Performance Plan

Portugal

Third Reference Period (2020-2024)

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

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Signatories

Performance plan details	
State name	Portugal
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Date of issue	01/10/2021
Date of adoption of Draft Performance Plan	01/10/2021
Date of adoption of Final Performance Plan	24/05/2022

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	
Tânia Cardoso Simões Chairwoman of the Board of ANAC	Tânia Sarmento da Silva Reis Cardoso Simões Assinado de forma digital por Tânia Sarmento da Silva Reis Cardoso Simões

Additional comments	

Document change record		
Version	Date	Reason for change
Portugal_V1	22 July 2021	First draft for consultation with stakeholders
Portugal_V2	01/10/2021	Adjustments to the Performance Plan following the consultation process
Portugal_V2.1	11/11/2021	Third draft of the performance Plan after the Completness Check for consultation with stakeholders
Portugal_V3	17/11/2021	Fourth draft of the Performance Plan after the Completness Check
Portugal_V4	23/05/2022	Final Performance Plan

SECTION 1: INTRODUCTION

1.1 The situation

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1 - INTRODUCTION

1.1 - The situation

NSA(s) responsible for drawing up the Performance Plan	Autoridade Nacional da Aviação Civil - ANAC

1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs	4

ANSP name	Services	Geographical scope
NAV Portugal (Continental)	ATM/CNS	Lisboa FIR / UIR
Estado Maior da Força Aérea	Provision of SAR services	Lisboa FIR / UIR
Estado Maior da Armada	Provision of SAR services	Lisboa FIR / UIR
IPMA	Met ANSP	Lisboa FIR / UIR

Cross-border arrangements for the provision of ANS services

Number CB arrangements where ANSPs provide services in an other State	1

ANSPs providing services in the FIR of another State	
ANSP Name	Description and scope of the cross-border arrangement
NAV Portugal	Provision of ATC services in Spanish Airspace above FL245 in accordance with SW FAB agreement

Number CB arrangements where ANSPs from another State provide services in the State	1

ANSPs established in another Member State providing services in one or more of the State's FIRs	
ANSP Name	Description and scope of the cross-border arrangement
ENAIRE	Provision of ATC services in Portuguese Airspace in accordance with SW FAB agreement

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	2

Entity name	Domain of activity	Rationale for inclusion in the Performance Plan
ANAC - Autoridade Nacional da Aviação Civil	National Supervisory Authority	ANAC is responsible for the supervision of the Portuguese ANSP, and in particular regarding the application of Implementing Regulation 2019/317
GAMA	Authority for Aeronautical Metheorology	GAMA is responsible for the supervision of the Portuguese MET ANSP

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	Portugal Continental

Terminal	Number of terminal charging zones	1

Terminal charging zone 1	Portugal - TCZ

1.1.4 - Other general information relevant to the plan

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

As reported at the end of 2020, NAV Portugal made a considerable effort in response to the pandemic and its impacts. Considering the circumstances, NAV Portugal was able to negotiate with its ATCO special conditions to be applied in 2020 and 2021, and that from 2022 with the expected recovery in traffic will begin to be reversed. Below is a summary of the measures taken during the 2-year period:
Measures to reduce personnel costs:
- Salary freezing in 2020 and 2021, which also reduces costs associated with the pension funds;
- Extraordinary work is banned from 27th of March 2020 up to the end of 2021;
- Hiring of non-ATCOs was suspended in 2020 and 2021;
- Hiring of ATCOs was reduced (further details in 3.3 Capacity sheet)
Measures to reduce other operating expenses:
- Travelling suspended completely in 2020, and reduced by 50% in 2021.
Measures related to investments:
- Postponement of non-critical investments.
These measures allowed **NAV Portugal to attain a cost reduction of more than 22% in 2020 and approximatelly 20% in 2021, significantly above the Union-wide targets**.
At the same time, it is important to bear in mind that NAV Portugal continued the deployment of the new ATM system, which had begun before the COVID-19 pandemic, given its importance for the quality of service and even possible impacts in terms of costs. The new ATM system should be operating in 2022, and accordingly from then on depreciation, capital costs and some operational costs associated to it will naturally start to show. This is a specific circumstance that could not be avoided and that will impact the performance in the last 3 years of the Performance Plan. The expected impacts are not limited to cost-efficiency, capacity should also be affected, especially in 2022 when the transition between ATM systems will occur.

Additional comments

1.2 - Traffic Forecasts

1.2.1 - En route

En route Charging zone 1	**Portugal Continental**
En route traffic forecast	Local forecast

Local forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	613	634	651	267	341	563	593	632	-0,6%
IFR movements (yearly variation in %)		3,5%	2,7%	-59,1%	28,0%	65,1%	5,2%	6,6%	
En route service units (thousands)	3 777	3 856	4 060	1 556	1 925	3 316	3 582	3 884	-0,9%
En route service units (yearly variation in %)		2,1%	5,3%	-61,7%	23,7%	72,2%	8,0%	8,4%	

1.2.2 - Terminal

Terminal Charging zone 1	**Portugal - TCZ**
Terminal traffic forecast	Local forecast

Local Forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	205,2	215,8	221,2	96,9	126	197	205	217	-0,3%
IFR movements (yearly variation in %)		5,2%	2,5%	-56,2%	30,0%	56,1%	4,3%	5,9%	
Terminal service units (thousands)	257,6	273,4	291,4	122,7	155,2	252,1	269,1	287,5	-0,3%
Terminal service units (yearly variation in %)		6,1%	6,6%	-57,9%	26,4%	62,5%	6,8%	6,8%	

Specific local factors justifying not using the STATFOR base forecasts (provide justification below or refer to Annex D for more detailed explanation)
Portugal updated the traffic estimates in order to incorporate STATFOR's October revision. For en-route and terminal Portugal is using STATFOR's scenario 2 without any adjustment.

NOTE: Section 1.3 (Stakeholder Consultation) should include details on the consultation with airspace users' representatives and ANSPs concerned on the rationale for not using the STATFOR base forecasts.

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 main concers raised were related to: *1) Traffic estimates for terminal and how they were aligned with STATFOR scenario 2.* *- ANAC presented a detailed explanation of the rational behind the adjustment proposed to STATFOR's estimates for Portugal terminal. In that explanation it was clarified that Portugal was using STATFOR's scenario 2 estimated growth rates, applied to the number os Service Units actually charged by NAV Portugal in 2020. The reason for this adjustment was the fact that the number of Service Units actually charged by NAV Portugal in 2020 diferred significantly from the one presented by STATFOR, so NAV Portugal base value was considered more accurate.* *In the meantime ANAC is in contact with STATFOR in order to understand the differences and correct them for the future.* *2) Doubts if Montijo airport associated costs had been included in the Performance Plan.* *- ANAC clarified that this Performance Plan does not include any costs associated to the Montijo airport or the alternative solutions being analyzed. It was also clarified that so far no costs associated to the increased capacity in the Lisbon area have been included in the Performance Plans, ans consequently have not been charged to users.* *This was clearly explained to stakeholders.* *3) Users asked for an asymetric incentive scheme, i.e. with higher penalties than bonus.* *- Portugal considered and analised carefully the proposal presented.* *However, the Portuguese perspective on the incentives scheme has always been that it should promote the improvement of performance of the ANSP, assuring the availability at all times of the needed capacity to provide the best service. Considerig the objective of the incentives scheme, a symmetric model is considered to be more effective. The promotion of improved performance needs to penalize the lack of capacity, in order to avoid it, but also to encourage the provision of additional capacity that enable higher service levels.* *- Furthermore, Portugal also considered the possibility of increasing the level of penalties and bonus to be applied. Notwithstanding, considering the very uncertain and challeging context expected for the remainder of RP3, with the uncertainty surrounding the traffic recovery post-Covid, and the new ATM system from 2022, the level of risk is substantial, and led ANAC to maintain the initialy proposed incentive scheme. The incentive scheme, although important, needs to be adjusted to the expected risk level.* *As such, Portugal maintained the initial proposal and explained the reasoning of the decision to stakeholders.* *4) Request to change the baseline values based on 2019 actual values to 2019 determined costs.* *- ANAC explained that the baseline values presented, were calculated in accordance with Implementing Regulation no. 2019/317. Although actual values for 2019 were higher than the determined costs presented, Portugal could not use the later as a baseline value in order to comply with the current regulation. Implementing Regulation no. 2019/317 establishes that the baseline value should be calculated using the actual costs available for the previous reference period and should be adjusted to take into account the latest available cost estimates, traffic changes and their relation to costs.* *As such, Portugal maintained its initial proposal, and explained the reasoning behind the decision to users.* *5) Users disagreed with the fact that the cost-efficiency targets presented.* *- Portugal took this feedback very seriously and in consequence promoted a cost-reduction effort within all the entities contributing to cost-efficiency targets.* *- As a consequence the Portuguese Navy, IPMA, ANAC and GAMA, although unable to actually reduce costs associated with the service provision, gave up part of their revenue between 2022 and 2024 in order to contribute to the sector's recovery, through a reduction in the determined costs for the period. NAV Portugal, on its part revised its recruitment plan, which allowed for a further decrease in staff costs in 2024 of 0,9 M€ in en-route, and 0,6 M€ in terminal.* ***All in all, Portugal revised down its determined costs by -0,51% in 2022, -0,51% in 2023 and -1,07% in 2024 after the stakeholders consultation.*** *6) Users requested to reduce NAV Portugal WACC, to be closer to the Portugal 10-year bond yield.* *- ANAC sent a detailed calculation of NAV Portugal WACC, and demonstrated that it had been considerably reduced both due to a reduction of the cost of capital, but also through the introduction of debt. The details of all financial debt contracts was also provided.*

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

Topic of consultation	Applicable	Results of consultation
Where applicable, decision to diverge from the STATFOR base forecast	No	
Charging policy	Yes	Overall users asked for a greater cost cutting effort, in order to help in the sector recovery. As a consequence the Portugues Air Force, IPMA, ANAC and GAMA despite not being able to actually reduce costs, gave up part of their revenue in order to help in the sector recovery. NAV Portugal, further revised its recruitment plan allowing for additional staff costs savings in 2024. All in all, after the consultation with stakeholders determined costs were reduced by 0,51% in 2022 and 2023 and 1,07% in 2024.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	Users asked for a higher level of penalties than bonus, instead of the symetric scheme proposed. Portugal considered carefully the proposal, however decided to maintain its initial proposal. In the Portuguese perspective the incentives scheme should incentivize the ANSP to provide the best level of service, and for that bonus are as important as penalties. The rational of the Portuguese decision was shared with stakeholders.
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	This decision was well received by users.
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	This decision was well received by users.
Establishment or modification of charging zones	Yes	Terminal charging zone will no longer include the Montijo airport. This decision was well received by users.

Establishment of determined costs included in the cost base for charges	Yes	Besides what was already mentioned in the charging policy part, users also asked for more clarity on the evolution of the number of ATCOs. As a response Portugal, sent a detailed explanation in a complementary note to the plan.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	
Where applicable, decision to apply the simplified charging scheme	No	
New and existing investments, and in particular new major investments, including their expected benefits	Yes	Users asked ANAC to make sure that the investments being planned were prioritary, and that were crucial to NAV Portugal's performance. In this regard Portugal assured that only the investments that were critical to the operation, were maintained.

