# Performance Plan Ireland

Third Reference Period (2020-2024)

Status: Draft performance plan containing revised RP3 targets (Art. 3 of IR 2020/1627 & Art. 12 of IR

Date of issue: 4.45E+04

#### **1** INTRODUCTION

- 1.1 THE SITUATION
- **1.2 TRAFFIC FORECASTS**
- **1.3 STAKEHOLDER CONSULTATION**
- 1.4 LIST OF AIRPORTS SUBJECT TO THE PERFORMANCE AND CHARGING REGULATION
- **1.5 SERVICES UNDER MARKET CONDITIONS**
- **1.6 FAB PROCESS**
- **1.7 SIMPLIFIED CHARGING SCHEME**

#### **2 INVESTMENTS**

#### **3 PERFORMANCE TARGETS AT LOCAL LEVEL**

3.1 SAFETY TARGETS

3.1.1 Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

**3.2 ENVIRONMENT TARGETS** 

3.2.1 Environment KPI #1: Horizontal en route flight efficiency (KEA)

- **3.3 CAPACITY TARGETS** 
  - 3.3.1 Capacity KPI #1: En route ATFM delay per flight
  - 3.3.2 Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight
- **3.4 COST-EFFICIENCY TARGETS** 
  - 3.4.1 Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS
  - 3.4.2 Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS
  - 3.4.3 Pension assumptions
  - 3.4.4 Interest rate assumptions for loans financing the provision of air navigation services
  - 3.4.5 Restructuring costs

*3.4.6 Additional determined costs related to measures necessary to achieve the en route capacity targets* 

- 3.5 ADDITIONAL KPIS / TARGETS
- 3.6 INTERDEPENDENCIES AND TRADE-OFFS

#### **4 CROSS-BORDER INITIATIVES AND SESAR IMPLEMENTATION**

- 4.1 CROSS-BORDER INITIATIVES AND SYNERGIES
  - 4.1.1 Planned or implemented cross-border initiatives at the level of ANSPs
  - 4.1.2 Investment synergies achieved at FAB level or through other cross-border initiatives
- 4.2 DEPLOYMENT OF SESAR COMMON PROJECT
  - 4.2.1 Common Project One (CP1)
- 4.3 CHANGE MANAGEMENT

#### **5 TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES**

- 5.1 TRAFFIC RISK SHARING PARAMETERS
- 5.2 CAPACITY INCENTIVE SCHEMES
  - 5.2.1 Capacity incentive scheme Enroute
  - 5.2.2 Capacity incentive scheme Terminal
- 5.3 OPTIONAL INCENTIVES

#### 6 IMPLEMENTATION OF THE PERFORMANCE PLAN

6.1 MONITORING OF THE IMPLEMENTATION PLAN

6.2 NON-COMPLIANCE WITH TARGETS DURING THE REFERENCE PERIOD

#### 7 ANNEXES

ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE) ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL) ANNEX C. CONSULTATION ANNEX D. LOCAL TRAFFIC FORECASTS ANNEX E. INVESTMENTS ANNEX F. BASELINE VALUES (COST-EFFICIENCY) ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING ANNEX H. RESTRUCTURING MEASURES AND COSTS ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES ANNEX J. OPTIONAL KPIS AND TARGETS ANNEX K. OPTIONAL INCENTIVE SCHEMES ANNEX L. JUSTIFICATION FOR SIMPLIFIED CHARGING SCHEME ANNEX M. COST ALLOCATION ANNEX N. CROSS-BORDER INITIATIVES ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS **ANNEX S. INTERDEPENDENCIES** ANNEX T. OTHER MATERIAL ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

- ANNEX Z. CORRECTIVE MEASURES\*
- \* Only as per Article 15(6) of the Regulation

# Signatories

	Performance plan details
State name	Ireland
Status of the Performance Plan	Draft performance plan containing revised RP3 targets (Art. 3 of IR 2020/1627 & Art. 12 of IR 2019/317)
Date of issue	01/10/2021
Date of adoption of Draft	01/10/2021
Performance Plan	
Date of adoption of Final	
Performance Plan	

We hereby confirm that the present performance plan is consistent with the scope of Regulation (EU) No 2019/317 pursuant to Article 1 of Regulation (EU) No 2019/317 and Article 7 of Regulation (EC) No 549/2004.

# Name, title and signature of representative Fintan Towey Director General of Civil Aviation in Ireland

Additional comments

Document change record						
Date	Reason for change					

#### 1.1 The situation

- 1.1.1 List of ANSPs and geographical coverage of services
- 1.1.2 Other entities in the scope of the Performance and Charging Regulation as per Article 1(2) last para.
- 1.1.3 Charging zones (see also 1.4-List of Airports)
- 1.1.4 Other general information relevant to the plan

#### 1.2 - Traffic Forecasts

- 1.2.1 En route
- 1.2.2 Terminal

#### 1.3 - Stakeholder consultation

- 1.3.1 Overall outcome of the consultation of stakeholders on the performance plan
- 1.3.2 Specific consultation requirements of ANSPs and airspace users on the performance plan
- 1.3.3 Consultation of stakeholder groups on the performance plan

#### 1.4 - List of airports subject to the performance and charging Regulation

- 1.4.1 Airports as per Article 1(3) (IFR movements  $\geq$  80 000)
- 1.4.2 Other airports added on a voluntary basis as per Article 1(4)

#### 1.5 - Services under market conditions

#### 1.6 - Process followed to develop and adopt a FAB Performance Plan

1.7 - Establishment and application of a simplified charging scheme
1.7.1 - Scope of the simplified charging scheme
1.7.2 - Conditions for the application of the simplified charging scheme

#### Annexes of relevance to this section

ANNEX C. CONSULTATION ANNEX D. LOCAL TRAFFIC FORECASTS ANNEX L. JUSTIFICATION FOR SIMPLIFIED CHARGING SCHEME

# **1 - INTRODUCTION**

#### 1.1 - The situation

NSA(s) responsible for drawing up the IAA Safety Regulation Division (SRD), and Commission for Aviation Regulation (CAR) Performance Plan

#### 1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs		2			
ANSP name	Services	Geographical scope			
IAA	ANS Provision	Republic of Ireland			
Met Eireann Aviation Services	Meteorological	Republic of Ireland			
Division (ASD)	services for ANS				

#### Cross-border arrangements for the provision of ANS services

Number CB arrangements where ANSPs provide services in an other State	0
-----------------------------------------------------------------------	---

0

Number CB arrangements where ANSPs from another State provide services in the State

#### 1.1.2 - Other entities in the scope of the Performance and Charging Regulation as per Article 1(2) last para.

Number of other entities 3

Entity name	Domain of activity	Rationale for inclusion in the Performance Plan			
IAA SRD	National Supervisory Authority	Qualifying entity incurring eligible costs as per Article 15(2) of Regulation (EC) No 550/2004			
CAR	National Supervisory Authority	Qualifying entity incurring eligible costs as per Article 15(2) of Regulation (EC) No 550/2004			
Department of Transport, Air Navigation Services division	Member State	Qualifying entity incurring eligible costs as per Article 15(2) of Regulation (EC) No 550/2004			

#### 1.1.3 - Charging zones (see also 1.4-List of Airports)

En-route	Number of en-route charging zones 1	
En-route charging zone 1	Ireland	
Terminal	Number of terminal charging zones	1
Terminal charging zone 1	Ireland - TCZ	

#### 1.1.4 - Other general information relevant to the plan

This Performance Plan is accompanied by and should be read alongside the NSA's consultation document published in July 2021, our decision document where we address the consultation reponses received, and our updated main Performance Plan financial model which shows the

derivation of figures, charts, and forecasts. The IAA ANSP Business Plan is also published and referenced where appropriate. This material is also published on the following page: https://www.aviationreg.ie/air-navigation-charges/performance-plan-with-revised-targets-for-rp3.1002.html Other material which is appended to the revised Performance Plan are the business plan submissions from the regulated entities and the consultation responses recieved, which are also published on that page.

Relevant local circumstances with high significance for performance target setting and updated view on the impact of the COVID-19 crisis on the operational and financial situation of ANSPs covered in the performance plan

Overall, the draft Performance Plan aligns with the safety, capacity, and environment targets, and on a weighted average basis, outperforms the weighted average EU wide DUC target. Local circumstances mean that performance against the DUC target is varied over the period, with significant outperformance in 2020/2021, underperformance in 2022, and performance close to the targets for 2023 and 2024 (slight outperformance). In particular, the commissioning of new facilities such as the En Route Contingency Centre (CEROC), and the relatively slow recovery in En Route service units in 2022 currently forecast for Ireland by Statfor, has impacted the DUC for 2022. The CEROC will enhance the capability of the IAA ANSP to reliably provide the required level of safety, capacity, and environmental performance for En Route traffic.

At the terminal level, a major project will be delivered later this year in order to facilitate the commencement of dual runway operations at Dublin Airport, now expected from August 2022; a new €50m control tower. As well as the associated capital cost, the NSA forecasts that an increase in ATCO staffing levels will be required from 2023 in order to staff the new positions, and more engineers associated with the increased infrustructural footprint of the IAA ANSP and increased scope of services it will be providing.

As with other ANSP's, the COVID-19 crisis led to a large reduction in revenue, with service falling by approximately 60% relative to 2019. However, the IAA ANSP entered the crisis in a strong financial position and funded the revenue gap through retained earnings rather than debt. The NSA has carried out a financial stress test of the IAA ANSP, details of which are contained in our decision document.

#### Additional comments

In line with Irish government policy, the institutional framework for the provision of air navigation services, and the oversight of these services, is currently undergoing a process of change. The Irish Aviation Authority (IAA) is being separated into its two constituent parts, the Air Navigation Services Provider (ANSP), and the Safety Regulation Division (SRD). SRD will remain as the IAA, while the ANSP will be incorporated as a new commercial company. The existing, separate Commission for Aviation Regulation (CAR), which has roles in economic regulation, licensing, and consumer protection in aviation, will then be merged into the IAA to form a new independent sectoral regulator with responsibility for aviation regulation in relation to safety, security, licensing, economic regulation, and passenger rights.

The development and submission of the original RP3 Performance Plan in 2019 was carried out within the IAA, as the designated NSA under the SES performance and charging regulation. The designation as NSA responsible for economic regulation and cost efficiency was transferred to CAR on 1 January 2020. The SRD function of the IAA has retained NSA responsibilities under the SES other than economic regulation, including safety oversight and licensing.

When the merger is completed, all of these oversight functions will sit within the new regulator. Where we refer to 'the NSA', this should be taken to mean both CAR and the IAA SRD jointly, in advance of vesting day. From vesting day, 'the NSA' should be taken to refer to the IAA. Where we refer to 'the IAA ANSP', in advance of vesting day, this refers to the ANSP currently contained within the IAA. From vesting day, 'the IAA ANSP' should be taken to refer to the Designated Activity Company (DAC) referred to in Section 10 of the Air Navigation and Transport Bill 2020. We currently understand that this company is likely to trade under the name 'AirNav Ireland'.

For further detail, see section 2 of the Consultation document.

# 1.2 - Traffic Forecasts

#### 1.2.1 - En route

En route Charging zone 1	Ireland								
En route traffic forecast	STATF	OR Base f	orecast N	1AY 2021	(Flight Pla	n 2017-19	), Actual R	oute 202	0-2024)
STATFOR Base forecast MAY 2021 (Flight Plan 2017-19, Actual Route 2020- 2024)	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	621	635	647	263	277	459	562	652	0.2%
IFR movements (yearly variation in %)		2.3%	1.8%	-59.3%	5.2%	65.8%	22.5%	16.0%	
En route service units (thousands)	4,465	4,550	4,641	1,988	2,072	3,202	4,039	4,726	0.4%
En route service units (yearly variation in %)		1.9%	2.0%	-57.2%	4.2%	54.6%	26.1%	17.0%	

#### 1.2.2 - Terminal

Terminal Charging zone 1 Ireland - TCZ									
Terminal traffic forecast	STATFOR Base forecast MAY 2021								
STATFOR Base forecast MAY 2021	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	132.2	137.9	140.7	53.8	58.6	104.4	122.4	140.4	-0.1%
IFR movements (yearly variation in %)		4.3%	2.0%	-61.8%	8.9%	78.1%	17.2%	14.7%	
Terminal service units (thousands)	171.7	182.5	187.7	70.5	76.7	136.1	163.3	188.3	0.1%
Terminal service units (yearly variation in %)		6.3%	2.8%	-62.4%	8.8%	77.4%	20.0%	15.3%	

## 1.3 - Stakeholder consultation

#### 1.3.1 - Overall outcome of the consultation of stakeholders on the performance plan

Description of main points raised by stakeholders and explanation of how they were taken into account in developing the performance plan

The IAA ANSP and Staff Panel are concerned that the assigned environment KPA target is too ambitious, and that it is not within their control to meet this target. This was considered by the NSA and is discussed further in the decision document, however the NSA decided not to deviate from the national reference value. They also consider that the NSA's cost proposals were insufficient to achieve the capacity targets. On the other hand, the airspace users generally supported the proposed capacity and environment targets. No party disagreed with the proposed safety targets.

The IAA ANSP and staff panel disagreed with the Operating Cost forecasts developed by Steer on behalf of the NSA, considering them to be unachievably low in order to sustain service quality. On the other hand, the airspace users and their representatives generally considered that the real increases in costs relative to 2019 were not fully justified, and requested a further review of the cost lines to seek further efficiencies (although one airline supported the forecasts). The NSA and Steer took these views into account in the development of the final forecasts, as is set out in detail in Steer's consultation response report.

Several airlines and IATA disagreed with our proposal to aim up the WACC for 2022-2024. Having considered the arguments of the airlines, we have removed the aiming up allowance from the WACC calculation. On the other hand, the IAA ANSP considered that our proposed baseline real WACC of 3.5% was based on an asset beta which was too low. Further detail of this is provided in the decision document.

On interdependencies, the Staff Panel and the IAA ANSP are concerned that we did not sufficiently consider the interdependencies between safety, capacity and cost. These comments have been considered and are reflected in the Steer consultation response report and the decision document. In relation to the proposed Capex plan, several airlines raised concerns about whether the plan is achievable and ask that a performance metric or process be implemented to ensure that it is delivered as planned. On the other hand, the ANSP is concerned that the Capex allowance is too low, and disputed the asset life adjustments made by the NSA.

