Agencia Estatal
de Seguridad Aérea

ESPP3

Spain Draft Performance Plan for RP3: 2020 – 2024

Annexes

Air Navigation Services

GOBIERNO DE ESPAÑA
MINISTERIO DE TRANSPORTES, MOVILIDAD Y AGENDA URBANA

AESA AGENCIA ESTATAL DE SEGURIDAD AÉREA

CLASIFICACIÓN DE SEGURIDAD

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ANNEX A: SAFETY TARGETS – ADDITIONAL INFORMATION

The content of development for this KPA is collected in chapter 3 in the main document.

ANNEX B: ENVIRONMENT TARGETS – ADDITIONAL INFORMATION

The content of development for this KPA is collected in chapter 4 in the main document.

ANNEX C: CAPACITY TARGETS – ADDITIONAL INFORMATION

1. CAPACITY REVISED TARGETS AND 2020 RESULTS

1.1 COVID CRISIS IN SPAIN

The healthcare crisis of COVID-19 has had such an impact on aviation sector that it is necessary to review the Draft Performance Plan (ESPP3) proposed in 2019. New reference values, in line with the actual air traffic situation and with new traffic forecast for the coming years, has been set.

Until the outbreak of the COVID-19 crisis, delay behaviour in Spain had a specific profile. However, the effects of the pandemic had certain particularities regarding traffic and delay in Spain that made it an exceptional event as described in the following paragraphs.

Spain, until the arrival of the pandemic, usually had a certain level of delay that varied throughout the months of the year. With the arrival of COVID-19 at the beginning of March 2020, Spain was the first European country with these characteristics of delay level to begin to suffer an increase in coronavirus infections. In those first weeks of March, and due to the increase of infections throughout the population, the Spanish government declared the state of alarm on Saturday 14 March by Royal Decree 463/2020. However, two days earlier, the air navigation service provider, ENAIRE, had already taken the decision to divide the ATC staff into two separate blocks in order to guarantee the control service and at the same time establishing working conditions that could guarantee the health of its employees.

The impact of the COVID-19 pandemic had a similar effect in the main Spanish control units where prevented measures implemented by the ANSP ENAIRE (only half of the controllers were working) at the time as the traffic in Europe, and also in Spain, had not been reduced yet, led to significant delays with cause Other due to COVID-19. Despite the 5 Spanish ACC were affected the greatest impact for en-route was concentrated in ACC Madrid (LECM) and ACC Barcelona (LECB). Regarding arrival delay, the impact on the Canary Islands was even greater as it is a tourist destination in the middle of the high season. Therefore, the weekend when the state of alarm was declared, many passengers began to return to their respective countries of origin. This situation led to significant delays with cause Other due to COVID-19 in GCLP.

Once the state of alarm entered in force traffic began to decrease and the minutes of ATFM delay generated due to Covid-19 were also descending until 0 minutes of ATFM delay from 22nd March hereafter.

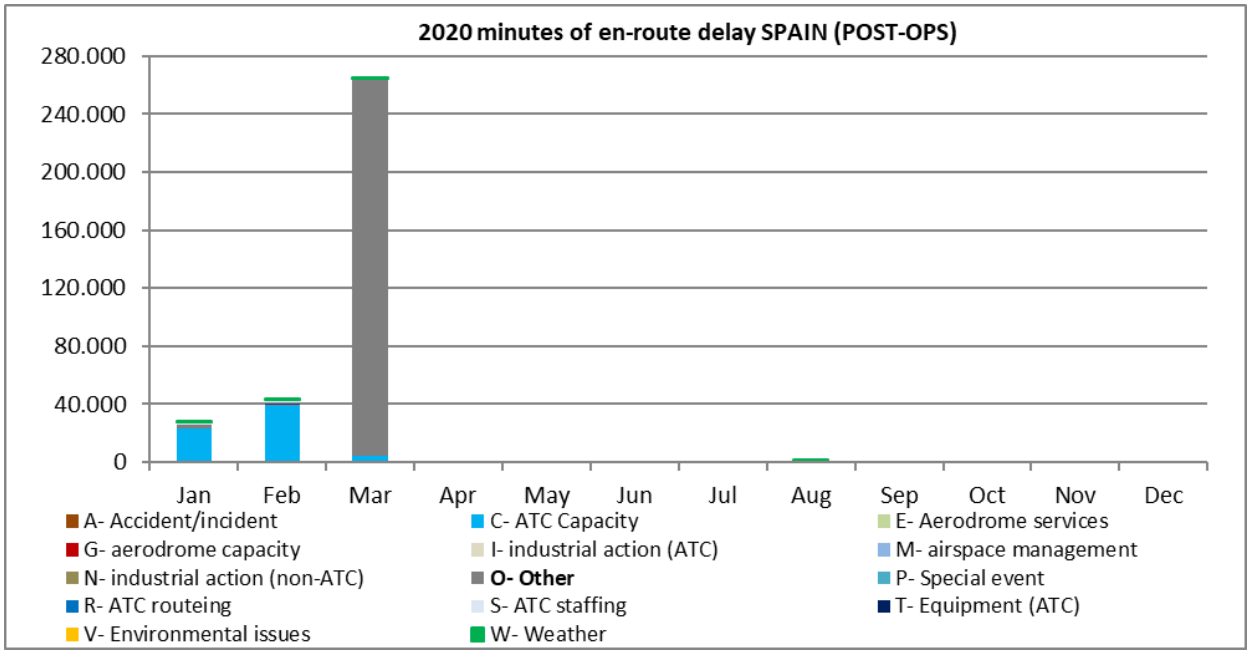
1.2 FIRST YEAR OF REFERENCE PERIOD:2020

As it has been mentioned in the previous section, the COVID-19 crisis has had such a great impact on the aviation sector that it has been necessary to review the national capacity area targets, among others, for the years 2021-2024.

The final results of the minutes of delay generated with cause Other (COVID-19) by the first wave of COVID-19 resulted in:

- En-route: 259,585 en-route minutes of delay in the 5 Spanish ACCs between 12 and 21 March, which represents a 77% of the 2020 en-route minutes of delay.
- Arrival: 15,383 minutes of arrival delays in the 7 Spanish Airports between 14 and 16 March, which represents a 19% of the 2020 arrival minutes of delay.

AESA, as the national supervisory authority, carried out a subsequent analysis of what happened in relation to this specific event related to the delays of cause Other due to COVID-19 in those 10 days in March. It was concluded that the situation experienced in March was a very specific event, limited to a very short period of time and due to very exceptional circumstances, given that Spain was one of the first European countries to suffer the first wave of COVID-19 and to take exceptional measures to guarantee air navigation control in Spanish territory.



During 2020, the first year of the third reference period, the monitoring tasks of the capacity indicators have been developed. The results obtained are shown below:

En - route ATFM delay per flight	2020
Union-wide targets	0.90
Spain Targets	0.47
Spain Actual result (not considering Other COVID-19 minutes)	**0.09**
Spain Actual result (considering Other COVID -19 minutes	**0.40**

Following the explanations given previously in relation to the COVID-19 crisis, the non-inclusion of O-COVID-19 minutes leads to an ERD value of 0.09. There were almost 80k minutes in which 86% was due to C-ATC Capacity and 4% due to W-Weather and Staffing.

However, if all the en-route delay minutes generated in 2020 were considered, the ERD indicator value would have been 0.40. That would be more than 338k minutes, 77% of which would have been due exclusively to O-COVID-19 minutes and 20% to C-ATC Capacity.

Arrival ATFM delay per flight	2020
Spain Targets	0.91
Spain Actual result (not considering Other COVID-19 minutes)	**0.24**
Spain Actual result (considering Other COVID -19 minutes	**0.30**

For arrival delay, the non-inclusion of O-COVID-19 minutes leads to a TAD value of 0,24. There were more than 67k minutes of which 78% were due to W-Weather and 15% due to C-ATC Capacity.

However, if all the arrival delay minutes generated in 2020 were considered, TAD indicator value would have been 0.30. That would be more than 82k minutes, 63% of which would have been due to W-Weather, 19% would have been due exclusively to O-COVID-19 minutes and 12% to C-ATC Capacity.

AESA, as part of its continuous monitoring work, carried out an analysis of the attribution of the causes of delay generated throughout 2020 and no inconsistencies were found regarding the ANSP.

2. TAD – TERMINAL ARRIVAL DELAY

The arrival ATFM delay per flight (TAD) is a KPI at national level in the Capacity Performance area.

Spain presents a particular case as there are two service providers for the airports considered in this plan. At the airports already considered in the RP2 period (Adolfo Suárez Madrid-Barajas, Josep Tarradellas Barcelona-El Prat, Palma de Mallorca, Málaga-Costa del Sol and Gran Canaria) the aerodrome ATC service provider is ENAIRE. However, in the RP3 period and in the framework of the first version of the Performance Plan developed in 2019 (ESPP3-2019), the airports of Alicante-Elche and Ibiza were included. The first of them (Alicante-Elche) because it had already surpassed the 80,000 IFR movements per year on average as established by the regulatory framework and the second (Ibiza) because throughout the RP3 period it was foreseeable that it would reach this threshold of 80,000 IFR movements This new version of ESPP3-2021 maintains as much as possible the criteria and assumptions included in ESPP3-2019.

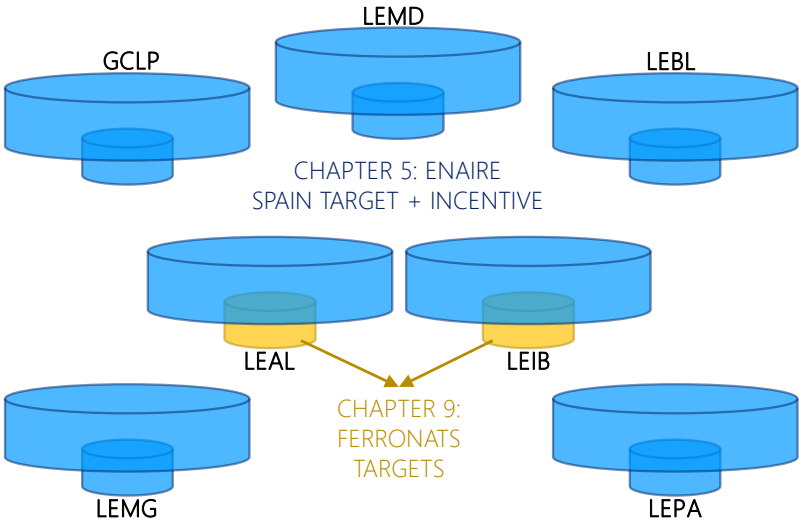
At these two airports, Alicante-Elche and Ibiza, the aerodrome ATC service is provided by FerroNATS as a private provider certified by AESA.

As previously mentioned in section 9 of this Performance Plan, the market conditions for FerroNATS at the two airports where it provides the aerodrome ATC service are considered applicable. Therefore, the goals established in those airports, in the part corresponding to FerroNATS, have the purpose of monitoring but are not subject to an incentive scheme.

Nevertheless, at these two airports, the terminal service provided by ENAIRE is subject to the incentive mechanism established for this provider, and the corresponding performance is included together with the global values for the other five airports, in the Spain target set out in chapter 4 of the ESPP3 document.

In summary, the Spain terminal arrival delay target is built on the basis of the performance registered in the 5 major airports, plus the delay at Alicante-Elche and Ibiza airports whose cause is due to restrictions taking place in the approach volume. The ANSP affected by this target is ENAIRE and is subject to an incentive mechanism applied on the terminal unit rate.

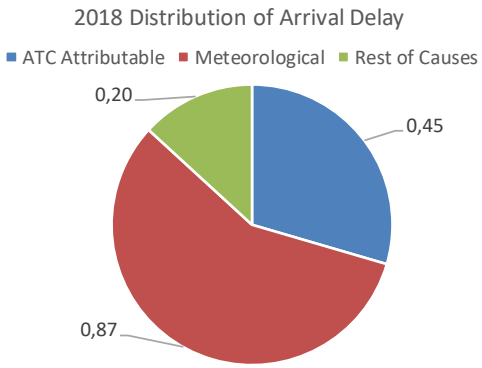
On the other hand, the airport arrival delay targets for Alicante-Elche and Ibiza are based on the delay registered at those airports whose cause is due to restrictions taking place in the volume managed in the airport tower environment: ATZ airspace (LEAL)/ CTR airspace (LEIB) plus the airport ground infrastructure (runway, taxiways, etc). The ANSP affected by this target is FerroNATS and is not subject to an incentive mechanism in the context of the ESPP3.



AESA has coordinated with ENAIRE, FerroNATS and AENA (the airport operator) to identify the boundaries between terminal and aerodrome delay in Alicante-Elche's and Ibiza's global arrival delay. The criteria reached has been used to elaborate the targets proposed and shall be applied for actual monitoring during RP3. The details of this exercise and the result (the separation of the terminal (APP-TMA) and aerodrome (TWR-AD) environment delays) is explained in Annex D, section 4.

As it is being explained for en-route delay, a revision of the proposed 2019 Performance Plan has become necessary due to the impact of the COVID-19 pandemic. New targets for arrival delay have been set in line with the actual air traffic situation and the forecasts for recovery in the coming years.

2.1 SPAIN ARRIVAL (ENAIRE)

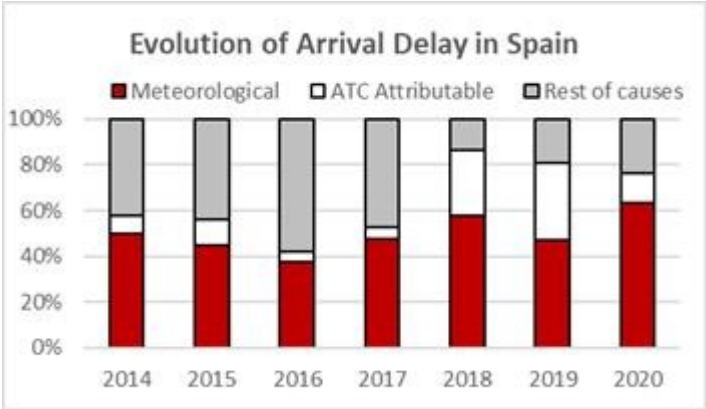


When the first version of the draft Performance Plan was developed in 2019, the value of the TAD targets for the airports considered in the ESPP3 were derived through a study based on the delay data recorded in 2018. In this new version of the Performance Plan, the model used in the 2019 draft plan has been replicated applying the following considerations:

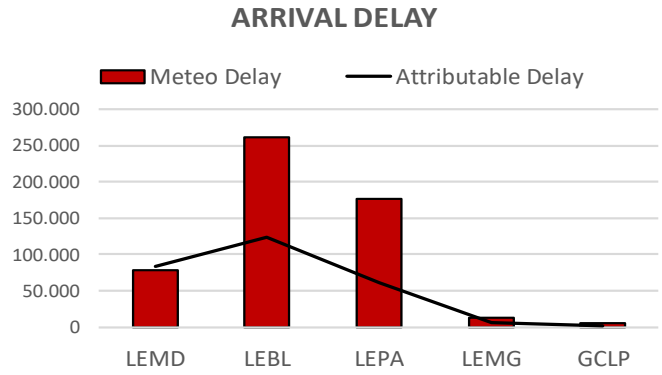
- The year 2020 has not been taken into consideration as the basis for the model as it is a very disruptive year both in traffic and minutes of delay (from April practically there were no minutes of delay generated).
- The year 2019 has not been taken as the basis of the model either since the preliminary targets obtained were higher than those finally presented in the current plan. ENAIRE considers it is possible to be more ambitious in setting targets to contribute proactively to the improvement of the network.
- The year 2018 is taken as the basis for the model because of two main reasons after the study carried out by the ANSP. On the one hand, it is considered that the analysis and hypothesis carried out for the draft ESPP3 presented in 2019 are completely applicable to set the new RP3 Spanish TAD targets. On the other hand, the objectives obtained with this year as a base, are more in line with the adequate effort and improvement carried out by ENAIRE for the years of RP3, which will contribute effectively to improving the network's management.

Accordingly, the main aspects that have been be considered are:

- ATC Attributable causes generated around 30% of the total delay minutes
- Adverse weather conditions generated around 50% of the total delay minutes although it should be noted that 2018 was a year with a high number of weather events. This impact has to be taken into account when setting the targets for RP3, especially for the heavy impact of adverse meteorological conditions over the arrival delay, making it very complex to establish a correct scenario for its future evolution. This impact has to be taken into account when setting the targets for RP3, especially for the heavy impact of adverse meteorological conditions over the arrival delay, making it very complex to establish a correct scenario for its future evolution.



- In 2018 a revision of the assignment of Arrival ATFM delay causes, affecting the causes C-ATC Capacity and G-Aerodrome Capacity, changed the distribution of Attributable delays, as may be observed in the above figure.
- As shown in the figure, Barcelona, Madrid and Palma de Mallorca airports are the main contributors to the arrival ATC attributable delay; therefore, projects planned in these airports will greatly contribute to achieve the targets.



- Targets on this indicator are based on historical experience and projects planned, since a target at network level has not been established within the European Performance Scheme.
- A similar evolution of the targets along RP3 has been considered as for the route and the TAD indicator, with attenuated traffic and therefore more moderate targets in 2021 and subsequent recovery in the following years.
- It is necessary to carefully consider accountability, since several actors are involved in the achievement of the target such as aerodrome, other ANSP(s) involved and to there are some uncontrollable elements such as weather which generates delay.

