides to apply 'cross-financing' as laid down in Article 25(2)(j) of Implementing Regulation (EU) 2019/317, 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 in year n 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). 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 Regulation (EC) 550/2004. Those terms should thus be regarded as synonyms.

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.

Adjustments for the purpose of unit rate calculation are recorded in Table 2B contained in Annex IX of Implementing Regulation (EU) 2091/319, under line 13.9. If such cross-financing is applied, a clear identification of the arrangements concerned and justifications stating objective reasons needs to be provided as required under point 4(a) of Annex IX of that 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.

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. If the revision of a performance plan leads to a change in cross-financing structures, the provision of a comprehensive description and rationale applies equally. Any cross-financing arrangement should be consistent and ensure that no double charging to airspace users of the same costs can occur.

4.11 Adjustments for differences in revenue referred to in Article 29(5)

This section outlines the principles related to adjustments for differences in revenue as described under Article 29(5) and provides practical technical supporting material on related reporting requirements.

Article 17 of Implementing Regulation (EU) 2019/317

1. Where, as a consequence of the time needed to complete the procedures referred to in Articles 14 and 15, Member States have not been able to adopt performance plans before the start of the reference period in accordance with Article 16, the performance targets contained in the most recent version of the draft performance plans shall apply on a provisional basis, until the performance plans are adopted.

2. In the situation referred to in paragraph 1, upon the adoption of the performance plans, the performance targets in the key performance area of cost-efficiency shall apply retroactively through an adjustment of the unit rates in accordance with Article 29(5).

Article 29(5) of Implementing Regulation (EU) 2019/317, first subparagraph

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.

4.11.1 Principles

Implementing Regulation (EU) 2019/317 contains special provisions relating to the calculation and adjustment of unit rates in the circumstances where the adoption of a final performance plan occurs after the beginning of the reference period, due to the time required for the procedures relating to the assessment and possible revision of the draft performance plans. The purpose of these special provisions is to ensure the proper application of the local cost-efficiency targets for the reference period concerned, for each charging zone in the scope of the performance plan.

Article 17(1) of Implementing Regulation (EU) 2019/317 stipulates that the most recent version of the draft performance plan submitted by a Member State is to be applied on a provisional basis during the procedures set out in Articles 14 and 15 of the Regulation. Those procedures concern the assessment by the Commission and, where applicable, the revision by the Member States concerned of the draft performance plans.

It follows from this rule that until the Commission has adopted a decision on the consistency of a performance plan in application of Article 14(2), Article 15(2), Article 15(4) or 15(7), the unit rates for the charging zones concerned are calculated and set on the basis of the determined costs and traffic forecasts contained in the latest version of the draft performance plan. This “latest version” refers to the draft performance plan which 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. In order 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.

In respect of RP3, it should be noted that Implementing Regulation (EU) 2020/1627 introduces exceptional provisions concerning adjustments under Article 29(5) of Implementing Regulation (EU) 2019/317. As stated in Recital 12 of Implementing Regulation (EU) 2020/1627, the purpose of adapted requirements concerning Article 29(5) adjustments is to mitigate the severe adverse financial impact that mechanism would otherwise have on airspace users as well as to avoid excessive volatility of unit

rates during RP3. Those exceptional provisions, however, only concern the timing of adjustments to unit rates under Article 29(5) and are without prejudice to any other rules concerning the calculation of those adjustments. These are further explained in this section.

4.11.2 Adjustments

4.11.2.1 Calculation of revenue differences

In accordance with Article 17(2) of Implementing Regulation (EU) 2019/317, the local performance targets in the key performance area of cost-efficiency which are contained in the final version of the performance plan (adopted by the Member State in accordance with Article 16(a) or (b) of Implementing Regulation (EU) 2019/317) are conferred a retroactive effect from the beginning of the reference period.

Accordingly, where the adoption of the final performance plan occurs after the beginning of the reference period, any unit rates which were set on the basis of the draft performance plan have to be recalculated on the basis of the cost-efficiency targets contained in the final performance plan. The difference between the unit rate(s) based the draft performance plan ("applied unit rate(s)") and the unit rate(s) calculated on the basis of the final performance plan ("recalculated unit rate(s)") then results in carry-overs to subsequent calendar years, in accordance with the principles set out in the second subparagraph of Article 29(5) and presented below:

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;
- 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.

