

## Structure and Purpose

The proposed template for Performance Plans was developed to facilitate the work of Member States and NSAs in their tasks to draw up and adopt performance plans and targets for RP3. It follows the structure provided for in Annex II of Commission Implementing Regulation (EU) No 2019/317 of 11 February 2019, hereafter the performance and charging Regulation, laying down a performance and charging scheme in the Single European Sky and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391/2013.

Furthermore, to reduce the administrative burden on Member States the template is already prefilled to the maximum extent possible.

In light of this, different field categories have been identified and colour-coded to facilitate the reporting:

Colour coding	
<i>Item 1</i>	<i>Information to be provided by Member States</i>
<i>Item 2</i>	<i>Pre-filled but editable information</i>
<i>Item 3</i>	<i>Pre-filled or automatically computed information</i>
<i>Item 4</i>	<i>Dynamic selection</i>

States can easily provide additional narrative material in the annexes which form an integral part of the performance plan.

The worksheets in the Excel file replicate the said structure and the tabs for main sections have been highlighted in black, while subsections are in light brown as shown below:

Subsection	MAIN SECTION 1 >>>	Subsection 1.1	Subsection 1.2	Subsection 1.3	MAIN SECTION 2 >>>	Subsection 2.1	Subsection 2.2
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### Tips and tricks

- Since the Excel file is completely unprotected, be careful when filling the cells or adding lines/columns to avoid erasing the prefilled or pre-calculated areas.
- Manually adapt height of cell if necessary, in particular for text or description boxes.
- Within a cell, press ALT+ENTER to jump to the next line.

Additional comments	This performance plan has been reviewed by all signatories.
	It has been signed in the margins of our FAB coordination meeting held on 29 Feb. 2014.

- For existing text from another source, copy and paste into the formula bar will ensure that all text remains within a single cell.



- In order to **print** your performance plan, please refer to section “Signatories”.

# Performance Plan

## Romania

Third Reference Period (2020-2024)

Status: Revised draft performance plan with  
corrective measures (Art. 15(5) of IR 2019/317)

Date of issue: 27.09.2021

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13.07.2022



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

## Signatories

Performance plan details	
State name	Romania
Status of the Performance Plan	Revised draft performance plan with corrective measures (Art. 15(5) of IR 2019/317)
Date of issue	
Date of adoption of Draft Performance Plan	
Date of adoption of Final Performance Plan	

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

Name, title and signature of representative	
(e-signed)	Nicolae STOICA - Director General, Romanian Civil Aeronautical Authority

Additional comments	
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Document change record		
Version	Date	Reason for change
v 2.0	09.11.2021	Ares(2021) 7488798
v 3.0	13.07.2022	Decision (EC) 2022/728

## SECTION 1: INTRODUCTION

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# 1 - INTRODUCTION

## 1.1 - The situation

NSA(s) responsible for drawing up the Performance Plan	Romanian Civil Aeronautical Authority
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### 1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs	1
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ANSP name	Services	Geographical scope
ROMATSA	<ul style="list-style-type: none"> <li>- ATS</li> <li>- AIS</li> <li>- CNS</li> <li>- MET</li> <li>- ATFM</li> <li>- ASM</li> </ul>	<p><u>Airspace structure</u> The airspace within BUCUREȘTI FIR is divided by FL285 in Lower Airspace (below FL285) and Upper Airspace (between FL285 and FL660).</p> <p><u>ATS airspace classification</u> <b>Class A</b> IFR flights only are permitted, all flights are subject to air traffic control service and are separated from each other. Airspace Class A comprises: TMA BUCUREȘTI.</p> <p><b>Class C</b> IFR and VFR flights are permitted, all flights are subject to air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights. Airspace Class C comprises: - all ATS routes in BUCUREȘTI FIR - all Aerodrome Control Zones (CTR): Arad, Bacau, Baia Mare, Baneasa, Otopeni, Cluj, Constanța, Craiova, Iasi, Oradea, Satu Mare, Sibiu, Suceava, Targu Mures, Timisoara, Tulcea - TMA NAPOC, TMA CONSTANTA, TMA ARAD - airspace in BUCUREȘTI FIR above FL105</p> <p><b>Class G</b> IFR and VFR flights are permitted and receive flight information service if requested. Airspace Class G comprises: - all Control Zones of Aerial Work and Airfields of Sports Activity - all airspace in BUCUREȘTI FIR not designated with another class and Restricted Areas</p> <p>BUCUREȘTI FIR has no airspace designated with Class B, D, E, F.</p>