- The Spanish RP3 Performance Plan will include the airports of Alicante-Elche and Ibiza, whose aerodrome ATC service is liberalised and therefore three different actors are involved in performance (for non-liberalised airports were services have not been subject to tendering process, agreements with the airport operator exist as well, covering service levels and payments for them).
- A coordination with the airport operator in the establishment of targets is needed to introduce a reasonable view of the expectations.

The resulting targets for ENAIRE, after application of the abovementioned principles, and coordination among all the involved actors is as follows.

Capacity KPI #2: Arrival ATFM delay per flight	2020	2021	2022	2023	2024
ENAIRE Target – 7 Airports	0.89	0.43	0.65	0.56	0.56
GCLP – Gran Canaria	0.34	0.18	0.22	0.22	0.22
LEBL – Josep Tarradellas Barcelona-El Prat	1.68	0.84	1.40	1.20	1.20
LEMD – Adolfo Suárez Madrid-Barajas	0.70	0.32	0.40	0.30	0.30
LEMG – Málaga-Costa del Sol	0.12	0.06	0.10	0.09	0.08
LEPA – Palma de Mallorca	1.40	0.66	1.00	0.90	0.90
LEAL- Alicante-Elche	0.04	0.04	0.04	0.04	0.04
LEIB - Ibiza	0.29	0.15	0.16	0.16	0.16

The achievement of these targets is based on the following estimated evolution of delay causes between 2018 and 2024:

- Over 40% reduction in total delay.
- Over 30% reduction of the ATC-Attributable delay (min/flight), obtained through the implementation of the ENAIRE Capacity Plan.
- An expected 60% reduction of the Weather delay (min/flight), obtained either from improvements in forecasts accuracy or from better procedures and coordination, taking into account the uncertainty of the evolution of local weather conditions.

For the airports of Alicante-Elche and Ibiza where ENAIRE is the provider of terminal services only, certain hypotheses have been made:

- In the Alicante-Elche approach volume, the delay registered in the last few years is null or practically negligible and therefore a very moderate target has been established because no changes are expected.
- In the Ibiza approach volume, the delay recorded in recent years are mainly due to Weather or Special Event causes. ENAIRE has led to improvements that lead to a decrease in delay due to attributable causes (ATC causes: codes C, R, S, T, M and P of the ATFCM user manual) and a greater decrease in delays due to the rest of causes (including Weather).

The criteria to distribute the delay between the approach environment traffic volume and the TWR environment traffic volume is set out in Annex D, section 4.

2.2 ALICANTE-ELCHE AND IBIZA AERODROME (FERRONATS)

The part of the delay which is not associated with the terminal services at Alicante-Elche and Ibiza airports is due to restrictions that take place within the aerodrome environment, and the causes of delay are consequently attributable to: FerroNATS (as the ANSP), the airport capacity managed by the operator AENA, or other causes of delay. For the sake of simplicity, this type of delay is called TWR environment (TWR-AD).

The analysis and assumptions made below consider the delay and the TAD targets associated with the TWR environment (TWR-AD) as a whole, therefore, there will be certain causes attributable to FerroNATS (that shall be identified with the codes in consistency with regulation codes attribution criteria set in Annex D, section 4), and others that are not.

As an aerodrome ATS service provider in the airports of Alicante-Elche and Ibiza, FerroNATS has proposed TAD values for the delays in the forthcoming years after coordinating with the airport operator AENA: the contract holder. They propose a 0.02 target for ATC attributable delay at both Alicante-Elche and Ibiza airports, in the TWR environment (TWR-AD), for each year of RP3.

Terminal and airport ANS ATFM arrival delay per flight **ATC attributable delay in TWR environment (TWR-AD): FerroNATS input**	**2020**	**2021**	**2022**	**2023**	**2024**
LEAL-Alicante-Elche	0.02	0.02	0.02	0.02	0.02
LEIB-Ibiza	0.02	0.02	0.02	0.02	0.02

The ESPP3 has to reflect a target considering all delay causes, in consistency with Regulation (EU) 2019/317. For this reason, the input received from FerroNATS in terms of ATC attributable delay has to be converted into all delay causes. To this end, AESA, for the 2019 draft ESPP3, made an exercise making use of the historical data and the criteria set out in Annex D, section 4. The exercise made in 2019 is still suitable for develop the update of the document. The result is the targets table in Chapter 9.5 of the ESPP3 document. In particular:

- Alicante-Elche airport has not recorded a noticeable arrival ATFM delay in recent years and that is why a TAD target of 0.02 has been set for all RP3. FerroNATS contribution as a provider of aerodrome ATC services is also very limited and no major changes are expected, so the targets set are modest values that confirm the same trend.
- In Ibiza airport, the delay recorded in recent years is concentrated in the summer months and has been mainly due to weather, airport infrastructure capacity or some special event (for example, implementation of RNAV procedures in 2017).

Using the agreed 0.02 minutes target on ATC attributable delays (only causes C-ATC Capacity, I-ATC Industrial Action, S-Staffing and T-ATC Equipment applicable to TWR environment)

2.3 OVERALL SPAIN ARRIVALTARGET

The Spain overall arrival capacity target is built to address the need to provide a National level KPI.
The target values are the result of an aggregation of:

- the targets applicable to the scope where ENAIRE is the ANSP and therefore the charging requirements and incentive mechanisms apply, and
- the targets applicable to the Alicante-Elche and Ibiza TWR environment subject to market conditions.

Only the values in the first bullet point above are linked to the terminal cost-base applicable to user charges, and consequently the incentive mechanisms defined in Chapter 4 of the ESPP3 document.

In order to discriminate the delay attributable to each of the scopes, separate traffic volumes for approach and TWR environments shall be generated for the purpose of delay reference location, and the criteria in line with Annex D, section 4, shall be applied in coordination with the ANSPs involved and the airport operator.

ANNEX D: CAPACITY INCENTIVE MECHANISM – ADDITIONAL INFORMATION

1. INTRODUCTION

The process of developing this performance plan that started in 2019 led AESA, as national supervisory authority, to conduct and promote several studies on en-route and arrival delays that finally set the establishment of the performance incentive mechanism for RP3. This incentive mechanism included in the first 2019 draft version of the performance plan was achieved after a coordination with all stakeholders, especially with ENAIRE. This annex describes the elements of the incentive scheme (whose standards are the same as they applied in the 2019 performance plan), the necessary updates to ensure the correct behaviour of the mechanism designed.

The following is a summary of the main highlights of the analysis performed for both, en-route ATFM delay (ERD) and terminal ATFM delay (TAD).

2. MODULATION MECHANISM

Article 11 of the Performance and Charging Regulation specifies the possibility of modulating the pivot values that are used for the calculation of the financial advantages/disadvantages. AESA, as a national supervisory authority, has decided to implement a system where performance targets at national level will be modulated.

This modulation will be based on:

- The reference value from the latest available NOP (November release of year n-1). Only for en-route delay.
- Delay causes attributable to the ANSP: 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. For both en-route delay and terminal delay.

The main reasons for this decision are based on:

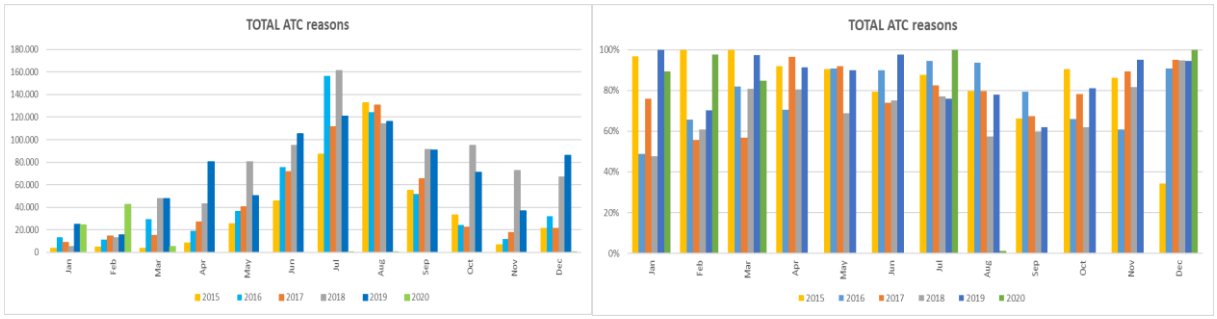
- Using the latest available version of the NOP (November) allows to adapt the ANSP performance expectations to the current situation in line with the possibilities of the European Network.
- The focus is put on the accountability of the ANSP.
- The importance of facilitating the operational management in situations in which the priority is to follow the procedures strictly to deal with events whose causal factor is not the ANSP.
- The Weather cause is very unpredictable and is seriously affecting certain units. After the historical data analysis of all delay causes, observing its evolution and the contribution of each one to the total delay, the reasonable approach is not to consider this unpredictable factor in the incentive scheme by using the possibility of modulating.
- National ERD and TAD model has sufficient and relatively stable data (until February 2020), enabling a robust model. There is a clear relationship between the en-route /arrival delay due to attributable causes and the total en-route /arrival delay, so that from the en-route /arrival target it is possible to establish the reference value for the delay due to attributable causes. The COVID-19 crisis in early 2020 has disrupted the stability of these data, but a return to normality is expected in the course of RP3. Due to the impact of the 2020 data, additional model considerations have been taken into account in this relationship between attributable and non-attributable delays, as described in the following sections.

- Supervision of AESA through various monitoring activities throughout the year, not only of the KPIs and their evolution, but also of the different causes of delays and their correct attribution, as well as the implementation of improvement measures.
- Part of the users have supported the modulation mechanism.

3. EN-ROUTE ATFM DELAY

The studies carried out in relation to en-route delay have focused on both national level and ACC level, on each of the 5 ACCs that exist in Spanish territory. Monthly data are available from 2015 and broken down by delay reason, so it is possible to see the contribution of each cause of delay and its evolution over the years.

On the basis of the data, ANSP attributable causes (delay causes with codes C, R, S, T, M and P of the ATFCM user manual) has been grouped together to analyse the characteristics and evolution of this delay as a whole, as well as its contribution to the total delay. From this, it is possible to calculate an ATC attributable delay ERD indicator, similar to the global ERD indicator but exclusively accounting for ATC attributable delay causes.



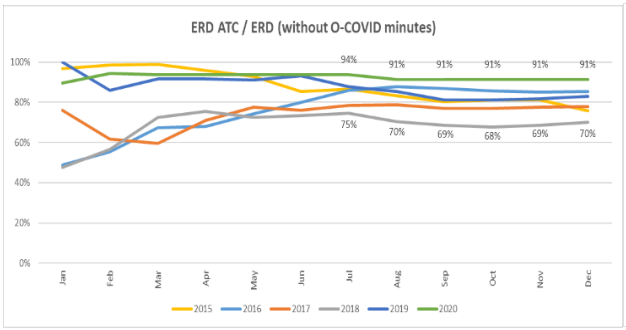
The effect of the COVID-19 pandemic is clearly visible, resulting in an almost total absence of ATC attributable delay causes since April 2020. Not only was ATC attributable delay reduced, but there was a very significant drop in traffic, with only a few minutes of any kind of delay causes between April and December. A more detailed explanation of what happened in March 2020 due to the coronavirus crisis has already been included in Annex C.

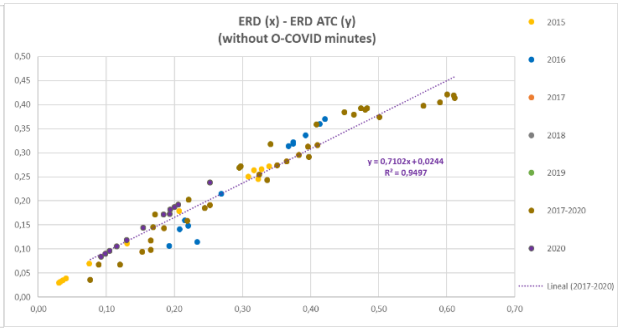
The cause Other is a non-attributable reason and does not count in the ATC ERD indicator but does count in the ERD total.

The minutes of cause delay Other, due to COVID-19 (Other-Covid minutes) are not taken into consideration for the model created in the framework of the incentive scheme modulated by causes and specifically will not be taken into account for the calculation of the attributable delay factor, ADF.

As explained in the main document, the ADF is a factor that relates attributable causes of delay to total delay.

The ATC ERD indicator that groups the ANSP attributable causes of delay presents a clear correlation with the ERD indicator, 2020 is included but without the Other-Covid delay minutes for the reasons mentioned above.





With this correlation it is possible to calculate the value of ERD based on the value of ATC ERD and to compare it with the real value of ERD, in this way the tolerances of this model are obtained throughout the months of study. The result of this exercise is the ADF (attributable delay factor) that relates the global ERD indicator reference values and targets, with the pivot value including only the ATC attributable delay causes.

The ADF is generally calculated on the basis of the performance registered in the previous 4 full years but if AESA considers it necessary, this 4-year period may be modified throughout RP3 to ensure that the possible statistical error of the model remains within the defined dead-band. In order to take into account the possibility of exceptional events that disturb the statistical behaviour of the model, when calculating the ADF value each year, the period of data to be included in the calculation will be assessed and the exclusion of some minutes due to exceptional and specific situations.

The ADF for en-route delay in 2020 had a value of 76.17%. As stated in the regulation 2020/1627 of 3 November 2020 on exceptional measures for RP3 due to the COVID-19 pandemic, the incentive scheme will not apply for the years 2020 and 2021. Therefore, the ADF for 2022, the first year the incentive mechanism applies, for en-route delay have a value of 76.74%.

It has been obtained as a result of the evaluation of the data for the period 2017-2020 and not taking into consideration the Other-Covid minutes considered as exceptional, obtaining an average tolerance of 0.001. This means that if the dead-band is wider than that value it would suffice to include the possible statistical error within it, i.e., no bonus or penalty would be applied due to the design of the mechanism alone.

The calculation of the ADF will take place every year, with consolidated post-ops data. The resulting pivot value coming from the application of the ADF to the updated reference values of the NOP published in November, shall be published by AESA prior to the start of the year.

4. TERMINAL ATFM DELAY

The studies carried out in relation to arrival delay have focused on both national and airport level, on each of the 5 airports where ENAIRE provides all ANS services (LEMD, LEBL, LEPA, LEMG, GCLP) plus the 2 airports where the aerodrome ATC is provided by FerroNATS (LEAL and LEIB). Monthly data are available from 2015 except for LEAL and LEIB and are broken down by delay reason, so it is possible to see the contribution of each cause of delay and its evolution over the years.

On the basis of the data, ATC attributable causes (delay causes with codes C, R, S, T, M and P of the ATFCM user manual) have been grouped together to analyse the characteristics and evolution of this delay as a whole, as well as its contribution to the total delay. From this, it is possible to calculate an ATC attributable delay TAD indicator, similar to the global TAD indicator but exclusively accounting for ATC attributable causes of delay.

Specifically, for arrival delay, there was an additional problem that has been overcome by applying certain hypotheses based on known facts. At certain airports, especially Madrid, Barcelona and Palma de Mallorca until August 2018, the delay registered as G cause (Aerodrome capacity) also included minutes that were actually cause C (ATC capacity). The reason was that, until that moment, no distinction was made whether the delay was due to a lack of capacity in the airport infrastructure or due to a lack of ATC capacity in the approach. This issue was identified and ENAIRE and AENA agreed on a procedure to distribute this delay according to the responsible of the actual constrain. This took place in August 2018 and since then, delay causes have begun to be correctly attributed in these specific cases. The consequence is that from this moment on, a certain transfer from G cause (Airport capacity) to C cause (ATC capacity) has been observed.

This fact made the historical data from 2015 to August 2018 not totally true to reality for G and C causes. Therefore, for the analysis and evolution of the different types of causes, it is necessary to make some hypotheses about this distribution between G and C for the period prior to August 2018.

In the first version of the ESPP3-2019, new delay C entries from August 2018 to March 2019 were taken into account. With this new revision of the Performance Plan, data could be counted until February 2020, as the exceptional situation of the COVID-19 pandemic was already developing in March 2020. Based on this, a hypothesis was made of average distribution of C and G for the delay prior to August 2018 at 7 Spanish airports. Accordingly, an adjusted C* has been considered, more in line with the actual distribution already made since August 2018.

An additional challenge comes for Alicante-Elche and Ibiza airports as the full TAD covers the services provided at both the approach phase and the aerodrome, and there are two different ATC providers in each of those areas of responsibility. AESA coordinated with the actors involved (including the airport operator AENA) to reach a common understanding on the distribution of the delay between the approach environment (APP-TMA) were the ATC is provided by ENAIRE and the TWR environment (TWR-Aerodrome) where the ATC is provided by the FerroNATS.