4.11.2.2 Spreading of adjustments

Article 5(4) of Implementing Regulation (EU) 2020/1627

In respect of RP3, adjustments shall in accordance with the second subparagraph of Article 29(5) of Implementing Regulation (EU) 2019/317 be calculated on the basis of the draft performance plans as relevant for the setting of unit rates under Article 17(1) of Implementing Regulation (EU) 2019/317.

By way of derogation from Article 29(5) of Implementing Regulation (EU) 2019/317, those adjustments shall be spread equally over 5 calendar years, starting in the year following the year in which the performance plan has been adopted.

Article 5(5) of Implementing Regulation (EU) 2020/1627

The national supervisory authority may decide to extend the time period referred to in paragraph 4 to a maximum of 7 calendar years, where this is necessary in order to avoid a disproportionate effect of the carry-overs on the unit rates charged to airspace users.

Article 5(4) of Implementing Regulation (EU) 2020/1627 introduced a derogation from the basic rule set out in Article 29(5) of Implementing Regulation (EU) 2019/317 concerning unit rate adjustments

relating to the temporary application of the unit rate, as it requires Member States to spread those adjustments over a period of 5 calendar years instead of the two calendar years. The adjustments will have to be applied starting in the year following the year in which the performance plan has been adopted.

Article 5(4) requires corresponding unit rate adjustments to be spread equally, i.e. the carry-overs from the total revenue difference resulting from the temporary application of the draft performance plan should be equal for each calendar year concerned. This is to ensure that carry-overs do not have a disproportionate effect on the unit rate calculations.

In cases where the spreading of carry-overs over 5 calendar years would still have a disproportionate effect on the unit rate calculations, on the basis of Article 5(5) of Implementing Regulation (EU) 2020/1627, NSAs may decide to extend the spreading over a period of up to 7 years to further mitigate this effect. It is the responsibility of the NSA to assess the magnitude of the total revenue difference to be carried over and whether such an extension is necessary and appropriate to keep carry-overs proportionate.

The resulting unit rate adjustments are calculated on the basis of the total aggregated difference in revenue for all the calendar years concerned. As regards the calculations stemming from the final year in which the unit rate was temporarily applied (i.e. year of adoption of the final performance plan), it is acknowledged that final data on traffic will only become available after that year has ended.

Therefore, any revenue difference relating to the year of the adoption of performance plan should be treated as follows under Article 29(5) of Implementing Regulation (EU) 2019/317:

- <u>For performance plans adopted between January and October of year n:</u>

  The Member State should not include any adjustment stemming from the year of adoption of the performance plan in the first unit rate adjustment applied in year n+1. That unit rate adjustment will be calculated in respect of the previous calendar years. The adjustment resulting from the year of adoption of the performance plan will be calculated once final data for that year has become available, i.e. in the year following the adoption of the performance plan, and then spread equally over the remaining time period foreseen for the adjustments stemming from Article 29(5).

- <u>For performance plans adopted in November or December of year n:</u>

  The Member State should only include an adjustment based on the outcome of the first 9 months of the year of adoption of the performance plan as part of the first unit rate adjustment applied in year n+1. Hence, the first unit rate adjustment under Article 29(5) will comprise the adjustments relating to the previous calendar years and the 9-month period of the year adoption of the performance plan. The adjustment resulting from the final 3 months will be calculated once final data for that year has become available, i.e. in the year following the adoption of the performance plan, and then spread equally over the remaining time period foreseen for the adjustments stemming from Article 29(5).

4.11.2.3 Application in conjunction with Article 18

> ***Article 29(5) of Implementing Regulation (EU) 2019/317, 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.*

In accordance with Article 18(1) of Implementing Regulation (EU) 2019/317, Member States may request a revision of their performance plan 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) its revised performance plan containing the revised performance targets.

Article 18(2) stipulates that the revision of performance plans shall not have a retroactive effect. Hence, requests for revision may not concern any calendar year which has already ended. However, 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 following its submission.

Where this situation occurs and the adopted revised performance plan includes revised cost-efficiency targets for the year of submission of the request for revision and/or for the year of adoption of the revised performance plan, the provisions of the third subparagraph of Article 29(5) apply in respect of 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. Derogations from Implementing Regulation (EU) 2019/317 which are laid down in Implementing Regulation (EU) 2020/1627 do not affect the revision of adopted performance plans during the reference period and resulting adjustments under Article 29(5).