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

Number CB arrangements where ANSPs provide services in an other State	1
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ANSPs providing services in the FIR of another State	
ANSP Name	Description and scope of the cross-border arrangement
ROMATSA	<p>Following the introduction of cross-border service provision, according to the current development within DANUBE FAB (Governing Council Decision no 42/10.06.2019), between 1 January 2020 and 31 December 2024 the cross-border sector in the airspace of the Republic of Bulgaria where ATS services will be provided by ROMATSA will be included in the Romanian charging zone. Alternatively, the cross-border sector in the airspace of Romania where ATS services will be provided by BULATSA will be included in the charging zone of the Republic of Bulgaria.</p> <p>ROMATSA provides ATS services in sector DF2 - the lateral limits of Sector DF2 are 434408N0283004E - 433855N0282535E – 440826N0270101E – then the national border between the Republic of Bulgaria and Romania to the point of origin</p>

Number CB arrangements where ANSPs from another State provide services in the State	1
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ANSPs established in another Member State providing services in one or more of the State's FIRs	
ANSP Name	Description and scope of the cross-border arrangement



BULATSA	<p>Following the introduction of cross-border service provision, according to the current development within DANUBE FAB (Governing Council Decision no 42/10.06.2019), between 1 January 2020 and 31 December 2024 the cross-border sector in the airspace of the Republic of Bulgaria where ATS services will be provided by ROMATSA will be included in the Romanian charging zone. Alternatively, the cross-border sector in the airspace of Romania where ATS services will be provided by BULATSA will be included in the charging zone of the Republic of Bulgaria.</p> <p>BULATSA provides ATS services in sector DF1 - the lateral limits of Sector DF1 are 435213N0255833E - 435647N0254432E - 435846N0252818E - 435824N0250009E-434153N0244148E – then the national border between the Republic of Bulgaria and Romania to the point of origin.</p>
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### 1.1.2 - Other entities in the scope of the Performance and Charging Regulation as per Article 1(2) last para.

Number of other entities	2	
Entity name	Domain of activity	Rationale for inclusion in the Performance Plan
Romanian Civil Aeronautical Authority (RCAA)	Competent authority	Determined costs incurred in relation to the provision of air navigation services in accordance with the article 37(1) of Commission implementing regulation (EU) 2019/317
EUROCONTROL	Competent authority	Determined costs incurred in relation to the provision of air navigation services in accordance with the article 22(1) of Commission implementing regulation (EU) 2019/317

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

<b>En-route</b>	Number of en-route charging zones	1
En-route charging zone 1	Romania	
<b>Terminal</b>	Number of terminal charging zones	1
Terminal charging zone 1	Romania - TCZ	

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

#### 1. Economic outlook

The Romanian economy has experienced consistent growth in the past years, peaking at 7% annual GDP growth in 2017 and showing a strong 4.2% growth rate in 2019.

COVID19 impact has disrupted these positive evolutions in 2020, with GDP growth at -3.7%. However, a positive trend has been confirmed after this recession with GDP growth at 5.9% in 2021. The impact of war in neighboring Ukraine and the energy price increase will see the economic growth slow down with projections of GDP at 2.6% in 2022 and 3.6% in 2023, according to the EU Economic Forecast for Romania, Spring 2022. Inflation declined in 2020 to 2.3% but increased to 4.1% in 2021 and is forecast by IMF to peak at 9.273% in 2022 aggravated by the additional push on energy and selected food and commodity prices following Russia's invasion of Ukraine. The trend is foreseen to be reversed from 2023 when IMF estimates inflation at 4.003% with 3.009% in 2024. However, following a country specific mission to Romania in June the IMF has revised upwards these number with a forecasted inflation of 12.5% in 2022 and 10% in 2023.