As a consequence, a set of principles were set in 2019 for the distribution of the delay in the future. Those principles established in 2019 have been revised, improving the distribution of delay with even more specific attribution criteria according to the causes of regulation and, in some cases, the remarks indicated in each regulation. These improvements have been agreed, as they were the first time they were established, with ATC providers (ENAIRE, FerroNATS) and the airport operator (AENA). These principles are considered sufficiently solid to set the framework for the modulation study required in the Performance Plan. These are based on the distribution of the minutes of delay, to the extent possible considering the exact environment (APP-TMA or TWR-AD) where the constrain responsible for the delay takes place. The distribution for one or the other environment (APP-TMA or TWR-Aerodrome) will be made according to the cause of delay.For certain causes it will also be necessary to take into account the remarks indicated in the regulation, in order to assign it to one of the environments. Additionally, this assignment will be associated with the use of the corresponding traffic volume (LEALARR/LEIBARR, LEALTWR/LEIBTWR). In those cases where it is not possible to establish where the constraint has been placed, the delay will be assigned at 50% to each environment and the TV LEALXXX/LEIBTXXX will be used. Therefore, different situations may occur depending on the cause of the delay that originates the regulation:

- Causes exclusively attributable to the TWR-AD environment: A, E, G, N, V.
- Causes exclusively attributable to the APP-TMA environment: M, R.
- Causes occurring in one or the other **directly distributable environment**: **C, I, S, T.** The delay will be assigned to the environment in which the constraint occurs and will be assigned to the corresponding traffic volume (TV). Causes are directly traceable to the providers (ENAIRE or FerroNATS).

- Causes occurring in one and/or another environment that **may or may not be directly distributable**: **O, P.** The traceability of the allocation depends on the nature of the regulation and the remarks indicated therein. A 100-50-0% distribution may be given for each environment depending on the nature of each regulation and will be assigned to the corresponding traffic volume.
- **Cause W:** as indicated in "ANM Remarks". It is essential to indicate the reasons in the "Remarks" section, adjusting as much as possible to the standards indicated in the "ATFM Operations Manual" in force. The assignment to each environment will be made according to the indications included in the regulation characteristics and following criteria:
  - Related to cloud ceiling, low visibility/fog, snow/de-icing or handling deterioration: the delay will be assigned to the TWR-AD environment.
  - Related to heavy rain, storms (TS, CB) or wind: The delay will be assigned to one or the other provider or 50% depending on each particular case.
  - If any situation not contemplated in the usual "remarks" included in the "ATFM Operations Manual" in force for the W-Weather case, in principle it will be assigned to the "traffic volume" considered more appropriate and taking into account that the assignment of the TV already involves the assignment of delay to one or the other provider or to both equally.

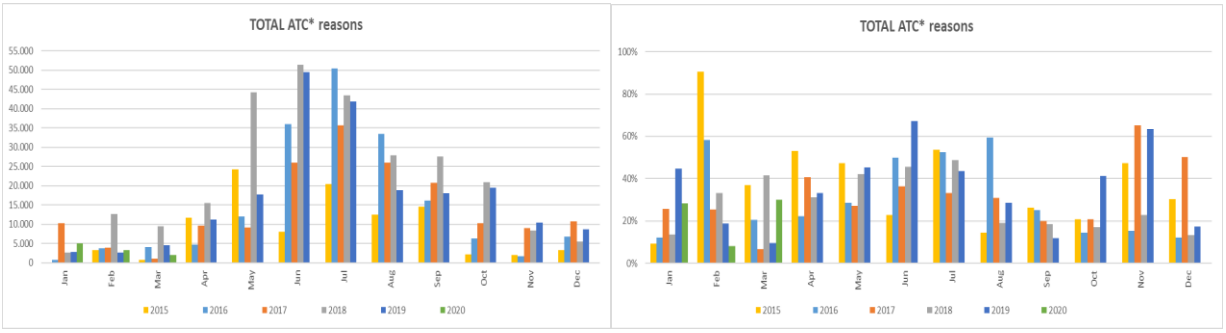
Regulation reason (code)	ATTRIBUTION CRITERIA in LEAL / LEIB
A: Accident/Incident	TWR-AD environment (Airport) allocated to traffic volumes LEALTWR / LEIBTWR
C: ATC Capacity	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE • TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS
E: Equipment non-ATC	TWR-AD environment (Airport) allocated to traffic volumes LEALTWR / LEIBTWR
G: Aerodrome Capacity	TWR-AD environment (Airport) allocated to traffic volumes LEALTWR / LEIBTWR
I: Industrial Action ATC	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE • TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS
M: Airspace management	APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR
N: Industrial Action non ATC	TWR-AD environment (Airport) allocated to traffic volumes LEALTWR / LEIBTWR
O: Other	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE • TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS • Criterion of 50% distribution between APP-TMA and TWR-AD environments allocated to traffic volumes LEALXXX / LEIBXXX
P: Special Event	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE

Regulation reason (code)	ATTRIBUTION CRITERIA in LEAL / LEIB
	• TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS • Criterion of 50% distribution between APP-TMA and TWR-AD environments allocated to traffic volumes LEALXXX / LEIBXXX
R: ATC routeing	N/A (if the case took place, APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR)
S: Staffing	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE • TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS
T: Equipment ATC	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE • TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS or responsible for equipment failure
V: Environmental	TWR-AD environment (Airport) allocated to traffic volumes LEALTWR / LEIBTWR
W: Weather with "Remarks": - Cloud ceiling. - Fog/low visibility. - Removal of snow ice on taxiway, runway. - De-icing aircraft. - Ground handling impaired by conditions.	TWR-AD environment (Airport) allocated to traffic volumes LEALTWR / LEIBTWR
W: Weather with "Remarks": - Heavy rain. - Thunderstorms. - Wind.	Case based: • APP-TMA environment allocated to traffic volumes LEALARR / LEIBARR: ENAIRE • TWR-AD environment allocated to traffic volumes LEALTWR / LEIBTWR: FerroNATS • Criterion of 50% distribution between APP-TMA and TWR-AD environments allocated to traffic volumes LEALXXX / LEIBXXX

Note that this table may change in the context of the ATFCM Operations Manual. The most recent version of the document will be used.

After considering the above on historical data, the result of the study considers the following set of hypotheses.

For the incentive scheme, the model chosen for arrival delay will consider the 7 airports but taking into account that for LEAL and LEIB only the delay attributable to the approach services provided by ENAIRE as a provider in that portion of airspace will be considered.

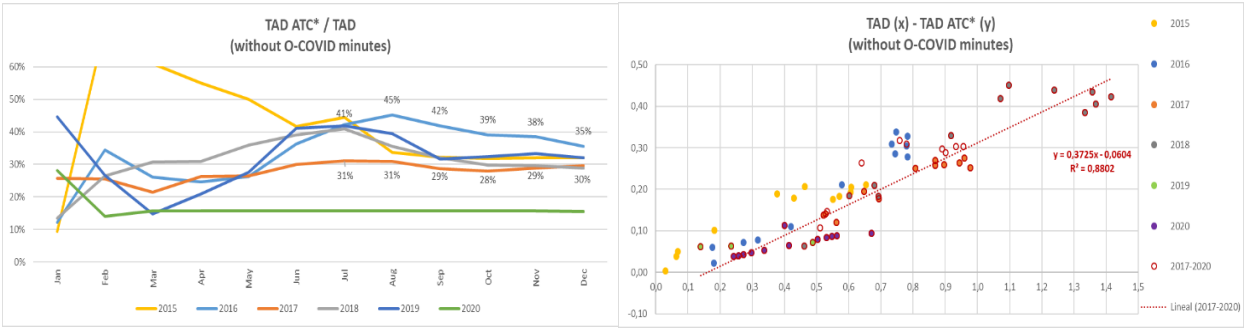


The cause Other is non-attributable and does not count in the ATC TAD indicator but does count in the TAD total.

In the same way as for en-route delay, the minutes of cause delay, Other, due to COVID-19 (Other-Covid minutes) are not taken into consideration for the model created in the framework of the incentive scheme modulated by causes and specifically will not be taken into account for the calculation of the attributable delay factor, ADF for arrival.

As explained in the main document, the ADF is a factor that relates attributable causes of delay to total delay.

The ATC TAD indicator that groups the ANSP attributable causes of delay presents a clear correlation with the TAD indicator, 2020 is included but without the Other-Covid delay minutes for the reasons mentioned above.



With this correlation it is possible to calculate the value of TAD based on the value of ATC TAD and to compare it with the real value of TAD, in this way the tolerances of this model are obtained throughout the months of study. Like in the section above, the result of this exercise is the ADF (attributable delay factor) that relates the global TAD indicator and targets, with the pivot value including only the ATC attributable delay causes.

The ADF is generally calculated on the basis of the performance registered in the previous 4 full years but if AESA considers it necessary, this 4-year period may be modified throughout RP3 to ensure that the possible statistical error of the model remains within the defined dead-band. In order to take into account the possibility of exceptional events that disturb the statistical behaviour of the model, when calculating the ADF value each year, the period of data to be included in the calculation will be assessed or the exclusion of some minutes due to exceptional and specific situations will be assessed

The ADF for arrival delay in 2020 had a value of 26.85%. As stated in the regulation 2020/1627 of 3 November 2020 on exceptional measures for RP3 due to the COVID-19 pandemic, the incentive scheme will not apply for the years 2020 and 2021. Therefore, the ADF for2022, the first year that incentive mechanism applies, for arrival delay will have a value of 29.59%.

It has been obtained as a result of the evaluation of the data for the period 2017-2020 and not taking into consideration the Other-Covid minutes considered as exceptional, obtaining an average tolerance of 0.009. This means that if the dead-band is wider than that value it would suffice to include the possible statistical error within it, i.e., no bonus or penalty would be applied due to the design of the mechanism alone.

The calculation of the ADF will take place every year, with consolidated post-ops data. The resulting pivot value coming from the application of the ADF to the targets in the ESPP3, shall be published by AESA prior to the start of the year.

5. INCENTIVE FORMULA

Regarding the incentive formula, there are a series of parameters that have to be defined, in particular:

- The dead-band: the symmetric area around the pivot value for which no bonus or penalty is applied.
- The alert thresholds: the symmetric values at both sides of the pivot value for which the maximum bonus or penalty is applied.

5.1 DEAD BAND

According to Article 11.3(d) in Regulation (EU) 2019/317 the dead-band is: "*a symmetric range around the pivot value set by the national supervisory authority, subject to consultation of airspace users' representatives and of air navigation service providers concerned, to ensure that minor variations in ATFM delay do not lead to any financial advantages or disadvantages*".

At the same time, Annex XIII.2 establishes the function between the determined costs and the average ATFM delay per flight has to follow a "*smooth sliding scale*". Assuming this principle, the larger the distance from the limit of the dead-band to the alert threshold the smother the gradient of the function.

This means the dead band has to meet two basic requirements:

- Be small enough to enclose only minor variations of delay, duly justified.
- Not be too wide so that the function representing the variable incentive, progresses from the limit of the dead-band to the alert threshold following a smooth sliding scale, and not an abrupt one.

Considering the main requirements above, the values chosen were the ones suitable to provide robustness to the modulation model:

- En-route: 0.01 minutes of delay per flight, which is more than the 0.001 tolerance of the model for the 2022 incentive scheme.
- Terminal: 0.02 minutes of delay per flight, which is more than the 0.009 tolerance of the model for the 2022 incentive scheme.

The dead-bands set, are wide enough to enclose the margin for error of the modulation model, and small enough to cover only minor performance variations and produce a smooth gradient linear function, considering the alert thresholds set (explained in the section below).

5.2 ALERT THRESHOLDS

Regulation (EU) 2019/373 set the alert thresholds for which the maximum bonus and penalty of the incentive mechanism is applied in the following manner:

- En-route: according to Annex XIII, points 2.1.(a) and (b), the alert threshold is linked to the variation of the reference values as a result of the seasonal updates of the Network Operations Plan (Article 9.4. These alert thresholds are defined in the Commission Implementing Decision (EU) 2021/891 of 2 June 2021 on European-wide targets:

- *"0.05 minute of en-route ATFM delay if the reference value from the latest version of the NOP available at the time of drawing up the performance plan is less than 0.2 minute of en-route ATFM delay*" or

- *"0.04 minute of en-route ATFM delay increased by 5 % of the reference value from the latest version of the NOP available at the time of drawing up the performance plan if the reference value is greater than or equal to 0.2 minute of en-route ATFM delay*."

- Terminal: according to Annex XIII, points 2.2.(a) and (b), the alert thresholds are 50% and 150% of the reference value.

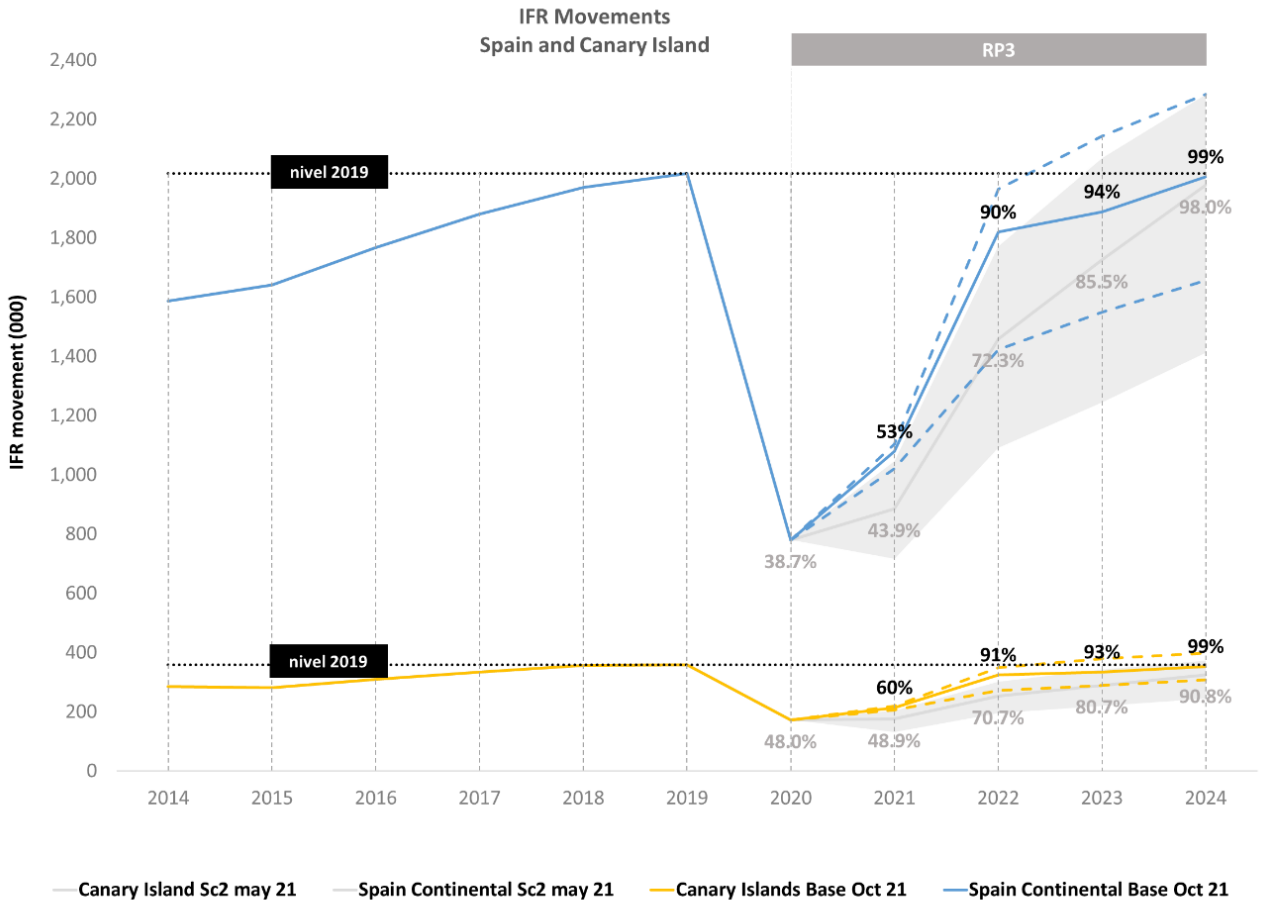
6. EN-ROUTE: MAXIMUM BONUS AND PENALTY

During 2019 multiple analyses from the point of view of the capacity, the delays and the costs generated were carried out. Opinions and comments were considered in the OPS meetings and the ESPP3 consultation held in 2019. For the elaboration of the Plan containing revised targets, the 2019 assumptions and estimations of the financial stability were assessed and considered valid. However, after the publication of the October 2021 forecast and the requirement of the European Commission of considering this new traffic in its Verification of Completeness a new assessment has been done with the following result:

- The asymmetric scheme is the option maintained because of its better alignment with the requirement set in Regulation (EU) 2019/317, Article 11.3.(a): "they shall be proportionate to the level of ATFM delay and consist of financial advantages and financial disadvantages having material impact on revenue at risk".
- The modulated incentive scheme is the option maintained as allowed by Regulation (EU) 2019/317, Article 11.3.(c).
- The symmetric range around the pivot value (deadband) of 0.01 minutes of ATFM delay for the en-route incentive mechanism and of 0.02 minutes of ATFM delay for the terminal incentive mechanism remain valid in order to better alignment with Regulation (EU) 2019/317, Article 11.3.(d): "to ensure that minor variations in ATFM delay do not lead to any financial advantages or disadvantages".
- The maximum bonus and penalties are modified since one of the main assumptions considered in the risk analysis included in 2019 ESPP3 and its 2021 revised version, increase of traffic beyond expected, is not valid anymore since the traffic forecast has significantly increased .