Topic of consultation	Applicable	Results of consultation
Where applicable, decision to diverge from the STATFOR base forecast	No	
Charging policy	Yes	The charging policy is unchanged from the consultation. There were no comments received on this topic, with the exception of the ANSP's disagreement over the NSA's decision to extend the recovery of 2020/2021 unrecovered revenue to 7 years. This decision has remained unchanged as it allows a smoother impact on unit rates over time thereby balancing the interests of the IAA ANSP and airspace users.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	The incentive schemes maximum financial advantages and disadvantages have remained unchanged from the consultation. The penalty-only scheme was supported by airspace users.
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	The decision to modulate the pivot value is unchanged from the consultation. This was implemented as the performance of the ANSP is already below the target when using the default pivot value.
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	The deadband has remained unchanged for the capacity incentive scheme.
Establishment or modification of charging zones	No	
Establishment of determined costs included in the cost base for charges	Yes	The determined costs (operating and capital) have changed based on the responses received from the IAA ANSP, Staff Panel, and airspace users. Full detail of this is given in the Steer consultation response report and the decision document.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	
Where applicable, decision to apply the simplified charging scheme	No	

#### 1.3.2 - Specific consultation requirements of ANSPs and airspace users on the performance plan

New and existing investments, and in particular new major investments, including their expected benefits	Yes	The IAA ANSP considered that the programme level adjustment proposed by the NSA was inappropriate, while the airspace users sought further details on certain projects, and considered that the timeline for delivery of the investment programme is ambitious. The NSA considered these points but concluded that the forecast level of investment included in the consultation proposal should remain unchanged following the consultation. Further details on the projects are set out in the decision document.
----------------------------------------------------------------------------------------------------------	-----	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

# 1.3.3 - Consultation of stakeholder groups on the performance plan

	#1 - ANSPs
Stakeholder group composition	IAA ANSP, MET Eireann ASD
Dates of main meetings /	The main consultation meeting was held on 26 August 2021. A written reponse was received from the
correspondence	IAA ANSP on 31 August 2021, which has been published on the RP3 page.
Main issues discussed	The main issues the ANSP raised during the consultation process were: the environment target is too challenging, moreso than the EU wide target; there are insufficient operating costs proposed to meet capacity targets and the incentive scheme penalty is too harsh; the ANSP is concerned about increases in NSA costs over RP3; the capex allowance is too low, the asset lives are too long; the forecast profitability is reported incorrectly in consultation material.
Actions agreed upon	The NSA agreed to take into account these issues, and to make changes to the proposed Performance Plan if sufficient evidence that this is warranted is provided in the written submission.
Points of disagreement and reasons	The environment target is appropriate given the importance of setting a challenging target in this area. Similarly, the NSA does not agree that the cost/capacity combination is not attainable, as is detailed further in the decision document. The NSA has built the capital cost allowances from the ground up and considers that its asset lives appropriately reflect the useful life of the relevant assets. The NSA considers that the level of forecast expenditure is reasonable based on the project costings it has reviewed, and past experience of under-delivery on investment programmes. Further discussion of the points raised is provided in the decision document.
Final outcome of the consultation	The operating cost forecasts have been updated to reflect some of the points raised by the ANSP, and are now higher, as detailed in the Steer consultation response report. The capacity and environment targets and incentive schemes are unchanged for the reasons set out above and provided in the decision document. The profitability forecasting issue has been clarified and adjusted in the published Performance Plan financial model.

Additional comments

#2 - Airspace Users		
Stakeholder group composition	IATA, Aer Lingus, British Airways, Etihad, IAG, Atlas Air, Ryanair, Swiss Air, Virgin Atlantic	
Dates of main meetings / correspondence	The main consultation meeting was held on 26 August 2021. Written reponses were received from Aer Lingus, British Airways, Atlas Air, IATA, and Ryanair by 31 August 2021, which have been published on the RP3 page.	
Main issues discussed	The main topics discussed with airspace users were: the justification for the proposed real increase in ANSP operating costs relative to 2019; disagreement with the IAA ANSP on the likelihood of delays materialising; the necessity for certain Capex projects and how to ensure they are delivered on time; the inclusion of an aiming up allowance in the WACC for 2022-2024; the cost of equity being fully or partly waived; the possibility of state support for ANSPs; and the tight timeline of the consultation process.	
Actions agreed upon	The NSA agreed to take into account these issues, and to make changes to the proposed Performance Plan if sufficient evidence that this is warranted is provided in the written submission.	

Points of disagreement and reasons	The NSA considers that a real increase in operating expenditure for the IAA ANSP is required to meet the
	specificd service levels, given local circumstances and an increase in the scope of services being provided
	(for example, dual runway operations at Dublin Airport). While some adjustments have been made to
	operating costs taking account of airline submissions, overall the IAA ANSP operating costs are now
	higher than proposed at consultation due to the points it raised in its submission. The NSA does not
	consider that enforcing a waiver of the cost of equity on the IAA ANSP has a strong theoretical or legal
	basis. The NSA did not determine the timeline for the revision of Performance Plans, but allowed a
	month-long public consultation for written submissions from stakeholders.
	The NSA decided to remove the aiming up allowance from the WACC as discussed in the decision
Final outcome of the consultation	document. The Capex plan and allowance is unchanged. The opex allowance has been amended based
	on feedback from stakeholders, as is detailed in the Steer consultation response report. The NSA plans to
	implement a mechanism to monitor the progress of capex projects.

Additional comments

#3 - Professional staff representative bodies				
Stakeholder group composition	Forsa, AHCPS, IALPA			
Dates of main meetings /	The main consultation meeting was held on 26 August 2021. A written reponse was received from the			
correspondence	IAA ANSP on 31 August 2021, which has been published on the RP3 page.			
	The primary concerns brought forward by the professional staff representative bodies are: the most			
Main issues discussed	appropriate traffic forecast is Scenario 1 rather than 2; the proposed operating costs are too low, the			
	Steer report is not fit-for-purpose and the associated forecast staffing levels would be insufficient; and			
	that the interdependencies between KPAs have not been properly considered by the NSA.			
Actions agreed upon	The NSA agreed to consider any evidence that was presented in written submissions regarding the			
	interdependencies and the determined costs.			
	The NSA believes that Scenario 2 is the most appropriate choice for the traffic forecasts in the			
	Performance Plan, and has been recommended to NSAs. However the NSA may update the Performance			
Deinte of discourse ant and wasses	Plan in October/November for the new Statfor forecasts, which will take account of the recent trends.			
Points of disagreement and reasons	The NSA considered the interdepencies, with the required level of performance in the Safety,			
	Environment, and Capacity KPAs used as inputs to determine the required cost levels.			
	The Operating Costs forecasts have been altered based on the feedback from all stakeholders, including			
	the Staff Panel, and are now higher than the consultation proposal. This and the concerns regarding the			
Final outcome of the consultation	interdependencies have been addressed in detail in both the Steer consultation response report and the			
	decision document. The traffic forecasts are unchanged from the Consultation material.			

Additional comments

#4 - Airport operators		
Stakeholder group composition	None provided a response to the consultation or attended the meeting.	
Dates of main meetings /		
correspondence		
Main issues discussed		
Actions agreed upon		
Points of disagreement and reasons		

Additional comments	

#5 - Airport coordinator		
Stakeholder group composition	Coordinators did not provide a response to the consultation or attend the meeting.	
Dates of main meetings /		
correspondence		

Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments

#6 - Other (specify)				
Stakeholder group composition	None			
Dates of main meetings /				
correspondence				
Main issues discussed				
Actions agreed upon				
Points of disagreement and reasons				
Final outcome of the consultation				

Additional comments

# 1.4 - List of airports subject to the performance and charging Regulation

# 1.4.1 - Airports as per Article 1(3) (IFR movements $\geq$ 80 000)

			IFR air transport movements			
ICAO code	Airport name	Charging Zone	2016	2017	2018	Average
EIDW	Dublin	Ireland - TCZ	214,048	222,326	232,414	222,929

# 1.4.2 Other airports added on a voluntary basis as per Article 1(4)

Number of airports		2	
ICAO code	Airport name	Charging Zone	Additional information
EICK	Cork	Ireland - TCZ	
EINN	Shannon	Ireland - TCZ	

Additional comments

No change from the original RP3 draft Performance Plan with regard to the continued inclusion of Cork and Shannon airports in a single Terminal Charging Zone alongside Dublin Airport.

# 1.5 - Services under market conditions

Number of services under market conditions	0
--------------------------------------------	---

# 1.6 - Process followed to develop and adopt a FAB Performance Plan

Not applicable

Description of the process

# 1.7 - Establishment and application of a simplified charging scheme

Is the State intending to establish and apply a simplified charging scheme for any charging zone/ANSP? No	
-----------------------------------------------------------------------------------------------------------	--

#### 2.1 - Investments - IAA

- 2.1.1 Summary of investments
- 2.1.2 Detail of new major investments
- 2.1.3 Other new and existing investments

#### 2.2 - Investments - Met Eireann Aviation Services Division (ASD)

- 2.2.1 Summary of investments
- 2.2.2 Detail of new major investments
- 2.2.3 Other new and existing investments

#### Annexes of relevance to this section

ANNEX E. INVESTMENTS

NOTE: The requirements as per Annex II, 2.2.(c) are addressed in item 4.1.2

# 2.1 - Investments - IAA

# 2.1.1 - Summary of investments

Num	ber of new major investments		10									
Total value of th			Value of the assets allocated	Determined cost	Lifecycle	Allocation (%)*		Planned date of				
#	(ie above 5 M€) (`'	(capex or contractual leasing value)	to ANS in the scope of the PP	2020	2021	national currency) 2022	2023	2024	(Amortisation period in years)	Enroute	Terminal	entry into operation
1	COOPANS Builds 3.6 to 3.8 budget	8,000	6,400		256	807	992	954	8 years	75%	25%	2021-2023
2	New Dublin Radar 2 Replacement	5,000	4,000			59	258	251	15 years	75%	25%	2022
3	NAVAIDS replacement program	9,000	7,200		13	144	322	565	12 years	0%	100%	2021-2024
4	Dublin Tower - Building	36,391	36,391		1,466	3,046	3,004	2,981	40 years	0%	100%	2021
5	Dublin Tower - Equipment	13,466	13,466		684	1,783	2,363	2,278	12 years	0%	100%	2021
6	COOPANS 2019 Roadmap Builds	8,000	6,400				22	261	8 years	75%	25%	2023-2024
7	New En Route Contingency Centre at Ballygireen	12,255	12,255	132	1,891	1,864	1,808	1,718	Building 40 years & ATM systems 12 years	100%	0%	2020
8	Emergency Air Situation Display System (EASDS) Replacement	6,500	5,200	0	0	161	953	1,022	8 years	75%	25%	2023
9	Climate Action Plan (Sustainability Management Plan)	5,000	4,000	0	16	76	271	501	20 years	75%	25%	2021-2024
10	Plant upgrade works	7,169	5,735			2	463	650	15 years	71%	29%	2021-2024
Sub- abov	total of <b>new major investments</b> re (1)	110,781	101,047	132	4,326	7,942	10,455	11,180				
Sub-	total <b>other new investments</b> (2)	49,052	39,850	181	946	3,644	5,346	6,453		59%	41%	
Sub-	total existing investments (3)			10,042	10,052	8,090	5,698	3,145		62%	38%	
<b>Tota</b> (2) +	I new and existing investments (1) + (3)	159,833	140,897	10,356	15,324	19,676	21,499	20,779				

\* The total % enroute+terminal should be equal to 100%.

# 2.1.2 - Detail of new major investments

NOTE: Section 1.3 (Stakeholder Consultation) should include details on the consultation with airspace users' representatives on new major investments.

Name of new major investment 1	COOPANS Builds 3.6 to 3.8 budget	Total value of the asset (000's)	6,400 €
Description of the asset	COOPANS is a partnership between the IAA ANSP and other ANSPs, as well as the ATM sys systems and functionality in a coordinated manner. Builds 3.6 to 2.8, split between RP2 an (Final Approach Spacing Tool Distance Based Separation), and Safety Nets enhancements.	d RP3, include features such as the ad	

The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes	1035/2011 and 37	3/2017 and CP1:	Airport Integration	and Throughput					
Specify links to the PCP/CP1/Interoperability Regulations	AF1	AF2	AF3	AF4	AF5	AF6	Interop			
(add the sub-AF number(s) under each relevant box)		s-AF2.1, s-AF2.3								
	Network	Yes								
Level of impact of the investment	Local	Yes								
	Non-performance	n/a				AF6 target of 2% ATCC				
	Safety	Yes e.g. improved safety nets								
	Environment	Yes e.g. Time Based Separation								
Quantitative impact per KPA	Capacity	Yes e.g. Time Base	d Separation							
	Cost Efficiency	Though not solely	attributable to th	nis project, overall t	he NSA has set a	target of 2% ATC	O productiv			
Benefits for airspace users and results of the consultation of	This project was d	lescribed in the con	sultation materia	l. There were no sp	pecific comments	on or objections	to it during			
airspace users' representatives		ace users in relation				-				
Joint investment / partnership	Yes	Coopans Partners	hip - 6 ANSP's (IA	A, LFV, NAVIAIR, AU	JSTROCONTROL, C	CROCONTROL, N	AV PORTUG			
Investment in ATM systems	Yes									
If investment in ATM system, type?	New system									
If investment in ATM system, Reference to European ATM Master Plan / PCP	РСР									

Name of new major investment 2	New Dublin Rada	r 2 Replacement				Total value of th	e asset (00
Description of the asset	To replace Dublin has already been	RADAR 2 which is delivered.	stated to be at end	d of life, and also to	o deliver a second	RADAR at an off-	airfield sit
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No						
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interop
	Network	Yes	1	11		1	
Level of impact of the investment	Local	Yes					
	Non-performance	n/a					
	Safety	Yes, through mor	e reliable RADAR s	ystems.			
	Environment	yes, through avoi	ding future ATC de	elays.			
Quantitative impact and KDA	Capacity	yes, through avoi	ding future ATC de	elays.			
Quantitative impact per KPA	Cost Efficiency	Yes, through safe	guarding terminal	ATCO productivity			

perability	
tivity impro	vement by 2024.
ng the consu	ultation. The
GAL)	