Given the higher risks of poverty and social exclusion, recommendations for Romania and already active policies include a rise in spending for the healthcare, education and social welfare. Thus, budgetary resources and spending will be focused on key interventions in these areas with a low degree of possibility to subsidize the aviation sector, apart from providing loan guarantees. As such ROMATSA relies on loans and risk sharing mechanisms to ensure that liquidity is maintained.

Data sources: [https://ec.europa.eu/economy\\_finance/forecasts/2022/spring/ecfin\\_forecast\\_spring\\_2022\\_ro\\_en.pdf](https://ec.europa.eu/economy_finance/forecasts/2022/spring/ecfin_forecast_spring_2022_ro_en.pdf)

#### 2. Performance planning drivers

The Romanian Performance Plan for the third period, revised following the EC Implementing Decision 2021/780, has three main drivers of influence: the impact stemming from the revision of the Romanian part of the DANUBE FAB Performance Plan for the second reference period (2015-2019), approved through EC Decision 2021/2018, the mainly financial consequences of the COVID19 pandemic and the operational impact

of the war in Ukraine.

It is important to note that as part of the RP2 revision plan an increase ATCO recruitment for ACC Bucharest was consulted upon with stakeholders and subsequently approved by the EC. This need was driven by the high share (more than 50%) of ATCOs aged over 50 years, with an objective to safeguard ROMATSA from the expected wave of retirements. This strategy must be continued to ensure that ROMATSA can continue to provide air navigation services in a safely manner and with adequate capacity provision, taking into consideration the traffic forecasts that foresee a recovery of air traffic at pre-pandemic levels by the end of RP3.

Capital investment projects continue to be a priority for ROMATSA offering performance benefits in terms of capacity and environment and ensuring compliance with EU regulations. Some disruption was recorded during the COVID19 pandemic due to a combined impact of medical situation and restrictions and the financial resources available. Nonetheless, the new ATM system that has entered into operations in April 2019 with its second phase implemented from November 2021, while an update of the fallback system has been finalised in early 2020 to include also Datalink capabilities. Datalink services are now provided above FL285 both for aircraft using ATN protocol or FANS. During RP3, further ATM system upgrades are planned, including a traffic load and complexity tool implementation in line with the Capacity Plan for 2019 – 2024 and with the dynamic of ROMATSA post-pandemic financial strength recovery, taking into the account the expected rhythm of traffic growth.

15 DME systems have been commissioned by the end of 2021 and are due to be authorized during the course of 2022, while airports within the scope of this Performance Plan will have either new or revised P-RNAV SID and STAR routes and instrument approach procedures, fully implementing Performance Based Navigation. ROMATSA is planning to implement AMAN (Arrival Manager) in BUCHAREST TMA (initially) by the end of RP3.

The June 2022 STATFOR Base Scenario has been used in the revised Performance Plan as it captures the 2022 traffic evolutions due to the war in Ukraine and its potential reflections in 2023 and 2024. The vicinity of Ukraine and Russia has been a source of disruptions and increased traffic flows and complexity in the past years also for the Romanian airspace, leading up to the revision of the RP2 Performance Plan. The events unfolding at Romania's borders from February 24th, coming on top of the just barely restarted recovery after the pandemic, have increased traffic flows crossing Romanian airspace. Traffic values have increased steadily starting from the spring months, both due to natural traffic increase for this period and due to the re-routings caused by the war in Ukraine and the restrictions imposed. An even higher impact is seen on the

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

#### **1) Traffic and operational aspects**

The provision of air navigation services for en-route international traffic represents over 90% of the activities of the Romanian ANSP (ROMATSA). Consequently, the international context has a direct and decisive impact on the performance planning.

Since 2014, the geopolitical changes that have occurred in Eastern Europe and the Middle and Far East have had a significant impact on air traffic flows in the Romanian airspace.

These events have led to a continuous impact resulting in:

a. a major redistribution of east/west air traffic flying to/from Europe and the Middle and Far East by their shifting southwards through Iraq, Iran Turkey, Bulgaria and Romania

b. reorientation of north / south axis air traffic flows flying to / from the Russian Federation and Greece / Turkey, which affects other overflights within the northern part of the Black Sea Romanian airspace.

Furthermore, the opening of the new Istanbul Airport in 2019 has also influenced traffic flows in the Romanian airspace.