After the publication of the October 2021 STATFOR forecast that increases significantly the IFR movements and the Service Units for years 2021, 2022 and 2023 in comparison with the forecast of May 2021, the general assumption of increase of traffic beyond the expected have a high risk of not being valid anymore, so it is considered that the results of the risk analysis could compromise the financial stability of the ANSP.

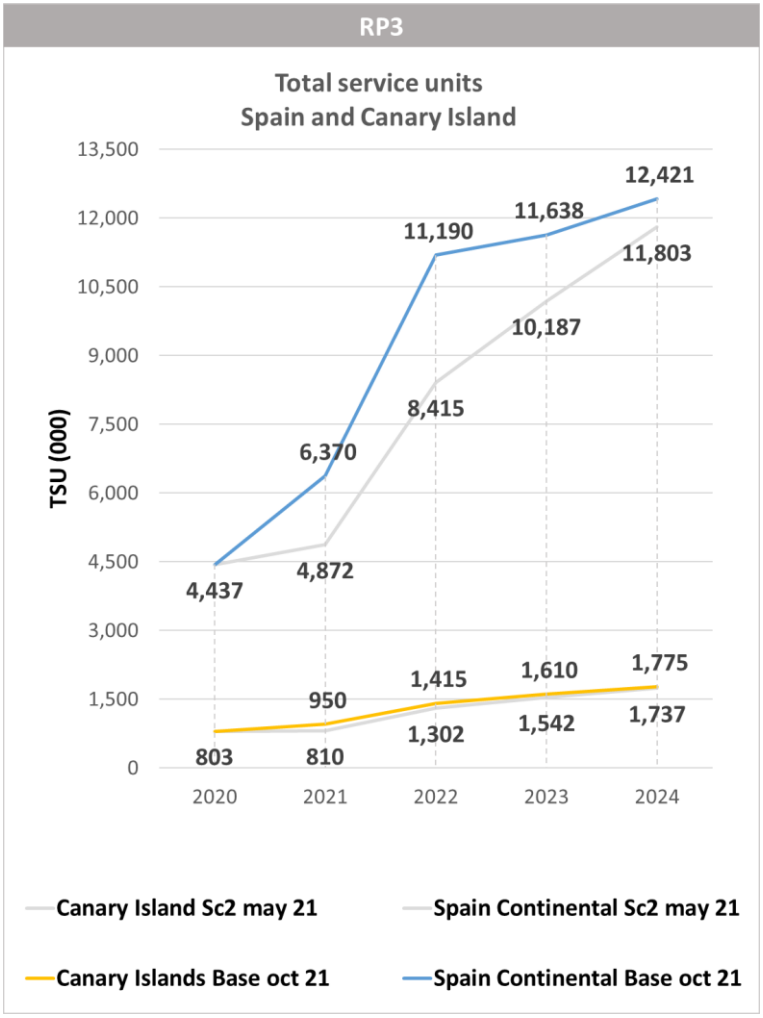
The October 2021 forecast is showed in the following graph in IFR movements for the two en-route charging zones in comparison with May 2021 forecast:



In terms of IFR movements per charging zone the scenario base of October is above the scenario 1 (optimistic) of May 2021 for years 2021 and 2022 in Spain Continental and Spain Canarias. The Oct-21 scenario base proposes the following increases related to May-21:

Oct-21 vs May-21 traffic increases IFR movements	2021	2022	2023	2024
Spain Continental	21.8%	24.7%	9.4%	1.5%
Spain Canarias	22.3%	28.1%	15.6%	8.6%

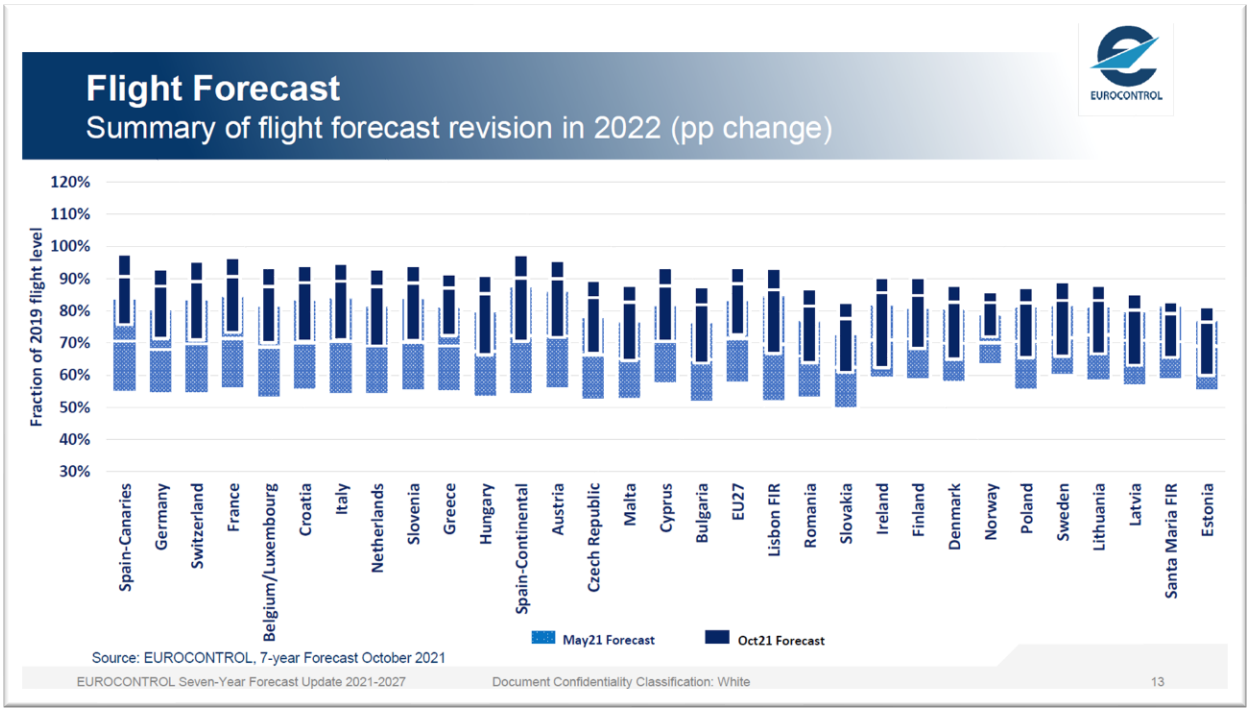
The October 2021 forecast is showed in the following graph in Service Units for the two en-route charging zones in comparison with May 2021 forecast:



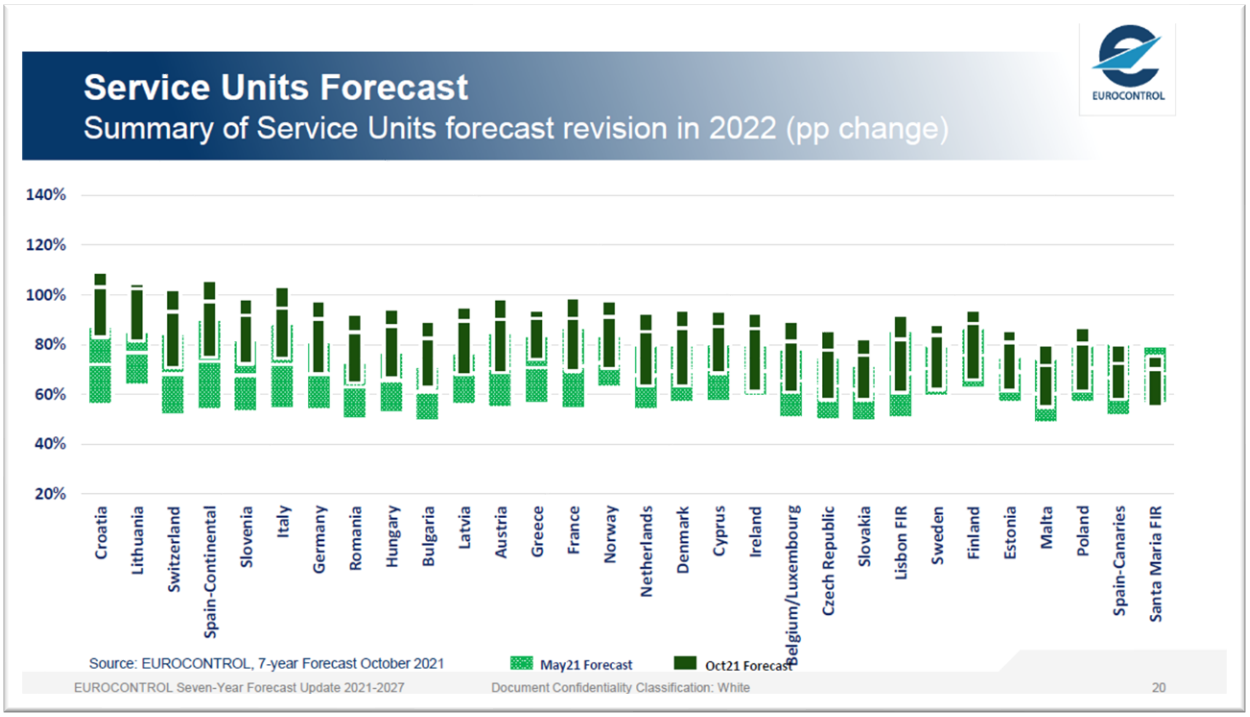
In terms of Service Units, the increases are the following:

Oct-21 vs May-21 traffic increases Service Units	2021	2022	2023	2024
Spain Continental	30.7%	33.0%	14.2%	5.2%
Spain Canarias	17.3%	8.7%	4.4%	2.2%

However, the risk of not reaching these levels of traffic is even assumed by STATFOR who facilitated the information below related to the volatility of the forecast during the NCP meeting held on 27th October 2021.



For the sake of simplicity, only year 2022 is included, but a similar behaviour of dispersion occurs in 2023 and 2024. Source: Eurocontrol – STATFOR October 2021 (NCP 27th October).



For the sake of simplicity, only year 2022 is included, but a similar behaviour of dispersion occurs in 2023 and 2024. Source: Eurocontrol – STATFOR October 2021 (NCP 27th October).

As per the differences of the ranges between May and October forecasts for Spain Continental and Spain Canarias exist a high probability of not reaching the expected traffic foreseen for years 2022, 2023 and 2024. In terms of Service Units this situation will bring an impact on the revenues of the ANSP.

A similar approach as in en-route is applicable in Terminal and the same reasons applied, a non-credible traffic increase beyond expected.

In terms of Service Units the October 20201 STATFOR forecast issued an increase of traffic figures in Terminal as follows:

Oct-21 vs May-21 traffic increases Service Units	2021	2022	2023	2024
Spain Continental Terminal	20.3%	22.6%	9.0%	0.0%

In view of the above, the risk analysis included in the previous editions of the Spain's Performance Plan (2019 and October 2021) does not support the maximum bonus (0.5%) and penalty (1%) included in the former capacity incentive scheme in en-route and terminal since the main assumption is not fully applicable in light with the October 2021 STATFOR forecast.

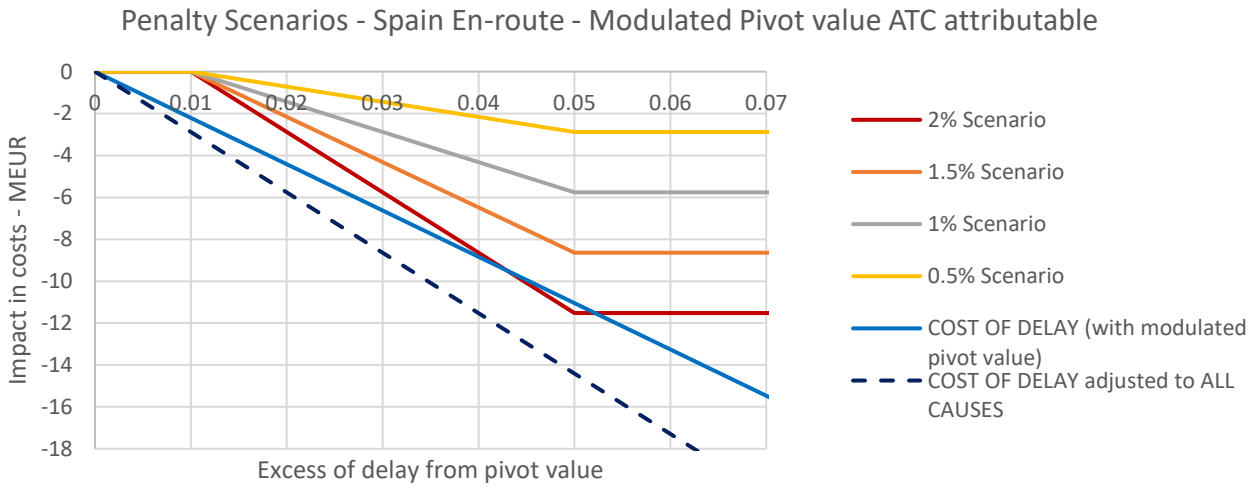
6.1 ESTIMATION OF THE IMPACT

In order to determine the appropriate level of penalty and bonus the baseline approach used was the cost of delay. According to this baseline or boundary principle, considering the delay targets are the appropriate cost-capacity balance, if they are not met, the users are bearing the cost of that extra delay. If the incentive scheme has to have a penalty of a compensatory nature to consider the adequate impact on the revenue at risk, then estimating the cost of that extra delay provides a good approach to the penalty level.

The simulations were made applying the RP3 incentive scheme models on actual RP2 data, considering the capacity targets set, the closed actual cost and revenue data and how the different scenarios would have impacted if the unit rates would have been modified accordingly. The results have been compared against the cost of delay estimated in the study "*European airline delay cost reference values*" version 4.1. For modulation purposes, the ADF calculated in section 3 has been applied. The alert thresholds have been adapted to the revised targets for RP3 and the dead-band applied has been 0.01.

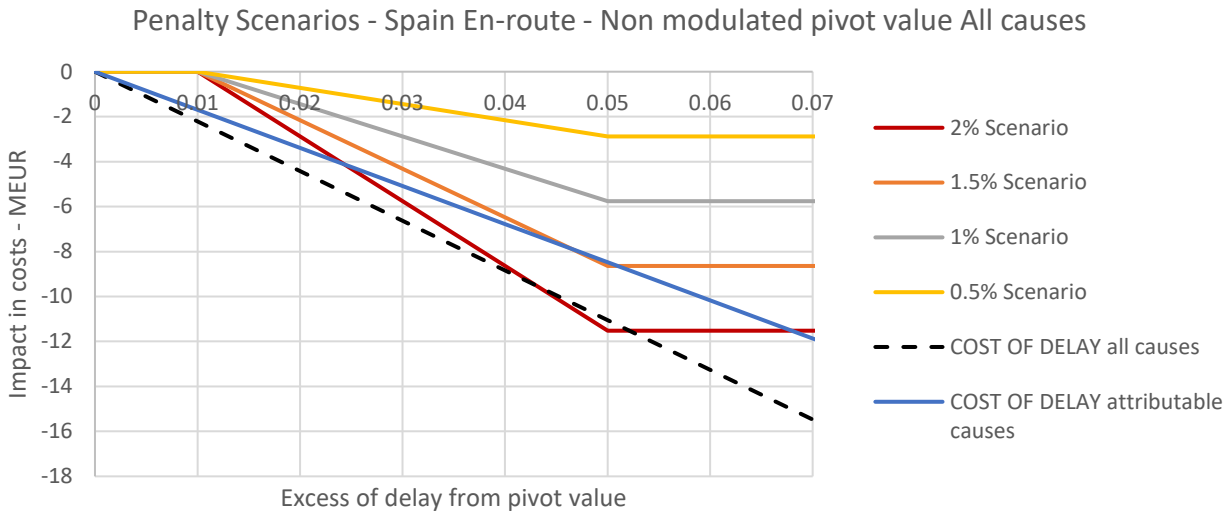
The following graphs and comments are based on the May 2021 STATFOR forecast.

The first conclusion was that from a global point of view, modulating or not modulating does not represent an advantage or disadvantage for the ANSP. In both cases, the cost of delay evolves presenting a similar behaviour with respect to the various penalty scenarios. The only consideration being that in a modulated environment, the actual cost of delay bore by the users is actually higher than the one considered in the scheme; while in an all causes scheme the actual full accountability of the ANSP is actually lower than the cost of delay considered in the scheme (based on the May 2021 STATFOR forecast).