1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	**NAV Portugal** - José Alfaia; Nuno Simões; Alda Miranda. **IPMA** - Fátima Coelho; Carla Gonçalves.
Dates of main meetings / correspondence	12 de agosto de 2021
Main issues discussed	- Recovery period for the revenue deficit associated to 2020/2021
Actions agreed upon	- ANAC agreed to send to all stakeholders an impact assessment of the revenue deficit recovery proposed to all stakeholders, which was sent and is in annex to this Performance Plan.
Points of disagreement and reasons	None
Final outcome of the consultation	None

Additional comments

#2 - Airspace Users	
Stakeholder group composition	**IATA** - Rory Sergison **Swiss International Air Lines ltd.** - Nicole Ammann **Ryanair** - Conor Gillardy **easyJet** - Francesco Rado **KLM** - Johan Zandstra **Jet2** - Ricard Querol; Robert Tarren
Dates of main meetings / correspondence	12 de agosto de 2021
Main issues discussed	**For en-route:** - Evolution of the number of ATCOs; - NAV Portugal investment plan, and making sure that the investments proposal were critical; - NAV Portugal cost of capital, and revenue financing structure; - Proposed cost-efficiency targets; - Symetry of the incentive model. **Terminal:** - Traffic estimates for terminal; - Clarification regarding Montijo Airport costs; - Symetry of the incentive model.

Actions agreed upon	**For en-route:** - Further detail on the expected evolution in the number of ATCOs was sent to users; - Portugal had assured that all the investments proposed in the Performance Plan were critical to the operation, that reassurance was given during the meeting, no further actions were required; - Detailed calculation of NAV Portugal's cost of capital and loans was sent to users; - Impact assessment of the revenue deficit recovery proposed was sent to users; - ANAC agreed to do a re-evaluation effort of the cost-efficiency targets presented. As a consequence determined costs in the Performance Plan presented to the Commission for 2022 and 2023 were reduced by 0,51%, and for 2024 by 1,07%. - ANAC analysed the possibility to change to an asymetric incentive model; however concluded that it would not be the best option to incentivise the ANSP performance. This conclusion was presented to users.
Points of disagreement and reasons	Cost-efficiency targets and the incentives scheme presented were the main points of discussion. For cost-efficiency targets, and as mentioned before Portugal made an effort to further reduce costs, and in the Performance Plan presented to the Commission determined costs were lowered. Regarding the incentives scheme, as explained previously, it was considered that the users proposal would not incentivise the ANSP to perform at its best.
Final outcome of the consultation	Users comments were taken into account in the current version of the performance plan, except for the incentive scheme component, for the reason previously explained.

Additional comments

#3 - Professional staff representative bodies	
Stakeholder group composition	**APCTA** - Miguel Dias **APTTA** - Rogério Pinheiro
Dates of main meetings / correspondence	12 de agosto de 2021
Main issues discussed	**APCTA:** '- Recovery period for the revenue deficit associated to 2020/2021 - Degree of ambition of the cost-efficiency targets **APPTA:** - Impact of the cost-efficiency targets proposed in the sector recovery.
Actions agreed upon	- Impact assessment of the revenue deficit recovery proposed was sent to users and all stakeholders.
Points of disagreement and reasons	The two professional staff associations had different views on the expected evolution of the cost-efficiency targets. In this regard, as explained above after the consultation Portugal reduced its determined costs for 2022, 2023 and 2024.
Final outcome of the consultation	ANAC shared the impact assessment, and considered APCTA and APTTA comments on the overall adjustments made to the cost-efficiency targets.

Additional comments

#4 - Airport operators	
Stakeholder group composition	**ANA** - Nuno Costa
Dates of main meetings / correspondence	12 de agosto de 2021
Main issues discussed	ANA suggested that users should have to a unit rates benchmark.
Actions agreed upon	None
Points of disagreement and reasons	None
Final outcome of the consultation	ANAC explained that yearly users have access to a summary of the unit rates applied in all FIRs controlled by Eurocontrol Member States.

Additional comments

#5 - Airport coordinator	
Stakeholder group composition	
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	**PRB** - Hans Ollongren; Mark Scott **Croatia Control Ltd** - Mario Kunovec Varga **Croatian Civil Aviation Agency** - Teodora Wenzler Brezak
Dates of main meetings / correspondence	12 de agosto de 2021
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments

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
Following the completness check by the EC, and taking into account the recommendation to update the traffic estimtaes to the STATFOR's seven-year forecast of October, Portugal did a second stakeholder consultation. The discussion on this second consultation was focused on the impact of the Portuguese proposal to adjust its plan to the latest traffic estimates, considering scenario 2. Airspace users in general welcomed the fact that Portugal was updating its estimates, and not changing safety, environment, or capacity targets, nor the proposed determined costs. Airspace users also confirmed that the updated estimates from STATFOR are according to the their development plans for the next months / year. The Portuguese ANSP showed its concern with the fact that especially capacity targets have been maintained, as well as the fact that the traffic estimates in the basis of the Performance Plan would be different from the ones used in the UE-wide target setting. Morevover, in the written comments received, airspace users reiterated their concern with the NAV POrtugal proposed cost evolution along the period.

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

Topic of consultation	Applicable	Results of consultation
Where applicable, decision to diverge from the STATFOR base forecast	No	
Charging policy	Yes	Users welcomed the impact of the traffic estimates revision in terms of the proposed evolution of the DUC. On the other hand, it was also apreciated the effort made to reduce the determined costs following the August stakeholders' consultation. Notwithstanding, airspace users also also remarked that they would like to see further reductions in the proposed determined costs.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	Portugal maintained the incentives scheme unchanged, so stakeholders did not comment on it, as it had already been discussed in the previous stakeholders' consultation.
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	Portugal maintained the incentives scheme unchanged, so stakeholders did not comment on it, as it had already been discussed in the previous stakeholders' consultation.
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	Portugal maintained the incentives scheme unchanged, so stakeholders did not comment on it, as it had already been discussed in the previous stakeholders' consultation.
Establishment or modification of charging zones	No	In this second consultation it was not discussed.
Establishment of determined costs included in the cost base for charges	Yes	As mentioned in the charging policy part, users also welcomed the update of the traffic estimates to STATFOR's latest, as well as the efforts made to reduce costs after the last consultation. Notwithstanding, users asked for a further effort in terms of cost reduction.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	
Where applicable, decision to apply the simplified charging scheme	No	
New and existing investments, and in particular new major investments, including their expected benefits	No	In this second consultation it was not discussed.

1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	**NAV Portugal** - Nuno Simões; José Luís Correia; Alda Miranda.
Dates of main meetings / correspondence	15 de novembro de 2021

Main issues discussed	- Concern with the fact that capacity targets were maintained despite the traffic estimates upward revision; - Concern that the traffic estimates in the basis of the Performance Plan would be different from the ones used in the UE-wide target setting.
Actions agreed upon	- ANAC answer at the meeting that EU-wide targets for capacity were maintained, and as such the contribution of each Member State should also be maintained. - Regarding the traffic estimates on the basis of the Member States vs EU-wide targets, it was confirmed at the meeting that unfortunatelly it is correct, the two will be different.
Points of disagreement and reasons	None
Final outcome of the consultation	None

Additional comments

#2 - Airspace Users	
Stakeholder group composition	**IATA** - Rory Sergison **Swiss International Air Lines ltd.** - Nicole Ammann **Ryanair** - Conor Gillardy **easyJet** - Francesco Rado; José Lopes **KLM** - Johan Zandstra **TAP** - Ana Janeiro Dias; Beatriz Borges; David Afonso; João Renato Simões; Rui Soeiro.
Dates of main meetings / correspondence	15 de novembro de 2021
Main issues discussed	Airspace users in general welcomed the fact that Portugal was updating its estimates, and not changing safety, environment, or capacity targets, nor the proposed determined costs. Users in general welcomed that after the last consultation meeting Portugal made an effort to reduce the cost base. However, users continue to ask for further efforts in cost reduction along RP3, in particular invited NAV Portugal to revisit the opportunities associated to the new ATM system.
Actions agreed upon	- Portugal took note of the apreciation shown regarding the proposal to update the traffic estimates, without further changes to the Performance Plan; - Regarding the request to do an extra effort in terms of costs, Portugal answered in writting (as it was presented by users in writting) that considering the effort made after the last consultation, and the increase in expected traffic after the update, Portugal has no margin to further reduce costs.
Points of disagreement and reasons	Possibility of further reducing the cost-base. Portugal considers that after the effort made following the August consultation, and the upwards revision in expected traffic, there is no possibility to further reduce costs.
Final outcome of the consultation	Portugal updates its Performance Plan according to the revised traffic estimates, without further changes to the Performance Plan, as presented to users.

Additional comments

#3 - Professional staff representative bodies	
Stakeholder group composition	**APTTA** - Rogério Pinheiro
Dates of main meetings / correspondence	15 de novembro de 2021
Main issues discussed	None
Actions agreed upon	None

Points of disagreement and reasons	None
Final outcome of the consultation	None

Additional comments

#4 - Airport operators	
Stakeholder group composition	**ANA** - Isabel Gonçalves
Dates of main meetings / correspondence	15 de novembro de 2021
Main issues discussed	None
Actions agreed upon	None
Points of disagreement and reasons	None
Final outcome of the consultation	None

Additional comments

#5 - Airport coordinator	
Stakeholder group composition	None
Dates of main meetings / correspondence	None
Main issues discussed	None
Actions agreed upon	None
Points of disagreement and reasons	None
Final outcome of the consultation	None

Additional comments

#6 - Other (specify)	
Stakeholder group composition	**PRB** - Hans Ollongren; Mark Scott **Telles** - Carolina da Silva Ferreira
Dates of main meetings / correspondence	15 de novembro de 2021
Main issues discussed	None
Actions agreed upon	None
Points of disagreement and reasons	None
Final outcome of the consultation	None

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 ≥ 80 000)

ICAO code	Airport name	Charging Zone	IFR air transport movements			
			2016	2017	2018	Average
LPPT	Lisbon	Portugal - TCZ	182 549	203 427	217 555	201 177
LPPR	Porto	Portugal - TCZ	78 720	86 718	93 720	86 386

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

Number of airports	8		
ICAO code	Airport name	Charging Zone	Additional information
LPFR	Faro	Portugal - TCZ	
LPMA	Madeira	Portugal - TCZ	
LPPD	Ponta Delgada	Portugal - TCZ	
LPHR	Horta	Portugal - TCZ	
LPAZ	Santa Maria	Portugal - TCZ	
LPPS	Porto Santo	Portugal - TCZ	
LPFL	Flores	Portugal - TCZ	
LPCS	Cascais	Portugal - TCZ	

Additional comments
In the Performance Plan initially proposed, Portugal included Montijo Airport, from 2022 on, considering that the Portuguese Government had signed an agreement with the concessionaire for the Lisbon airport to develop a new airport in the Lisbon area. In the meantime, the concessionaire was not able to make sure that all the conditions for the project to be approved were met, and the Montijo Airport project presented was rejected by ANAC. As a consequence, even if the final solution agreed upon continues to be Montijo Airport, given the minimum times required for it to be operating, it is not possible to have it during RP3. As such, in this revised proposal Portugal asks to change the Portugal Terminal charging zone, not to include Montijo. This draft Performance Plan does not include any impact associated to the Montijo Airport. Further information on the Montijo airport project can be find in the overall presentation of the Performance Plan attached.