100's)	4,000 €									
te. The first of these RADARs										
perability										

Results of the consultation of airspace users' representatives	could provide the sufficient to provide	This project was described in the consultation material. Airspace users queried whether any satellite-based alterna could provide the same outputs at lower cost. The NSA followed up on this question with the IAA ANSP who argue sufficient to provide the required dual source of aircraft positional information, necessitating Radar use to avoid u separations in the Dublin TMA.							
Joint investment / partnership	No								
Investment in ATM systems	Yes								
If investment in ATM system, type?	New system	(Both new and replacement of existing RADAR)							
If investment in ATM system, Reference to European ATM	Master Plan (non-								
Master Plan / PCP	PCP)								

Name of new major investment 3	NAVAIDS replacer	IDS replacement program					Total value of the asset (000's)		
Description of the asset	To replace the exis Shannon, and Corl	-	anding System (ILS	and Instrument	Runway Visual Ra	nge (IRVR) systen	ns at the three state a	airports Dublin,	
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the	Yes	EU 1035/2011 an	d EU 373/2017						
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability		
Level of impact of the investment	Network Local Non-performance	Yes Yes n/a							
	Safety Environment Capacity	Yes, through more reliable ILS and IRVR systems.         n/a							
Quantitative impact per KPA	Cost Efficiency	Yes, reduces delays potentially resulting from unscheduled maintenance. Yes, reduces the need for costly unscheduled maintenance. The NSA has built efficiency adjustments into the operating cost forecasts to take account of the replacement of older, high-maintenance assets, with new assets.							
Benefits for airspace users and results of the consultation of airspace users' representatives			nsultation material elation to the four I		pecific comments	on or objections	to it during the cons	ultation. The	
Joint investment / partnership	No								
Investment in ATM systems	Yes								
If investment in ATM system, type?	Replacement investment								
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non- PCP)								

Name of new major investment 4	Dublin Tower - Building	Total value of the asset (00
--------------------------------	-------------------------	------------------------------

ves to radar were available that that ADS-B on its own is not planned reversions to 5 NM

000's) **36,391 €** 

	-	•			•	ual runway AT			
Yes	EU 1035/2011 an	d EU 373/2017							
AF1	AF2	AF3	AF4	AF5	AF6	Interopera			
Network	Yes Yes	1	1	1	l				
					AF6 Interminal airspace. Parallel Runway being bu				
Safety	n/a								
Environment	In tandem with the new runway, this investment will have a significant impact in reduced taxi times at traffic recovers, and is expected to also lead to reduce additional time in terminal airspace.								
Capacity	Provides for grov	vth at Dublin airpo	rt and facilitates t	he new Northern P	arallel Runway b	eing built by t			
Cost Efficiency	n/a								
No									
No									
Click to select									
Click to select									
	Airport. The project Yes AF1 Network Local Non-performance Safety Environment Capacity Cost Efficiency This project was conthe Performance verified. No No Click to select	Airport. The project is now almost cYesEU 1035/2011 anAF1AF2NetworkYesLocalYesNon-performancen/aSafetyn/aEnvironmentIn tandem with tl traffic recovers, aCapacityProvides for growCost Efficiencyn/aThis project was described in the co the Performance Plan consultation of verified.NoIntervention of consultation of 	Airport. The project is now almost complete. This inverses and a second	Airport. The project is now almost complete. This investment cost line results in the project is now almost complete. This investment cost line results in the project is now almost complete. This investment cost line results in the project is now almost complete. This investment cost line results in the project is now almost complete. This project was described in the consultation material. Airspace users is the performance Plan consultation document. The NSA followed up with verified.         No       No         Click to select       In the complete is now almost complete. This project was described in the complete is not provide to also be also be also be also is not provide it is not provide in the complete. The NSA followed up with verified.         No       Intervent is not provide it is not prov	Airport. The project is now almost complete. This investment cost line refers only to the business of the project is now almost complete. This investment cost line refers only to the business of the project is now almost complete. This investment cost line refers only to the business of the performance Plan consultation document. The NSA followed up with the IAA ANSP on verified.	AF1       AF2       AF3       AF4       AF5       AF6         Network       Image: Imag			

Name of new major investment 5	Dublin Tower - Equipment					Total value of t	13,466 €			
Description of the asset	New Control Towe	New Control Tower equipment at Dublin Airport								
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if	Yes	EU 1035/2011 and EU 373/2017								
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability			
Network     Yes       Level of impact of the investment     Local     Yes										
	Non-performance Safety	n/a n/a								

ay ATM servi	ces at Dublin
operability	
es at Dublin	Airport, when
by the airpo	ort authority (daa).
	vas mentioned in ded and has been

	-					
	Environment	In tandem with the new runway, this investment will have a significant impact in reduced taxi times				
Quantitative impact per KPA	Environment	traffic recovers, and is expected to also lead to reduce additional time in terminal airspace.				
	Capacity	Provides for growth at Dublin airport and facilitates the new Northern Parallel Runway being built by				
	Cost Efficiency	n/a				
Benefits for airspace users and results of the consultation of	This project was described in the consultation material. Airspace users had queries regarding the missing cost					
airspace users' representatives	the Performance Plan. The NSA followed up with the IAA ANSP on this information and it was later provided.					
Joint investment / partnership	No					
Investment in ATM systems	Yes					
If investment in ATM system, type?	New system					
If investment in ATM system, Reference to European ATM	Master Plan (non-					
Master Plan / PCP	PCP)					

Name of new major investment 6	COOPANS 2019 R	COOPANS 2019 Roadmap Builds					asset (00	
Description of the asset	This project provides for the next round of COOPANS builds intended to provide further functionalities to the ATM sy and safety.						e ATM sys	
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes			•		t fully defined by t ations are outlined		
Specify links to the PCP/CP1/Interoperability Regulations	AF1	AF2	AF3	AF4	AF5	AF6	Interop	
(add the sub-AF number(s) under each relevant box)	Yes- specifics to be confirmed.	Yes- specifics to be confirmed.	Yes- specifics to be confirmed.	Yes- specifics to be confirmed.	Yes- specifics to be confirmed.	Yes- specifics to be confirmed.	Yes- spe be con	
Level of impact of the investment	Network Local	Yes Yes				·		
	Non-performance Safety Environment	n/a Yes Yes						
Quantitative impact per KPA	Capacity	Yes Yes						
	Cost Efficiency							
Benefits for airspace users and results of the consultation of airspace users' representatives		escribed in the cor iver benefits in rela				on or objections to	) it during	
Joint investment / partnership	Yes	Coopans Partners	hip - 6 ANSP's (IAA	, LFV, NAVIAIR, AU	JSTROCONTROL, C	ROCONTROL, NAV	PORTUG	
Investment in ATM systems	Yes							
If investment in ATM system, type?	New system	The investment consists of both new functionality and upgrade to existing functionality.						
If investment in ATM system, Reference to European ATM Master Plan / PCP	РСР							

es at Dublin Airport, when
by the airport authority (daa).
nation that was mentioned in

100's)	6,400€					
stems to enhance efficiency						
PANS partnation PANS partnation PANS partnation	ers so it is not clear					
perability						
pecifics to						
nfirmed.						
g the consu	ultation. The project					
GAL)						

Name of new major investment 7	New En Route Cor	ew En Route Contingency Centre at Ballygireen					he asset (00		
Description of the asset	operational persp this project will er	ective, ATCOs will hance contingenc	to 100% of the ca use similar proced y and resilience of he Ballycasey cent	ures and equipme the provision of a	nt as in normal op	perations at Bally	/casey ACC.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No								
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interop		
Level of impact of the investment	Network Local	Yes Yes							
	Non-performance Safety	Yes, through enhanced contingency.							
	Environment	n/a							
	Capacity		ased capacity and	resilience.					
Quantitative impact per KPA	Cost Efficiency	Yes, through lowe	er running costs for annon from Dublir	r the En Route Cor	ntinency centre w	hen operational	as staff will		
Results of the consultation of airspace users' representatives	This project was d	escribed in the co	nsultation materia	l. There were no s	pecific comments	on or objections	s to it during		
Joint investment / partnership	No								
Investment in ATM systems	Yes	The project inclue	les the cost of the	building and also	the ATM systems.				
If investment in ATM system, type?	New system								
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non- PCP)								

Name of new major investment 8	Plant upgrade wo	Plant upgrade works					Total value of the asset (000's)		
Description of the asset					-		ks) at 15 IAA ANSP fac inagement System wo		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No								
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability		
	Network			1					
Level of impact of the investment	Local	Potential risk to IA	A operational equ	ipment, operation	s rooms and pers	onnel mitigated			
	Non-performance	Yes.							
	Safety								
	Environment								

000's)	12,255 €					
conditions.						
C. As noted by the IAA ANSP,						
oacity targets can be met even						
operability						
ill be displac	ed by 10km not					
ng the consu	ultation.					

Quantitative impact per KPA	Capacity With the replacement of end of life plant and equipment the risk of direct impact on operations is mitigated, enabling sa operation of IAA Operational equipment and personnel.				
		Yes- the NSA has built efficiency adjustments into the operating cost forecasts to take account of the replacement of older, high- maintenance assets, with new assets.			
Results of the consultation of airspace users' representatives	This project was d	escribed in the consultation material. There were no specific comments on or objections to it during the consultation.			
Joint investment / partnership	No				
Investment in ATM systems	No				
If investment in ATM system, type?	Click to select				
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select				

Name of new major investment 9	Emergency Air Sit	Emergency Air Situation Display System (EASDS) Replacement					Total value of the asset (000's)		
Description of the asset	The prupose of th contingency ATC s				•	erational servce i	n 2008. The EASDS is ເ	ised as a	
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the	Yes	EU 2017/373							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability		
Level of impact of the investment	Network Local Non-performance	Yes Yes	1		1				
Quantitative impact per KPA	Safety Environment Capacity Cost Efficiency	This system is rec n/a n/a n/a	uired to comply w	ith safety regulati	ions and offers ba	ckup to the COO	PANS system.		
Benefits for airspace users and results of the consultation of airspace users' representatives		The NSA followed	up with the IAA A	•			ary and why COOPAN It backup system is ne		
Joint investment / partnership	No								
Investment in ATM systems	Yes								
If investment in ATM system, type?	Replacement investment								
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non- PCP)	-							

Name of new major investment 10	Climate Action Pl	Climate Action Plan (Sustainability Management Plan)							
Description of the asset	of becoming carb	nis project is to com on neutral in its us ging infrastructure	e of energy, and er	nhance sustainabi	lity. The project is	expected to deli			
The investment is mandated by a SES Regulation (i.e.	No								
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interop		
	Nationali								
Level of impact of the investment	Network Local								
Level of impact of the investment	Non-performance	Yes							
	Safety	n/a							
	Environment								
Quantitative impact and KDA	Capacity	n/a							
Quantitative impact per KPA	Cost Efficiency		ects that this proje the cost forecasts		ll lead to significar	nt cost savings or	n non-staff o		
Results of the consultation of airspace users' representatives	Action Plan. The I	described in the co AA ANSP has provi ecision document.							
Joint investment / partnership	Yes	These projects ar	e part of the natio	nal Climate Action	Plan				
Investment in ATM systems	No								
If investment in ATM system, type?	Click to select								

2.1.3 - Other new and existing investments

2.1.3.1 - Overall description and justification of the costs nature and benefits of other new and existing investments in fixed assets planned over the reference period

A full description of all IAA ANSP Investments during RP3, which are not the Major Investments listed above, or considered 'main' investments, is included in Appendix 1 of the Consultation Document of July 2021, and the associated capital costs by project cost line are modelled in the 'ANSP Capex (CAR)' sheet in the Performance Plan model, row 49 to row 1329. Other Investments are split in three categories:

1) Property and Security Projects: The types of works envisioned in these projects are structural refurbishments and alterations, M&E and plant refurbishments/replacements, and a small minority of new build works.

2) ICT projects: These projects include cybersecurity and life-cycle replacement for PCs, laptops, ICT servers, and printers.

3) The third appendix includes other network and security, flight data processing and communications, and surveillance related projects.

#### 2.1.3.2 - Details of the main other new investments in fixed assets planned over the reference period

Number of new other investments 0

000's)	4,000 €
-	ANSP achieve its aim including electric
operability	
f cost lines s	uch as utlities, and
	part of the Climate ails have been

		Total value of the asset	Value of the	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in						
#	Name of investment	(capex or contractual	assets allocated			national currency				
		leasing value)	to ANS in the	2020	2021	2022	2023	2024		
20										

#### Description

#### 2.2 - Investments - Met Eireann Aviation Services Division (ASD)

#### 2.2.1 - Summary of investments

Number of new major investments 0

#### 2.2.3 - Other new and existing investments

#### 2.2.3.1 - Overall description and justification of the costs nature and benefits of other new and existing investments in fixed assets planned over the reference period

A number of capital investment projects are planned for the coming years in the context of the SES and ICAO regulatory frameworks and with the intention of developing scientific capacity and improved quality of service. While some of the capital projects are focused specifically on supporting aeronautical meteorological functions, others are cross cutting with planned investments intended to also support other Met Éireann activities along with the aviation function.

#### 2.2.3.2 - Details of the main other new investments in fixed assets planned over the reference period

Number of new other investments	7
---------------------------------	---

#	Name of investment	Total value of the asset	Value of the assets allocated	Determined cos		.e. depreciation, co national currency)		ost of leasing) (in	
#	Name of investment	(capex or contractual leasing value)	to ANS in the scope of the PP	2020	2021	2022	2023	2024	
1	Aviation Modernisation and Modernisation Project (AMAP)	13,000	3,900	536	536	439	439	0	This is a c regulator 2017/373 increasing observati
2	RADAR Upgrade ( <i>RP3</i> capitalisations only )	2,500	675	0	0	16	16	27	The curre useful life sites, sign withint Sh data onto awarenes
3	Auto Climate Network	0	0	0	0	0	0	0	The data through a rescue se Accident been allo

Description

a carryover project from RP2. It will ensure ory compliance with ICAO Annex 3 and CIR (EU\_ 73. It will allow greater operator efficiency by ing the temporal and spatial resolution of weather ations, and by supporting other aviation projects.

rent RADAR network is close to the end of it's ife, and as such is being upgraded from 2 to 5 gnificantly increasing the domanin covered Shannon FIR. It will allow ATS to overlay RADAR to ATM workstations, improving situational ess and decision making by ATCOs.

a provided by this allows MET to support ATM atmosphere modeling, pilot briefings, search and services, and preparation of reports for the Air t Investigation Unit. No proportion of the cost has located to ASD for RP3.