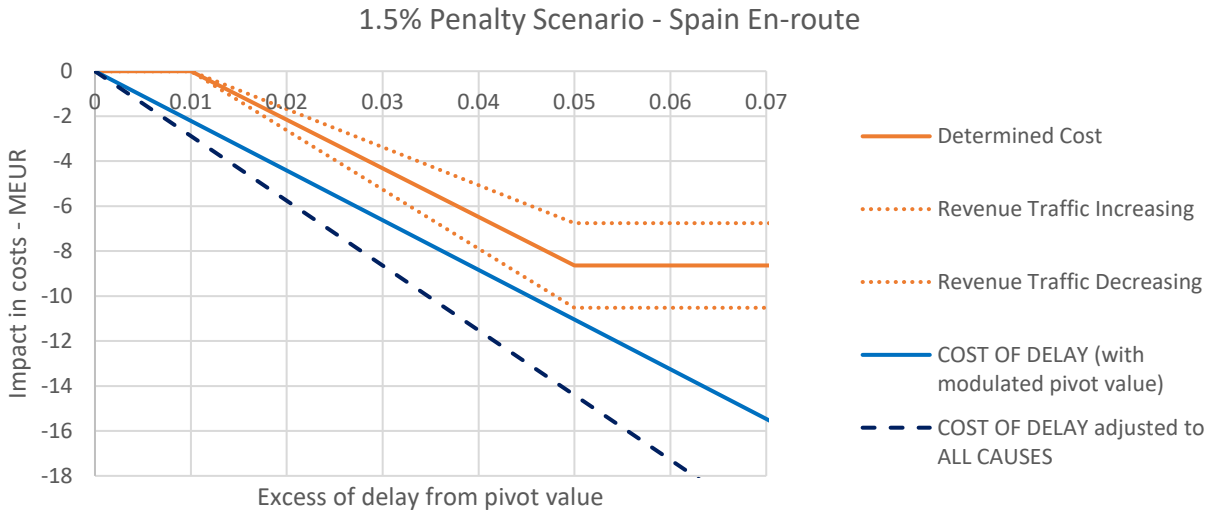


In the modulated scenario, the "cost of delay (with modulated pivot value)" is the result of assuming that all flights are delayed with a factor equal to the pivot value previously modulated by the ADF. However, in a non-modulated scenario, the "cost of delay all causes" is that obtained by applying a delay to each

flight equal to the pivot value not modulated by the ADF, taking into account the ADF value only to obtain what part of these costs corresponds to attributable causes.

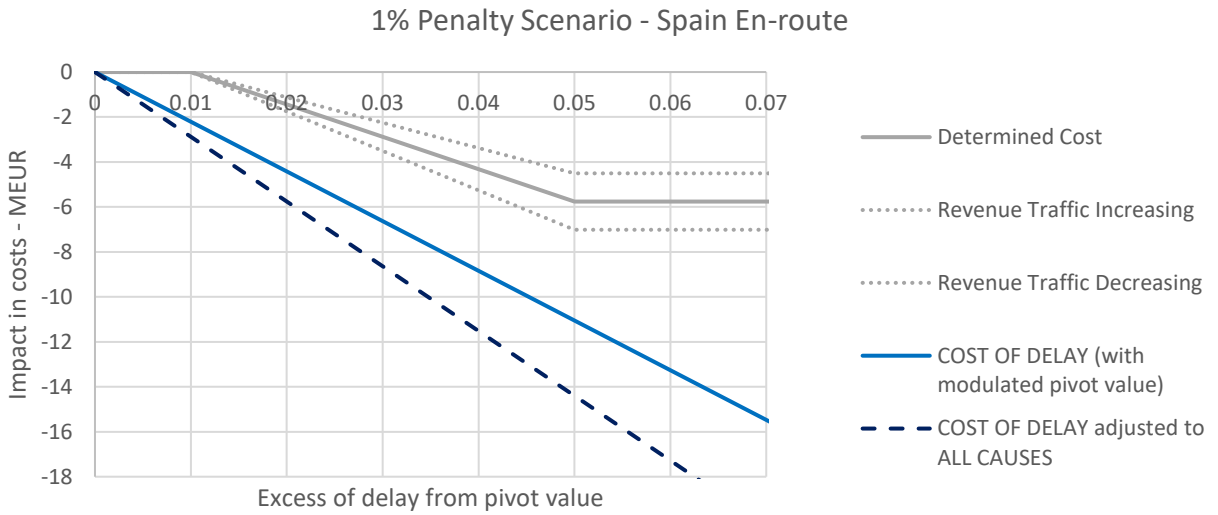


Once the modulation according to delay causes was the path chosen, it can be seen the 1.5% penalty scenario would continue to mark the boundary for which the penalty has a behaviour in line with the cost of delay as it is shown in the next figure.



In 2019, the 2% penalty approach preferred by the users as expressed in the working groups and consultations held in 2019 (details in Appendix A to ESSP3), showed a picture in which there can be situations in when the penalty is higher than the actual cost of delay incurred. On the other hand, the 0.5% penalty approach preferred by the ANSP was positioned very far away from the compensatory behaviour sought in the penalty.

However, after the 2019 consultation, due to the comments received from the ANSP calling for a lower maximum penalty, AESA extended the simulation to the average values of RP3 to make sure whether the conclusions were confirmed or they had to be modified to consider effects of the determined cost and traffic evolution that were not captured. In conclusion a 1% penalty scenario was considered, it accounts for a compensatory behaviour of the penalty scheme, while avoiding reasonable possibilities of penalising the ANSP above the cost of delay.



Average RP3 values used in the simulations. Penalty Scenario En- route			
Alert threshold	+ 0.05	DC 2.0% (MEUR)	11,521
Dead band	+ 0.01	DC 1.5% (MEUR)	8,641
Excess of delay (minutes)	110,513	DC 1.0% (MEUR)	5,760
Cost of extra delay (MEUR)	11,051	DC 0.5% (MEUR)	2,880
ADF	76.74%	Impact on revenue	22% of DC

The parameters above are obtained from the average values throughout RP3 and based on the IFR movements traffic forecasts, the capacity targets and the determined costs. A ±10% of variation of IFR movements traffic (based on the May 2021 STATFOR forecast) has been considered for the estimation of the "excess of delay" and its "cost of extra delay".

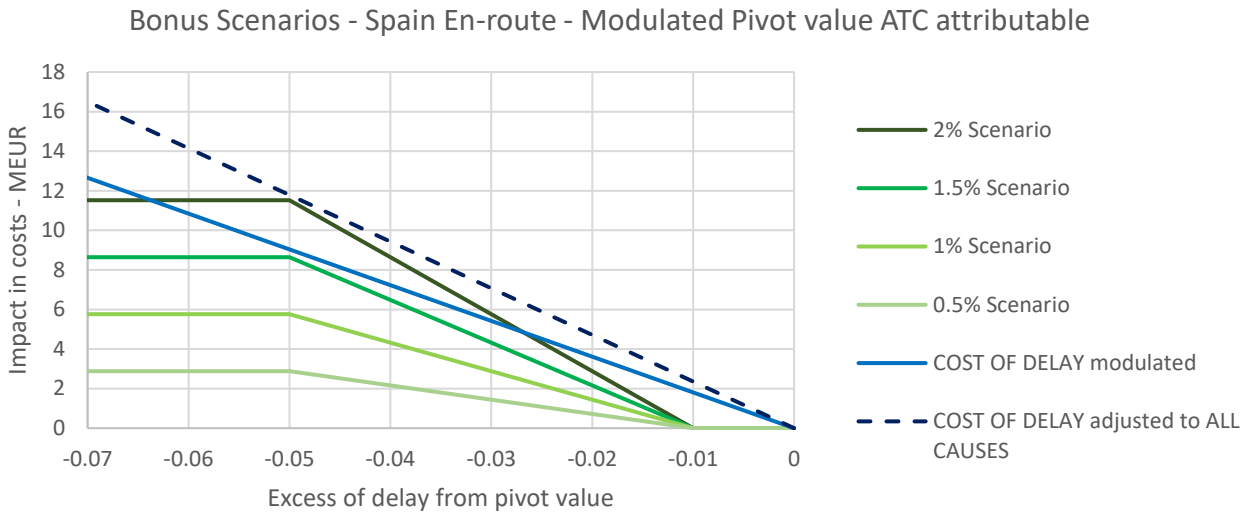
In the 2021 consultation of the revised draft performance plan, the ANSP asked for the reduction of the penalty to a 0.5% and an increase of the deadband to a 0.03. In the context of an expected traffic that could generate extra revenues, the proposal was dismissed. After the October 2021 STATFOR forecast publication, the proposal has been reassessed and considered feasible since the probability of reaching the figures of traffic in service units has a great volatility as the EUROCONTROL graphs showed. In that case, the impact of a high penalty along with a decrease of the expected revenues would jeopardize the financial stability of the ANSP.

In 2022 with a ENAIRE's unit rate for Spain Continental of 43.82€, a 2% of reduction of the expected service units (11,190 from the Oct-21 forecast) would mean a decrease in the expected revenues of -9.8 M€ non-recoverable due to the traffic risk sharing mechanism:

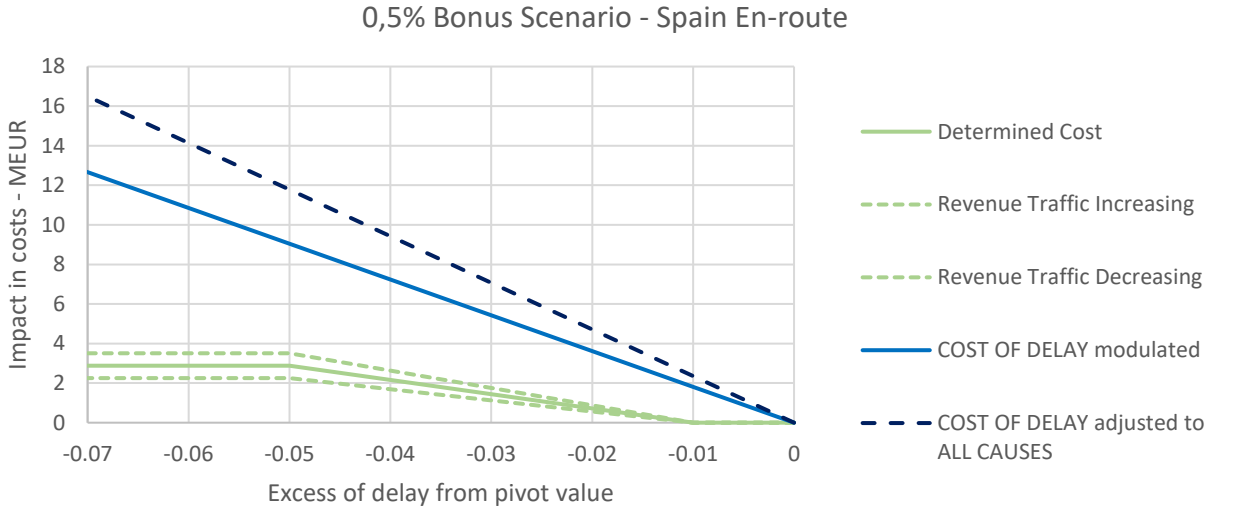
$$Decrease\ of\ revenues\ (-2\%\ of\ SU2022) = -0.02 * 11{,}190 * 43.82€ = -9.802\ M€$$

Given the uncertainty of reaching the figures of the October 2021 traffic forecast which has a direct impact on the ANSP expected revenues and the additional effect of a penalty of the incentive mechanism could have on the ANSP financial stability a reduction of the maximum penalty from the 1% to the 0.5% has been decided.

On the bonus side, the behaviour of the incentive formula is versus the cost of delay is symmetric. The key was to establish the bonus at a maximum value able to reward the extra efficiency the ANSP could eventually deliver making use of the resources that were foreseen to meet the capacity and cost-efficiency targets. That is, making sure the ANSP operates under the scope of a balanced performance plan, so that going for an extra cost to overachieve the requirements of the Network expecting that effort to be financed by the bonus, is not a viable option.



Considering the result of the 2019 stakeholders consultation groups (see detail in Appendix A to ESPP3) in which the ANSPs only requested a bonus of 0.5% and the users proposed a 1.0% bonus; and the level of the penalty applied, the users mostly changed their initial approach and called for a limitation of the maximum bonus to 0.5% of the determined cost.



Average RP3 values used in the simulations. Bonus Scenario En- route			
Alert threshold	- 0.05	DC 2.0% (MEUR)	11,521
Dead band	- 0.01	DC 1.5% (MEUR)	8,641
Excess of delay (minutes)	90,420	DC 1.0% (MEUR)	5,760
Cost of extra delay (MEUR)	9,042	DC 0.5% (MEUR)	2,880
ADF	76.74%	Impact on revenue	22% of DC

The parameters above are obtained from the average values throughout RP3 and based on the IFR movements traffic forecasts, the capacity targets and the determined costs. A ±10% of variation of IFR movements traffic (based on the May 2021 STATFOR forecast) has been considered for the estimation of the "excess of delay" and its "cost of extra delay".

In order to maintain an asymmetric scheme and with the purpose of not overcharging users in the case of an eventual overachievement of the capacity target, a reduction of the maximum bonus from the 0.50% to the 0.00% has been decided.

6.2 RISK ANALYSIS

During 2019 an analysis of the impact of the incentive mechanism proposed in terms of the risk was represented for the ANSP ENAIRE, and how it could affect service provision. To this end, the impact of the different incentive scenarios was estimated against the financial capability of the ANSP.

The following general assumptions were made:

- Capacity and cost-efficiency targets are accepted by ENAIRE and therefore the resources required to deliver those targets are appropriately dimensioned. As a consequence, in normal circumstances capacity targets should be met.

- Therefore, if targets are not met is has to be due to one of the following:

  - Elements within the accountability of the ANSP: which they should strive to improve.
  - Elements whose cause is outside the control of the ANSP: which do not count for the calculation of the penalty in the modulated scheme proposed.
  - Traffic increases above the expected: which also means the ANSP has an extra revenue that can be retained.

Considering the assumptions above the risk analysis was made to make sure whether in the reasonably credible circumstances for which the target is not met, the ANSP could have enough funds to afford the penalty without compromising the financial stability and the continuity of the service provision.

To this end the simulations were made in the scenario of traffic increasing above the expected, situation that took place in RP2. The maximum penalties of several scenarios were simulated considering the incentive mechanism applied in RP2. The simulations were made for the aggregation of Spain Continental and Canarias charging zones.

Traffic Risk Sharing parameters	2015	2016	2017	2018	2015-2018
Actual vs forecast traffic	99.9%	107.5%	114.2%	120.5%	110.6%
Add. rev. year n to be carried-over	0	25,957	59,623	95,458	181,038
Revenue loss year n to be carried-over	-3,598	-465	0	0	-4,063
Total Extra revenue	6,775	47,331	84,350	121,534	259,989
Extra revenue - ANSP can retain	6,775	21,374	24,727	26,076	78,951

In this context, the penalty scenarios based in determined costs would have been the following:

Penalty scenarios	2015	2016	2017	2018	2015-2018
2.0% max penalty	-11,853	-11,851	-11,826	-11,853	-47,383
1.5% max penalty	-8,889	-8,888	-8,870	-8,890	-35,537
1.0% max penalty	-5,926	-5,925	-5,913	-5,926	-23,691
0.5% max penalty	-2,963	-2,963	-2,957	-2,963	-11,846

In first place, it was identified whether the extra revenue for the extra traffic would have sufficed to pay for the penalty:

Extra revenue vs Penalty	2015	2016	2017	2018	2015-2018
2.0% max penalty	-5,078	9,523	12,900	14,223	31,569
1.5% max penalty	-2,115	12,486	15,857	17,186	43,414
1.0% max penalty	848	15,448	18,814	20,150	55,260
0.5% max penalty	3,812	18,411	21,770	23,113	67,106

However, the sole purpose of the extra revenue the ANSPs could keep should not be just to compensate the users, but also to use those resources to adapt to the growing traffic environment, eventually increasing expenses and investments if necessary.

In order to capture this circumstance, a first step was to see if the extra revenue the ANSP could keep was able to also cover an amount equivalent to building reserves for all the negative adjustments that lower the unit rate in future years (inflation, traffic adjustments, risk sharing, costs exempt).

Extra revenue vs Penalty and negative adjustments	2015	2016	2017	2018	2015-2018
2.0% max penalty	-23,600	-795	6,849	1,939	-15,607
1.5% max penalty	-20,637	2,168	9,806	4,902	-3,762
1.0% max penalty	-17,674	5,130	12,762	7,865	8,084
0.5% max penalty	-14,711	8,093	15,719	10,828	19,930

This exercise revealed there were certain scenarios above around 1.3% penalty for which the ANSP would not have sufficient funds left to adapt to the growing traffic situation, considering the hypothesis based on reserves for negative adjustments. Nonetheless, it is true that the majority of these losses were produce in 2015, a year in which the traffic matched the forecast so not meeting the capacity targets and reaching the maximum penalty in those circumstances is unlikely.

In addition, there were two elements that had to be considered:

One was that during RP2, ENAIRE assumed losses to keep the compromise of a low unit rate in the Canary Islands. That effect was not expected to be reproduced in RP3, however, as included in Annex E, the ANSP is willing to apply a charging policy during the coming years that maintain unit rates under those of 2019. If the results were adjusted considering that effect, the result was that the losses are confined to 2015 and the global result is positive:

Extra revenue vs Penalty and negative adjustments adjusted	2015	2016	2017	2018	2015-2018
2.0% max penalty	-16,278	5,347	13,560	8,447	11,077
1.5% max penalty	-13,315	8,310	16,517	11,410	22,922
1.0% max penalty	-10,351	11,272	19,473	14,374	34,768
0.5% max penalty	-7,388	14,235	22,430	17,337	46,613

The other was that up to this point the analysis was made using actual extra revenue against the determined costs. The best way to identify how the ANSP actually behaved was to use the actual costs instead:

Extra revenue vs Penalty and negative adjustments - Actual costs	2015	2016	2017	2018	2015-2018
2.0% max penalty	-3,235	22,638	33,672	27,337	80,413
1.5% max penalty	-272	25,601	36,629	30,301	92,258
1.0% max penalty	2,691	28,564	39,586	33,264	104,104
0.5% max penalty	5,654	31,526	42,542	36,227	115,950

Nonetheless, the capacity targets were not met in the 2015-2018 period so probably the need for that funding should still be there to better adapt to the growing demand. Indeed, the results show the maximum penalty would have been applied on the basis of the all causes performance during RP2. All causes metric were used despite the modulation to represent an extra buffer.