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

Description of the process
Not applicable

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

SECTION 2: INVESTMENTS

2.1 - Investments - NAV Portugal (Continental)

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 - Estado Maior da Força Aérea

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

2.3 - Investments - Estado Maior da Armada

2.3.1 - Summary of investments
2.3.2 - Detail of new major investments
2.3.3 - Other new and existing investments

2.4 - Investments - IPMA

2.4.1 - Summary of investments
2.4.2 - Detail of new major investments
2.4.3 - 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 - NAV Portugal (Continental)

2.1.1 - Summary of investments

Number of new major investments	4

#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	**Determined costs** of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1	TOPLIS - TOPSKY ACC	77 881 325	49 711 097	0	753 512	5 237 575	10 225 152	10 605 640	12 years	100%	0%	2021/2022
2	TOPLIS - TOPSKY TWR's	9 686 193	5 748 332	0	23 194	353 643	789 202	939 762	12 years	0%	100%	2021/2022
3	Lisbon Airport Expansion (ATM, CNS and Infras)	9 655 825	9 133 899	0	10 446	18 245	34 671	432 262	5 - 20 years	5%	95%	2021/2024
4	Modernization of the Secondary Radars	8 429 762	8 429 762	0	43 477	386 797	834 716	1 065 333	8 - 20 years	95%	5%	2021/2023
Sub-total of **new major investments** above (1)		105 653 105	73 023 090	0	830 628	5 996 260	11 883 740	13 042 998				
Sub-total **other new investments** (2)		45 060 387	45 060 387	1 166 734	2 329 108	3 279 366	3 958 304	4 461 114				
Sub-total **existing investments** (3)				11 435 262	10 371 344	10 036 568	6 450 839	6 367 439				
Total new and existing investments (1) + (2) + (3)		150 713 492	118 083 476	12 601 997	13 531 081	19 312 194	22 292 884	23 871 551				

** 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	***TOPLIS - TOPSKY ACC***					Total value of the asset	***77 881 325 €***
Description of the asset	The project scope is the replacement of the Lisbon ACC ATM system in line with the SES/SESAR deployment requirements. The new ATM system being equal to the other COOPANS systems will be compliant with the Single Sky interoperability requirements. Yearly deployments of new builds of the system are planned during the RP3 period.						
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	The project is mandated by the CP1 Regulation, although no EU funding has been granted to NAV Portugal to deploy this new system.					
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
	1.1		3.2	4.2			Interoperability (ITY-AGDL)

Benefits for airspace users and results of the consultation of airspace users' representatives	**Safety:** The systematic presentation to the controller of possible infringements of eminent and unauthorized penetrations into airspace volumes, possible infringements of minimum safe altitude ahead of their occurrence and of deviations from the glide path as provided by APW, MSAW and APM are major safety assurance functions. Early and systematic conflict detection reduces the need for tactical interventions. SYSCO improves the integrity of communication during the coordination. **Environment:** AMAN reduces holding and low level vectoring with a positive environmental effect in terms of noise and fuel usage. **Capacity:** Increase of capacity due to the reduction of controller workload per aircraft. AMAN will improve airport/TMA capacity. **Cost-efficiency:** The use of standardised APW, MSAW and APM enables cost-effective use of resources. Early conflict detection will enable smoother flight patterns without frequent and sudden control interventions. This will have a moderate influence on airline costs	
Joint investment / partnership	Yes	The investment is being deployed in collaboration with the other COOPANS ANSP's (Austria, Croatia, Denmark, Ireland, Sweden) to deliver a system with a common core to share costs and risk and provide a seamless platform across the several ANSPs.
Investment in ATM systems	Yes	
If investment in ATM system, type?	New system	TOPSKY ACC will substitute the current system in use by NAV Portugal, which is reaching the end of its life cycle. This new system is essential to allow the implementation of several functionalities required by the EU Regulation.
If investment in ATM system, Reference to European ATM Master Plan / PCP	PCP	ATC02.8 Ground-Based Safety Nets (MSAW and APM as APW is already available); ATC07.1 AMAN Tools and Procedures; ATC12.1 Automated Support for Conflict Detection, Resolution Support Information and Conformance Monitoring; ATC15.1 Information Exchange with En-route in Support of AMAN; ATC17 Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer; FCM06 Traffic Complexity Assessment; ITY-AGDL Initial ATC Air-Ground Data Link Services.

Name of new major investment 2	***TOPLIS - TOPSKY TWR's***					Total value of the asset		***9 686 193 €***
Description of the asset	The project scope is to replace the Lisbon FIR TWR's ATM systems (Porto, Cascais, Faro, Porto Santo and Madeira) with new ones in line with the SES/SESAR deployment requirements. A similar system will be deployed in the Lisbon Airport (under new major investment 3), and another is envisaged for the new Lisbon Airport (under new major investment 4) (out of RP3 period).							
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	The enablers of the project are mandated within the CP1 Regulation, although they are not mandated to the Portuguese airports (the airports are not on AF1&AF2 CP1 top airports list). Nevertheless, since the actual ATM TWR's systems are reaching their end of life, their replacements are SESAR compliant ATM systems. *No EU funding has been granted to NAV Portugal to deploy this new system.*						
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	
	1.1.1;1.2.1						Interoperability (IR DLS)	
Benefits for airspace users and results of the consultation of airspace users' representatives	The deployment of the TOPLIS - TOPSKY TWR's system will enable NAV Portugal to fully comply with SES/SESAR deployment requirements. In the 2019 users consultation, the need to introduce a new ATM system was not questioned by users, that are unanimous recognizing its need.							
Joint investment / partnership	No							
Investment in ATM systems	Yes							

If investment in ATM system, type?	New system	The new system is essential to allow the implementation of several functionalities required by the EU Regulation (IR and ATM MP).
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	And CP1

Name of new major investment 3	***Lisbon Airport Expansion (ATM, CNS and Infras)***	Total value of the asset	***9 655 825 €***
Description of the asset	The project scope is the deployment of the ATM and CNS systems, as well as a new TWR building support the Lisbon airport capacity expansion.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No		
Level of impact of the investment	Network	Lisbon airport as the City hub, will receive a significant investment from the airport concessionaire to increase ground capacity and runway throughput. These investments will allow an increase in capacity of up to 48 mov/hour, with new parking gates and rapid taxiways. To do so, the current tower will need to be relocated. The overall investment will contribute to increase efficiency and reduce delays due to ground capacity (AD- Capacity).	
	Local	The investments in the Lisbon Airport will add 8 aditional movements per hour, reaching a total of 48 movements/hour.	
	Non-performance		
Quantitative impact per KPA	Safety	Not available	
	Environment	Not available	
	Capacity	Increase capacity allowing up to 48 mov/hour in Lisbon airport.	
	Cost Efficiency	Not available	
Results of the consultation of airspace users' representatives			
Joint investment / partnership	No		
Investment in ATM systems	Yes	A minor part of the CAPEX budget is related to a new TWR ATM system, being the major part related to non ATM systems (CNS and Infrastructures). The ATM CAPEX, less than 10M€, is of an order of magnitude lower than the planned by the airport (000's of M€). Since the ATM CAPEX is required for the target of 48 mov./hour envisaged by the enhancements of the airport layout, it is not appropriate to evaluate just in one part (ATM) the overall benefit of both investments.	
If investment in ATM system, type?	New system		
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select		

Name of new major investment 4	***Modernization of the Secondary Radars***	Total value of the asset	***8 429 762 €***
Description of the asset	Replacement of ageing Secondary Radar Stations located at the Porto Airport, Montejunto, Lisbon Airport and the Foia. Those Radars are of old technology (Monopulse) and are being replaced by Mode S radars as mandated on the IR SPI.		

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	Interoperability - IR SPI. *No UE funding was awarded to the CAPEX.*						
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	
							Interoperability (IR SPI)	
Benefits for airspace users and results of the consultation of airspace users' representatives	The CAPEX include rationalization goals since: one primary radar, currently co-located with the secondary radar of the Lisbon Airport, will be decommissioned and not replaced, and also the secondary monopulse radar located at the Faro airport will not be replaced.							
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							

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

The other investments are mostly related to replacing "end of life" CNS systems and the ANS buildings maintenance. New CNS technologies are on the implementation plan (e.g. wind shear systems at Madeira airport).

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

2.2 - Investments - Estado Maior da Força Aérea

2.2.1 - Summary of investments

Number of new major investments	1

#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	**Determined costs** of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1	AW119MKII Aquisition	10 913 839	258 711	8 624	8 624	8 624	8 624	8 624	30	100%	0%	01/01/2019
Sub-total of **new major investments** above (1)		10 913 839	258 711	8 624	8 624	8 624	8 624	8 624				
Sub-total **other new investments** (2)		0	0	0	0	0	0	0		100%	0%	
Sub-total **existing investments** (3)				104 238	104 238	104 238	104 238	104 238		100%	0%	
Total new and existing investments (1) + (2) + (3)		10 913 839	258 711	112 862	112 862	112 862	112 862	112 862				

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

2.2.2 - 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	***AW119MKII Aquisition***	Total value of the asset	***10 913 839 €***
Description of the asset	PoAF is carring on the substitution of their Allouete III helicopters by aquiring the AW119MKII. These new helis will replace the responsability previously allocated to ALIII.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No		
Level of impact of the investment	Network	None	
	Local	None	
	Non-performance	Improves security and enables a better assistance in the search and rescue service.	
Quantitative impact per KPA	Safety	None	
	Environment	None	
	Capacity	None	
	Cost Efficiency	None	
Results of the consultation of airspace users' representatives	This specific investment was discussed during the stakeholders 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	

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

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

Number of new other investments	0

2.3 - Investments - Estado Maior da Armada

2.3.1 - Summary of investments

Number of new major investments	1

#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	**Determined costs** of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1												
Sub-total of **new major investments** above (1)		0	0	0	0	0	0	0				
Sub-total **other new investments** (2)												
Sub-total **existing investments** (3)				119 733	119 733	119 733	119 733	119 733		100%		
Total new and existing investments (1) + (2) + (3)		0	0	119 733	119 733	119 733	119 733	119 733				

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

2.3.2 - 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						Total value of the asset	***0 000 €***
Description of the asset							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	Click to select						
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						
Quantitative impact per KPA	Safety						
	Environment						
	Capacity						
	Cost Efficiency						
Benefits for airspace users and results of the consultation of airspace users' representatives							

Joint investment / partnership	Click to select	
Investment in ATM systems	Click to select	
If investment in ATM system, type?	Click to select	
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	

2.3.3 - Other new and existing investments

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

Estado Maior da Armada did not include any investments in the Performance Plan.

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

Number of new other investments	0

2.4 - Investments - IPMA

2.4.1 - Summary of investments

Number of new major investments	1

#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	**Determined costs** of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1	IPMA did not include any new major investment in the Performance Plan								0	0%	0%	
Sub-total of **new major investments** above (1)		0	0	0	0	0	0	0				
Sub-total **other new investments** (2)				0	0	0	0	0		0%	0%	
Sub-total **existing investments** (3)				895	950	934	949	967		81%	19%	
Total new and existing investments (1) + (2) + (3)		0	0	895	950	934	949	967				

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

2.4.2 - 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	***IPMA did not include any new major investment in the Performance Plan***					Total value of the asset	***0 000 €***
Description of the asset							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	Click to select						
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						
Quantitative impact per KPA	Safety						
	Environment						
	Capacity						
	Cost Efficiency						

Benefits for airspace users and results of the consultation of airspace users' representatives		
Joint investment / partnership	Click to select	
Investment in ATM systems	Click to select	
If investment in ATM system, type?	Click to select	
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	

2.4.3 - Other new and existing investments

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

IPMA during the last years has made several investments, namely:
- Madeira Weather Radar;
- Terceira Island Weather Radar;
- Weather surveillance cameras;
- Acquisition of new computers, and super computers;
- Upgrade of the surface meteorological observation network;
- Acquisition of a production and visualization system for the MWO; - New Meteorological Communications system;
- Improvement of the lighting observation network of the Mailand and Madeira. During RP3 IPMA plans to make the following investments:
- S. Miguel Island Weather Radar;
- Flores Island Weather Radar;
- Upgrade of Lisbon and Algarve Weather Radar;
- Acquisition of new computers, and super computers;
- Expansion of surface meteorological observation network;
- Acquisition of a LIDAR for Lisbon Airport;
- Azores lighting observation network. With these investments, IPMA aims to improve the quality of its weather observations, forecasts and weather warning system. Which in turn will improve the safety of route and terminal air operations.

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

Number of new other investments	0

SECTION 3: PERFORMANCE TARGETS AND MEASURES FOR THEIR ACHIEVEMENT

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 U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

SECTION 3.1: SAFETY KPA

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 - PERFORMANCE TARGETS AT LOCAL LEVEL

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
NAV Portugal	Safety policy and objectives	*D*	C	C	C	C	**C**
	Safety risk management	*D*	C	C	C	C	**D**
	Safety assurance	*D*	C	C	C	C	**C**
	Safety promotion	*C*	C	C	C	C	**C**
	Safety culture	*C*	C	C	C	C	**C**
	Additional comments						

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

The targets presented are consistent with the Union-wide targets.