4	МЕТСОМ	1,200	502	0	0	103	103	103	This is ne 3, CIR (EL Regulatic data in a environm
5	AUTOMETAR	500	0	0	0	0	0	0	Investme vicinity of observers degenera through t sensors. deployme weather
6	ICT Migration and Managed Services Project (IMaMS)	5,400	1,458	0	0	294	294	294	MET's IC and as th conjuncti operation diversific required.
7	High Performance Computing (HPC)	6,700	1,809	0	0	0	361	361	HPC will a nowcasti the TMA. and extre ATM.

necessary to ensure compliance with ICAO Annex EU) 2017/373 and the Pilot Common Project tion (EU No 716/2014). It will allow users to acces a more configurable and user friendly iment.

nent in additional visibility observing sites in the of the major airports will provide the aviation ers and forecast teams with early warning of rating visibility and cloud ceiling conditions in the deployment of visometer and ceilometer s. This will be further supported through the ment of camera technology to support remote or observations.

CT infrastructure exists mainly in a single location there is a requirement for geo-resilience in ction with a business continuity management onal office, an ICT solution that enables fication and replication across two sites is ed.

Il allow developments in forecast services such as sting and high resolution ensemble forecasts for A. It will also improve forecasting for high impact reme weather, supporting safety and efficiency in

#### 3.1 - Safety targets

3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

#### 3.2 - Environment targets

3.2.1 - Environment KPI #1: Horizontal en route flight efficiency (KEA)

#### 3.3 - Capacity targets

- 3.3.1 Capacity KPI #1: En route ATFM delay per flight
- 3.3.2 Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

#### 3.4 - Cost efficiency targets

- 3.4.1 Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS
- En Route Charging Zone #x
- 3.4.2 Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS
- Terminal Charging Zone #x
- 3.4.3 Pension assumptions
- 3.4.4 Interest rate assumptions for loans financing the provision of air navigation services
- 3.4.5 Restructuring costs
- 3.4.6 Additional determined costs related to measures necessary to achieve the en route capacity targets

#### 3.5 - Additional KPIs / Targets

#### 3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs

- 3.6.1 Interdependencies and trade-offs between safety and other KPAs
- 3.6.2 Interdependencies and trade-offs between capacity and environment
- 3.6.3 Interdependencies and trade-offs between cost-efficiency and capacity
- 3.6.4 Other interdependencies and trade-offs

#### Annexes of relevance to this section

ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE) ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL) ANNEX F. BASELINE VALUES (COST-EFFICIENCY) ANNEX H. RESTRUCTURING MEASURES AND COSTS ANNEX M. COST ALLOCATION ANNEX J. OPTIONAL KPIS AND TARGETS ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS

#### 3.1 - Safety targets

3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

a) Safety national performance targets

b) Detailed justifications in case of inconsistency between local and Union-wide safety targets

c) Main measures put in place to achieve the safety performance targets

#### Annexes of relevance to this section

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

## 3.1 - Safety targets

#### 3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

#### a) Safety performance targets

Number of Air Traffic Service Providers	1

		2020A	2020	2021	2022	2023	2024
		Actual	Target	Target	Target	Target	Target
	Safety policy and objectives	С	C	С	С	C	С
	Safety risk management	С	D	D	D	D	D
ΙΑΑ	Safety assurance	D	C	С	С	С	С
	Safety promotion	С	C	С	С	С	С
	Safety culture	D	C	С	С	С	С
	Additional comments					-	-

#### b) Detailed justifications in case of inconsistency between local and Union-wide safety targets

Not Applicable

\* Refer to Annex O, if necessary.

#### c) Main measures put in place to achieve the safety performance targets

To assess the compliance of the IAA ANSP with the required level of safety performance as defined by the union-wide targets, the NSA will oversee the IAA ANSP in order to provide assurance of the effectiveness of the level of safety management. This oversight will include, inter alia, audits, inspections, reviews of safety performance data and reviews of changes to the functional system. The audit for 2020 has been completed. The actual performance of the IAA ANSP was assessed at Level C for Safety Policy and Objectives, Safety Risk Management, and Safety Promotion, and assessed at Level D for Safety Assurance and Safety Culture. This means that it outperformed the targets for Safety Assurance and Safety Culture, but did not comply with the target for Safety Risk Management. The reason for this was compliance delay with Regulation (EU) 373/2017 and remedial measures have now been put in place. The NSA will continue to conduct an annual review of the EoSM questionnaire, based on actual outcomes each year, and impose remedial measures in any areas of non-compliance in order to achieve the targets.

For further detail in relation to safety, please see Section 8 of the NSA's consultation document, and Section 6.1 of the IAA ANSP's revised Business Plan in which it has set out a detailed description of its safety management processes, safety culture, and measures it plans to undertake in RP3 in order to ensure compliance with the required level of safety performance.

\* Refer to Annex O, if necessary.

#### 3.2 - Environment targets

3.2.1 - Environment KPI #1: Horizontal en route flight efficiency (KEA)

- a) Environment national performance targets
- b) Detailed justifications in case of inconsistency between national targets and national reference values
- c) Main measures put in place to achieve the environment performance targets

#### Annexes of relevance to this section

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

#### 3.2 - Environment targets

#### 3.2.1 - Environment KPI #1: Horizontal en route flight efficiency (KEA)

#### a) National environment performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	1.11%	n/a	1.13%	1.13%	1.13%	1.13%
		2020	2021	2022	2023	2024
		Target	Target	Target	Target	Target
National targets		1.56%	1.13%	1.13%	1.13%	1.13%

#### b) Detailed justifications in case of inconsistency between national targets and national reference values

Not Applicable	
* Pofer to Appay D if pacescony	

\* Refer to Annex P, if necessary.

#### c) Main measures put in place to achieve the environment performance targets

The NSA considers that the national reference values assigned to Ireland are challenging. The revision of the Union Wide targets and reference values has led to a relatively more challenging outcome for IAA ANSP compared to other ANSPs, particularly for 2023 and 2024. There are significant factors, such as the timing of introduction of Free Route Airspace (FRA) in neighbouring FIRs and the decisions of airspace users to fly sub-optimal trajectories, largely outside the control of the IAA ANSP which may limit its ability to further improve KEA performance. Thus, as made clear in its response to the consultation, the IAA ANSP has concerns over its ability to meet the targets. However, sustainably reducing the environmental impact of aviation is a key goal for Ireland, as it is across the EU. A challenging target will drive a focus for both ANSP and NSA to continuously assess and monitor performance. From that perspective, it is preferable to have a target which, while challenging, seeks to drive performance improvements. The NSA has therefore adopted the national reference values as the KEA performance targets for RP3.

Free Route Airspace (FRA) was introduced in Ireland in 2009, which has been a key driver of the relatively strong KEA performance observed to date. Further improvements in Ireland's KEA are significantly dependent on the introduction of FRA in neighbouring FIRs together with the accompanying system upgrades to enable full cross border FRA. The UK is planning to introduce FRA on a phased basis from December 2021, which will eventually lead to improved horizontal flight efficiency and KEA. The NSA and ANSP will monitor and assess performance throughout RP3, to consider actual KEA performance relative to the target, and whether there are any further ways to improve performance either on a cross border or individual basis. The IAA ANSP is carrying out a review of areas of the Shannon FIR, the purpose of which is to facilitate Continuous Climb and Continuous Descent Operations (CCO/CDO) to and from airports and simplify airspace design where possible, in order to realise further improvements in flight efficiency and environmental performance. A revised airspace design structure is planned to be published in December 2021. The NSA will continue to monitor the implementation of these initiatives and strive to ensure sufficient measures are taken to seek to meet the performance targets.

\* Refer to Annex P, if necessary.

#### 3.3 - Capacity targets

- 3.3.1 Capacity KPI #1: En route ATFM delay per flight
  - a) Capacity national performance targets
  - b) Detailed justifications in case of inconsistency between national targets and national reference values
  - c) Main measures put in place to achieve the target for en-route ATFM delay per flight
  - d) ATCO planning

3.3.2 - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

a) Capacity national performance targets

- b) Contribution to the improvement of the European ATM network performance
- c) Main measures put in place to achieve the target for terminal and airport ANS ATFM arrival delay per flight

#### Annexes of relevance to this section

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

#### 3.3 - Capacity targets

#### 3.3.1 - Capacity KPI #1: En route ATFM delay per flight

#### a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	0.00	n/a	0.01	0.03	0.03	0.03
		2020	2021	2022	2023	2024
		Target	Target	Target	Target	Target
National targets		0.07	0.01	0.03	0.03	0.03

#### b) Detailed justifications in case of inconsistency between national targets and national reference values

Not Applicable	
----------------	--

\* Refer to Annex Q, if necessary.

#### c) Main measures put in place to achieve the target for en-route ATFM delay per flight

In its business plan submission, the IAA ANSP has outlined a number of ongoing initiatives that will enable it to continue providing sufficient capacity, including multi-ratings of ATCOs, flexible airspace sectorisation in response to traffic loading rather than a fixed sector plan, and 'crew-to-workload' staffing. The IAA ANSP also plans to make (or has already made) a number of capital investments that will improve its ability to consistently provide capacity, including, in particular, the new Contingency En route Operations Centre (CEROC) for the Shannon ACC, a number of COOPANS projects intended to enhance sector capacities while maintaining or improving safety, and the new control tower to facilitate parallel runway operations at Dublin Airport. The NSA will monitor the implementation of these initiatives and will work to ensure sufficient measures are taken to comply with the performance targets.

In the cost allowances for RP3, the NSA has provided for additional ATCOs from 2023, as well as an increase in the forecast level of capital expenditure, aimed to facilitate the IAA ANSP in achieving the targets as the anticipated traffic recovery occurs. This is discussed further in the 'interdepencies' tab, and the consultation and decision documents published by the NSA. The NSA has also put in place an incentive scheme designed to create a strong incentive on the IAA ANSP to achieve the target, as set out in the relevant tab and the consultation and decision documents.

\* Refer to Annex Q, if necessary.

#### d) ATCO planning

	Actual			Planning			
Dublin (EIDW ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start		2					2
working in the OPS room (FTEs)		2					Z
Number of ATCOs in OPS planned to stop working in the		1	1	1			
OPS room (FTEs)		L L	T	T			
Number of ATCOs in OPS planned to be operational at	го	50	го	F 7	F 7	F 7	50
year-end (FTEs)	58	59	58	57	57	57	59

	Actual			Planning				
Shannon (EISN ACC)	2018	2019	2020	2021	2022	2023	2024	
Number of additional ATCOs in OPS planned to start		6					0	
working in the OPS room (FTEs)		6					8	
Number of ATCOs in OPS planned to stop working in the								
OPS room (FTEs)		2	4	4				

Number of ATCOs in OPS planned to be operational at	104	199	195	101	101	101	199
year-end (FTEs)	194	199	195	191	191	191	199

#### Additional comments

Note that the NSA's En-Route ATCO staffing forecasts are not specifically allocated to either EIDW ACC or EISN ACC. We have therefore retained the ratios from the original Performance Plan, although the actual staffing remains at the discretion of the IAA ANSP.

#### 3.3.2 - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

#### a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
	Actual	Target	Target	Target	Target	Target
National targets	0.11	0.25	0.25	0.2	0.2	0.2
Additional comments	The terminal c Performance P		set for the IAA	ANSP are unch	nanged from th	e original RP3

	EIDW-Dublin	0.14	0.25	0.25	0.20	0.20	0.20
	Airport contribution to national targets						
Airport loval	EICK-Cork	0.00	0.00	0.00	0.00	0.00	0.00
Airport level	Airport contribution to national targets						
	EINN-Shannon	0.00	0.00	0.00	0.00	0.00	0.00
	Airport contribution to national targets						

#### b) Contribution to the improvement of the European ATM network performance

The only Irish airport which generates arrival ATFM delay is Dublin Airport and almost all delay is not ANSP-attributable. In the original RP3 Performance Plan, the terminal capacity targets were set at a level consistent with the average minutes of delay per arrival at Dublin airport in RP2, with an improvement anticipated from when the second parallel runway was due to be operational. In 2020, despite lower levels of traffic, the average minutes of delay per arrival at Dublin airport at Dublin airport was slightly lower than most years in RP2 though remained at a broadly consistent level and was attributed to the same causes (weather and aerodrome capacity). Therefore, given that the levels of arrival ATFM delay have remained broadly unchanged notwithstanding the traffic reduction, and most of the delay is not ANSP attributable in any case, we see no reason to revise these targets relative to the original RP3 Performance Plan.

The average level of arrival delay at Dublin Airport, in both 2019 and 2020, was low when compared across other major European airports (see figures 13.6 and 13.7 of the consultation document). This implies that the capacity targets set on the basis of this level of delay are low compared to other major European airports. Thus, the continued attainment of these targets will contribute positively to European ATM network performance, by incentivising a continuation of historic performance where no material ANSP-related arrival ATFM delay is generated.

For further detail, see in particular sections 10 and 13 of the consultation document.

\* Refer to Annex Q, if necessary.

#### c) Main measures put in place to achieve the target for terminal and airport ANS ATFM arrival delay per flight

In its published Business Plan, the IAA ANSP has outlined a number of ongoing initiatives to enable it to continue providing sufficient terminal capacity, including multiratings of ATCOs, flexible airspace sectorisation, 'crew-to-workload' staffing, the introduction of time-based separations at Dublin Airport, and the implementation of necessary procedures to facilitate parallel runway operations at Dublin airport once the new runway is complete in 2022. The IAA ANSP also plans to make (or has already made) a number of capital investments that will improve its ability to provide capacity, including, in particular, a number of COOPANS projects and the new control tower at Dublin Airport.