The resulting unit rate adjustments shall be applied in years n+1 and n+3 following the adoption of the revised performance plan. They are to be calculated on the basis of the total aggregated difference in revenue for the calendar years concerned. As regards the calculations stemming from year of adoption of the revised performance plan, it is acknowledged that final data on traffic will only become available after that year has ended.

Therefore, any revenue difference under Article 29(5) relating to the year of the adoption of revised performance plan should be treated as follows:

- <u>For revised performance plans adopted between January and October of year n:</u>

  The Member State should not include any adjustment stemming from the year of adoption of the revised performance plan in the first unit rate adjustment applied in year n+1. The adjustment under Article 29(4) resulting from the year of adoption of the revised performance plan will be calculated once final data for that year has become available, and applied in full in year n+3.

- <u>For revised performance plans adopted in November or December of year n:</u>

  The Member State should only include an adjustment based on the outcome for the first 9 months of the year of adoption of the revised performance plan as part of the first unit rate adjustment

applied in year n+1. The adjustment under Article 29(4) resulting from the final 3 months will be calculated once final data for that year has become available and applied in full in year n+3.

4.12 Adjustments for differences in revenue referred to in Article 29(4)

This section outlines the principles which are applicable to adjustments for differences in revenue as described under Article 29(4) as well as providing practical technical supporting material on reporting requirements.

4.12.1 Principles

Article 29(3) of Implementing Regulation (EU) 2019/317

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.

Article 29(4) of Implementing Regulation (EU) 2019/317

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.

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

In accordance with Article 29(3), the Commission is required to verify the compliance of unit rates with the requirements contained in Article 25(2). If a unit rate is deemed non-compliant by the Commission, the Member State in question is required to revise its unit rates in due course. Where this revision occurs during the calendar year to which the unit rate applies, Article 29(4) enables the retroactive application of the revised unit rate from the beginning of that calendar year through an adjustment of unit rates in the two following calendar years.

4.12.2 Adjustments

A revision of the unit rate after the beginning of the year to which it refers would cause a difference in revenue for ANSPs during year n, leading to the adjustments described in Article 29(4).

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

- the actual revenue collected after 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;
- the actual revenue that would have been collected over the same period (i.e. from 1 January of the year to which it relates until the day of adoption) 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.

In such case, the unit rate would be adjusted in two steps: a first adjustment would take place in the year following the revision of the unit rate, and a final adjustment would take place two years after the year in which the unit rate was first adjusted.

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.

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').

4.12.3 Special rules

The carry-overs related to the retroactive application of the unit rate should be reported in a transparent manner. Table 2 and Table 3 of Annex IX of Implementing Regulation (EU) 2019/317 do not foresee a separate point for adjustments to be reported under Article 29(4). Although the adjustments in accordance with Article 29(4) are not explicitly listed in Article 25(2), the reporting of such adjustments is still required to ensure compliance with Implementing Regulation (EU) 2019/317 and will be enforced by the Commission.

Under the current arrangements, Member States should therefore include the carryovers resulting from the temporary application of the unit rate in the calculation under line 8.2 in Table 2 – Unit rate calculation of Annex IX and under "Total revenue differences from temporary application of UR (Art. 29(5))" in Table 3 – Complementary information on adjustments.

The additional information provided by the Member State should include a proper allocation of the amounts which are jointly reported with those related to the application of Article 29(5) as a breakdown of each year concerned.

4.13 Adjustments deriving from previous reference periods

This section provides an outline of adjustments stemming from previous reference periods (i.e. RP1 and RP2).

In accordance with Article 25(2)(l), adjustments to the unit rate of year n may also comprise carry-overs from previous reference periods. Those adjustments are calculated and applied in accordance with the relevant legal basis for the reference concerned, i.e. Commission Implementing Regulation (EU) 391/2013 for RP2, and Commission Regulation (EC) 1794/2006 (as amended by Commission Regulation (EC) 1191/2010) for RP1.

In conjunction with their reporting tables on the unit rate calculation (Table 2, contained in Annex IX of Implementing Regulation (EU) 2019/317), Member States are required to provide adequate information together with a breakdown concerning the adjustments from previous reference periods impacting the unit rate calculation. These should be detailed in accordance with point 4(k) of Annex IX, separately for each charging zone.