COVID19 has drastically changed the number of flights, type of aircraft and the corresponding service units, but it did not significantly alter the traffic patterns described above.

The war in Ukraine and the subsequent restrictions and sanctions imposed have determined traffic flows that were already circumnavigating the conflict area following the events in 2014 to be pushed further to Romania's south-western part. Furthermore, new traffic flows prefer to cross atypically the Romanian airspace in this geopolitical context. Average distance/flight has increased compared to 2019 and this is visible also in the service units evolution that has outpaced the IFR movements trend in comparison with 2019. These, combined with the increased military activity, including ad-hoc activity focused not only in the NE part of Romania, but in the entirety of the airspace, have generated an increase in complexity.

It is a well-known fact that overflights flying on their cruising altitude have the best environmental performance. The structure of traffic flows (due to causes outside the control of the ANSP) will continue to negatively influence the horizontal flight efficiency indicator performance throughout RP3. Conflicts or uncertain situations in the Middle East (eg Syria) / Eastern Ukraine may determine airline operators to circumnavigate these areas and, as a result, to already travel on greater/atypical distances and trajectories before entering the Romanian airspace, with effects on environmental indicators, in spite of operational improvements already offered or planned by ROMATSA to the AUs. To be, also, noted that, in the context of COVID 19, Romania has been part of the European ATM Network process of relaxing RAD restrictions due to reduced air traffic, but there are certain RADs which are still maintained in order to manage the traffic flows which plan the flights so as to avoid the Black Sea area, for eg. ROMATSA, together with BULATSA and HUNGAROCNTRONL, have continued to extend the free route airspace implementation by expanding SEEN

FRA with Slovakia (South East European Night Free Route) starting from 6th of December 2018 and completing the SEE FRA project (South East Europe Free Route Airspace) through the implementation of H24/7 cross border free route operations across the airspace of Bulgaria, Hungary and Romania as of 7th of November 2019. SEE FRA was further expanded by including the airspace of Slovakia starting with 28th of January 2021. As an enabler for improved FRA operations, ATS routes above FL105 have been removed within București FIR as from the 15th of July 2021 and an ongoing process of optimization and relaxation of RADs is considered, in order to offer airline operators the opportunity to take full advantage of FRA operations.

An expansion of SEE FRA with Chisinau CTA has been implemented starting with the 24th of February 2022, despite the ongoing war in Ukraine and the applicable restrictions, together with cross border operations between SEE FRA and BALTIC FRA. This will provide further operational, environmental and cost benefits in a region of 1 million square kilometers large over Europe and High Seas.

## **2) ATC staff age structure**

As presented during the RP2 performance plan revision process and in the initial RP3 Plan, more than 50% of operational Bucharest ACC ATCOs are over 51 years of age and will approach either legal retirement age or are at risk of a transfer to training or administrative position due to loss of license by the end of RP3.

To manage this risk, ROMATSA has started a gradual ATCO recruitment process after the revision of the RP2 Performance Plan, to ensure an optimum number of staff over the course of RP3 and beyond, guaranteeing that safety targets are met and capacity can be delivered when traffic levels return at pre-COVID19 levels. The recruitment plan has been revised in light of the traffic downturn and financial situation, but the overlapping of ageing and newly selected personnel will persist over the course of RP3. This cannot be avoided, due to the period necessary for an ACC ATCO to be fully licensed for all sectors (3-5 years) as well as the role that the existing ATCOs play in the training of new recruits.

We expect the number of ATCOs to decrease dramatically during RP4, when those currently over 51 years old will reach their retirement age (26 en-route ACC ATCOs are expected to retire in RP3 and another 112 between 2025-2029). A 2016 study conducted by the National Research and Development Institute of Occupational Safety (INCDPM) - "Alexandru Darabont", concluded that "age-related cognitive and health status decline is relevant for ATCOs tasks such as analyzing identified priorities, situational awareness, multiple tasks (multitasking), planning, execution, perspective thinking, reasoning and time management - these being some of the most relevant cognitive functions for air traffic controllers in their daily tasks" (INCDPM 2016, p. 216-217).

After analyzing the occupational medicine examinations between 2013-2016, the study also found that "for personnel with over 20 years seniority, the incidence of eye diseases, arterial hypertension and cardiovascular diseases increases, which can be directly linked to the specificity of the activity and its requirements, with both occupational and biological wear" (INCDPM 2016, p. 216).