** Refer to Annex O, if necessary.*

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

Some measures planned for RP3 to achieve the safety targets:
- Continue improving of the monitoring process through upgrading of existing tools (NAVSEG+NAVDMS);
- Improve the monitoring process of safety indicators;
- Keep focusing on local safety management;
- Prepare a new report on the evaluation of safety culture during 2021;
- Monitor just culture policy and procedures;
- Monitor the SMS to comply with IR 2017/373;
- Improve awareness initiatives under the scope of operational safety (newsletter, local workshops, etc.);
- Revise the training structure for SMS;
- Safety monitoring of changes through Normal Operations Monitoring tools.

** Refer to Annex O, if necessary.*

SECTION 3.2: ENVIRONMENT KPA

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	*1,79%*	n/a	1,80%	1,80%	1,80%	1,80%

	2020	2021	2022	2023	2024
	Target	Target	Target	Target	Target
National targets	1,76%	1,80%	1,80%	1,80%	1,80%

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

The national targets presented for Portugal are consistent with the EU-wide targets.
In any case, it is important to clarify that in order to reach these targets NAV Portugal will need to continue to make a significant effort to improve its environmental performance, as it will be explained below.
Following a deterioration of performance in the KEA indicator for Portugal, ANAC promoted an analysis with NAV Portugal and Eurocontrol, in order to understant the causes for the sudden increase in the indicator from 2018 on. From the analysis performed (including a traffic flow study), it was possible to understand that in 2018 Eurcontrol changed the scope of flights included in KEA, starting to include traffic flows that previously had not been included (for instance traffic flows crossing from the Portuguese oceanic airspace of Santa Maria FIR in the NAT region). The estimated impact of this change is around 0,3%, which has not been included in the target setting; as such, in oder to comply with the proposed targets NAV Portuga will need to do an extra effort to improve its performance.
Further information can be found in the Performance Plan presentation attached.

** Refer to Annex P, if necessary.*

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

Since 2009 that Lisbon FIR has FRA implemented, being the first ANSP in Europe to address airline expectations with this type of concept. As a result, the horizontal flight efficiency in Lisbon FIR En-route airspace has kept a quite good performance all over the RP1 and RP2 contributing very positively for the achievement of the SW FAB target.
NAV Portugal airspace strategy for RP3 will focus towards two main airspace areas of interest:
1 -At national level with the improvement of flight efficiency at Terminal airspace level; and
2 - At European-wide level, in collaboration with the NM, by supporting the extension of the free route concept to our neighboring airspaces (Spain, France, Morocco and Santa Maria Oceanic).
In the framework of the National Airspace, and in order to further reduce fuel burn, gaseous emissions, noise and fuel costs, further CDO procedures will be implemented in our airports allowing users to follow flexible and optimum flight paths that deliver major environmental benefits.
Terminal airspaces will be restructured to improve capacity in addition to the environment benefits that will be expected. Along RP3 several proposals are being developed in our airports, enhancing Terminal control area design, improve flight efficiency and capacity by exploiting new ATC techniques based on Performance-Based navigation (PBN) capabilities.
Several GNSS procedures are planned to be implemented gaining improvements through changes in approach procedure design that minimize air miles flown lowering levels of polluting carbon emissions due to less fuel consumption.
At the en-route airspace level, and considering the mandatory implementation of Free Route concept by 2022 and the Cross Border FRA until end 2025 (CP1 Regulation) in the European airspace, NAV Portugal will continue to collaborate along RP3 in the extension of the Lisbon FIR free-route concept to the adjacent airspaces of Madrid and Canarias.

** Refer to Annex P, if necessary.*

SECTION 3.3: CAPACITY KPA

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	*0,25*	n/a	0,09	0,13	0,13	0,13

	2020	2021	2022	2023	2024
	Target	Target	Target	Target	Target
National targets	0,23	0,09	0,13	0,13	0,13

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

The national targets presented for Portugal are consistente with EU-wide targets.

** Refer to Annex Q, if necessary.*

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

The main measure are identified in the capacity plan of the European NOP 2021 Summer edition (08-04-2021) and the previuos version of the NOP 2019-2024.
The main aspect to consider during this period is the transition in Q1 2022 for the new ATM system in Lisbon which will impact capacity availability during the transition and endurance phase. The transition plan has been coordinated with the envolvement of the NM. Adding to this major milestone the transition to the new OPS room from the actual proviosnal one which will occur by the end of Q4 2021 is also expected to influence performance.
In the airspace design two cross-border free-route initiatives are planned along RP3 which should allow to address structural problems with an optimum sector design aligned with main traffic flows: free-route with Spain, as part of the NM action Plan and the CP1 regulation (EU reg.nº 2021/116) and free-route extension to Casablanca FIR. Still at the airspace level, during Q4 2022 /Q1 2023 it will be implemented in Lisbon TMA the PMS - Point Merge System, which will entail a new interface between enroute sectors and TMA and consequently some endurance period.
In the CTM initiative NAV Portugal will continue to enhance the ATFCM procedures, including STAM measures.
Staffing continues to be one of the main keystones for RP3, although traffic is significantly reduced after COVID19 Crisis. Nevertheless, NAV Portugal will continue its recruitment plan timely adjusted to allow the opening up to 11/13 en-route sectors by the end of the RP3, in order to accomplish with the most challenging capacity targets aligned with traffic recovery.
In the area of Airspace Management new procedures to allow dynamic sectorisation to better balance demand and capacity will be deployed. Taking into consideration the weekly volatility of traffic in the Lisbon FIR, flexible opening schemes measures will continue along RP3.
All the Capacity Plan associated to the accomplishment of these targets is being coordinated with the Network Manager.
For the NOP measures under discussion with the NM pelase see the Performance Plan presentation attached.

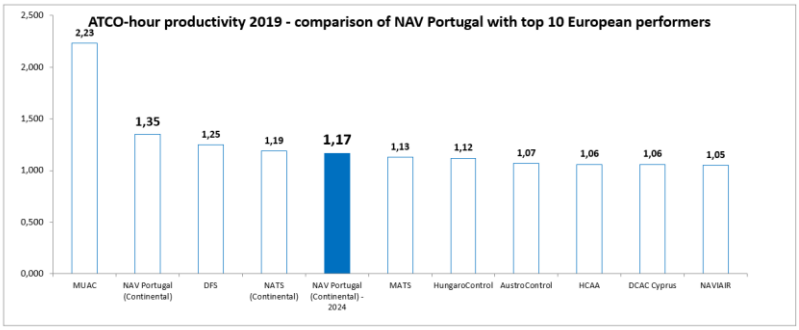
d) ATCO planning

	Actual			Planning			
Lisbon (LPPC ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)		12	17	16	15	16	14
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)		8	15	11	5	4	7
Number of ATCOs in OPS planned to be operational **at year-end (FTEs)**	142	146	148	153	163	175	182

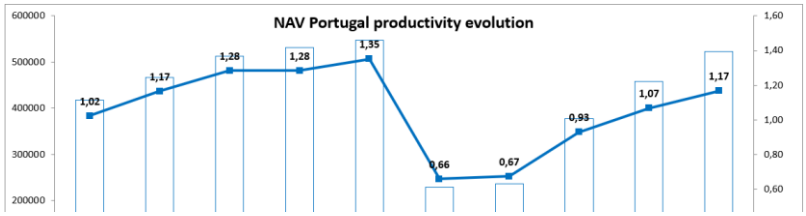
Additional comments

NAV Portugal maintains an ambitious ATCO's recruitment and training plan for the RP3 period, with the original plan having undergone some changes in timing resulting from the impact of the COVID19 crisis on the selection and training processes. The figures presented are projected FTEs at ACC level but will depend on several factors for their achievement. Firstly, the success of the long training process at ab-initio level, training and OJT times, finally ,the internal transfers and early retirements of ATCOs which, recently, have influenced these figures significantly.

It is important to note that the proposed recruitment plan for RP3 has a minimum impact in NAV Portugal's ATCOs productivity. NAV Portugal in 2019 was the European ANSP with higher ATCO productivity after MUAC, and following the implementation of this recruitment plan. Considering 2019 productivity levels in Europe, following this recruitment plan, by 2024 NAV Portugal's ATCOs would still be in European top-5, including MUAC. Below you can check the expected evolution of ATCO productivity for NAV Portugal, and a comparison with the top performers at European level in 2019:



Source: Portugal's estimates; ACE2019



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	*0,97*	3,12	0,9	1,91	2,28	2,00
Additional comments						

Airport level	***LPPT-Lisbon***	*1,72*	5,06	1,46	3,20	3,37	3,20
	Airport contribution to national targets	**76,57%**					
	LPPR-Porto	*0,77*	2,48	0,81	1,48	2,26	1,70
	Airport contribution to national targets	**19,85%**					
	LPFR-Faro	*0,00*	0,10	0,33	0,20	0,90	0,15
	Airport contribution to national targets	**2,88%**					
	LPMA-Madeira	*0,00*	0,03	0,05	0,04	0,03	0,03
	Airport contribution to national targets	**0,11%**					
	LPPD-Ponta Delgada	*0,00*	0,02	0,02	0,02	0,02	0,02
	Airport contribution to national targets	**0,06%**					
	LPHR-Horta	*0,00*	0,02	0,02	0,02	0,02	0,02
	Airport contribution to national targets	**0,01%**					
	LPAZ-Santa Maria	*0,00*	0,02	0,02	0,02	0,02	0,02
	Airport contribution to national targets	**0,01%**					
	LPPS-Porto Santo	*0,00*	0,02	0,04	0,03	0,03	1,65
	Airport contribution to national targets	**0,17%**					
	LPFL-Flores	*0,00*	0,02	0,02	0,02	0,02	0,02
	Airport contribution to national targets	**0,01%**					
	LPCS-Cascais	*0,00*	0,02	0,25	0,24	0,22	0,99
	Airport contribution to national targets	**0,33%**					

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

In Portugal, 96% of total terminal delays result from two airports: Lisbon (+76%) and Porto (+20%), being the main causes the airport capacity (AD-Capacity - 35% / Weather – 32%) and Weather (Weather - 68%) respectively . Both airports operate in a single runway operation and, back in 2019, Lisbon was in the top 20 airports with the most movements, being one of the only two that operated in single runway.
During the RP3, a set of improvements are planned that will increase the performance of these two airports, of which we highlight: in Lisbon the implementation of PMS – Point Merge System in 2023 Q1, and the implementation of the expansion of the ATM/CNS systems in the Porto TWR in coordination with the opening of a parallel taxiway that will increase capacity in Porto, avoiding the current backtrack procedure in the runway and increasing by 20% the capacity in LVO.
However, in Lisbon, the airport infrastructure is limited in terms of expansion, and the only feasible alternative is the deployment of a complementary airport, which would allow some of the traffic now heading to Lisbon airport to be shifted. In this sense, and with the postponement of the Montijo airport, it is foreseeable that delays at Lisbon will start to increase again as soon as traffic approaches the 2019 figures.
Despite that, ***Portugal's terminal delay figures for 2024 (2.0 min/flt) will still be -27% below the 2019 figure*** *(2.76 min/flt). A reduction of -22.4% in delays in Lisbon against 2019, and -44.5% in Porto, will significantly contribute to this outcome. This is even more significant if we consider that* ***in 2019 terminal delays in Portugal represented approximately 9.3% of all terminal delays at a European level*** *.*

** 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

The COVID 19 crisis led to a re-evaluation of several projects directly linked to the national airport infrastructure, including the postponement of Montijo airport, which was considered to be the main priority in order to relieve the capacity pressure in Lisbon airport. With this new one now planned for after RP3, delays at Lisbon airport are expected to increase as traffic starts to reach 2019 levels. Additionally, the implmentation of PMS system during Q42022 and Q12023 will create some capacity restrictions impacting delay figures according the traffic demand during that period. Along 2022 and 2023 the replacement of ILS in Lisbon Airport will also tend to create some impact in the capacity although, as usual in this situations, time periods schedule for these interventions will be set in order to mitigate the impact on the operation.
In the opposite direction, note for the developments at Porto airport, with the implementation of the new ILS and a new taxiway that will allow capacity increases under LVO situations.
As a consequence, along RP3 Terminal airspaces will be restructured for the main airports to improve capacity in addition to the environmental benefits that will be expected. In the framework of the airspace procedures, improved capacity will be achieved by exploiting new ATC techniques based on Performance-Based navigation (PBN) capabilities in line with the PBN implementation plan in Portugal.
The implementation of a Point Merge System for Q12023 in the existing Lisbon airport will deliver an increase in capacity for the Lisbon TMA aligned with the improvements from the airport side, like the extension of the main taxiway for rwy 21.
In the technical framework, a new ATM System will be implemented at the control TWRs and the APPs units of Porto and Faro during Q42023 and Porto Santo and Cascais in Q1 2024. The implementation of this ATM system will require the preparation of a Transition Plan in coordination with the Network Manager.