The possible outstanding carry-overs from RP1 and RP2 are mapped in the tables below for information purposes.

4.13.1 Adjustments from RP1

Adjustment	Reference to R 1794/2006	Rules applied	Possible carry-overs
Traffic risk sharing mechanism when the service units are lower than the forecast	Article 11a(4)	Where, over a given year n, the actual number of service units exceeds the forecast established at the beginning of the reference period by more than 2 %, a minimum of 70 % of the additional revenue obtained by the air navigation service provider(s) concerned in excess of 2 % of the difference between the actual service units and the forecast with regard to determined costs shall be returned to airspace users no later than in year n+2. Where, over a given year n, the actual number of service units falls below the forecast established at the beginning of the reference period by more than 2 %, a maximum of 70 % of the loss in revenue incurred by the air navigation service provider(s) concerned in excess of 2 % of the difference between the actual service units and the forecast with regard to determined costs shall be borne by the airspace users in principle no later than in year n+2. However, Member States may decide to spread the carry -over of such loss in revenue over several years with a view to preserving the stability of the unit rate.	RP3 (only if carry-overs have been spread beyond RP2)
Traffic risk sharing mechanism when the service units are significantly lower than the forecast	Article 11a(6)	Where, over a given year n, the actual service units are lower than 90 % of the forecast established at the beginning of the reference period, the full amount of the loss in revenue incurred by the air navigation service provider(s) concerned in excess of the 10 % of the difference between the actual service units and the forecast in respect of determined costs shall be borne by the airspace users in principle no later than in year n+2.	RP3 (only if carry-overs have been spread beyond RP2)

Adjustment	Reference to R 1794/2006	Rules applied	Possible carry-overs
		However, Member States may decide to spread the carry-over of such loss in revenue over several years with the view to preserving the stability of unit rate. Where, over a given year n, the actual service units exceed 110% of the forecast established at the beginning of the reference period, the full amount of the additional revenue obtained by the air navigation service provider(s) concerned in excess of the 10% of the difference between the actual service units and the forecast in respect of determined costs shall be returned to airspace users in year n+2.	

4.13.2 Adjustments from RP2

Adjustment	Reference to IR 391/2013	Rules applied	Possible carry-overs
Adjustment due to differences between forecasted and actual inflation	Article 7(1) Calculation of costs	(…) The determined costs expressed in nominal terms prior to the reference period and the determined costs adjusted on the basis of the difference between the actual inflation recorded by the Commission in the Eurostat Harmonised Index of Consumer Price as published in April of year n and the inflation assumption as specified in the performance plan for the year preceding the reference period and for each year of the reference period, shall be carried over in year n+2 for the calculation of the unit rate. (…)	2020-2021
Adjustments relating to traffic variations for specific cost items	Article 13(2), first subparagraph Traffic risk sharing	The following costs shall not be submitted to traffic risk-sharing and shall result in an increase or reduction of the determined costs in (a) subsequent year(s) irrespective of traffic evolution: (a) the determined costs established in accordance with Article 6(2) with the exception of agreements relating to cross border air traffic service provision; (b) the determined costs for meteorological services;(c) the	2020-2021 and all the subsequent years under RP3

Adjustment	Reference to IR 391/2013	Rules applied	Possible carry-overs
		adjustment due to differences between forecasted and actual inflation as referred to in Article 7(1); (d) the recovery of restructuring costs, if authorised in accordance with Article 7(4); (e) the carry-over resulting from the implementation of the traffic risk-sharing mechanism; (f) the carry-overs authorised from the previous reference period resulting from the implementation of the cost sharing mechanism referred to in Article 14; (g) bonuses or penalties resulting from financial incentive schemes referred to in Article 15; (h) the over-or under-recoveries that may result from the modulation of air navigation charges in application of Article 16; (i) the over-or under-recoveries resulting from traffic variations; (j) for the second reference period, the over- or under- recoveries incurred by Member States up to and including the year 2011 in respect to *en route* and 2014 in respect to terminal air navigation services. In addition, Member States may exempt from traffic risk-sharing 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.	
Traffic risk sharing mechanism when the service units are higher than the forecast	Article 13(4) first sub-paragraph and 13(5) Traffic risk sharing, second sub-paragraph	Where, over a given year n, the actual number of service units exceeds the forecast established in the performance plan for that year n <u>by more than 2 %, a minimum of 70 % of the additional revenue</u> obtained by the air navigation service provider(s) concerned in excess of 2 % of the difference between the actual service units and the forecast in respect of determined costs established in the performance plan shall result in a corresponding reduction of the determined costs of year n+2. (…)	2020-2021