The NSA will monitor the implementation of these initiatives and will work to ensure sufficient measures are taken to comply with the targets. The NSA cost forecasts have been developed on the basis of providing sufficient resources to meet the forecast traffic levels, including the additional ATCOs which will be required to facilitate dual parallel runway operations at Dublin Airport, as well as investments in projects such as COOPANS, enhanced resilience of RADAR coverage in the Dublin TMA, and enhanced ASMGCS.

\* Refer to Annex Q, if necessary.

#### 3.4 - Cost efficiency targets

3.4.1 - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

En Route Charging Zone #x

a) RP3 revised cost-efficiency performance targets (IR 2020/1627)

b) Information on the baseline values for the determined costs and the determined unit costs

c) Detailed justifications for the adjustments to the baseline values

d) Where a deviation from the Union-wide performance targets is observed, please indicate if the NSA considers those deviations to be necessary and proportionate

e) Main measures put in place to achieve the targets for determined unit cost (DUC) for en route ANS

f) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of corrections

#### 3.4.2 - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

Terminal Charging Zone #x

a) RP3 revised cost-efficiency performance targets (IR 2020/1627)

- b) Information on the baseline values for the determined costs and the determined unit costs
- c) Detailed justifications for the adjustments to the baseline values
- d) Main measures put in place to achieve the targets for determined unit cost (DUC) for terminal ANS

e) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of

#### 3.4.3 - Pension assumptions

3.4.3.1 Total pension costs

- 3.4.3.2 Assumptions for the "State" pension scheme
- 3.4.3.3 Assumptions for the occupational "Defined contributions" pension scheme
- 3.4.3.4 Assumptions for the occupational "Defined benefits" pension scheme

3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services

#### 3.4.5 - Restructuring costs

3.4.5.1 Restructuring costs from previous reference periods to be recovered in RP3

3.4.5.2 Restructuring costs planned for RP3

#### 3.4.6 - Additional determined costs related to measures necessary to achieve the en route capacity targets

- a) Overall description of the measures necessary to achieve the en-route capacity targets for RP3, which induce additional costs
- b) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3
- c) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3 by nature by ANSP
- d) Demonstration that the deviation from the Union-wide targets is exclusively due to the additional determined costs related to measures necessary to achieve the performance targets in capacity

#### Annexes of relevance to this section

ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE) ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL) ANNEX F. BASELINE VALUES (COST-EFFICIENCY) ANNEX H. RESTRUCTURING MEASURES AND COSTS ANNEX M. COST ALLOCATION ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

NOTE: The following requirements as per Annex II, 3.3 are addressed in the Annexes A and B:

Point 3.3 (d) on cost-allocation;

Point 3.3 (e) on the return on equity and cost of capital;

Point 3.3 (f) on assumptions for pension costs and interest on debt for other entities, inflation forecast and adjustments beyong IFRS;

Point 3.3 (g) on adjustments to the unit rates carried over from previous reference periods;

Point 3.3 (h) on costs exempt from cost-sharing;

Point 3.3 (k) reporting tables and additional informations.

## 3.4 - Cost efficiency targets

#### 3.4.1 - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

#### En Route Charging Zone #1 - Ireland

#### a) RP3 revised cost-efficiency performance targets (IR 2020/1627)

En route charging zone	Baseline 2014	Baseline 2019	RP3 revis	ed cost-efficiency ta	rgets (determined 2	2020-2024)	2024 D	2024 D
Ireland	2014 B	2019 B	2020/2021 D	2022 D	2023 D	2024 D	vs. 2014 B	vs. 2019 B
Total en route costs in nominal terms (in national currency)	102,560,732	116,761,000	206,954,114	122,043,859	128,495,142	130,067,459	26.8%	11.4%
Total en route costs in real terms (in national currency at 2017 prices)	102,637,427	115,313,068	203,105,125	117,309,120	121,632,184	121,134,397	18.0%	5.0%
Total en route costs in real terms (in EUR2017) 1	102,637,427	115,313,068	203,105,125	117,309,120	121,632,184	121,134,397	18.0%	5.0%
YoY variation			76.1%	-42.2%	3.7%	-0.4%		
Total en route Service Units (TSU)	3,893,473	4,606,517	4,059,963	3,202,365	4,038,945	4,725,720	21.4%	2.6%
YoY variation			-11.9%	-21.1%	26.1%	17.0%		
Real en route unit costs (in national currency at 2017 prices)	26.36	25.03	50.03	36.63	30.11	25.63	-2.8%	2.4%
Real en route unit costs (in EUR2017) 1	26.36	25.03	50.03	36.63	30.11	25.63	-2.8%	2.4%
YoY variation			99.8%	-26.8%	-17.8%	-14.9%		

National currency	EUR
1 Average exchange rate 2017 (1 EUR=)	1.00

#### b) Information on the baseline values for the determined costs and the determined unit costs

En route charging zone	Baseline 2014	Baseline 2019	Actuals 2014	Actuals 2019	2014 Baseline	2019 Baseline
Ireland	2014 B	2019 B	2014 A	2019 A	adjustments	adjustments
Total en route costs in nominal terms (in national currency)	102,560,732	116,761,000	102,560,732	114,371,000	0	2,390,000
Total en route costs in real terms (in national currency at 2017 prices)	102,637,427	115,313,068	102,637,427	112,951,852	0	2,361,216
Total en route costs in real terms (in EUR2017) 1	102,637,427	115,313,068	102,637,427	112,951,852	0	2,361,216
Total en route Service Units (TSU)	3,893,473	4,606,517	3,922,499	4,640,860	-29,026	-34,342

#### c) Detailed justifications for the adjustments to the baseline values

c.1) Adjustments to the 2014 baseline value for the determined costs

Number of adjustments 0

#### c.2) Adjustments to the 2014 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0.74%	CRCO correction factor May 2019 (on 12 months)	-29,026
Other adjustment to the 2014 service units	No		

#### Total adjustments to the 2014 service units

c.3) Adjustments to the 2019 baseline value for the determined costs

-29,026

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs E
Actual cost correction	Met Éireann ASD	MET	Staff	232000	228,332	

Description and justification of the adjustment

MET costs previously reported as 2019 actuals were costs charged (i.e. the determined cost), not costs incurred by MET ASD in 2019. This was an error, and the 2019 actual MET cost buil now been validated by the NSA. To avoid confusion given the previously reported number, this is reported as a baseline adjustment to the 2019 actual. The 2019 baseline value has there updated to reflect actual costs incurred by MET ASD, ensuring that all entities actual 2019 costs are used for the baseline value. Detail on this adjustment was included in the consultatio and no objections or disagreement was observed.

Adjustment 1 (ENR) comprises the staff costs element of correcting this issue.

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs E
Actual cost correction	Met Éireann ASD	MET	Other Operating	2,158,000	2,123,884	
Description and justification of the adjustment						

MET costs previously reported as 2019 actuals were costs charged (i.e. the determined cost), not costs incurred by MET ASD in 2019. This was an error, and the 2019 actual MET cost buinow been validated by the NSA. To avoid confusion given the previously reported number, this is reported as a baseline adjustment to the 2019 actual. The 2019 baseline value has ther updated to reflect actual costs incurred by MET ASD, ensuring that all entities actual 2019 costs are used for the baseline value. Detail on this adjustment was included in the consultation and no objections or disagreement was observed.

Adjustment 2 (ENR) comprises the non-staff costs element of correcting this issue.

To	tal adjustments to the 2019 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs E
	tal adjustments to the 2015 baseline value for the determined costs	2,390,000	-	

#### c.4) Adjustments to the 2019 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Servic
-0.74%		CRCO correction factor May 2019 (on 12 months)	
Other adjustment to the 2019 service units	No		
Total adjustments to the 2019 service units			

#### d) Description and justification of the consistency between local and Union-wide cost-efficiency targets

While the Performance Plan aligns with the Union-Wide target on Cost Efficiency, this is the case based on the current traffic forecasts used. In the event of materially lower forecasts, if updated in October/November, the plan is unlikely to align with the DUC targets.

The NSA considers that there are relevant local factors driving costs neccessary to reliably achieve the capacity targets. The most obvious example is the delivery in 2020 of a contingenc centre (CEROC), at a capital cost of €12m, which also drives additional costs in areas such as maintenance and utilities. In the absence of this facility, which was not in the cost base in 20 ANSP would be exposed to failure to meet the capacity targets in the event of an incident at the Ballycasey ACC. In the event that the Performance Plan no longer aligns with the DUC ta following the revised traffic forecasts, the NSA will provide further information and quantification on this and other cost drivers associated with meeting the capacity target.

On the other hand, should the revised forecasts be higher, the DUC performance is likely to improve if it is updated.

Finally, we understand that the restructuring costs for 2021 can be excluded from the above figure for assessment of performance against the EU wide target, and have reflected this in decision document DUC summary analysis.

\* Refer to Annex R, if necessary.

osts EUR2017		
228,332		
220,332		
huild up has		
build up has		
herefore been		
ation material,		
osts EUR2017		
2,123,884		
build up has		
herefore been		
I		
ation material,		
osts EUR2017		
-	Check cell not filling	
Service units		
-34,342		
,		
-34,342		
57,572		
s, if the plan is		
.,		
nov En Bouto		
ency En-Route		
2019, the		
Ctarget		
in our		

#### e) Where a deviation from the Union-wide performance targets is observed, please indicate if the NSA considers those deviations to be necessary and proportionate under:

Additional costs of measures necessary to achieve the capacity targets for RP3	No	
Restructuring costs planned for RP3	Yes	Detailed in part 3.4.5 of the performance plan

#### f) Main measures put in place to achieve the targets for determined unit cost (DUC) for en route ANS

The NSA will monitor and validate actual cost efficiency performance, through the provision of regulated entity accounts and otherwise.

The NSA has set cost efficiency targets which are intended to be challenging but achievable for the IAA ANSP, while delivering the required level of service. Most of the cost risk, particularly for operating costs, is assigned to the IAA ANSP within the regulatory period. This is the primary incentive-based regulatory mechanism which creates an incentive for the IAA ANSP to incur efficient expenditure only, in order to increase profit. This is the main incentive measure in place to achieve or outperform the DUC for En Route ANS.

\* Refer to Annex R, if necessary.

g) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of corrections applied to the cost base as a result of this verification

The NSA has verified that only eligible costs have been included in the unit rate calculations. All North Atlantic Communications (NAC) and non-ANS related costs have been omitted. Where appropriate, we have developed or adjusted the cost allocation methodologies between terminal, en route and NAC.

Based on our audit of MET costs in 2019, we discovered that the costs reported previously in the tables were the charged costs which differed from the actual costs. As such, the NSA has made a baseline adjustment to the MET staff and non-staff costs for 2019 to reflect the actual costs accurately.

The full details of this verification process have been provided in the Consultation Document of 30 July.

\* Refer to Annex U, if necessary.

## 3.4.2 - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

#### Terminal Charging Zone #1 - Ireland - TCZ

#### a) RP3 revised cost-efficiency performance targets (IR 2020/1627)

Terminal charging zone	Baseline 2019	RP3 revis	sed cost-efficiency t	argets (determined	2020-2024)	2024 D
Ireland - TCZ	2019 B	2020/2021 D	2022 D	2023 D	2024 D	vs. 2019 B
Total terminal costs in nominal terms (in national currency)	25,609,000	40,756,578	27,521,214	30,314,899	31,332,655	22.4%
Total terminal costs in real terms (in national currency at 2017 prices)	25,293,214	40,041,939	26,649,280	29,004,827	29,593,467	17.0%
Total terminal costs in real terms (in EUR2017) 1	25,293,214	40,041,939	26,649,280	29,004,827	29,593,467	17.0%
YoY variation		58.3%	-33.4%	8.8%	2.0%	
Total terminal Service Units (TNSU)	187,709	147,215	136,070	163,328	188,290	0.3%
YoY variation		-21.6%	-7.6%	20.0%	15.3%	
Real terminal unit costs (in national currency at 2017 prices)	134.75	272.00	195.85	177.59	157.17	16.6%
Real terminal unit costs (in EUR2017) 1	134.75	272.00	195.85	177.59	157.17	16.6%
YoY variation		101.9%	-28.0%	-9.3%	-11.5%	

National currency	EUR
1 Average exchange rate 2017 (1 EUR=)	1.00

#### b) Information on the baseline values for the determined costs and the determined unit costs

Terminal charging zone	Baseline 2019	Actuals 2019	2019 Baseline
Ireland - TCZ	2019 B	2019 A	adjustments
Total terminal costs in nominal terms (in national currency)	25,609,000	25,011,000	598,000
Total terminal costs in real terms (in national currency at 2017 prices)	25,293,214	24,704,668	588,546
Total terminal costs in real terms (in EUR2017) 1	25,293,214	24,704,668	588,546
Total terminal Service Units (TNSU)	187,709	187,709	0

#### c) Detailed justifications for the adjustments to the baseline values

#### c.1) Adjustments to the 2019 baseline value for the determined costs

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Actual cost correction	Met Éireann ASD	MET	Staff	59,000	58,067	58,067

Number of adjustments

2

Description and justification of the adjustment

MET costs previously reported as 2019 actuals were costs charged (i.e. the determined cost), not costs incurred by MET ASD in 2019. This was an error, and the 2019 actual MET cost build up has now been validated by the NSA. To avoid confusion given the previously reported number, this is reported as a baseline adjustment to the 2019 actual. The 2019 baseline value has therefore been updated to reflect actual costs incurred by MET ASD, ensuring that all entities actual 2019 costs are used for the baseline value. Detail on this adjustment was included in the consultation material, and no objections or disagreement was observed.

Adjustment 1 (TER) comprises the staff costs element of correcting this issue.

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Actual cost correction	Met Éireann ASD	MET	Other operating	539,000	530,479	530,479
Description and justification of the adjustment						

Description and justification of the adjustment

MET costs previously reported as 2019 actuals were costs charged (i.e. the determined cost), not costs incurred by MET ASD in 2019. This was an error, and the 2019 actual MET cost build up has now been validated by the NSA. To avoid confusion given the previously reported number, this is reported as a baseline adjustment to the 2019 actual. The 2019 baseline value has therefore been updated to reflect actual costs incurred by MET ASD, ensuring that all entities actual 2019 costs are used for the baseline value. Detail on this adjustment was included in the consultation material, and no objections or disagreement was observed.