** Refer to Annex Q, if necessary.*

SECTION 3.4: COST-EFFICIENCY KPA

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

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 - Portugal Continental

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

En route charging zone Portugal Continental	Baseline 2014 2014 B	Baseline 2019 2019 B	RP3 revised cost-efficiency targets (determined 2020-2024) 2020/2021 D	 2022 D	 2023 D	 2024 D	2024 D vs. 2014 B	2024 D vs. 2019 B
Total en route costs in nominal terms (in national currency)	105 961 964	142 537 837	232 802 303	139 106 168	150 290 389	154 572 715	45,9%	8,4%
Total en route costs in real terms (in national currency at 2017 prices)	**108 389 285**	**140 705 795**	**229 115 575**	**135 200 935**	**144 619 857**	**147 095 309**	35,7%	4,5%
Total en route costs in real terms (in EUR2017) 1	108 389 285	140 705 795	229 115 575	135 200 935	144 619 857	147 095 309	35,7%	4,5%
YoY variation			62,8%	-41,0%	7,0%	1,7%		
Total en route Service Units (TSU)	3 000 286	4 033 877	3 480 911	3 315 551	3 582 357	3 884 376	29,5%	-3,7%
YoY variation			-13,7%	-4,8%	8,0%	8,4%		
Real en route unit costs (in national currency at 2017 prices)	**36,13**	**34,88**	**65,82**	**40,78**	**40,37**	**37,87**	4,8%	8,6%
Real en route unit costs (in EUR2017) 1	**36,13**	**34,88**	**65,82**	**40,78**	**40,37**	**37,87**	4,8%	8,6%
YoY variation			88,7%	-38,0%	-1,0%	-6,2%		

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 Portugal Lisboa	Baseline 2014 2014 B	Baseline 2019 2019 B	Actuals 2014 2014 A	Actuals 2019 2019 A	2014 Baseline adjustments	2019 Baseline adjustments
Total en route costs in nominal terms (in national currency)	105 961 964	142 537 837	106 875 894	143 628 143	-913 929	-1 090 306
Total en route costs in real terms (in national currency at 2017 prices)	108 389 285	140 705 795	109 322 570	141 784 582	-933 285	-1 078 787
Total en route costs in real terms (in EUR2017) 1	108 389 285	140 705 795	109 322 570	141 784 582	-933 285	-1 078 787
Total en route Service Units (TSU)	3 000 286	4 033 877	3 019 611	4 059 860	-19 326	-25 983

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	8

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Staff	-76 002	-76 002	-76 002
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Other operating	-35 578	-35 578	-35 578
Description and justification of the adjustment						

Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Depreciation	-418	-418	-418
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #4	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Cost of capital	-32	-32	-32
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #5	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Staff	-453 825	-466 172	-466 172
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs						

Adjustment #6	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Other operating	-257 625	-264 634	-264 634
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs						

Adjustment #7	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Depreciation	-86 400	-86 400	-86 400
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs						

Adjustment #8	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Cost of capital	-4 050	-4 050	-4 050
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs						

Total adjustments to the 2014 baseline value for the determined costs	**Costs nominal NC**	**Costs real NC**	**Costs EUR2017**
	-913 929	**-933 285**	**-933 285**

c.2) Adjustments to the 2014 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,64%	CRCO correction factor May 2019 (on 12 months)	-19 326

Other adjustment to the 2014 service units	No

Total adjustments to the 2014 service units	-19 326

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

Number of adjustments	8

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Staff	-131 880	-131 880	-131 880
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Other operating	-44 326	-44 326	-44 326
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Depreciation	-418	-418	-418
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #4	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Cost of capital	-32	-32	-32
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #5	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Staff	-393 300	-387 474	-387 474
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #6	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Other operating	-384 300	-378 607	-378 607
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #7	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Depreciation	-105 900	-105 900	-105 900
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #8	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Cost of capital	-30 150	-30 150	-30 150
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Total adjustments to the 2019 baseline value for the determined costs	**Costs nominal NC**	**Costs real NC**	**Costs EUR2017**
	-1 090 306	**-1 078 787**	**-1 078 787**

c.4) Adjustments to the 2019 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,64%	CRCO correction factor May 2019 (on 12 months)	-25 983

Other adjustment to the 2019 service units	Click to select

Total adjustments to the 2019 service units	-25 983

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

For 2020 and 2021, Portugal contributes substantially to the EU-wide targets, with a cost reduction of 20% / year in both years, outpacing substantially the average and being clearly one of the top performers.
From 2022, the temporary measures taken in 2020 and 2021, will stop contributing, and the transition to the new ATM system starts to take a toll on costs. It is important to bear in mind that the decision to deploy a new ATM system was made still in RP2, when the existing ATM system was responsible for a substantial part of the delays generated. At the time, the change of ATM system was paramount, both for safety reasons and to ensure adequate capacity to an expected growing demand.
Furthermore, it is important to remind that the extraordinary traffic increase registered in RP2 that was supported on extra hours from existing ATCOs, which allowed to add the needed new capacity. As such, in order to sustain this capacity and reinforce it, if needed, the reliance on extra hours had to be reduced and the number of ATCOs to be reinforced. As such, for RP3 NAV Portual presented a demanding recruitment plan that, due to the pandemic and the "new reality" it has been significantly reduced in this revised performance plan. With this revised recruitment plan NAV Portugal is able to maintain staff costs below 2019 levels from 2020 to 2024.

All in all, the cost increase expected in the final 3 years of the period, after the sharp decrease of 2020 and 2021, is due to the impact of the new ATM system, which by 2024 is expected to add 12 M€ to NAV Portugal overall costs. **If the new ATM System was not included the Portuguese DUC would actually decrease by 0,4% between 2019 and 2024 (or at a CAGR of 0,1% / year between 2019 and 2024)**.

Furthermore it should be also noted that the Portuguese Air Force, IPMA, ANAC and GAMA, despite not being able to further reduce costs, have agreed to give up of part of their revenues in order to support the sector's recovery.
For further detail please see the reporting tables.

** Refer to Annex R, if necessary.*

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	Click to select	
Restructuring costs planned for RP3	Click to select	

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

ANAC will monitor very closely the implementation of the 2 key measures to be implemented by NAV Portugal in RP3 with long term positive contributions in capacity but short-term impact in cost-efficiency:
- The implementation of the new ATM system on time and on budget;
- The implementation of the recruitment plan, in order to allow for a reductin in the future need of extra hours.
In order to do so, the monitoring process already in place for Performance Plan KPIs will be reinforced to contemplate both measures, as well as all the major investment projects.

** 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

** Refer to Annex U, if necessary.*

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

Terminal Charging Zone #1 - Portugal - TCZ

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

Terminal charging zone	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D
Portugal - TCZ	2019 B	2020/2021 D	2022 D	2023 D	2024 D	vs. 2019 B
Total terminal costs in nominal terms (in national currency)	**41 108 717**	67 933 668	39 079 710	42 067 274	43 963 676	**6,9%**
Total terminal costs in real terms (in national currency at 2017 prices)	**40 565 245**	**66 801 899**	**37 864 473**	**40 318 956**	**41 656 556**	**2,7%**
Total terminal costs in real terms (in EUR2017) 1	**40 565 245**	**66 801 899**	**37 864 473**	**40 318 956**	**41 656 556**	**2,7%**
YoY variation		64,7%	-43,3%	6,5%	3,3%	
Total terminal Service Units (TNSU)	294 319	277 885	252 079	269 126	287 502	-2,3%
YoY variation		-5,6%	-9,3%	6,8%	6,8%	
Real terminal unit costs (in national currency at 2017 prices)	**137,83**	**240,39**	**150,21**	**149,81**	**144,89**	**5,1%**
Real terminal unit costs (in EUR2017) 1	**137,83**	**240,39**	**150,21**	**149,81**	**144,89**	**5,1%**
YoY variation		74,4%	-37,5%	-0,3%	-3,3%	

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
Portugal - TCZ	2019 B	2019 A	adjustments
Total terminal costs in nominal terms (in national currency)	41 108 717	39 638 152	1 470 565
Total terminal costs in real terms (in national currency at 2017 prices)	40 565 245	39 110 038	1 455 207
Total terminal costs in real terms (in EUR2017) 1	40 565 245	39 110 038	1 455 207
Total terminal Service Units (TNSU)	294 319	294 319	0

c) Detailed justifications for the adjustments to the baseline values

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

Number of adjustments	8

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Staff	188 400	188 400	188 400
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Other operating	63 323	63 323	63 323
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Depreciation	597	597	597
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #4	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of NSA costs	ANAC	NSA/EUROCONTROL	Cost of capital	45	45	45
Description and justification of the adjustment						
Cost allocation between en-route and terminal for NSA services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #5	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Staff	524 400	516 632	516 632
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #6	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Other operating	512 400	504 810	504 810
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #7	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017

Change of cost allocation of Met costs	IPMA	MET	Depreciation	141 200	141 200	141 200
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Adjustment #8	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Change of cost allocation of Met costs	IPMA	MET	Cost of capital	40 200	40 200	40 200
Description and justification of the adjustment						
Cost allocation between en-route and terminal for MET services has been changed in RP3, and 15% of the overall costs with Air Navigation Services provision were considered as terminal costs.						

Total adjustments to the 2019 baseline value for the determined costs	**Costs nominal NC**	**Costs real NC**	**Costs EUR2017**
	1 470 565,382	**1 455 206,986**	**1 455 207**

c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units	Click to select

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

In 2019 when the original RP3 performance plan was prepared, Portugal was coming from a very high traffic growth period that pressured its airports, especially Lisbon, and led to beggining of the process to develop a new complementary airport in Montijo. In the meantime, the airport concessionaire was not able to satisfy all the conditions necessary for the project to be approved by ANAC, leading to its rejection (further detail can be found in the Performance Plan presentation attached).
Accordingly, independently of the traffic evolution along the remaining of RP3, the Montijo airport will not be a reality before 2024, and is no longer part of the Performance Plan, nor influencing the expected cost evolution.
As in en-route, NAV Portugal was able to reduce significantly its costs during the critical years for the sector of 2020 and 2021. However, some projects as the new ATM Sytem for the towers and the increase in capacity at the Lisbon airport, as they had been started already are maintained, although with some delays due to the pandemic. These projects are expected to have an impact on costs from 2022 on, and result in an overall cost increase.
It is important to note, that the constraints in capacity at the Lisbon airport were responsible not only for a significant amount of delays at the airport itself, but also had impact in the en-route. These projects are expected to contribute to the reduction of delays at the Lisbon airport.