Terminal Capacity in RP2	2015	2016	2017	2018	2015-2018
Spain Target	0.29	0.29	0.28	0.27	0.28
Actual performance	0.33	0.37	0.35	0.60	0.41
Deviation	0.04	0.08	0.07	0.33	0.13
Alert threshold	0.055	0.055	0.054	0.054	0.054

The overall conclusion was that the financial stability of the ANSP would not be at risk in the not current credible situations of traffic growing above the expected, at least globally, for the scenarios that compensate in line with the cost of delay. Then, some difficulties were considered to be able to arise for particular years.

However, given the current situation, a non-credible situation of traffic growing above the expected (scenario base October 2021) even difficulties to reach the service units included within the plan, the compromise of the ANSP to keep unit rates under that of 2019 during RP3, the risk analysis has to be understood in a context not applying anymore, so the reduction of the maximum penalty from a 1.00% to a 0.50% is needed to ensure the financial stability of the ANSP.

6.3 COMPARATIVE ANALYSIS

Finally, the incentive mechanism has to be considered in the context of the incentive mechanisms applied across the Single European Sky.

On the one hand, the incentive mechanism applied on Spain as part of the SW FAB Performance during RP2 had symmetric bonus/penalty scheme of 0.50% of the revenue of the ANSP, in consistency with the requirements established in Regulation (EU) 391/2013.

On the other hand, the 2021 Draft ESPP3 elaborated by other States were consulted in order to compare the incentive mechanism proposed for RP3 as it is shown in the next table:

Revised Performance plan available on ESSKY portal in October 2021 submitted by NSAs by 1st of October 2021:

2021 Draft Performance Plan	Modulation	Max Bonus	Max Penalty
FABEC	Yes	0.50%	0.50%
Cyprus	No	0.50%	0.50%
Italy	No	2.00%	2.00%
Bulgaria	No	0.20%	0.40%
Slovenia	Yes	1.00%	1.00%
Hungary	No	0.50%	0.50%
Finland	Yes	0.00%	0.50%
Lithuania	No	1.90%	2.00%
Portugal	Yes	0.50%	0.05%
Romania	Yes	0.50%	0.50%
Czech Republic	No	0.50%	0.50%
Austria	No	0.50%	0.50%
Croatia	No	1.00%	1.00%

6.4 CONCLUSIONS

In the context of the 2019 consultation, the users representatives were unanimous in the request of a lower bonus: 0.50%. While the request for the penalty remained in a maximum 2.0% the studies show that within the alert thresholds that level of penalty is excessive in comparison with the revenue at risk.

No comments on this topic were received from users' representatives within the July 2021 consultation process.

According to the simulations carried out in 2019 an assessed for the submission of the revised performance plan by the 1st October 2021, the RP3 incentive scheme proposed in 2019 was maintained in the revised Performance Plan in 2021 (maximum bonus 0.5% - maximum penalty 1.0%). However, given the uncertainty of the October 2021 traffic forecast and its risk on ANSP revenues, the incentive mechanism has been modified as showed below in order to not compromise its financial stability additionally and keep the balance between users and ANSP expectations

- A 0.50% penalty.
- A 0.00% bonus.

In conclusion, the maximum penalty does not compromise the financial stability of the ANSP in addition to the high risk of not achieving the Services Units of the October 2021 STATFOR forecast. A bonus will not be charged to users in the case that capacity targets are easily met.

7. TERMINAL: MAXIMUM BONUS AND PENALTY

The terminal incentive scheme was subject to the same principles and analysis as the en-route scheme (as shown in section 6 above), but applicable only to the scope where ENAIRE is the ANSP.

7.1 ESTIMATION OF THE IMPACT

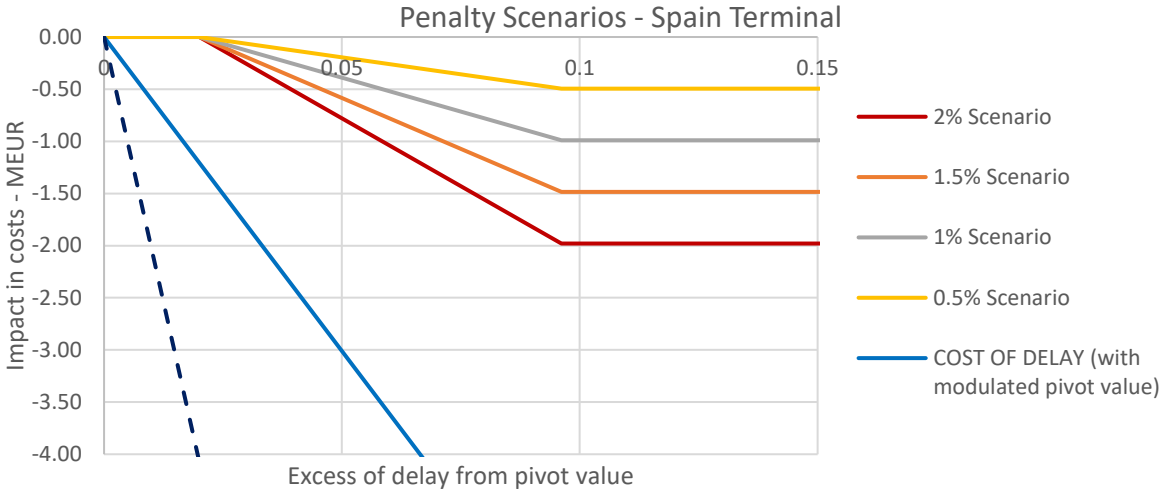
The same estimation of the impact exercise was done for terminal. Once the modulation according to delay causes was the path chosen, it can be seen the highest penalty scenario is still far away from the cost efficiency profile. The variability of the revenue due to the traffic is higher than in the en-route phase. The overall conclusion is that other elements should have more weight than the estimation of the impact in the final figures of the maximum bonus and penalty of the incentive scheme, as not even the highest penalty scenario would deliver a compensatory effect.

Average RP3 values used in the simulations. Penalty Scenario Terminal			
Alert threshold	±0.096	DC 2.0% (MEUR)	1,980
Dead band	±0.02	DC 1.5% (MEUR)	1,485
Excess of delay (minutes)	57,876.3	DC 1.0% (MEUR)	990
Cost of extra delay (MEUR)	5,787	DC 0.5% (MEUR)	495
ADF	29.59%	Impact on revenue	34% of DC

The parameters above are obtained from the average values throughout RP3 and based on the traffic forecasts (based on May 2021 STATFOR forecast), the capacity targets and the determined costs.

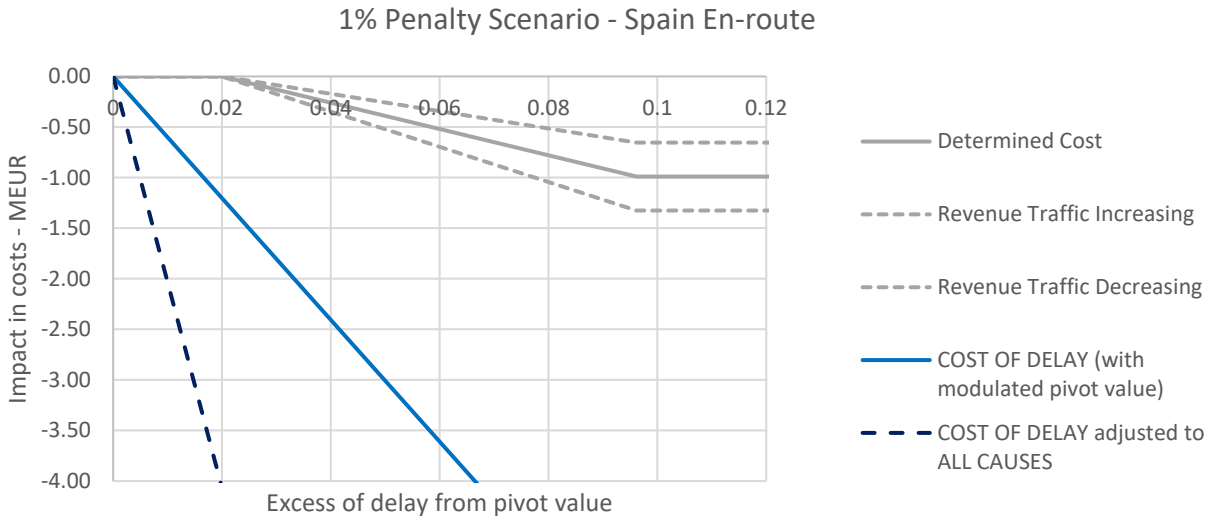
The following graphs and comments are based on the May 2021 STATFOR forecast.

Once again, the decision of modulating did not represent a significant advantage to the ANSP. However, the regulatory definition of the alert thresholds as a fix percentage of the pivot value, made the tailoring of the penalty in terms of compensation of the cost of delay not fully feasible. This fact is shown in the next figures:



The highest penalty scenario was still far away from the cost efficiency profile. The variability of the revenue due to the traffic was higher than in the en-route phase. The overall conclusion was that other elements should have more weight than the estimation of the impact in the final figures of the maximum bonus and penalty of the incentive scheme, as not even the highest penalty scenario would deliver a compensatory effect.

However, as consider in en-route scenario, a penalty value of 1% provided some compensation for the users when targets were not met in a complex terminal environment, to the extent possible in a sustainable manner:

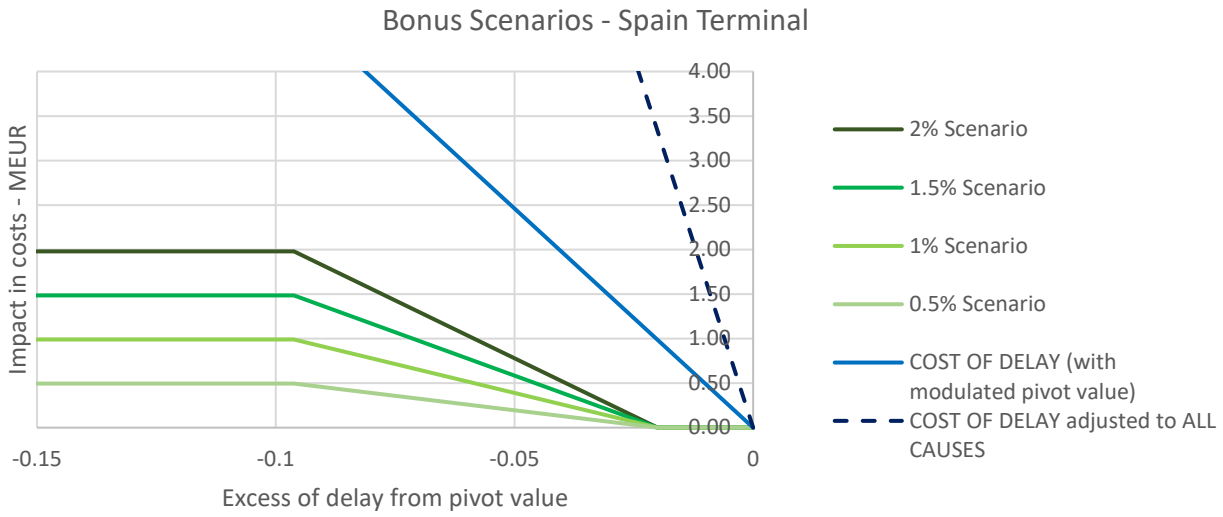


On the bonus side, the data considered were those in the next table:

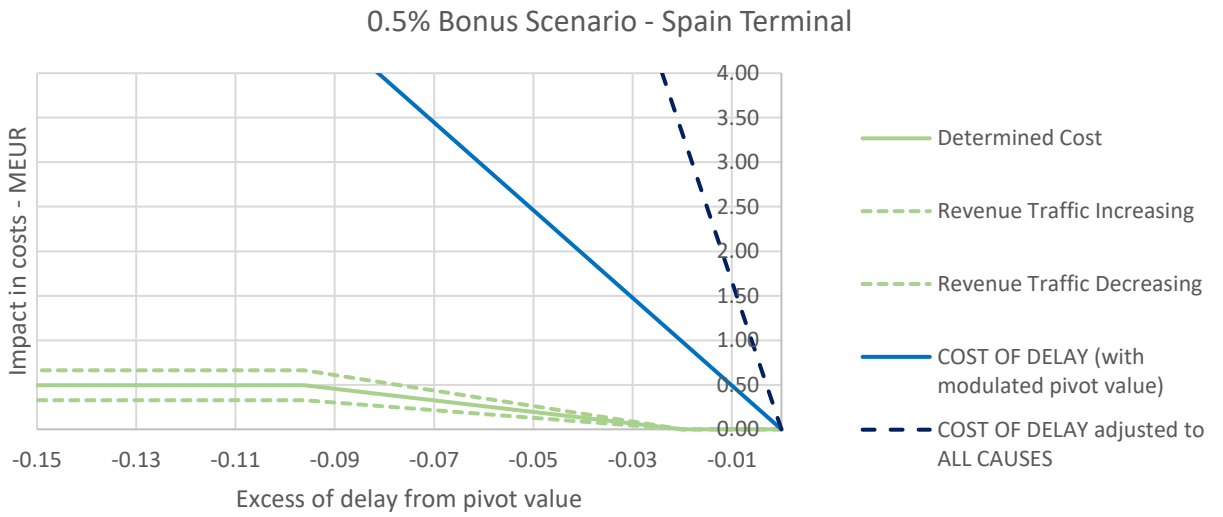
Average RP3 values used in the simulations. Bonus Scenario Terminal			
Alert threshold	±0.096	DC 2.0% (MEUR)	1,980
Dead band	±0.02	DC 1.5% (MEUR)	1,485
Excess of delay (minutes)	47,353.3	DC 1.0% (MEUR)	990
Cost of extra delay (MEUR)	4,735	DC 0.5% (MEUR)	495
ADF	29.59%	Impact on revenue	34% of DC

The parameters above are obtained from the average values throughout RP3 and based on the traffic forecasts (based on May 2021 STATFOR forecast), the capacity targets and the determined costs.

It could be seen the figure below shown even the maximum bonus scenario represented a high difference between the cost that would be required to plan for over-achieving the target and the possible benefits reported.



However, it could be considered, a value of a 0.5% bonus provides an incentive to the ANSP:



7.2 RISK ANALYSIS

A risk analysis was undertaken in 2019 considering the same elements as in the en-route phase above. However, the particular situation of the Spanish terminal scheme in which an important revenue from other sources (contracts with the airport operator) significantly affects the unit rate charged by the ANSP, has an impact on the risk analysis.

The exercise considered the elements described above. To do so, and to understand how a scheme like the one implemented in RP3 would have operated in RP2 when no incentive scheme was applied on terminal, a theoretical cost-base was elaborated. The traffic risk sharing parameters were the same:

Traffic Risk Sharing parameters	*2015*	*2016*	*2017*	*2018*	*2015-2018*
Actual vs forecast traffic	*106.0%*	*114.6%*	*119.6%*	*124.4%*	*116.2%*

In these circumstances, the extra revenue the ANSP could keep vs the amount of the penalty delivers the following result: the extra revenue would had been sufficient to pay for the maximum penalty on the scenario around 0.75%.

Extra revenue vs Penalty	2015	2016	2017	2018	2015-2018
2.0% max penalty	-1,347	-1,124	-1,102	-1,077	-4,650
1.5% max penalty	-871	-651	-636	-617	-2,776
1.0% max penalty	-394	-179	-171	-158	-902
0.5% max penalty	82	294	294	302	972

However, considering the extra revenue and the adjustments, the result against the determined costs was positive:

Extra revenue vs Penalty and negative adjustments	2015	2016	2017	2018	2015-2018
2.0% max penalty	1,138	799	2,160	11,592	15,689
1.5% max penalty	1,614	1,272	2,626	12,051	17,563
1.0% max penalty	2,091	1,745	3,091	12,511	19,437
0.5% max penalty	2,567	2,218	3,556	12,970	21,311

On the other hand, in the growing traffic environment considered, the actual costs of ENAIRE were higher than the determined in the terminal environment, leading to a much more restrictive result in terms of actual costs:

Extra revenue vs Penalty and negative adjustments - Actual costs	2015	2016	2017	2018	2015-2018
2.0% max penalty	-4,442	-9,396	-1,963	5,333	-10,467
1.5% max penalty	-3,966	-8,923	-1,497	5,792	-8,593
1.0% max penalty	-3,489	-8,450	-1,032	6,252	-6,719
0.5% max penalty	-3,013	-7,977	-567	6,711	-4,845

Actual costs were an average 7.0% above the determined costs for the period 2015-2019. They were already above the first year starting the reference period. It was not expected that such an unbalance was reproduced in RP3 for the revised Plan.