#### Adjustment 2 (TER) comprises the non-staff costs element of correcting this issue.

Total adjustments to the 2019 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs EUR2017
Total adjustments to the 2019 baseline value for the determined costs	598,000	588,546	588,546

#### c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units No

#### d) Description and justification of the contribution of the the local targets to the performance of the European ATM network

Similar to the approach to En Route, the NSA has sought to develop Terminal cost forecasts on the basis of efficiently delivering the required level of capacity and safety performance. This maximises the value that the IAA ANSP terminal performance will add to the European ATM network in RP3 (and RP4, given the 2020/2021 revenue will continue to be recovered in RP4). Notwithstanding the reduction in traffic which neccessarily impacts the Unit Rates, we estimate that the increase for 2022 relative to 2021 will be limited to c10%, and the rate will then decline slightly for 2023 and 2024.

\* Refer to Annex R, if necessary.

#### e) Main measures put in place to achieve the targets for determined unit cost (DUC) for terminal ANS

The NSA will monitor and validate actual cost efficiency performance, through the provision of regulated entity accounts and otherwise.

The NSA has set cost efficiency targets which are intended to be challenging but achievable for the IAA ANSP, while delivering the required level of service. Most of the cost risk, particularly for operating costs, is assigned to the IAA ANSP within the regulatory period. This is the primary incentive-based regulatory mechanism which creates an incentive for the IAA ANSP to incur efficient expenditure only, in order to increase profit. This is the main incentive measure in place to achieve or outperform the DUC for Terminal ANS.

\* Refer to Annex R, if necessary.

## f) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of corrections applied to the cost base as a result of this verification

The NSA has ensured that only eligible costs are included in the terminal unit rate calculations. All costs relating to en route, NAC and non-ANS activities are excluded. As part of this process, we have developed or adjusted the cost allocations to terminal where appropriate.

Through the verification process, we found that MET costs in 2019 had previously been reported incorrectly. The costs that were included represented charged costs rather than actual costs, and this has now been corrected to reflect the actual costs.

The full details of this verification process have been provided in the Consultation Document of 30 July.

\* Refer to Annex U, if necessary.

#### 3.4.3 - Pension assumptions

ΙΑΑ

#### **3.4.3.1** Total pension costs (in nominal terms in '000 national currency)

Pension costs	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pension costs	13,332	12,220	25,552	13,201	13,682	14,025
En-route activity	11,378	10,559	21,936	11,407	11,772	12,037
Terminal activity	1,954	1,661	3,615	1,793	1,911	1,989
Other activities			-			

#### 3.4.3.2 Assumptions for the "State" pension scheme (in nominal terms in '000 national currency)

Are there different contribution rates for different staff categories? If yes, how many?	Select

<staff category="" name=""></staff>	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies			-			
Employer % contribution rate to this scheme						
Total pension costs in respect of this scheme			-			
Number of employees the employer contributes for in this scheme						

Description on the relevant national pension regulations and pension accounting regulations on which the assumptions are based, as well as information whether changes of those regulations are to be expected during RP3

Not Applicable

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs

Describe the actions taken ex-ante to manage the cost-risk (cost increase) associated with this item, as well as the actions taken to limit the impact of the unforeseen change on the costs to be passed on to airspace users

#### 3.4.3.3 Assumptions for the occupational "Defined contributions" pension scheme (in nominal terms in '000 national currency)

Are there different contribution rates for different staff categories? If yes	s, how many?				No	
<staff category="" name=""></staff>	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	The IAA ANSP has advised that this data is commercially confidential, so it has not bee					
Employer % contribution rate to this scheme		made publically available. If required, the unredacted version of this tab can b provided directly to the PRB/EC on a confidential basis.				
Total pension costs in respect of this scheme	1,253	1,485	2,737	1,823	1,959	2,075
Number of employees the employer contributes for in this scheme	182	182		204	218	243

Description on the relevant national pension regulations and pension accounting regulations on which the assumptions are based, as well as information whether changes of those regulations are to be expected during RP3

This is a Hybrid scheme, with a defined benefit element up to a certain salary cap, and a defined contribution element thereafter.

The ANSP has provided the following information to the NSA:

It is assumed that annual pension costs are the amounts that will be paid over in contributions by the employer to the pension fund in each year of RP3. The percentage contribution has been determined by the schemes' actuary to be compliant with the requirement to fund the pension plan on an ongoing basis and on a Minimum Funding Standard basis.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs

Information about pension costs as a proportion of staff salaries, and contribution rates, was provided by the ANSP. In the NSA forecasts, this was combined with the changing share of total staff in each year to derive an overall pension cost rate as a proportion of total salaries. An adjustment factor was then applied so that the proportions matched with the IAA ANSP business plan. The resulting pension cost rates were applied to the respective staff costs in each year to determine the pension costs.

Describe the actions taken ex-ante to manage the cost-risk (cost increase) associated with this item, as well as the actions taken to limit the impact of the unforeseen change on the costs to be passed on to airspace users

This pension scheme applies to all employees who joined the IAA since 01 January 2012. The defined benefit element of the scheme is capped. Employees currently contribute 4.5% per annum towards the funding of the defined benefit element of this scheme. Employees, whose pensionable pay exceeds the cap, contribute to a defined contribution scheme. Their contributions, up to a ceiling, are matched by the employer.

#### 3.4.3.4 Assumptions for the occupational "Defined benefits" pension scheme (in nominal terms in '000 national currency)

Does the ANSP assume liability for meeting future obligations for the occupational "Defined benefits" scheme?YesIs the occupational "Defined benefits" pension scheme funded?Yes

	2020D	2021D	2020/2021D	2022D	2023D	2024D	
	The IAA ANSP	has advised th	at this data is c	ommercially co	onfidential, so i	t has not been	
Total pensionable payroll to which this scheme applies	made pub	lically available	e. If required, th	ne unredacted	version of this	tab can be	
		provided dir	ectly to the PRE	B/EC on a confi	dential basis.		
Total pension costs in respect of this scheme	<b>12,079 10,735 22,815 11,377 11,724 11,950</b>						
- in respect of regular pension costs	12,079	10,735	22,815	11,377	11,724	11,950	
- in respect of non-recurring deficit repair			-				
<ul> <li>reported as staff costs (in reporting tables)</li> </ul>			-				
- not reported as staff costs (in reporting tables): please use comment							
box			-				
Actuarial assumptions							
% discount rate							
% projected increase in benefits	This data may be commercially confidential, so it has not been made publically						
% annual increase in salaries	available. If required, the unredacted version of this tab can be provided directly to the						
% expected return on plan assets	PRB/EC on a confidential basis.						
Net funding surplus / deficit							
Number of employees the employer contributes for in this scheme	Not	available- IAA	pension scheme	e covers all em	ployees of the	IAA.	

Description on the relevant national pension regulations and pension accounting regulations on which the assumptions are based, as well as information whether changes of those regulations are to be expected during RP3

The ANSP has provided the following information to the NSA:

It is assumed that annual pension costs are the amounts that will be paid over in contributions by the employer to the pension fund in each year of RP3. The percentage contribution has been determined by the schemes' actuary to be compliant with the requirement to fund the pension plan on an ongoing basis and on a Minimum Funding Standard basis.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs

Information about pension costs as a proportion of staff salaries, and contribution rates, was provided by the ANSP. In the NSA forecasts, this was combined with the changing share of total staff in each year to derive an overall pension cost rate as a proportion of total salaries. An adjustment factor was then applied so that the proportions matched with the IAA ANSP business plan. The resulting pension cost rates were applied to the respective staff costs forecast in each year to determine the pension costs.

Where, in the Reporting Tables, some occupational "defined benefits" costs (e.g. interest expense related to pensions) are reported in other cost item(s) than staff costs, the cost item(s) should be indicated here below along with corresponding explanations.

Describe the actions taken ex-ante to manage the cost-risk (cost increase) associated with this item, as well as the actions taken to limit the impact of the unforeseen change on the costs to be passed on to airspace users

The ANSP has provided the following information to the NSA:

The main defined benefit pension scheme has been closed to new entrants since 01 January 2012. The Board of the IAA decided, and communicated to all staff

and pension trustees, that there would be no further increases granted on pensions payable under the scheme with effect from 01 January 2015.

## 3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services

Select number of loans

Interest rate assumptions for loans financing the provision of air navigation services (Amounts in nominal terms in '000 national currency)										
										Other loans
	The dropdown menu does not provide an option for zero loans, as is currently the case for									
Description	the IAA ANSP. <sup>1</sup>	The IAA ANSP h	as revolving cred	it facilities in pl	ace, but these h	ave not, at this				
	time, been dra	wn down.								
Remaining balance										
Average weighted interest rate %	-		-	-	-	-				
Interest amount			-							
Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D				

Select

Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total remaining balance	-	-		-	-	-
Average weighted interest rate %	-	-		-	-	-
Interest amount	-	-	-	-	-	-

#### 3.4.5 - Restructuring costs

#### 3.4.5.1 Restructuring costs from previous reference periods to be recovered in RP3

Restructuring costs from previous reference periods approved by the European Commission?	No
Restructuring costs norm previous reference perious approved by the European commission:	110

#### 3.4.5.2 Restructuring costs planned for RP3

Restructuring costs foreseen for RP3?	Yes
If yes, number of charging zones concerned	1

IAA

#### a) Overall description of the restructuring measures planned for RP3

Staff costs (exceptional item) related to Voluntary Severance Scheme (VSS) and Voluntary Early Retirement (VER) for a total of 9 FTEs in 2021, as a result of the reduced staffing requirement arising from the impact of COVID-19. This was a significant one-off cost in 2021 related to compensating staff, with financial benefits for airspace users within RP3 as the level of overstaffing is reduced in 2021/2022/2023. The NSA has considered and assessed the respective payback periods for these measures as outlined below.

b) Where applicable, information on how the restructuring measures make use of shared services, ATM data services and/or how the measures contribute to infrastructure rationalisation

Not Applicable

#### c) Detailed information on the restructuring measures planned for RP3

Number of restructuring measures	4
----------------------------------	---

Measure #1	2020D	2021D	2020/2021D	2022D	2023D	2024D		
Associated restructuring costs (nominal terms in '000 national currency)		830,443	830,443					
Description and justification of the restructuring measure								
Voluntary Severance Scheme (ATCO)								
Demonstration that the restructuring measure will deliver a net financial	benefit to airsp	oace users at th	ne latest in the r	next reference	period			
Annual average staff cost saving of €500,200, with 2021 restructuring co	osts fully recou	ped by 2023.						
Information on the impact of the restructuring measure on the key perfor	rmance area of	Safety						
Information on the impact of the restructuring measure on the key perfor	formation on the impact of the restructuring measure on the key performance area of Environment							
Information on the impact of the restructuring measure on the key perfor	rmance area of	Capacity						

Measure #2	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Associated restructuring costs (nominal terms in '000 national currency)		100,000	100,000				
Description and justification of the restructuring measure							
/oluntary Early Retirement (ATCO)							
Demonstration that the restructuring measure will deliver a net financial benefit to airspace users at the latest in the next reference period							
Annual average staff cost saving of €100,040, with 2021 restructuring co	osts fully recou	ped by 2022.					
Information on the impact of the restructuring measure on the key perfo	rmance area of	Safety					

h	Information on the impact of the restructuring measure on the key performance area of Environment
-	Information on the impact of the restructuring measure on the key performance area of Capacity

Measure #3	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Associated restructuring costs (nominal terms in '000 national currency)		250,380	250,380				
Description and justification of the restructuring measure	<u> </u>		·				
Voluntary Severance Scheme (Station Manager)							
Demonstration that the restructuring measure will deliver a net financial	benefit to airsp	bace users at th	ne latest in the r	next reference	period		
Annual average staff cost saving of €135,190, with 2021 restructuring co	osts fully recou	iped by 2023.					
Information on the impact of the restructuring measure on the key perfor	mance area of	Safety					
nformation on the impact of the restructuring measure on the key performance area of Environment							
Information on the impact of the restructuring measure on the key perfor	mance area of	Capacity					

Measure #4	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated restructuring costs (nominal terms in '000 national currency)		108,000	108,000			
Description and justification of the restructuring measure						
Voluntary Severance Scheme (Data Assistant)						
Demonstration that the restructuring measure will deliver a net financial k	penefit to airsp	ace users at th	e latest in the r	next reference	period	
Annual average staff cost saving of €51,409, with 2021 restructuring cos	ts fully recoup	ed by 2023.				
Information on the impact of the restructuring measure on the key perfor	mance area of	Safety				
Information on the impact of the restructuring measure on the key perfor	mance area of	Environment				
Information on the impact of the restructuring measure on the key perfor	mance area of	Capacity				

	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Total restructuring costs by measures ('000 national currency)	-	1,288,823	1,288,823	-	-	-	ĺ

d) Detailed information on the restructuring costs by nature by charging zone

Restructuring costs planned for RP3 by nature and by charging zone	
(nominal terms in '000 national currency)	

Ireland	2020D	2021D	2020/2021D	2022D	2023D	2024D
Staff			-			
of which, pension costs			-			
Other operating costs			-			
Depreciation			-			
Cost of capital			-			
Exceptional items		1,288,823	1,288,823			
Total restructuring costs	-	1,288,823	1,288,823	-	-	-

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total restructuring costs by charging zone ('000 national currency)	-	1,288,823	1,288,823	-	-	-

Additional comments

We understand that these costs can be excluded when assessing performance against the EU-wide DUC target, and have reflected this in the analysis in our decision document.