** Refer to Annex R, if necessary.*

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

ANAC will monitor very closely the implementation of the 2 main projects to be implemented by NAV Portugal in terminal with very positive contributions in capacity but short-term impact in cost-efficiency:
- The implementation of the new ATM system for the towers on time and on budget;
- The development of the Lisbon airport capacity expansion.

** 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

** Refer to Annex U, if necessary.*

3.4.3 - Pension assumptions

NAV Portugal (Continental)

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	24 150	23 802	47 952	37 603	43 019	44 054
En-route activity	16 717	17 550	34 267	27 779	32 007	32 731
Terminal activity	7 433	6 252	13 686	9 825	11 013	11 324
Other activities	0	0	-	0	0	0

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?	No

All staff	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	76 699	76 800	153 499	82 615	85 757	88 827
Employer % contribution rate to this scheme	23,75%	23,75%		23,75%	23,75%	23,75%
Total pension costs in respect of this scheme	18 216	18 240	**36 456**	19 621	20 367	21 096
Number of employees the employer contributes for in this scheme	707	694		728	738	748

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 costs reported under this heading refer to the employer's social security contribution, which covers not only the future retirement pension, but also lifetime public healthcare. The national regulations on this matter are: Regulatory Decree No. 1-A / 2011, of January 3, in the updated version and Law no. 110/2009, of September 16 - approving the Code of the Contributory Regimes of the Social Security System (updated version). No changes are expected during RP3.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs
A contributory rate of 23.75% on the relevant remuneration items, which is paid by the employer (the rate suported by the employees is 11%).

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 increase in this item is mainly driven by the increase in the number of employees, which is nevertheless well below those presented in the draft PP, similarly to what happens with the amount of remuneration on which it is levied.

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, how many?	Yes-2

ATCOs	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	11 403	13 049	24 452	14 946	15 434	15 959
Employer % contribution rate to this scheme	8,17%	8,17%		8,17%	8,17%	8,17%
Total pension costs in respect of this scheme	932	1 066	**1 998**	1 221	1 261	1 304
Number of employees the employer contributes for in this scheme	116	123		145	164	182

Non-ATCOs	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	24 640	23 094	47 734	23 508	24 275	25 102
Employer % contribution rate to this scheme	6,17%	6,17%		6,17%	6,17%	6,17%
Total pension costs in respect of this scheme	1 520	1 425	**2 945**	1 450	1 498	1 549
Number of employees the employer contributes for in this scheme	433	425		429	428	423

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
There are two constitutive contracts for these Defined Contributions Pension Funds, signed between NAV Portugal, the Unions and the Funds Management Company (Futuro), where all the contractual conditions are defined, including the rates of contribution and the base of incidence.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs
For the NAV/SINCTA DC Pension Fund: 8.17% over the relevant salary items of ATCO employed after September 30, 2007. For the NAV COMPLEMENTOS DC Pension Fund: 6.17% over the relevant salary items of non-ATCO staff. These two plans are based on individual employee accounts managed by Futuro.

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 increase in costs, over the period, is in line with the number of employees and the increase in salaries, the latter considered only after 2023. In the two schemes, both the costs and the number of employees covered are well below those presented in the draft PP.

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?	Yes
Is the occupational "Defined benefits" pension scheme funded?	Yes

NAV SINCTA PENSION FUND	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	45 691	43 332	89 024	42 522	41 290	40 585
Total pension costs in respect of this scheme	-7 669	-116	- 7 784	8 954	13 205	13 104
- in respect of regular pension costs	-7 669	-116	- 7 784	8 954	13 205	13 104
- in respect of non-recurring deficit repair	7 669	116	7 784	3 991	3 991	3 991
- reported as staff costs (in reporting tables)	-7 669	-116	- 7 784	8 954	13 205	13 104
- not reported as staff costs (in reporting tables): please use comment box	7 669	116	7 784	3 991	3 991	3 991
Actuarial assumptions						
% discount rate	1,10%	1,10%		1,10%	1,10%	1,10%
% projected increase in benefits	1,90%	1,90%		1,90%	1,90%	1,90%
% annual increase in salaries	2,40%	2,40%		2,40%	2,40%	2,40%
% expected return on plan assets	4,43%	2,81%		1,10%	1,10%	1,10%
Net funding surplus / deficit	-26 454	-26 748	- 53 202	-22 757	-18 766	-14 775
Number of employees the employer contributes for in this scheme	424	427		417	407	398

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
NAV SINCTA Pension Fund covers all ATCO's employed before 30th September 2007, who are entitled to old-age, disability and surviving dependant's pension supplements, calculated as the difference between the value of the pension that, in net terms, is equal to the net salary that the pensioner would receive if still working in the same position he/she had when retiring and the amount paid by Social Security or CGA (civil servants). The actuarial liabilities, as reported by the Actuary, are calculated based on the Projected Unit Credit method, as required by the International Accounting Standards, translated into the Portuguese regulation by the Accounting and Financial Reporting Standard 28, which is based on International Accounting Standard 19 - Employee Benefits, adopted by the original text of Regulation (EC) No 1126/2008. This method considers each period of service as giving rise to an additional entitlement unit and measures each unit separately to build up the final obligation. Past service liability (PSL) is the proportional part of this amount corresponding to the years of service already performed by each participant, at the valuation date. The Fund is financed by consistent reinsurance policies, recognised as plan assets under IAS 19, and managed by FUTURO - Sociedade Gestora de Fundos de Pensões, S.A. - part of the Montepio Group, the largest mutual association and one of the largest financial institutions in the country – under the supervision of Autoridade de Supervisão de Seguros e Fundos de Pensões, the Portuguese Regulator for the insurance activity and the management of pension funds. Investment policies, which are part of the Pension Funds management contracts, have been defined by NAV Portugal (with the support of an external advisor for pension funds – Mercer) and Futuro SA. Actuarial valuations are performed by an independent actuary. The strategy for allocation of assets is established based on models, aiming to adapt the investments to the responsibilities of the pension plans, namely the characteristics of the populations concerned, the duration of the liabilities - the distribution between liabilities with participants and liabilities with beneficiaries of the Funds - and the funding levels of the inherent responsibilities. In addition to the restrictions imposed by the legislation in force at each moment, the portfolio management is subject to other restrictions and prudential limits as regards the trading markets, applications expressed in currencies other than the Euro, the rating of the bond exposure and the investments in non-harmonized collective investment bodies. The monitoring of the different risks in the asset portfolios is performed using statistical and financial measures based upon their performance. These indicators, calculated regularly, dictate the level of intervention and adjustments required. The impact of all post-employment benefits in NAV Portugal Financial Accounts is annually reviewed by both the internal Audit Committee and the External Auditors and duly reflected in their annual report.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs
The assumptions underlying the calculations of pension costs comprised in the determined costs are detailed in table above.

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.
The total pension costs relating to this scheme are included and reported as staff costs. In 2020 and 2021, due to the financial constraints generated by the pandemic crisis, NAV PT did not/will not pay any contribution to this Fund. For the remaining years of RP3, it is expected that the annual contribution to the Fund will exceed the cost, with the objective of repairing the deficit, as shown in the table above. These extra payments are not part of 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
The main action taken to manage the risk associated with this plan was to convert it into a defined contribution pension fund for employees recruited after 30 September 2007.

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

NAV Portugal (Continental)

Select number of loans	3

Interest rate assumptions for loans financing the provision of air navigation services
(Amounts in nominal terms in '000 national currency)

Loan #1	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description	Loan received from the Portuguese Treasury and Finance GD, for a total of 31 million € with a maturity of 2 years. Loan with a variable interest rate set at 3 months Euribor plus 1,5%.					
Remaining balance	31 000 000	17 714 286		-	-	-
Interest rate %	EURIB 3M+1,5%			EURIB 3M+1,5%		
Interest amount	152 667	420 530	573 196	167 732	-	-

Loan #2	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description	Loan obtained from a private bank (Bankinter), for a total of 15 million € with a maturity of 7 years. Loan with a variable interest rate set at 12 months Euribor plus 0,4%.					
Remaining balance	0	15 000 000		15 000 000	12 750 000	9 750 000
Interest rate %	EURIB 12M+0,4%			EURIB 12M+0,4%		
Interest amount	0	45 500	45 500	60 833	58 542	47 275

Loan #3	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description	Loan obtained from a private bank (Caixa Geral de Depósitos), for a total of 71 million € with a maturity of 7 years. Loan with a variable interest rate set at 12M SWAP rate plus 0,5%.					
Remaining balance	0	71 000 000		71 000 000	56 800 000	42 600 000
Interest rate %	SWAP 12M+0,5%			SWAP 12M+0,5%		
Interest amount	0	153 944	153 944	359 931	332 862	261 665

Other loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description						
Remaining balance						
Average weighted interest rate %	-	-		-	-	-
Interest amount			-			

Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total remaining balance	31 000 000	103 714 286		86 000 000	69 550 000	52 350 000
Average weighted interest rate %	0,49%	0,60%		0,68%	0,56%	0,59%
Interest amount	152 667	619 974	772 641	588 496	391 403	308 940

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?	Select
If yes, number of charging zones concerned	Select

Restructuring costs from previous reference periods to be recovered in RP3
(nominal terms in '000 national currency)

Restructuring costs recovery plan from previous RPs	2020D	2021D	2020/2021D	2022D	2023D	2024D

Additional comments

3.4.5.2 Restructuring costs planned for RP3

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

NAV Portugal (Continental)

a) Overall description of the restructuring measures planned for RP3

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

c) Detailed information on the restructuring measures planned for RP3

Number of restructuring measures	Select

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total restructuring costs by measures ('000 national currency)	-	-	-	-	-	-

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)

Click to select	2020D	2021D	2020/2021D	2022D	2023D	2024D
Staff			-			
of which, pension costs			-			
Other operating costs			-			
Depreciation			-			
Cost of capital			-			
Exceptional items			-			
Total restructuring costs	-	-	-	-	-	-

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

Additional comments

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

SECTION 3.5: ADDITIONAL KPIS / TARGETS

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?
Safety is of paramount importance for NAV Portugal and any change to the funcional system is subject to a safety assessment, acording to EU Regulation 1035/2011 as approved by the Portuguese NSA, and if considered necessary, mitigation measures are implemented. *In the beginning of 2022, it is planned the entry into operation of the new ATM system, Topsky. This new system will contribute to the achievement of the targets in the different KPA's, particularly in capacity and safety. In the safety KPA, more safety nets will be available, contributing to the improvement of the safe provision with increased traffic.* *Mitigation measures associated to the new ATM system implementation are among others, the training of all ATCO with simulations to be able to work safely with the new system, the split of working sectors and the team reinforcement measures. All of the above examples of measures are the outcome of the safety assessment done for the expected change in the functional system.* ***(PP2019version)***

b) What are the main assumptions used to assess the interdependencies between safety and other KPAs?
As refered in the previous paragraph, Safety has the highest priority and is never compromised.