Adjustment	Reference to IR 391/2013	Rules applied	Possible carry-overs
		Where, over a given year n, the actual number of service units exceed 110 % of the forecast established in the performance plan for that year n, the full amount of the additional revenue obtained by the air navigation service provider(s) concerned in excess of 10 % of the difference between the actual service units and the forecast in respect of determined costs established in the performance plan shall result in a corresponding reduction of the determined costs of year n+2.	
Traffic risk sharing mechanism when the service units are lower than the forecast	Article 13(4), second sub-paragraph and 13(5) Traffic risk sharing, first paragraph	Where, over a given year n, the actual number of service units falls below the forecast established in the performance plan for that year n by more than 2 %, a maximum of 70 % of the revenue loss incurred by the air navigation service provider(s) concerned in excess of 2 % of the difference between the actual service units and the forecast in respect of determined costs established in the performance plan shall result in a corresponding increase of the determined costs starting not earlier than year n+2. (…) Where, over a given year n, the actual number of service units is lower than 90 % of the forecast established in the performance plan for that year n, the full amount of the revenue loss incurred by the air navigation service provider(s) concerned in excess of 10 % of the difference between the actual service units and the forecast in respect of determined costs established in the performance plan shall result in a corresponding increase of the determined costs starting not earlier than year n+2.	2020-2021, 2022, 2023, 2024 and subsequent RPs
Adjustments relating to cost risk sharing (costs exempt)	Article 14(2)(d) and 14(2)(e) Cost sharing	(d) Where, over the whole reference period, as a result of deducting costs from the scope of paragraph 2(a), actual costs are lower than the determined costs established at the beginning of the reference period, the resulting difference shall be returned	2020-2021, 2022, 2023, 2024 and subsequent RPs

Adjustment	Reference to IR 391/2013	Rules applied	Possible carry-overs
		to airspace users through a carry over to the following reference period(s). (e) Where, over the whole reference period, as a result of including costs within the scope of paragraph 2(a), actual costs exceed the determined costs established at the beginning of the reference period, the resulting difference shall be passed on to airspace users through a carry over to the following reference period(s).	
Incentive schemes	Article 15(1) , second sub-paragraph point (a) Incentive schemes for air navigation service providers	Such financial incentive schemes shall conform to the following principles: (a) the unit rate of year n+2 shall be adjusted to provide for a bonus for exceeding or penalty for under-achievement according to the actual performance level of the air navigation service provider in year n against the relevant target (…)	2020-2021
Adjustments related to modulation of charges	Article 16(1) , second sub-paragraph Modulation of air navigation charges	The modulation of charges shall not result in any overall change in revenue for the air navigation service provider. Over- or under recoveries shall be passed on to the following period.	RP3

5 Setting of unit rates

This chapter provides technical supporting material on the implementation of the annual procedure to set unit rates for each charging zone as laid down in Article 29 of Implementing Regulation (EU) 2019/317.

As outlined in the previous chapter, 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).

Pursuant to Article 17(2) of Implementing Regulation (EU) 2019/317, it is to be reminded that 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 Implementing Regulation (EU) 2019/317***
>
> *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.*

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 Implementing Regulation (EU) 2019/317. 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.