## 3.4.6 - Additional determined costs related to measures necessary to achieve the en route capacity targets

Additional costs of measures necessary to achieve the capacity targets for RP3? No

3.5 Additional KPIs / Targets

#### Annexes of relevance to this section

ANNEX J. OPTIONAL KPIS AND TARGETS

# SECTION 3.6: DESCRIPTION OF KPAS INTERDEPENDENCIES AND TRADE-OFFS INCLUDING THE ASSUMPTIONS USED TO ASSESS THOSE TRADE-OFFS

#### 3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs

- 3.6.1 Interdependencies and trade-offs between safety and other KPAs
- 3.6.2 Interdependencies and trade-offs between capacity and environment
- 3.6.3 Interdependencies and trade-offs between cost-efficiency and capacity
- 3.6.4 Other interdependencies and trade-offs

## 3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs

### 3.6.1 - Interdependencies and trade-offs between safety and other KPAs

a) Do the measures to reach the targets in the different KPAs require changes in the ANSP functional system that have safety implications? If yes, which mitigation measures are put in place? The IAA ANSP has confirmed in its Business Plan that any decisions that include consideration of

interdependencies or trade-offs between safety and other KPAs, will be managed such that the required level of safety performance will not be compromised.

b) What are the main assumptions used to assess the interdependencies between safety and other KPAs? The required level of safety, capacity and environmental performance have been used as inputs to the level of determined costs forecast by the NSA in relation to, for example, staff headcount forecasts (which allow for increases associated with EU Regulation 2017/373 compliance measures) and capital investment requirements.

While, conceptually, a trade-off between safety KPA performance and other KPA performance is likely to exist, the importance of ensuring the required level of operational safety and safety management means that these trade-offs should not exist in practice. In the context of other KPAs, all necessary costs should be incurred in order to achieve the required level of safety performance, irrespective of whether the funds and resources associated with these costs could yield greater improvements in performance in other KPAs (or adversely affect

c) What metrics, other than those indicators described in the Regulation, are you monitoring during RP3 to ensure targets in the KPAs of capacity, environment, and cost-efficiency are not degrading safety? The NSA monitors a range of Safety Performance Indicators (SPIs), including the rate of Runway Incursions and Separation Minima Infringements. For the defined SPIs, there are associated safety targets and alert thresholds to provide quantifiable measures for the maintenance and/or improvement of the level of safety for the air navigation services domain in Ireland. This methodology is developed to identify an Acceptable Level of Safety

d) Do targets allow trade-offs in operational decision making to managing resource shortfalls in order to preserve safety performance? Do targets restrict the release of staff for safety activities, such as training? Historically, the IAA ANSP has achieved both its Environmental targets and En Route capacity targets, the latter by a large margin. This implies that if additional resources were required in order to maintain safety performance, the environmental and capacity KPA targets could, up to a point, still be achieved with fewer resources. However, as noted above, given safety performance is the primary priority, the resources required to maintain safety performance will be provided, even if this is at the expense of other KPA targets.

As noted above, the NSA forecasts are intended to allow the ANSP to efficiently meet the required level of

e) Has the State reviewed the ANSP financial and personnel resources that are needed to support safe ATC service provision through safety promotion, safety improvement, safety assurance and safety risk management after changes introduced to achieve targets in other KPAs? Please, explain.

As part of its regulatory oversight function, as well as using the required level of performance as inputs to the cost forecasts, the NSA has undertaken a financial viability and stress test assessment of the IAA ANSP. Based on financial projections, the IAA ANSP's coverage ratios are well within a sustainable range and, under a scenario of an unplanned +10% increase in operating costs, the ratios remain within a sustainable range (see the Decision document for further detail). Therefore, the NSA is confident that even in the event of a severe downside scenario where actual costs exceed Determined Costs, the permitted level of Determined Costs will generate a revenue stream which is sufficient to enable the financial viability of the ANSP and the achievement of the KPA targets. While we have set cost forecasts which we consider achievable, even if IAA ANSP is unable to fully meet the cost efficiency KPA targets, performance in the other KPAs does not need to be degraded.

It is therefore the NSA's view that, in the event that the IAA ANSP is unable to meet all KPA targets simultaneously, it is the actual cost efficiency performance against the DUC which should be degraded in the first instance, rather than capacity or environment performance. In all singurateness, the required level of

## 3.6.2 - Interdependencies and trade-offs between capacity and environment

While a trade-off between improving performance in either the capacity or environment KPA could exist (if improving one KPA meant forgoing improvements in the other), in practice it appears there is currently little or no trade-off between improving performance in either of these KPAs in Irish airspace.

Less capacity and more congested airspace implies that airspace users have less ability to use the most efficient flight routing and, conversely, more capacity implies more efficient flight paths can be achieved. Therefore, while performance in these KPAs appears to be interdependent, there does not appear to be an inherent trade-off.

It is possible, in some circumstances, particularly in very congested airspace, that the most efficient flightpath could have an adverse impact on capacity and increase delay; however, this does not appear to currently be the case in Irish airspace. The IAA ANSP stated in its RP3 Business Plan that the implementation of any measures

#### 3.6.3 - Interdependencies and trade-offs between cost-efficiency and capacity

The relationship between cost efficiency and ANSP-attributable delay is likely to be largely long term; though incremental additional capacity can be provided in the short term, material increases in capacity can be provided by either by capital investment in infrastructure and/or training of additional ATCOs, both with long lead times. The IAA ANSP stated within its RP3 Business Plan that if staffing levels fall, there is likely to be increased delays in peak months later in RP3, implying staffing levels are primary driver of the interdependency between capacity and cost efficiency.

Ideally, capacity targets should be set at the optimum point where the marginal cost associated any additional reduction in delay exceeds the marginal economic benefits associated with any further delay reduction, in line with the PRB's economic cost of delay concept.

Throughout RP2, Ireland's ANSP-attributable delay was close to zero and was significantly below target, and although the capacity reference values and targets have been reduced for RP3, Ireland's delay is not projected to exceed the new targets in RP3 – due in part to the fact traffic is projected to remain below 2019 levels throughout most of RP3. Based on current levels of delay and the PRB targets, the IAA ANSP appears to be operating at a point where there is limited scope for further reduction in delay and the monetary costs associated with this are likely to exceed the value of any savings in terms of the cost of delay.

#### 3.6.4 - Other interdependencies and trade-offs

#### 4.1 - Cross-border initiatives and synergies

4.1.1 - Planned or implemented cross-border initiatives at the level of ANSPs

4.1.2 - Investment synergies achieved at FAB level or through other cross-border initiatives

#### 4.2 - Deployment of SESAR Common Projects

#### 4.3 - Change management

Annexes of relevance to this section

ANNEX N. CROSS-BORDER INITIATIVES

## 4.1 - Cross-border initiatives and synergies

## 4.1.1 - Planned or implemented cross-border initiatives at the level of ANSPs

Number of cross-border initiatives	4
·	
	Initiative #1
Name	COOPANS
	COOPANS is an international partnership that includes the IAA ANSP and ANSPs from five other countries
Description	(Austria, Croatia, Denmark, Portugal and Sweden). COOPANS has a common managerial approach, whereby
	the six ANSPs act as one organisation together with the supplier (Thales).
	The partnership allows for the delivery of common ATM systems and functionality intended to steadily
	enhance safety and productivity. This also allows for economies of scale and common ATM systems, as
	'builds', or packages of functionality, are agreed by the COOPANS Board, allowing for common
	development, integration, deployment, and maintenance. System incidents that occur in one ANSP can be
	remedied accross all the partners, before they cause service interruptions for other ANSPs. The NSA has
Expected performance benefits	allowed for costs for further COOPANS investments over RP3.
	The IAA ANSP has estimated that, as a result of the COOPANS partnership it has saved €50m since 2011,
	although this figure has not been validated by the NSA.

Initiative #2				
Name	Borealis			
Description	Borealis is an alliance of ANSPs from Ireland, Denmark, Estonia, Finland, Iceland, Latvia, Norway, Sweden and the UK. Borealis Alliance focuses on cooperation between the member ANSPs. The alliance is an enabler of joint initiatives to improve flight efficiency and reduce environmental impact, delivered across the whole area.			
Expected performance benefits	The most significant benefit in RP3 will be the facilitation of the implementation of cross border FRA across northern Europe, stretching from the eastern boundary of the North Atlantic to the western boundary of Russian airspace in the North of Europe. NATS is planning to introduce FRA on a phased basis from December 2021. FRA within NATS airspace will complete the roll out of cross border FRA across the entire airspace of the Borealis nine-member states. As explained in relation to the Environment KPA, the implementation of UK FRA is expected to be a significant enabler in improved KEA performance by the IAA ANSP.			

	Initiative #3				
Name	Entry Point North				
Description	Entry Point North is a global ATS training academy that offers a wide portfolio of services to aspiring and operational air traffic controllers, air traffic service officers, air traffic safety electronics personnel, administrative personnel and other aviation related personnel. It has locations in Ireland, Sweden, Hungary, Denmark, Spain and Belgium.				
Expected performance benefits	In terms of efficiencies during RP3, the sharing of training costs and common overheads ultimately ensures that training is received at a reduced cost. The IAA ANSP has previously estimated the direct and indirect benefit at around €.5m compared to tailoring bespoke training in-house, although the cost of training is currently reduced due to COVID-19 related measures.				

	Initiative #4
Name	Aireon ALERT
	Aireon ALERT uses Aireon's space-based ADS-B data and is operated by the IAA ANSP. Other ANSPs, airlines, regulators and search and rescue organizations can use Aireon ALERT to ensure search and rescue personnel
Description	have the most accurate aircraft position data available when responding to an incident, regardless of global location. ANSPs, Commercial Aircraft Operators/Airlines, Search & Rescue organizations and regulators can all register for free.
Expected performance bonefits	This cross border initiative enhances the ability of Search and Rescue personnel to respond effectively to an incident.
Expected performance benefits	More generally, the IAA ANSP involvement in the Aireon Space Based ADS-B partnerhip has the potential to deliver significant enhancements in productivity and efficiency in the delivery of air traffic services albeit in the medium and longer term.

Additional comments	

## 4.1.2 - Investment synergies achieved at FAB level or through other cross-border initiatives

Details of synergies in terms of common infrastructure and common procurement

As outlined above, COOPANS has provided for the delivery of common systems within the member ANSPs since 2011. The IAA ANSP has estimated that this has led to savings of €50m for the IAA ANSP alone to date.

## 4.2 - Deployment of SESAR Common Projects

## 4.2.1 - Common Project One (CP1)

CP1 ATM Functionality (CP1-AF) / Sub unctionality (CP1-s-AF)	Recent and expected progress
P1-AF1 - Extended AMAN and Integrat	ed AMAN/DMAN in High-Density TMAs
	Basic AMAN is already implemented.
CP1-s-AF1.1 AMAN extended to en- route airspace	AMAN Upgrade to include Extended Horizon function: In so far as possible information is exchanged in support of AMAN, and this objective is recorded as closed subject to further development
	between NATS and the IAA ANSP, in support of the LAMP 2 Project.
CP1-s-AF1.2 AMAN/DMAN Integration	Enhanced AMAN/DMAN Integration is planned by 2023. It is being addressed in line with Implementation Objectives ATC 15.1 and ATC 15.2.
P1-AF2 - Airport Integration and Throu	lghput
	Initial DMAN is already implemented.
	Electronic Flight Strips (EFS) is already implemented.
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	Time Based Separation (TBS) is planned and expected to be completed in Dec 2023.
	Basic A-CDM is already implemented.
	A-SMGCS Level 1 and 2 is already implemented.
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	Initial Airport Operations Plan (AOP) is planned. Implementation will be separately addressed following full implementation of A-CDM. daa (Dublin Airport operator) is seeking funding in a collaboration with another European airport for an implementation date by 2023. Also being engaged are the MET service provider for Ireland, MET Eireann. It is expected to be completed in September 2022.
CP1-s-AF2.2.2 Airport operations plan (AOP)	See above, this is subsequent to the iAOP.
CP1-s-AF2.3 Airport safety nets	Airport Safety Nets associated with A-SMGCS (Level 2) is to be addressed after Dublin Airport North Runway becomes operational in 2022. Vehicle systems contributing to Airport Safety Nets (Part A) is to be addressed after North Runway becomes operational.
P1-AF3 - Flexible Airspace Managemer	ASM Tool to support AFUA Objective was planned for end 2019 completion, in conjunction with
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	NATS, as part of the FAB integrated network management function, through use of LARA. NATS software is awaiting deployment in Shannon ACC and in line with LoA arrangements with the NM. Delivery is delayed pending rollout of LARA in IAA as part of the UK/IRL FAB AMC function. The IAA ANSP has a signed LARA Agreement in place with the NM and is awaiting a final technical solution for rollout, from NATS (likely to be a VPN solution). Planned implementation including rollout of a LARA PC, for IAA ANSP is expected Q3 2021.
	ASM Management of real time airspace data is planned. It is expected to be completed in December 2021.
	Full rolling ASM/ATFCM process and ASM information sharing is not planned.
	Management of Dynamic Airspace Configurations is already implemented.
	Upgrade of ATM systems (NM, ANSPs, Aus) to support Direct Routings (DCTs) and Free Routing Airspace (FRA) is already implemented.
CP1-s-AF3.2 Free route airspace	Published Direct Routings (DCTs) is already implemented.
	Free Route Airspace is already implemented in Irish controlled airspace. IAA ANSP is working with NATS on the implementation of Direct Route Airspace in part of Scottish airspace.