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?
In addition to the monitoring of the KPIs within all performance areas, NAV Portugal has developed targets to reflect its safety policy and risk tolerance such as: *- Degree of treatment of Safety Recommendations - Annual Safety Program accomplishment, Safety Surveys, Safety Assessments;* *- Total Incident Index (SMI + RI + Airspace Infringement + RE , etc.);* *- SPIs in line with RP3 - SMS Maturity and with the SSP (State Safety Plan);* *- Additional ATM safety Indicators and ATM Technical (CNS) Safety Indicators.* *The evolution of the SPI's is subject of analysis in meetings (RCP) and audits. The trends are analysed in a semi-formal way once a year.* *Recently NAV Portugal has developed a dashboard containing all relevant data on safety ocurrences which is available to all unit managers and safety staff. ASMT is also being used.(PP2019version)*

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?
Safety is never compromised and training requirements for the mandatory compliance of ATCO regulation 2015/340 are never postponed since they are mandatory even if it may impact, during some periods, the available capacity. As an example, during RP2 NAV Portugal always focused on safety, even though it had an unexpected increase in traffic, which by 2019 presents a gross deviation of +23% against the initial traffic estimates. In order to cope with the capacity shortfall NAV Portugal applied a very flexible roaster scheme and overtime has been used to deliver the necessary capacity to large extent. However, it always safegarded for fatigue situations through mitigation measures. (PP2019version)

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.
ANAC regularly checks the ANSP in regard of personnel and financial resources and also assesses the changes implemented by the ANSP in order to achieve other KPA targets. (PP2019version)

3.6.2 - Interdependencies and trade-offs between capacity and environment

The NM's 7 Measures initiative in 2019, as part of the NM Action Plan, have shown two side effects on environmental indicators against capacity. In the horizontal side, NAV Portugal was invited by the NM to participate in this initiative to the benefit of the network, accepting re-routed traffic avoiding European congested areas, mainly in France and Germany, impacting the horizontal profile and consequently KEA indicator. Regarding the vertical dimension, some of the initiatives of the Collaborative Traffic Management strategic project developed by the NM allow to optimize the traffic delivery at the sector level in a proportional balance between demand and capacity. Traffic characterization in Lisbon FIR suggests the application of flight level capping measures for this optimization with a direct improvement in the capacity management. Level capping measures affect the optimum vertical profiles impacting the efficiency of the flight and producing more emissions, although generated delays maybe reduced by these measures
On the other hand, rerouting is used to shift traffic from one overload sector -to protect the controller and to avoid regulations - to other neighboring sectors (with available capacity) impacting the horizontal profile and consequently KEA indicator.

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

The unexpected increase in traffic in during RP2 Lisbon has shown a clear interdependency between Capacity and Cost- Efficiency, which led Portugal to revise its Performance Plan in 2018.
To cope with traffic demand and to increase its capacity, Lisbon ACC had to open more sectors and extend the period of operation of the remaining sectors, meaning more working hours and consequently more ATCO availability. These measures have a significant impact in the costs since overtime is used at a large extent to mitigate the capacity gap.
Additionally, NAV Portugal accelerated the recruitment of new ATCOs to close the gap between ATCO needs and availability.
On the other hand, and since the actual ATM system has no capacity to increase the number of sectors (and to implement some new functionalities coming from EU regulation), NAV Portugal is forced to invest in a new ATM system – TOPSKY - to be implemented during RP3, in order to increase capacity. This is a major project, with strong impact in the CAPEX level, but also on the ATCO training plan, leading to an increase of overtime.

3.6.4 - Other interdependencies and trade-offs

SECTION 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 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	9

Initiative #1	
Name	**Cross-border FRA operations between FRA Portugal, FRA Spain (Barcelona/Madrid), FRA Morocco and FRA Spain (Canarias).**
Description	To allow seamless FRA operations in the South West axes. *Proposal ARP027F of the NM Airspace Restructuring Programme.*
Expected performance benefits	ENV; CAP; SAF

Initiative #2	
Name	**Adaptation of the airspace organization and sectorisation at the interface between Portugal, Spain (Canarias) and Morocco**
Description	To reduce complexity at the interface between Portugal/Canarias and Morocco/Canarias by the dualisation of points in the interface that would allow for better segregation of flows. *Proposal ARP034S of the NM Airspace Restructuring Programme.*
Expected performance benefits	ENV; CAP; SAF

Initiative #3	
Name	**Cross-border FRA operations between FRA Portugal and FRA Spain (Barcelona/Madrid)**
Description	To allow seamless FRA operations across Portuguese and Spanish airspace. *Proposal ARP024F of the NM Airspace Restructuring Programme.*
Expected performance benefits	ENV; CAP; SAF

Initiative #4	
Name	**Cross-border FRA operations between FABEC South FRA (North West FRA (LFRR), South West FRA (LFBB), South East FRA (LFMM)), FRA Portugal and FRA Spain (Barcelona/Madrid).**
Description	To allow seamless FRA operations across Portuguese, Spanish and French airspace. *Proposal ARP022F of the NM Airspace Restructuring Programme.*
Expected performance benefits	ENV;CAP;SAF;

Initiative #5	
Name	**Datalink**
Description	Identification, analysis and implementation of common technical solutions for Datalink services compliant with Regulations. This project also considers current Implementation Project submitted to INEA Call, namely, European Air Ground Data Communication Service. ENAIRE and NAV Portugal monitor this initiative so that SW FAB aligns with Datalink strategies. ENAIRE and NAV Portugal participated in the INEA Call 2016 Path 1 Implementation Project aiming to solve the technical problems identified in the provision of Datalink.
Expected performance benefits	SAF;CAP;ENV;

Initiative #6	
Name	**Datalink Phase II**
Description	Identification, definition and provision of an overall deployment picture of “target” solution according to DLS Recovery plan. The project consists of preparatory activities towards the transitional path to the “target” solution. ENAIRE and NAV Portugal participated in the INEA Call 2017 Path 2 Pre- Implementation Project.
Expected performance benefits	SAF;CAP;ENV;

Initiative #7	
Name	**New surveillance sensors (Phase III)**
Description	Implementation plans for the introduction of ADS-B in the surveillance system of the SW FAB complying with Regulations. A related joint project is on-going since 2018, with INEA support;
Expected performance benefits	SAF;CAP;ENV;

Initiative #8	
Name	**IPv6 Services**
Description	Define, agree and implement technical solutions for the provision of IPv6 communication services by means of the interconnection of aeronautical data networks of ENAIRE and NAV Portugal
Expected performance benefits	SAF;

Initiative #9	
Name	**Re-sectorisation at interface between Lisboa ACC and Madrid ACC.**
Description	To address current workload issues and accommodate the new optimum FRA trajectories. *Proposal ARP021S of the NM Airspace Restructuring Programme.*

Expected performance benefits	SAF;CAP;ENV.

Additional comments
initiatives #1;#2,#3,#4 and #9 included in the NM/RNDSG 2021

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

PROJECTS	CONTRIBUTION TO PERFORMANCE				
	SAF	CAP	ENV	CMC	INT
Lisboa/Madrid/Brest FRA (iFRA)	L	L	H	-	H

4.2 - Deployment of SESAR Common Projects

4.2.1 - Common Project One (CP1)

CP1 ATM Functionality (CP1-AF) / Sub functionality (CP1-s-AF)	Recent and expected progress
CP1-AF1 - Extended AMAN and Integrated AMAN/DMAN in High-Density TMAs	
CP1-s-AF1.1 AMAN extended to en-route airspace	The COOPANS consortium plan to have the capability over either OLDI or SWIM within the CP1 deadline. The Lisbon airport is not on the CP1 airport list, hence the AF#1 is not enforced by the regulation; however, considering the airport capacity demands, the s-AF will be implemented after the capabilities availability in the operational systems.
CP1-s-AF1.2 AMAN/DMAN Integration	The Lisbon airport is not on the CP1 airport list, hence the AF#1 is not enforced by the regulation.
CP1-AF2 - Airport Integration and Throughput	
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	The Lisbon airport is not on the CP1 airport list, hence the AF#1 is not enforced by the regulation; however, considering the airport capacity demands, the s-AF requirements are in the scope of the major capex#2 & #3.
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	The Lisbon airport is not on the CP1 airport list for the RP3, hence the AF#1 is not enforced by the regulation.
CP1-s-AF2.2.2 Airport operations plan (AOP)	This family is being planned with the airport operators to be implemented within its deadline well in the RP4.
CP1-s-AF2.3 Airport safety nets	Portugal is outside the geographical scope of the CP1 in what concerns this Sub functionality.
CP1-AF3 - Flexible Airspace Management and Free Route Airspace	
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	The Lisbon ACC deployed the system LARA within the RP3 period to address the family 3.1.1, while the remaining families of the s-AF3 will be addressed with the initial deployment of the TOPLIS-ACC (TospSky) system.
CP1-s-AF3.2 Free route airspace	The Lisbon FIR is full free route since 2009. Under the COOPANS program to be deployed in the Lisbon ACC, some related technical enablers will be available in 2022.
CP1-AF4 - Network Collaborative Management	
CP1-s-AF4.1 Enhanced short-term ATFCM measures	Under the COOPANS program to be deployed in the Lisbon ACC the s-AF will be adressed in 2022.
CP1-s-AF4.2 Collaborative NOP	The remaining family of the s-AF (4.2.2) is planned to be achieved in 2022.
CP1-s-AF4.3 Automated support for traffic complexity assessment	The remaining family of the s-AF (4.2.2) is planned to be achieved in 2022.
CP1-s-AF4.4 AOP/NOP integration	This family was identified as a potential candidate for COOPANS project under a CINEA call (INAP concept).
CP1-AF5 - SWIM	
CP1-s-AF5.1 Common infrastructure components	NAV Portugal participated in the CEF Call project to deploy the NewPENS in 2019/2020, and is participating in the CEF Call project for PKI.
CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	NAV Portugal is following the CEF Call 2017 COOPANS funded program (not to NAV Portugal) for this deploy (with end in spring 2023).
CP1-s-AF5.3 Aeronautical information exchange	A project launched within the RP2 period to deploy the initial systems (e-TOD) is being concluded.
CP1-s-AF5.4 Meteorological information exchange	Not yet planned in detail. After the availibility of the services by the mandated service providers "VAACs" and "MET", by end of 2025, the mandated service consumers : ANSP, NM, AU, AO should consume them.

CP1-s-AF5.5 Cooperative network information exchange	Not yet planned in detail. The deadline date of the end of 2025 will be managed under the update of the COOPANS implementation program.
CP1-s-AF5.6 Flight information exchange (yellow profile)	Not yet planned in detail. The deadline date of the end of 2025 will be managed under the update of the COOPANS implementation program.
CP1-AF6 - Initial Trajectory Information Sharing	
CP1-s-AF6.1 Initial air-ground trajectory information sharing	Not yet planned in detail. The deadline date of the end of 2027 will be managed under the update of the COOPANS implementation program.
CP1-s-AF6.2 Network Manager trajectory information enhancement	Not relevant for the ANSP, or to the national level, since this family is mandated on the Network Manager.
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	Not yet planned in detail. The deadline date of the end of 2027 will be managed under the update of the COOPANS implementation program.