5.1 Procedure

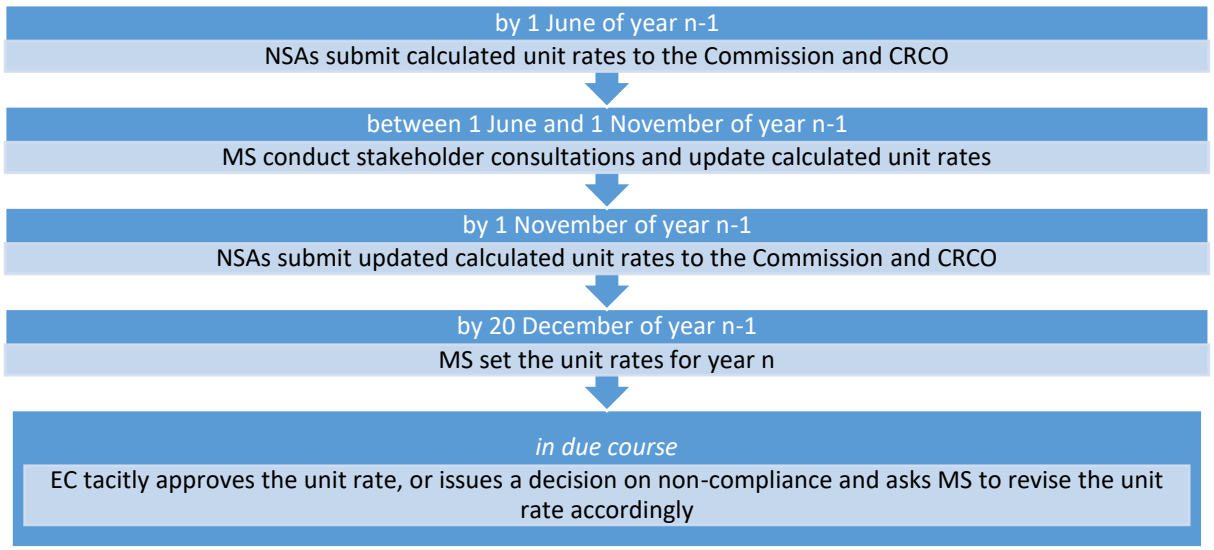


Figure 2 – Summary of the procedure to set unit rates

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

Implementing Regulation (EU) 2019/317 describes the initial submission, the possible update, the final submission and the formal setting of unit rates.

5.2 Initial unit rate submission

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 1 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.

The information provided in the submission also form the basis of discussions on the *en route* charges component within the Enlarged Committee for Route Charges of Eurocontrol, which usually convenes in late June.

Each submission should include the following elements required pursuant to Article 29(2)(a) of Implementing Regulation (EU) 2019/317:

- Annex VII – Reporting table of total costs and unit costs (Table 1)

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. 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.

In addition, Table 1 should also be used to report on total costs and unit costs for each airport that is subject to the Regulation (i.e. airports with more than 80,000 IFR movements per year). In Member States where the provisions of the 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.

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 incurring costs in a charging zone;
- Aggregated reporting table of information on ANSPs and NSAs per charging zone (including information on common charging zones extending across several Member States, if applicable);
- 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 Regulation apply (if applicable).

In Table 2 and Table 3 of Annex IX of Implementing Regulation (EU) 2019/317, NSAs are required to identify the carryovers from previous years relating to those cost items. The carryovers identified in the reporting tables are the basis for the application of the cost risk-sharing mechanism which may result in adjustments to the unit rate in year n+2 in accordance with Article 28(4).

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.

- Annex VII – Additional information to the reporting tables on total costs and unit costs

To enable the Commission to conduct a transparent assessment of the data submitted, Member States are required to provide additional information to the reporting tables on total costs and unit costs. The requirements for the submission of additional information are listed under Annex VII, points 2.1 (a) to (j) and points 2.2 (a) to (e). Such clarifications 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.

- Annex IX – Reporting table on unit rate calculations (Table 2)

Member States have to provide, using Table 2 contained in Annex IX of Implementing Regulation (EU) 2019/317, a consolidated reporting table for the charging zone with aggregated data covering all the relevant entities. Furthermore, it is required for Member States to provide for information purposes a separate table detailing the data for each relevant entity incurring costs in the charging zone.

- Annex IX – Reporting tables on complementary information on adjustments (Table 3)

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 Implementing Regulation (EU) 2019/317.

The submission of information on adjustments complements the information presented in the reporting tables on unit rate calculations.

- Annex IX – Reporting tables on complementary information on common projects and on revenues from Union assistance programmes (Table 4)

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.

- Annex IX – Additional information to the reporting tables

Together with the numerical information included in the reporting tables on unit rate calculation and on complementary information on adjustments, Member States must provide additional information to clarify some of the items listed in the tables. Point 4 of Annex IX of Implementing Regulation (EU) 2019/317 specifies the items for which additional descriptions and/or information are required.

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 ESSKY portal of the European Commission.