	STAM Phase I is already implemented.
CP1-s-AF4.1 Enhanced short-term ATFCM measures	STAM Phase 2 is planned. Currently, IAA ANSP and NATS agree manually applied STAMs as required. Automation of this process in consultation with NM (centrally through the IRL/UK FAB FMP), will be examined in consultation between the FAB partners and the NM, utilizing B2B functionality. It is expected to be completed in Dec 2021.
	Interactive Rolling NOP is planned. Dialogue is on-going between NATS and the IAA ANSP with a view to approval of a LARA connection with UK IAA LARA being connected to the Swanwick server. This process is being addressed jointly by Ireland and the UK as FAB partners through the IRL-UK FAB at AMC level. The Irish Military is also included in this process.
	The implementation date was planned for Q4-2020, however the IAA ANSP advises that due to constraints as a result of COVID-19, this objective is expected to be delivered by end Q2-2021. It is expected to be completed in 2021.
CP1-s-AF4.2 Collaborative NOP	Interface ATM systems to NM systems is being addressed in line with on going development of ATM systems within the IAA ANSP. In addition data is shared where required to meet stakeholder requirements.
	The IAA ANSP has provided a general comment that it is still unclear as to what level this capability will be required by IAA ANSP when LARA is expected to deliver much of what is required for this objective. This is under review for update in the 2021 LSSIP Report, i.e. integration of LARA into COOPANS systems.
CP1-s-AF4.3 Automated support for traffic complexity assessment	Traffic Complexity tools is ongoing. Expected completion is December 2021.
CP1-s-AF4.4 AOP/NOP integration	AOP/NOP information sharing is not yet planned.
CP1-AF5 - SWIM	
CP1-s-AF5.1 Common infrastructure	PENS 1: Pan-European Network Service version 1 is already implemented.
components	NewPENS: New Pan-European Network Service is completed.
	Stakeholders Internet Protocol Compliance is planned. It is expected to be completed in Dec 2022.
CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	Stakeholders SWIM Infrastructures Components is ongoing. It is expected to be completed in Dec 2023.
specifications	Stakeholders SWIM PKI and Cybersecurity is planned. It is expected to be completed in Dec 2023.
CP1-s-AF5.3 Aeronautical information exchange	Upgrade/Implement Aeronautical Information Exchange System/Service is planned. It is expected to be completed in Dec 2025.
CP1-s-AF5.4 Meteorological information exchange	Upgrade/Implement Meteorological Information Exchange System/Service is planned. It is expected to be completed in Dec 2024.
CP1-s-AF5.5 Cooperative network information exchange	Upgrade/Implement Cooperative Network Information Exchange System/Service is planned. It is expected to be completed in Dec 2023.
CP1-s-AF5.6 Flight information exchange (yellow profile)	Upgrade/Implement Flight Information Exchange System/Service supported by Yellow Profile is in the planning phase. It is expected to be completed in March 2025.
CP1-AF6 - Initial Trajectory Information	Sharing
CP1-s-AF6.1 Initial air-ground trajectory information sharing	ATN B1 based services in ATSP domain is already implemented. ATN B2 based services in ATSP domain is not yet planned.
CP1-s-AF6.2 Network Manager trajectory information enhancement	
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	A/G and G/G Multi Frequency DL Network in defined European Service Areas (Country Level) is already implemented.

## 4.3 - Change management

Change management practices and transition plans for the entry into service of major airspace changes or for ATM system improvements, aimed at minimising any negative impact on the network performance

The NSA will oversee the requisite change management protocols pursuant to Implementing Regulation 373/2017, including reviews of changes to the functional system. These are an integral part of the Regulatory Oversight framework and Safety Management System (SMS). The IAA ANSP Change Management protocols are applied to every aspect of ANS activity.

The IAA ANSP has noted that there is close co-operation at Network level with Eurocontrol (and NATS) to ensure the cross-border impact of significant changes are effectively managed.

#### 5.1 - Traffic risk sharing parameters

5.1.1 Traffic risk sharing - En route charging zones

5.1.2 Traffic risk sharing - Terminal charging zones

#### 5.2 - Capacity incentive schemes

5.2.1 - Capacity incentive scheme - Enroute

5.2.1.1 Parameters for the calculation of financial advantages or disadvantages - Enroute

5.2.1.2 Rationale and justification - Enroute

5.2.2 - Capacity incentive scheme - Terminal

5.2.2.1 Parameters for the calculation of financial advantages or disadvantages - Terminal

5.2.2.2 Rationale and justification - Terminal

#### 5.3 - Optional incentives

#### Annexes of relevance to this section

ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES ANNEX K. OPTIONAL INCENTIVE SCHEMES

## 5.1 - Traffic risk sharing

## 5.1.1 Traffic risk sharing - En route charging zones

Ireland			Traffic risk-sharing	no		
			Service units lo	ower than plan	Service units hi	gher than plan
	Deedhand	Risk sharing band	% loss to be	Max. charged if	% additional	Min. returned if
	Dead band		recovered	SUs 10% < plan	revenue returned	SUs 10% > plan
Standard parameters	±2.00%	±10.0%	70.0%	5.6%	70.0%	5.6%

## 5.1.2 Traffic risk sharing - Terminal charging zones

Ireland - TCZ	] [		Traffic risk-sharing parameters adapted?			no
	-		Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be	Max. charged if	% additional	Min. returned if
			recovered	SUs 10% < plan	revenue returned	SUs 10% > plan
Standard parameters	±2.00%	±10.0%	70.0%	5.6%	70.0%	5.6%

## 5.2 - Capacity incentive schemes

#### 5.2.1 - Capacity incentive scheme - Enroute

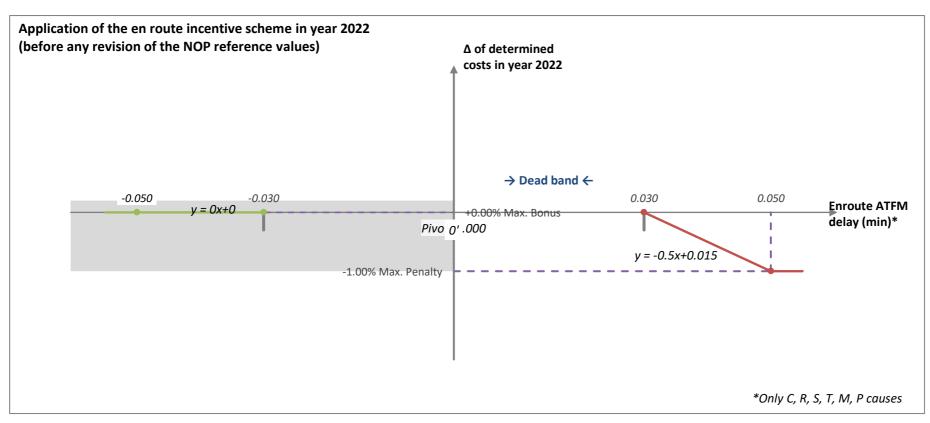
#### 5.2.1.1 Parameters for the calculation of financial advantages or disadvantages - Enroute

Enroute	Expressed in	Value
Dead band $\Delta$	fraction of min	±0.030 min
Max bonus (≤2%)	% of DC	0.00%
Max penalty (≥ Max bonus)	% of DC	1.00%
The pivot values for RP3 are	modulated	

IAA

		2020	2021	2022	2023	2024
NOP reference values (mins of ATFM delay per flight)				0.03	0.03	0.03
Alert threshold ( $\Delta$ Ref. value in fraction of min)				±0.050	±0.050	±0.050
Performance Plan targets (mins of ATFM delay per flight)				0.03	0.03	0.03
Pivot values for RP3 (mins of ATFM delay per flight)*				0.00	0.00	0.00
	Dead band range			[0-0.03]	[0-0.03]	[0-0.03]
Financial advantages / disadvantages	Bonus sliding range			n/a	n/a	n/a
	Penalty sliding range			[0.03-0.05]	[0.03-0.05]	[0.03-0.05]

\* When modulation applies, these figures are only indicative as they will be updated annually on the basis of the November n-1 NOP and the methodology described in 5.2.1.2.a2 below. The pivot values for year n have to be notified to the EC by 1 January n.



#### 5.2.1.2 Rationale and justification - Enroute

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:		
a) In order to enable significant and unforeseen changes in traffic to be taken into account:		
a.1) The pivot value for year n IS the reference value from the November release of year n-1 of the NOP.		
a.2) The pivot value for year n is informed by the November release of the year n-1 of the NOP and calculated according to the following principles and		
formulas:**		

The pivot value has been set as part of a penalty-only incentive scheme in order to disincentivise worse performance, as described above.	
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	Yes
In addition to the desire to specify a penalty-only incentive scheme that disincentives worse performance, the pivot value has been set at zero based on ANSP-attributable ATFM delay.	historic levels of

\*\* Refer to Annex I, if necessary.

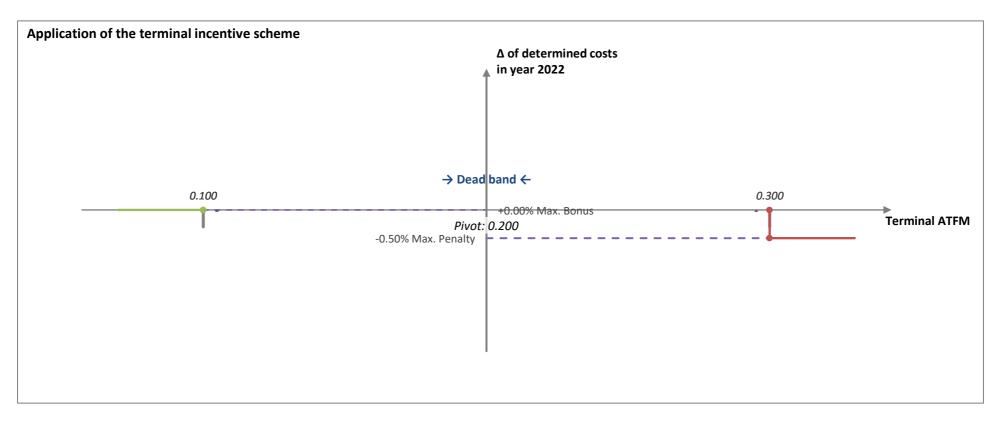
#### 5.2.2 - Capacity incentive scheme - Terminal

#### 5.2.2.1 Parameters for the calculation of financial advantages or disadvantages - Terminal

Terminal	Expressed in	Value
Dead band $\Delta$	%	±50.0%
Bonus/penalty range (% of pivot value)	%	±50%
Max bonus	% of DC	0.00%
Max penalty	% of DC	0.50%
The pivot values for RP3 are	modulated	

		2020	2021	2022	2023	2024
Performance Plan targets (mins of ATFM delay per flight)				0.2	0.2	0.2
Bonus/penalty range $\Delta$ (in fraction of min)				±0.100	±0.100	±0.100
Pivot values for RP3 (mins of ATFM delay per flight)*				0.20	0.20	0.20
	Dead band range			[0.1-0.3]	[0.1-0.3]	[0.1-0.3]
Financial advantages / disadvantages	Bonus sliding range			[0.1-0.1]	[0.1-0.1]	[0.1-0.1]
	Penalty sliding range			[0.3-0.3]	[0.3-0.3]	[0.3-0.3]

\* When modulation applies, these figures are only indicative as they will be updated annually on the basis of the methodology described in 5.2.1.2.a below. The pivot values for year n have to be notified to the EC by 1 January n.



#### 5.2.2.2 Rationale and justification - Terminal

Explain how the bonus and penalties are going to be apportioned between the different terminal charging zones and ANSPs providing services in each of them\*\* N/A

\*\* Refer to Annex I, if necessary.

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:	
a) The pivot value for year n is modulated in order to enable significant and unforeseen changes in traffic to be taken into account and is based on the principles explained below:**	No
N/A	
	1
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and	No
special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	
Historically, the ANSP has had no control over the vast majority (c. 98%) of ATFM arrival delay. While it is possible to modulate the pivot value based on	ANSP-attributable
ATFM arrival delay, we understand it is not possible to implement an ANSP-attributable capacity incentive scheme, which would be more appropriate. For	or example, if the
pivot value were set at zero, the ANSP would still pay penalties based on historic levels of delay, as the level of total ATFM delay would be beyond the th	•
Therefore, the deadband has been set as wide as possible around the pivot value (which is set at the level of the delay target), and bonus and penalty pa in order to avoid, as far as possible, the ANSP being rewarded or penalised for things that are largely not within its control.	

\*\* Refer to Annex I, if necessary.

6.1 Monitoring of the implementation plan

6.2 Non-compliance with targets during the reference period

## 6 - IMPLEMENTATION OF THE PERFORMANCE PLAN

#### 6.1 Monitoring of the implementation plan

Description of the processes put in place by the NSA to monitor the implementation of the Performance Plan including the yearly monitoring of all KPIs and PIs defined in Annex I of the Regulation and a description of the data sources

The NSAs will monitor the performance of the accountable entities on an ongoing basis. On safety, the NSA will continue to conduct an annual review of the EoSM questionnaire, based on actual outcomes each year, and impose remedial measures in any areas of noncompliance with the KPA. The NSA also monitors a range of Safety Performance Indicators (SPIs), including the rate of Runway Incursions and Separation Minima Infringements. For the defined SPIs, there are associated safety targets and alert thresholds to provide quantifiable measures for the maintenance and/or improvement of the level of safety for the air navigation services domain in Ireland.

The NSA will continue to monitor the performance on Capacity and KEA (based on data provided by the NM) and strive to ensure sufficient measures are taken to seek to meet the performance targets. The NSA will hold regular meetings with the ANSP at Dublin Airport to review data on taxi-time and ASMA metrics and discuss any ATM factors that may impact performance.

On cost efficiency, the NSA will monitor actual costs and financial performance through review of regulated entity accounts and audits of the eligibility of reported actual costs. In the context of capital programme underdelivery in RP2, and in line with good practice economic regulation, the NSA will publish regular updates on the progress on delivery of the capital investment programme, and a comparison to our forecasts.

### 6.2 Non-compliance with targets during the reference period

Description of the processes put in place and measures to be applied by the NSA to address the situation where targets are not reached during the reference period

If any performance shortfalls are identified the NSA shall make enquiries with the entity concerned, identify causes and potential corrective measures. The NSA will then monitor the implementation and impact of the corrective measures to determine their effectiveness. All protocols for reporting variances and corrective measures to other stakeholders or oversight bodies will be formally documented.

## 7 - ANNEXES

ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE) ANNEX A.x - En route Charging Zone #x ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL) ANNEX B.x - Terminal Charging Zone #x ANNEX C. CONSULTATION ANNEX D. LOCAL TRAFFIC FORECASTS ANNEX E. INVESTMENTS ANNEX F. BASELINE VALUES (COST-EFFICIENCY) ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING ANNEX H. RESTRUCTURING MEASURES AND COSTS ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES ANNEX J. OPTIONAL KPIS AND TARGETS ANNEX K. OPTIONAL INCENTIVE SCHEMES ANNEX L. JUSTIFICATION FOR SIMPLIFIED CHARGING SCHEME ANNEX M. COST ALLOCATION ANNEX N. CROSS-BORDER INITIATIVES ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS ANNEX S. INTERDEPENDENCIES ANNEX T. OTHER MATERIAL ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

ANNEX Z. CORRECTIVE MEASURES\*

\* Only as per Article 15(6) of the Regulation

PRINT