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
During the RP3 timeframe there will at least two major changes in Lisbon FIR which will be closely monitored and requiring careful change management. The first one is the implementation of the PMS – Point Merge System in Lisbon TMA planned for 2022 and 2023 and the second major change, with significant operational impact is the implementation of a new ATM system – TOPSKY. The change management process followed by NAV Portugal is aligned with Regulation (EU) 2017/373 and includes 5 phases : Identification, Analysis, Communication, Implementation and Monitoring of change. IDENTIFICATION is the part of the process aiming to confirm whether the change is affecting the functional system or not; Changes may be caused by external requests, changes in the operational environment, changes in applicable regulations or requests to evolve the system either to correct problems, to adapt or implement new functionalities. All changes where there is doubt about the potential impact on the functional system or whether are part of the operational envelope, are treated as changes with an impact on the i.e. they will be reviewed and notified. ANALYSIS will permit the analysis team to prepare the initial safety case by describing the change, determining the scope and the impact of the change taking into consideration interdependencies and interactions with other parts of the functional system like key stakeholders and other service providers that may be impacted by the change. Depending on the affected functions a safety support or a safety case will be developed; NAV Portugal uses MARIA model as a representation of its functional system. In this model are represented the people, procedures and equipment associated with the functions required for the provision of air traffic management and air navigation services. This MARIA model describes changes to the functional system under the responsibility of NAV Portugal and identifies their impact in a systematic way. The model also includes the external stakeholders like the airspace users, adjacent units, international organisations, other relevant organisations and key partners with whom safety information is exchanged, thus allowing to identify those partners that may be affected by a change. COMMUNICATION consists on the notification of the CA with the initial safety case and coordination with other service providers and/or aviation undertakings affected by the planned change; this includes NM, ICAO, AOP or AU's. It should be noted that there are already in place mechanisms at regional level such as AEFMP or SW FAB working groups and at international level such as EUROCONTROL or ICAO where changes affecting various entities are analysed, coordinated and communicated. Changes affecting other service providers are jointly reviewed and the safety case is prepared jointly or by one of the service providers, with the agreement, at accountable manager level, of the involved. The first step of the IMPLEMENTATION phase is the constitution of the project team. The project team will carry out the activities necessary to make the change to the functional system successful. During the implementation phase, the safety assessment is performed including activities like the hazard identification as well as the definition of the safety and monitoring criteria. The safety case or safety support case produced is sent to the CA; The safety case, in addition to the elements of the initial safety argument, will include: The safety analysis with: - The identification of hazards in normal operation and in expected degraded modes; - Identification of causes; - Identified mitigating actions; The safety argument; the safety criteria; the verification; the monitoring criteria. The MONITORING phase includes all the activities related with monitoring of the change has defined in the safety case. The objective of the monitoring is to verify that the change in the functional system, after its implementation, respects the defined safety criteria. To this end, monitoring requirements are defined and monitored over a predefined period. In case of deviations, these will be analysed and the necessary corrective actions are triggered. On its part, ANAC has an Aeronautical Information Circular n.º 12/2019, establishing the rules that must be followed by the ATM/ANS service providers, previously to the implementation of a planned change to their functional systems, in order to comply with requirement ATM/ANS.OR.A.040, of Commission Implementing Regulation (EU) 2017/373. Within the scope of this circular, ANAC has a "Change Notification Form", available on ANAC's website, to be used by the service providers to notify the Authority and to initiate the internal review/oversight process. For these purpose, ANAC has also established internally the actions to be taken for a proper change oversight. This was achieved through the development of an internal procedure applicable to the Air Navigation Department, complying with requirement ATM/ANS.AR.C.025, of Commission Implementing Regulation (EU) 2017/373 and with the respective guidance material (GM). The Air Navigation Department also implemented a process for managing changes within ANAC's organization, complying with ATM/ANS.AR.B.010 and, particularly, considering those changes that may potentially introduce new hazards that may affect the risk mitigation strategies in place, prior to the implementation of any change. This procedure also includes EASA's notification process to be followed in the event of any limitation in the fulfilment of the responsibilities or the ability to perform the functions which ANAC is entrusted with.

SECTION 5: TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES

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

Portugal Continental			Traffic risk-sharing parameters adapted?			no
			Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if 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

Portugal - 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 recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if 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

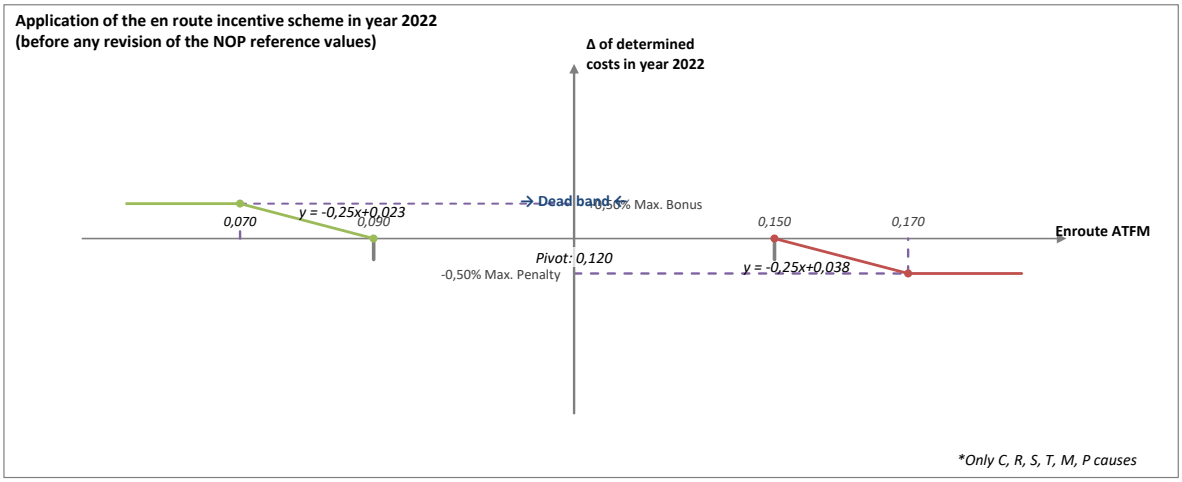
5.2.1.1 Parameters for the calculation of financial advantages or disadvantages - Enroute

Enroute	Expressed in	Value
Dead band Δ	fraction of min	±0,030 min
Max bonus (≤2%)	*% of DC*	0,50%
Max penalty (≥ Max bonus)	*% of DC*	0,50%
The pivot values for RP3 are	modulated	

NAV Portugal (Continental)

		2020	2021	2022	2023	2024
NOP reference values (mins of ATFM delay per flight)				0,13	0,13	0,13
Alert threshold (Δ Ref. value in fraction of min)				±0,050	±0,050	±0,050
Performance Plan targets (mins of ATFM delay per flight)				0,13	0,13	0,13
Pivot values for RP3 (mins of ATFM delay per flight)*				0,12	0,12	0,12
Financial advantages / disadvantages	Dead band range			[0,09-0,15]	[0,09-0,15]	[0,09-0,15]
	Bonus sliding range			[0,07-0,09]	[0,07-0,09]	[0,07-0,09]
	Penalty sliding range			[0,15-0,17]	[0,15-0,17]	[0,15-0,17]

** 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.	Yes
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:**	No
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
We are limiting the scope of the incentives to delay causes that are directly related to ATC, as these are the ones controllable by the ANSP. The incentive model in our view has as main objective, to incentivize the ANSP to provide the service levels agreed with airspace users at the onset of the plan, taking into account the best information available at the time. As such, the ANSP should be accountable for positive or negative deviations, that are within its control. *Accordingly, Portugal opted for an incentive model that modulates for delay causes, and uses the latest version of the NOP as pivot value for year n+1, in order to make sure that the ANSP is only rewarded or penalised for actions that are within their control.* *The pivot value is calculated by multipling an atributable delay factor - ADF - that consists of the average delay (in percentage) of the total ATC causes in respect to the total ATFM delay over the last 4 years, by the reference value indicated by the NOP for the year n.* *In particular, for the 2020 this ADF factor is 95% wich multiplied by the reference value of 0,13 returns a pivot value of 0,12.*	

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

5.2.2 - Capacity incentive scheme - Terminal

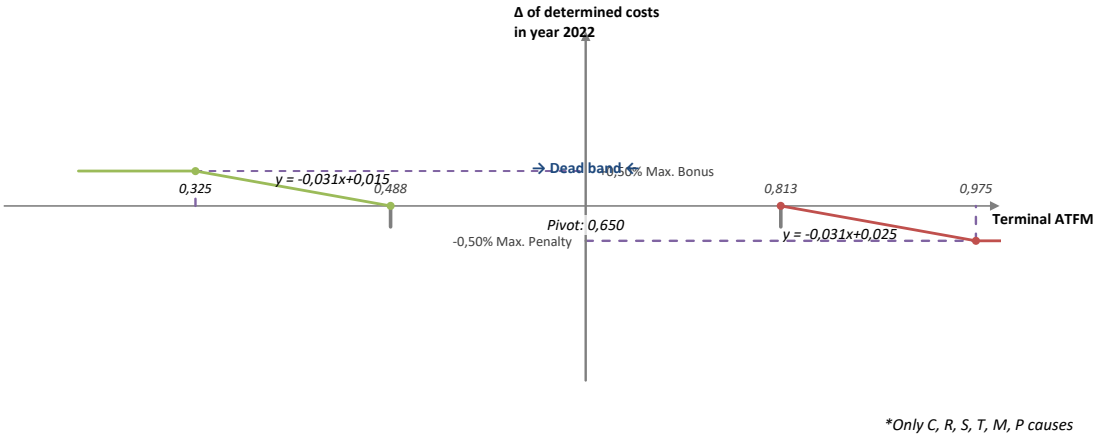
5.2.2.1 Parameters for the calculation of financial advantages or disadvantages - Terminal

Terminal	Expressed in	Value
Dead band Δ	%	±25,0%
Bonus/penalty range (% of pivot value)	*%*	±50%
Max bonus	*% of DC*	0,50%
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)				1,91	2,28	2,00
Bonus/penalty range Δ (in fraction of min)				±0,325	±0,435	±0,235
Pivot values for RP3 (mins of ATFM delay per flight)*				0,65	0,87	0,47
Financial advantages / disadvantages	Dead band range			[0,488-0,813]	[0,653-1,088]	[0,353-0,588]
	Bonus sliding range			[0,325-0,488]	[0,435-0,653]	[0,235-0,353]
	Penalty sliding range			[0,813-0,975]	[1,088-1,305]	[0,588-0,705]

** 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.*

Application of the terminal incentive scheme



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**
In Portugal there is only one terminal charging zone, and one ANSP, so there is no need to breakdown the bonus and penalties.

*** 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:**	Yes
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
We are limiting the scope of the incentives to delay causes that are directly related to ATC, as these are the ones controllable by the ANSP. The incentive model in our view has as main objective, to incentivize the ANSP to provide the service levels agreed with airspace users at the onset of the plan, taking into account the best information available at the time. As such, the ANSP should be accountable for positive or negative deviations, that are within its control. *Accordingly, Portugal opted for an incentive model that modulates for delay causes, in order to make sure that the ANSP is only rewarded or penalised for actions that are within their control.* *The pivot value is calculated by multipling an atributable delay factor - ADF - that consists of the average delay (in percentage) of the total ATC causes in respect to the total ATFM delay over the last 4 years, by the reference value indicated by the NOP for the year n.* *In particular, for the 2022 this ADF factor is 34,1 % wich multiplied by the reference value of 1,91 returns a pivot value of 0,65.*	

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

SECTION 6: IMPLEMENTATION OF THE PERFORMANCE PLAN

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
It is the NSA responsability the assessment of the achievement of the performance targets during the reference period. *All the data used for the purpose of the continuous monitoring shall be updated on a monthly basis and retrieved directly from an external source (Eurocontrol).* *The data to be used for continuous monitoring at State level is the following: Traffic (IFR flights, Arrival IFR flights, airport movements); Environment (KEA, Actual trajectory);* *Capacity (Total minutes of en-route ATFM delay, Minutes of en-route ATFM delay (per reason for regulation) and Minutes of arrival ATFM delay.* *The Continuous Monitoring Procedure is aimed at ensuring, as far as possible, that the targets in the RP3 are met throughout the year.*

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
Every month, at national level , it will be introduce updated data in the Performance Alert Tool. This data come from external sources and once introduced is analysed against early alert mechanisms. *These early alert mechanisms shall fit the purpose of determining whether targets risk not being met despite the moment of the year. In order to meet this requirement, they shall be designed to consider both, a buffer with respect to the target itself, and the seasonal variability of the KPIs. They will be established after a consultation with the ANSP.* *Whenever the early alerts are triggered the request for corrective actions takes place and the ANSP shall analyse the situation as a whole, identify the potential causes of the undesired performance outcome and propose corrective measures. In case corrective measures are not possible, practical or are deemed unnecessary by the ANSP, appropriate justifications shall be provided.* *The NSA analyses the corrective actions and the justifications provided. If the response from the ANSP is not considered sufficient, more feedback shall be requested. Once the corrective actions and justifications are found appropriate, the risk of meeting the targets by the end of the year shall be analysed.* *In case targets still risk not being achieved despite the measures taken by ANSP, the NSA determines the need to report the EC in compliance with Article 37 of the Performance Regulation. However, in case the measures proposed are considered sufficient to mitigate the risk of not achieving the target by the end of the year, the NSA continues with the monitoring, and make a follow-up of the implementation of corrective actions proposed by the ANSP.*

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*

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