5.3 Updated unit rate submission

5.3.1 Scope of the consultation

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.[18] This consultation is required in accordance with Article 30(1) of Implementing Regulation (EU) 2019/317.

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 Implementing Regulation (EU) 2019/317:

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

Furthermore, with reference to the exceptional provisions for RP3 laid down in Implementing Regulation (EU) 2020/1627, the consultation should comprise the following additional two elements:

- Spreading of adjustments under Article 29(5) of Implementing Regulation (EU) 2019/317
    - In accordance with Article 5(5) of Implementing Regulation (EU) 2020/1627, the NSA may decide to spread related adjustments over a period of up to 7 calendar years (instead of a period of 5 years, which would apply by default) to avoid a disproportionate effect of the carry-overs on the unit rate. Such a decision should be subject to the prior consultation of stakeholders.
- Spreading of traffic risk sharing adjustments and adjustments for traffic variations deriving from calendar years 2020 and 2021
    - The consultation should cover how the NSA intends to spread the combined adjustments for calendar years 2020/2021 between calendar years 2023 and 2024 in accordance with Article 5(1) and 5(2) of Implementing Regulation (EU) 2020/1627.

It is advised that the annual consultation on unit rates also includes the elements referred to in Article 24(3) of Implementing Regulation (EU) 2019/317 and under point 1 of Annex XII of that Regulation:

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

The evolution of costs referred to in Article 28(3) is 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).

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

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

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.

5.3.2 Consultation arrangements

In accordance with Article 30(1), the annual consultation on unit rates must be held by 1 August.

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 Article 30(2) of Implementing Regulation (EU) 2019/317. Member States should also inform the Commission about the outcome of the consultation once the stakeholder consultation has been concluded.

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.

In addition to the local consultations on *en route* and terminal charges at Member State level, the Enlarged Committee for Route Charges of Eurocontrol, which usually convenes in late June, will provide Member States with feedback from airspace users on the *en route* charges component of their respective submission.

5.3.3 Update of the calculated unit rates

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 Implementing Regulation (EU) 2019/317;
- 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 Art. 28(4); and
- Information included in the latest draft performance plan if submitted between 1 June and 1 November.

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.

5.3.4 Submission of the updated calculated unit rates

The NSA of the Member State concerned must submit the information on the updated calculated unit rate or rates before 1 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 European Commission.

5.4 Adoption of unit rates

Following the submission of updated unit rates by 1 November of year n-1, the Enlarged Committee for Route Charges of Eurocontrol convenes in late November to adopt the unit rates. The Enlarged Commission of Eurocontrol will take a decision approving the unit rates and their entry into force. Simultaneously, the European Commission verifies the updated calculated unit rates submitted by Member States in accordance with Article 29(3), as outlined above.

Member States are required to formally set unit rates at local level by 20 December of year n-1 through the applicable national procedures, and inform the Commission thereof (Article 29(2)(c) of Implementing Regulation (EU) 2019/317). To do so, Member States should 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.

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.

5.5 Verification of unit rates

Article 29(3) of Implementing Regulation (EU) 2019/317

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.

Compliance with Article 25(2) of Implementing Regulation (EU) 2019/317 is an integral requirement of the setting of unit rates. The verification by the Commission services[19] ensures that the calculations and adjustments are made in accordance with the principles laid down in Article 25. 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.

After the first unit rate submission by 1 June of year n-1, the Commission services (who are under current working arrangements supported in this respect by Eurocontrol) will 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 will inform the Member State concerned and require that Member State to update the unit rate or elements thereof accordingly (which depending on the assessment of the submission may take place multiple times). The raised findings may include (but not be limited to) inaccurate calculations due to technical mistakes.

[19] With the support of the Eurocontrol Performance Review Unit (PRU) under the Agreement

Any request by the Commission services (or Eurocontrol acting on its behalf) should be addressed by the Member State concerned either through an update of the unit rate calculation or, where appropriate or requested, by providing 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 will need to demonstrate in the subsequent submission by 1 November that such feedback was taken into account.

After the second submission by 1 November, the Commission services will 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 will also assess whether the Member States has adequately addressed the feedback received after the first submission.

If the Member State has failed to address such issues, or if new shortcomings of the submission are identified, the Commission services will notify the Member State with a request to address the outstanding issues accordingly.