Regarding the likelihood of targets being met, considering the all causes target for RP2 (all causes metric was used despite the modulation to represent an extra buffer), the full penalty would have been applied just one of the years, precisely the one showing the best results in terms of financial stability.

Terminal Capacity in RP2	2015	2016	2017	2018	2015-2018
Spain Target	0.80	0.80	0.80	0.80	0.80
Actual performance	0.62	0.89	0.98	1.51	1.00
Deviation	78%	111%	123%	189%	125%
Alert threshold	150%	150%	150%	150%	150%

Adjusting the extra revenue to the realistic penalty, the maximum penalty for which the extra revenue would cover the penalty would be increased from 0.75% to around 1.20%.
Overall, the risk analysis showed results that were a consequence of the complexity of the terminal scheme, the inability of the ANSP to operate within its determined costs in RP2 and the variability of the traffic. Some scenarios showed positive results; however, the negative impacts could not be ignored. A penalty scenario over 1.00% could presented issues, despite the fact most of the difficulties arise in the actual cost scenarios, the ANSP should manage.

However, given the current situation, a non-credible situation of traffic growing above the expected (scenario base October 2021) even difficulties to reach the service units included within the plan, the compromise of the ANSP to keep terminal unit rates constant during RP3, the risk analysis has to be understood in a context not applying anymore, so the reduction of the maximum penalty from a 1.00% to a 0.50% is needed to ensure the financial stability of the ANSP.

7.3 COMPARATIVE ANALYSIS

Finally, the incentive mechanism has to be considered in the context of the incentive mechanisms applied across the Single European Sky.

To compare the described scheme, it should be taking into consideration no incentive mechanism was applied on Spain during RP2. In addition to that, 2021 Draft ESSP3 from other States were consulted, although there were not many examples of incentives mechanism applicable to terminal.

Revised Performance plan available on ESSKY portal in October 2021 submitted by NSAs by 1st of October 2021:

2021 Draft Performance Plan	Modulation	Max Bonus	Max Penalty
Portugal	Yes	0.50%	0.50%
Hungary	No	0.50%	0.50%
Finland	Yes	0.00%	0.25%
Romania	Yes	0.50%	0.50%
Austria	No	0.50%	0.50%
Czech Republic	No	0.50%	0.50%

7.4 CONCLUSIONS

The design of the incentive mechanism for terminal presents complex variables hard to accommodate:

- Lack of experience.
- Inability to provide a compensatory behaviour of the penalty.
- Incentive scheme applied to a very wide range of delay (from 50% to 150% of the target).
- Spain terminal charging scheme local characteristics.
- RP2 in which actual costs were higher than the determined.

The combination of all this factors suggests on the one hand that there can be circumstances under which the highest penalties can be applied without putting the financial stability of the ANSP at risk, while other scenarios suggest that the scheme is not financially liable even without a penalty being applied.

According with the assessment carried out which have many similarities to the en-route situation, the former figures of the Terminal incentive mechanism (1.00% penalty and 0.50% bonus) are modified as follows in order not to jeopardise the ANSP's financial stability and keep the balance between users and ANSP expectations:

- A 0.50% penalty.
- A 0.00% bonus.

In conclusion, the maximum penalty does not compromise the financial stability of the ANSP in addition to the high risk of not achieving the Services Units of the October 2021 STATFOR forecast. A bonus will not be charged to users in the case that capacity targets are easily met.

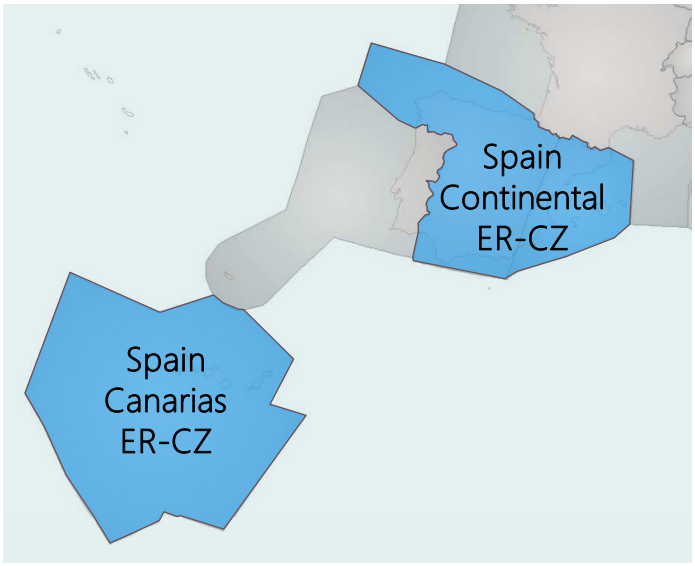
ANNEX E: COST-EFFICIENTY TARGETS – ADDITIONAL INFORMATION

1. EN-ROUTE COST-EFFICIENCY

1.1 APPROACH TO DETERMINED COSTS

Spain continues to present two en-route charging zones in RP3:

- Spain Continental: including the airspace of FIR Madrid and FIR Barcelona.
- Spain Canarias: including the airspace of FIR Canarias.



All accountable entities were required to deliver their determined cost estimation in order to build the Performance Plan. In particular, the ANSP forecast is a consequence of the estimation of the resources required to deliver the quality of service within the safety levels during RP3. After all the inputs are received, and the interdependencies addressed, the global picture is compared against the consistency criteria set out in Regulation (EU) 2019/317 Annex IV, point 1.4.

1.2 INPUTS FROM THE ANSP (ENAIRE)

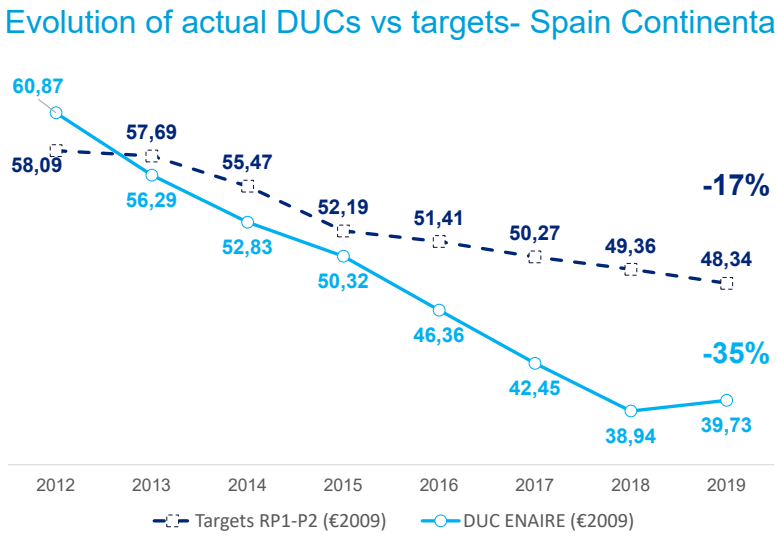
It has to be noted that Spain presented in 2019 one of the few plans which was judged to be consistent with EU targets in the cost efficiency area, and therefore, the current revision of RP3 Plan, comparatively, start from a much more efficient scenario.

ENAIRE, seriously affected by the worst crisis known to the aviation sector, has reviewed its RP3 Plan focusing on cost adjustments, although planning to maintain, in a counter-cyclical option, an appropriate level of investment for the subsequent recovery, taking advantage of a period of reduced traffic to prepare for a better future.

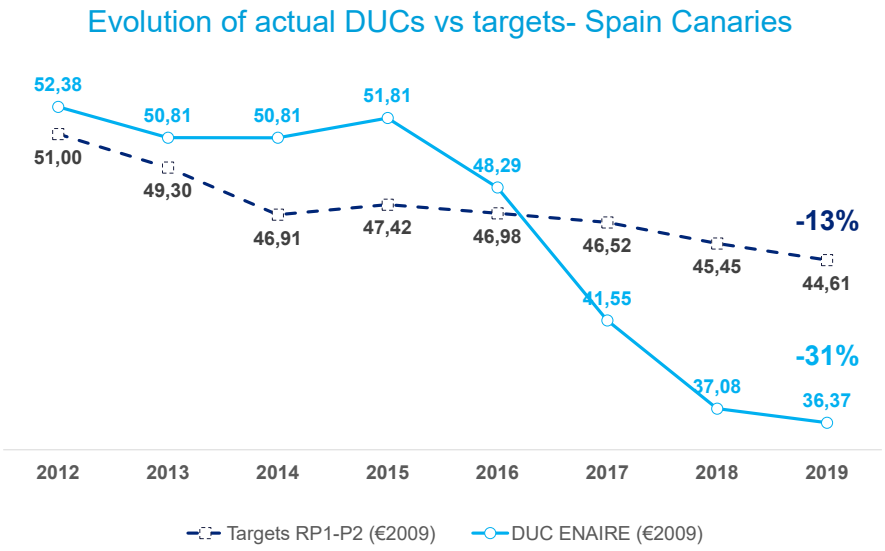
With a medium and long-term vision in mind, the well-known difficulties in the staffing processes, and past experience regarding new concepts deployment, prudence with respect to dramatic cuts being concentrated in those areas has shown to be necessary.

At economic level, a Plan of Revision of Expenses and Investments was implemented in 2020, focused on efficiency in the service provision and also, on staff planning and management, without renouncing to the necessary investments to ensure readiness when traffic recovers. Measures of costs restriction have been also applied for the rest of the RP3 period.

In this sense, the important efforts to reduce costs allowed that final 2020 en-route staff costs for ENAIRE were -11% (-52 MEUR) below draft Plan RP3 determined and -5% (-20 MEUR) lower than actual 2019.
ENAIRE would like to highlight the good results achieved during RP1 and RP2, especially in the cost efficiency area, were a reduction of 35% in the Spain Continental DUC was achieved during years 2012-2019, against a target of 17% reduction in the same period.



Concerning ENAIRE RP1 and RP2 results achieved for Spain Canaries, a reduction of 31% in the DUC was achieved during years 2012-2019, against a target of 13% reduction in the same period. Both, Continental and Canarias DUC evolution highly improved ENAIRE's cost-efficiency.



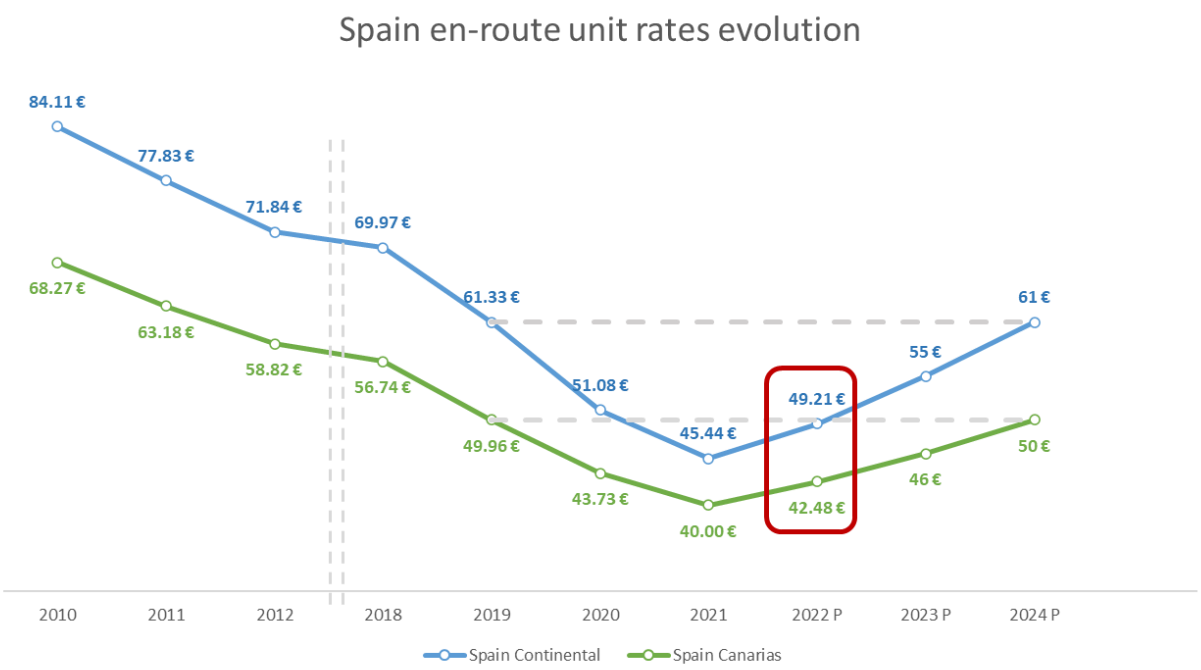
As part of the Spanish ANS charges policy and in order to support the aviation sector recovery, the compromise of ENAIRE is to maintain the unit rates during the period below the 2019 unit rates, even with the application of article 29(6) if necessary.

Notwithstanding the above information and Spain and ENAIRE'S decision not to revise the costs of the Plan, in support of the sector as well as to achieve a moderate evolution of charges, it should be noted that the significant increase in STATFOR traffic data published in October 2021 compared to previous forecasts, anticipating a faster recovery exceeding the 2019 traffic earlier, it is a drastic change of scenario.

The new traffic forecast will mean for ENAIRE the need for more personnel resources, especially ATCO staff, which will result in higher costs than those foreseen in the Plan.

In conclusion, to support the recovery of the whole sector, it is foreseen through RP3 period, the implementation of a policy of moderate evolution of charges, aligned with the expected recovery of traffic.

The current planning foresees a very moderate evolution of charges, which in no case would exceed the charges applied in 2019, in a gradual way and aligned with the evolution of traffic.



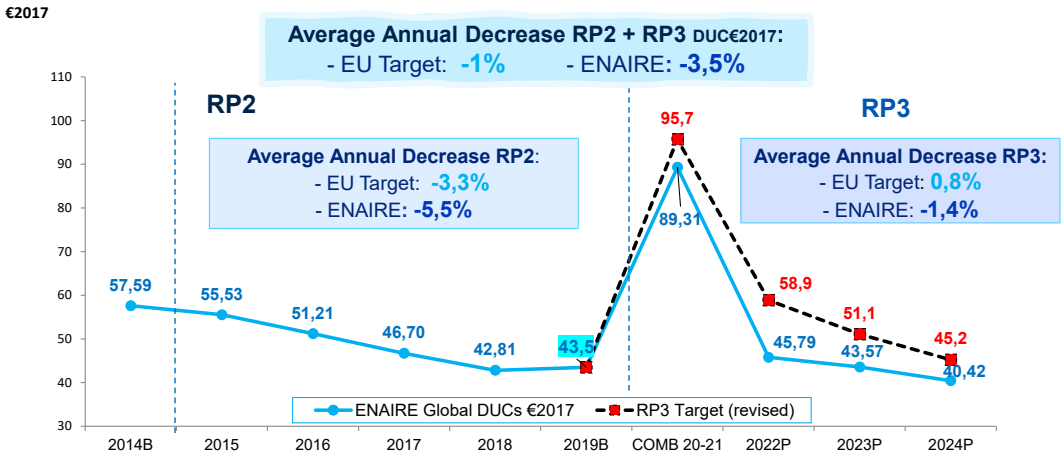
		2022 P	2023 P	2024 P
Variation in comparison with 2019	Spain Continental	-19%	-10%	0%
	Spain Canarias	-14%	-8%	0%
YoY variation	Spain Continental	9%	11%	12%
	Spain Canarias	7%	8%	9%

With a view to analysing the consistency of actual RP2 and determined RP3 ENAIRE DUCs with EU targets, the following figure shows that ENAIRE meets the EU cost-efficiency objectives, both in the short term (period RP3) and in the long term (RP2+RP3).

In RP3, ENAIRE meets the targets, with an average yearly reduction of -1.4% compared to around 0.8% of the target. Considering both RP2 and RP3, the evolution of ENAIRE determined DUCs go beyond the EU-wide targets (-3.5% vs around -1% yearly evolution), meaning the overall combined efforts across the reference periods have delivered better than required results.

Cost efficiency ENAIRE (Cont+Can)

Actual RP2 DUCs & forecast RP3 DUCs



	COSTE EFICIENCIA UE RP3					COSTE EFICIENCIA ENAIRE RUTA GLOBAL RP3				
	2019 B	2020/2021	2022	2023	2024	2019 B	2020/2021	2022	2023	2024
VAR COSTES €2017 s/2019		-3%	-6%	-4%	-3%		-4,0%	-1,2%	-1,2%	-1,8%
VAR U.S. s/2019		-56%	-31%	-18%	-7%		-53%	-6%	-1%	6%
DUC €2017	50,23	110,6	68,0	59,0	52,2	43,49	89,3	45,8	43,6	40,4
Variación n/n-1		120,1%	-38,5%	-13,2%	-11,5%		105,4%	-48,7%	-4,8%	-7,2%

1.3 INPUTS FROM OTHER ENTITIES

AESA has gathered and coordinated the inputs received from the rest of the accountable entities contributing to the Spanish en-route unit rates:

- AEMET
- ANSP-EA
- NSA-EA
- ANSMET
- AESA
- EUROCONTROL

The determined costs forecasts are a consequence of the MET and Military service provision needs for RP3, plus the resources needed to undertake the oversight necessary to fulfil the requirements of the air navigation services provision. Further detail is provided within the additional information referred to in Regulation (EU) 2019/317 Annex II, point 3.3.(k).