In contrast to the procedures that were applicable during RP2, under the RP3 Regulation the Commission no longer issues decisions on the compliance of the unit rates, i.e. if calculations are not found to raise any concern in respect of compliance with the requirements set out in Article 25(2). 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).

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.

6 Calculation of service units and charges

This chapter provides technical supporting 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 Implementing Regulation (EU) 2019/317.

6.1 Service units

This section focuses on the rules for the calculation of *en route* and terminal service units, as set out Annex VIII of Implementing Regulation (EU) 2019/317 details

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.

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 Implementing Regulation (EU) 2019/317, while the calculation of terminal service units is done in accordance with point 2 of Annex VIII of that Implementing Regulation.

6.1.1 *En route* service units

Formula for en route service units

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

Distance factor for flight concerned * *En route* weight factor for flight concerned = *En route* service units for the flight concerned in a given charging zone

En route distance factor

The distance factor in RP3 is based on the actual route flown as recorded by the Network Manager. The distance factor is obtained as follows:

Distance factor = Distance flown in charging zone / 100

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

Distance flown in charging zone = Actual great circle distance in km between entry point to and exit point from charging zone -20 km, if entry point is aerodrome of departure -20 km, if exit point is aerodrome of arrival

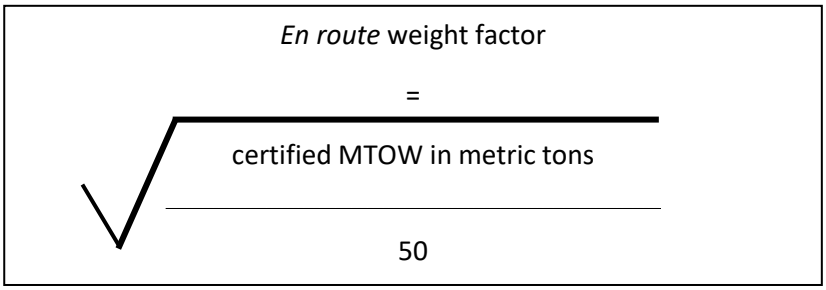
For the calculation of the distance factor, a significant update occurred from RP2 to RP3, as the actual route flown as recorded by the Network Manager (NM) is now taken into account, whereas in RP2 the calculation was based on the last flight plan filed.

The actual trajectory (also called M3 trajectory in NEST20 terminology) for any given flight is determined based on available radar information. 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

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.

[20] 'NEST' refers to the Network strategic modelling tool of Eurocontrol.



In accordance with points 1.3 and 1.4 of Annex VIII of Implementing Regulation (EU) 2019/317, 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.

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 Implementing Regulation (EU) 2019/317).

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.

EUROCONTROL publishes and updates as required a document detailing the fleet declaration requirements, which can be found here.

6.1.2 Terminal service units

Formula for terminal service units

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

Terminal weight factor of the aircraft concerned

=

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

Terminal weight factor

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).

As presented below, the terminal weight factor is obtained by dividing the number of metric tons in the highest certified take-off weight (MTOW) of the aircraft divided by 50 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

=

certified MTOW in metric tons

$$\frac{\text{certified MTOW in metric tons}}{50^{0.7}}$$

The principles for the determining the take-off weight of the aircraft to be taken into account for the calculation of the 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 Implementing Regulation (EU) 2019/317, presented in the previous subsection.

6.2 ANS charges

6.2.1 Calculation

In accordance with Article 31(1) and (2), 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.

Unit rate for the charging zone

*

service units for flight

=

charge incurred for services in the charging zone concerned

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.

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.

For the *en route* charge, when calculating the distance flown, a deduction of 20 kilometers from 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.

6.2.2 Collection

As per Article 33(1) of Implementing Regulation (EU) 2019/317, 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.

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'.

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.

Article 33(2) of Implementing Regulation (EU) 2019/317 requires airspace users to promptly and fully pay the air navigation charges which are chargeable to them. Where required, Article 33(4) of Implementing Regulation (EU) 2019/317 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.

Article 33(2) of Implementing Regulation (EU) 2019/317 requires Member States to ensure that the amounts collected on their behalf are used to finance the determined costs in accordance with Implementing Regulation (EU) 2019/317.

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 shall be added to the unit rate concerned. Also on the collection of charges by Member States it is essential to state 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 to airspace users incurring chargeable service units, whereas Member States on the other hand 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 Implementing Regulation (EU) 2019/317.