2. TERMINAL COST-EFFICIENCY

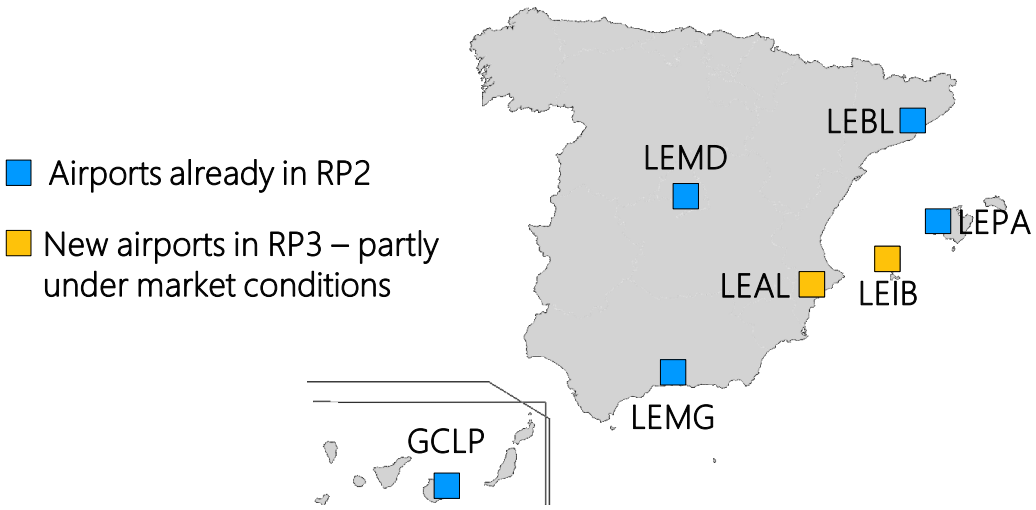
2.1 APPROACH TO DETERMINED COSTS

Considering complete data up until year 2018, Alicante-Elche airport is above the 80.000 IFR movement applicability threshold, so it has to be included within the scope of the ESPP3. In addition, Ibiza was considered in the initial exercises when the threshold was lower (70,000), and there are reasonable expectations of seeing it going beyond the 80,000 IFR movements at some point during RP3.

Consequently, the Spain Terminal charging zone within the scope of the ESPP3 considers the applicable cost-base from the following airports:

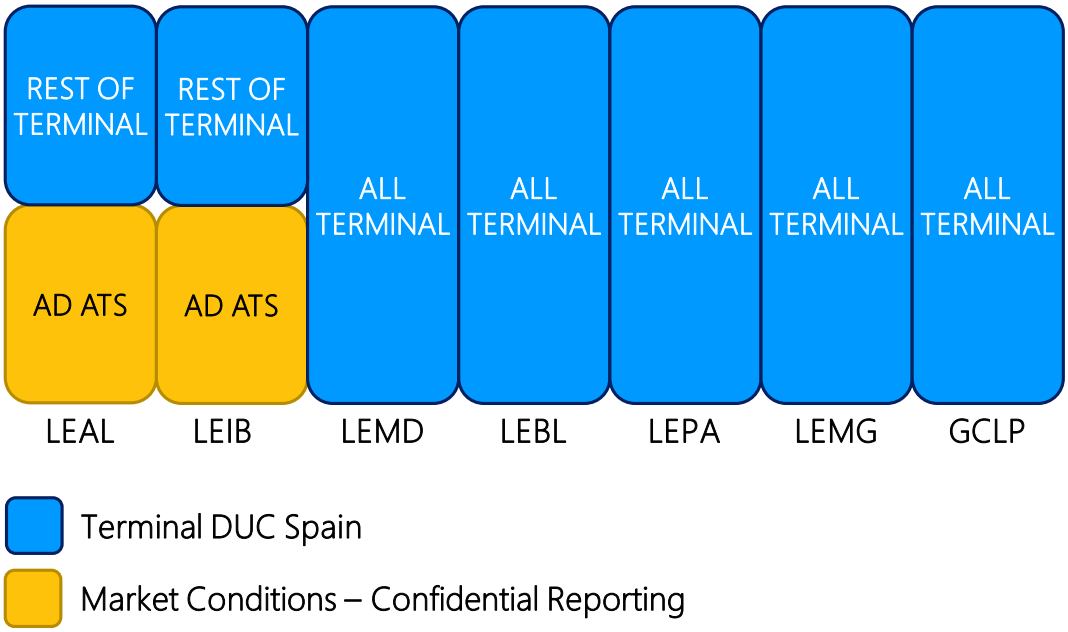
- The 5 airports already included in RP2:
  - LEMD: Adolfo Suárez Madrid-Barajas
  - LEBL: Josep Tarradellas Barcelona-El Prat
  - LEPA: Palma de Mallorca
  - LEMG: Málaga-Costa del Sol
  - GCLP: Gran Canaria

- 2 new airports that are partly under market conditions:
  - LEAL: Alicante-Elche
  - LEIB: Ibiza



As already introduced and explained in Chapter 9 of the ESPP3 document, the aerodrome ATS at LEAL and LEIB is provided by FerroNATS under market conditions. The costs of these services are not included in the cost base for the calculation of the terminal charges. A separate confidential report is submitted to the EC in line with Regulation (EU) 2019/317, Annex XI.
Therefore, the DUC of the Spain Terminal charging zone, and consequently its cost base for the calculation of the terminal unit rate charged to the users includes: all the terminal costs at the 5 airports where ENAIRE is the sole ANSP, plus the terminal costs excluding those of the aerodrome ATS at Ibiza and Alicante-Elche airports:

Composition of the Spain Terminal cost base for the calculation of the terminal unit rate:



Spain submitted the final report elaborated in line with Regulation (EU) 2019/317 Annex X, to the EC together with the decision to consider market conditions for the provision of aerodrome ATS at Alicante-Elche and Ibiza in July 2019. In September 2019, Spain was advanced by the EC that the necessary steps in line with Article 35 had been fulfilled.

Like for the en-route part, all accountable entities were required to deliver their determined cost estimation in order to build the Performance Plan. In particular, the ANSP forecast is a consequence of the estimation of the resources required to deliver the quality of service within the safety levels during RP3. After all the inputs are received, and the interdependencies addressed, the global picture is analysed in due consideration of Regulation (EU) 2019/317 Annex IV, point 2.2.(c).

2.2 INPUTS FROM THE ANSP (ENAIRE)

The terminal cost-efficiency of ENAIRE is driven by the same principles applicable to the whole organisation, detailed in section 1.2 above.

2.3 INPUTS FROM OTHER ENTITIES

AESA has gathered and coordinated the inputs received from the rest of the accountable entities contributing to the Spanish terminal unit rates:

- AEMET
- ANSMET
- AESA

The determined costs forecasts are a consequence of the MET service provision needs for RP3, plus the resources needed to undertake the oversight necessary to fulfil the requirements of the air navigation services provision. Oversight in the case of Spain is expected to gradually evolve towards more weight in the terminal part, as a consequence of the partially privatised ANS sector in this domain. Further detail is provided within the additional information referred to in Regulation (EU) 2019/317 Annex II, point 3.3.(k).

ANNEX F: REGULATION TRACEABILITY

Traceability between ESPP3 and COMMISSION IMPLEMENTING REGULATION		
Code	**Requirement**	**Traceability**
ANNEX II Template for Performance Plans at National or Functional Airspace Block Level Referred to in article 10(1) **1. INTRODUCTION**	**1.1. Description of the situation, including scope of the plan in terms of geographical coverage and services, list of air navigation service providers covered and other general information relevant to the performance plan.**	2.INTRODUCTION: 2.1 Purpose of the ESPP3 2.2 Regulatory Framework 2.3 Situation and Scope
	1.2. Traffic forecasts referred to in points (f) and (g) of Article 10(2) expressed in IFR movements and in-service units underpinning the performance plan based on Eurocontrol's Statistics and Forecast Service (STATFOR) base forecasts. Where the forecasts differ from the STATFOR base forecasts, the reasons that justify the use of a different forecast referred to in points (f) and (g) of Article 10(2) and a justification for the use of these forecasts shall be documented.	2.INTRODUCTION: 2.4.2 Traffic Assumptions 2.4.2.1 IFR Flights-En-route 2.4.2.2 IFR Flights-Terminal and Airport 2.4.2.3 En-route Service Units 2.4.2.4 Terminal Service Units
	1.3. Description of the outcome of the stakeholder consultation on the draft performance plan, including the points of agreement and disagreement as well as the reasons for any such disagreement.	2. INTRODUCTION: 2.5 Process to Complete ESPP3 and Forum Consultation 12. PUBLIC CONSULTATION
	1.4. List of airports subject to the performance and charging scheme, with their average number of IFR air transport movements per year.	9.TERMINAL NAVIGATION SERVICES AND MARKET CONDITIONS 9.2 Scope
	1.5. Where applicable, list of services the provision of which has been established to be subject to market conditions in accordance with Article 35.	
	1.6. As regards performance plans adopted at the level of functional airspace blocks, description of the process followed to develop and adopt the performance plan.	N/A
	1.7. Indication whether or not the simplified charging scheme referred to in Article 34 applies and if so, a demonstration that the conditions set out in that Article have been met as well as a description of the application of the simplified charging scheme and of its scope in terms of charging zones covered.	N/A
ANNEX II Template for Performance Plans at National or Functional Airspace Block Level Referred to in article 10(1) **2. INVESTMENTS**	**2.1. Description and justification of the costs, nature and benefits of new and existing investments in fixed assets planned over the reference period.**	
	2.2. The information referred to in point 2.1 shall include in particular:	
	(a) the determined costs of new and existing investments in respect of depreciation, cost of capital and cost of leasing over the whole reference period and in respect of each calendar year thereof, as required in Annex VII;	
	(b) description and justification of the major investments, including with regard to the following elements:	
	(i) total value of each major investment;	6.COST-EFFICIENCY

Traceability between ESPP3 and COMMISSION IMPLEMENTING REGULATION		
	(ii) the asset or assets acquired or developed;	6.3.2Investments-CAPEX
	(iii) information on the benefit of the investment for airspace users and on the results of the consultation of airspace users' representatives;	
	(iv) as regards major investments in ATM systems:	
	— *differentiation between investments in new systems, overhaul of existing systems and replacement investments;*	
	— *justification of the relevance of each investment with reference to the European ATM Master Plan, and the common projects referred to in Article 15a of Regulation (EC) No 550/2004;*	
	(c) detail of synergies achieved at the level of functional airspace blocks or, through other cross-border cooperation initiatives as appropriate, in particular in terms of common infrastructure and common procurement.	
ANNEX II Template for Performance Plans at National or Functional Airspace Block Level Referred to in article 10(1) **3. NATIONAL PERFORMANCE TARGETS OR FAB PERFORMANCE TARGETS AND MEASURES FOR THEIR ACHIEVEMENT**	**3.1. National performance targets or FAB performance targets in each key performance area, set by reference to each key performance indicator set out in Section 2 of Annex I, and covering each calendar year of the reference period.**	3.SAFETY 3.2.1Level of effectiveness of safety management (EoSM) 4.ENVIROMENT 4.2.1Horizontal en-route flight efficiency (KEA) 5.CAPACITY 5.2.1En-route ATFM delay per flight 5.2.2Terminal and airports ATFM arrival delay per flight 6.COST-EFFICIENCY 6.2.1 En-route cost-efficiency 6.2.2 Terminal cost-efficiency

Traceability between ESPP3 and COMMISSION IMPLEMENTING REGULATION		
	3.2. For all key performance areas, description of the main measures put in place at national level or at the level of functional airspace blocks to achieve the performance targets.	3.SAFETY 3.2.1 Level of effectiveness of safety management (EoSM) 4.ENVIROMENT 4.2.1.1Flight efficiency plan 5.CAPACTIY 5.2.1.1En-route capacity plan 5.2.2.1Terminal capacity plan 11.IMPLEMENTATION OF THE PLAN 11.1Monitoring of the implementation plan 11.2 Noncompliance with targets during the reference period
	3.3. Additional information to substantiate the national performance targets or FAB performance targets in the key performance area of cost-efficiency:	6 COST-EFFICIENCY
	(a) determined costs for en-route and terminal air navigation services set in accordance with points (a) and (b) of Article 15(2) of Regulation (EC) No 550/2004 and with this Regulation, for each year of the reference period	
	(b) en-route and terminal service units forecast, for each year of the reference period;	
	(c) the baseline values for en-route and terminal cost-efficiency targets referred to in point (a) of Article 10(2) and description and justification of the methodology used to estimate those values for each charging zone;	
	(d) description and justification of the criteria and methodology used for the allocation of costs to charging zones and allocation of costs between en-route and terminal services, in accordance with Article 22(5);	
	(e) description and justification of the return on equity of the air navigation service providers concerned, as well as on the gearing ratio and on the level and composition of the asset base used to calculate the cost of capital comprised in the determined costs;	
	(f) description and justification of economic assumptions, including:	
	— *assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations on which those*	

Traceability between ESPP3 and COMMISSION IMPLEMENTING REGULATION		
	assumptions are based, as well as information whether changes of those regulations are to be expected;	
	— interest rate assumptions for loans financing the provision of air navigation services, including amounts, duration and other relevant information on loans, and explanation for the weighted average interest on debt used to calculate the cost of capital pre-tax rate and the cost of capital comprised in the determined costs;	
	— for information purposes only, inflation forecast based on the International Monetary Fund (IMF) Consumer Price Index (CPI);	
	— adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Commission Regulation (EC) No 1126/2008 (1);	
	(g) description and explanation of the adjustments resulting from the years preceding the reference period;	
	(h) identification and categorisation of the determined costs relating to the cost items referred to in Article 28(3);	
	(i) where applicable, a description of any significant restructuring planned during the reference period;	
	(j) where applicable, approved restructuring costs from previous reference periods to be recovered	
	(k) the reporting tables and additional information required in Annexes VII, IX and XI which to be attached to the performance plan	
	3.4. A breakdown of the performance targets set out in accordance with points 2.1 and 3.1(a) of Section 2 of Annex I at the level of each individual air navigation service provider covered by the performance plan and, in respect of performance plans established at the level of functional airspace blocks, reflecting the contributions of each provider concerned to the performance targets at the level of functional airspace blocks.	N/A
	3.5. Where there is no Union-wide performance target, description and explanation of how the national performance targets or FAB performance targets contribute to the improvement of the performance of the European ATM network.	N/A
	3.6. Description and explanation of the interdependencies and trade-offs between the key performance areas, including the assumptions used to assess those trade-offs.	7. INTERPENDENCIES AND TRADE-OFFS
ANNEX II Template for Performance Plans at National or Functional Airspace Block Level Referred to in article 10(1) **4. Template for Performance Plans At National or Functional Airspace Block Level Referred to in article 10(1)**	**4.1. Description of the cross-border cooperation initiatives implemented, or planned to be implemented, at the level of air navigation service providers to improve the provision of air navigation services. Identification of the performance gains enabled by those initiatives in the various key performance areas.**	10.CROSS-BORDER INITIATIVES AND SESAR IMPLEMENTATION

Traceability between ESPP3 and COMMISSION IMPLEMENTING REGULATION		
	4.2.Description of recent and expected progress in the deployment of SESAR common projects referred to in Article 15a of Regulation (EC) No 550/2004, as well as of change management practices in relation to transition plans in order to minimise any negative impact of changes on the network performance.	
ANNEX II Template for Performance Plans at National or Functional Airspace Block Level Referred to in article 10(1) **5. TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES**	**5.1. In respect of each charging zone concerned, description of the defined values of the traffic risk sharing parameters applicable in accordance with Article 27:**	8.RISK SHARING AND REVISION MECHANISM
	(a) identification of the applicable range referred to in Article 27(2) and of the traffic risk sharing keys referred to in Article 27(3);	
	(b) in the event that the national supervisory authority adapts the values of the parameters of the traffic risk sharing mechanism referred to in point (a) in accordance with Article 27(5):	
	(i) justification of the defined values of the traffic risk sharing parameters;	
	(ii) description of the consultation process of airspace users and air navigation service providers on the setting of the values of the traffic risk sharing parameters and of the outcome of the consultation	
	5.2. In respect of incentive schemes applicable during the reference period in accordance with Article 11:	
	(a) description and justification of the parameters of the incentive scheme defined in accordance with Article 11(3), including the pivot values, and the modulation mechanism of pivot values where applicable;	5.2.4.1 Capacity incentive scheme
	(b) identification of the air navigation service providers and charging zones subject to the incentive schemes;	6 COST-EFFICIENCY
	(c) where applicable, description of the additional incentive schemes referred to in Article 11(4).	N/A
ANNEX II Template for Performance Plans at National or Functional Airspace Block Level Referred to in article 10(1) **6. IMPLEMENTATION OF THE PERFORMANCE PLAN**	**Description of the processes that the national supervisory authorities will put in place, in order to:**	11.IMPLEMENTATION OF THE PLAN
	(a) monitor the implementation of the performance plan;	
	(b) address the situation where targets are not reached during the reference period.	