Apart from the medical conditions, the same INCDPM study revealed that for ATCOs with more than 25 years of activity the wear cannot be ignored, taking into consideration they had to "adapt progressively to the technical and technological changes, to the computerization of the activity" (INCDPM 2016, p. 212) as well as the fact that they were active during a time of geopolitical turmoil (Yugoslav wars, Iraqi wars, Crimean conflict), all of which having had a direct impact on air navigation.

Romanian legislation does not yet have special conditions for the retirement of ATCOs and the retirement age is the same as in all other sectors in Romania, 65 for male and 63 for women. However, ATCOs with more than 20 years working experience will benefit from a reduced retirement age for the period that their work was listed as "special labor conditions". This changed once a new legislation was adopted in the year 2000 (Law 19/2000). A legislative proposal to reduce ATCO pension age by up to 12 years, depending on the number of years worked, has been submitted by ROMATSA to the Ministry of Transport and Infrastructure and the Ministry of Labor and Social Protection to be integrated in the new Pension Law that is being drafted by the Government.

## **3) Economic situation of the ANSP**

The sudden drop in traffic and the slow recovery forecasted, combined with a deferral of payments, has led to a negative cash flow position starting from 2020. This has been offset using the available liquidities and through a commercial loan of 466 million lei (approximately 96 million Euro). The Romanian Government approved on the 10th of September 2020 a Memorandum granting a state guarantee covering 80% of the loan value, with over 20% covered by ROMATSA's own guarantees. For the loan costs (interest rate and other fees), ROMATSA has submitted to the Ministry of Transport and Infrastructure a request to cover these from the state budget, but a decision in this regard has not been taken and as such, costs have been foreseen in the cost basis for the RP3.

Furthermore, a wide range of cost reduction measures have been applied both in 2020 and 2021 to adapt to the new environment, both economical and operational, as follows:

- Staff costs: Temporary freezing of new recruitment and promotions, no salaries increase and no inflation adjustment of salaries, reduced pensions and health insurance contributions due to temporary freezing of recruitment and promotions, reduced additional benefits for employees;
- Other operating costs: cancellation/delay of training activities, reduced costs for third party services, reduced costs for transportation, spare parts and other materials;
- Depreciation and cost of capital: cancellation/delay of investments. All investments have suffered delays in 2020 and 2021 due to the health situation and restrictions imposed at country level or in the countries of our contractors, but also as a precautionary measure to ensure the cash

Additional comments

ROMATSA plans to use the remainder of this reference period as a transition phase for improving the level of service provided to AUs and the capacity of Romanian airspace, all the while ensuring the safety of its operations. through:

- implementation of further upgrades to the new ATM system;
- making provisions for an ageing ATCO population;
- managing traffic within an area of geo-political sensitivity;
- reaping the benefits of SEE FRA expansions for improved capacity and optimised environmental protection by contributing to reduced fuel consumption and emissions, while improving flight efficiency and
- optimisation of the airspace sectors to draw full benefit from free route airspace

ROMATSA, regardless of its will and actions, is involved in two legal actions set up at EUROCONTROL against Romania on the basis of a Decision of the International Arbitration Court of the International Center for Settlement of Investment Disputes from December 2013, a final enforceable decision that obliges Romania to pay compensation to the Micula brothers and companies and which also includes the calculation of penalties for delay in execution. The two legal actions have seen ROMATSA's payments for en-route air navigation services seized in EUROCONTROL both in 2015 and 2019.

The first garnishment was served to EUROCONTROL by Viorel Micula on September 9, 2015. Ioan Micula and the companies also intervened, in order to obtain the total amount of 85,066,428.42 euros, from the amounts collected by EUROCONTROL for the remuneration of air navigation services provided by ROMATSA. On the other hand beside ROMATSA, EUROCONTROL, the European Commission and the Romanian state intervened. The Court of First Instance of Brussels, in the French-speaking Chamber, decided to lift the seizure. The case is currently pending in the appeal phase at the Brussels Court of Appeal, French-speaking section, awaiting a response from the European Court of Justice; the timing of these responses is unknown, but it is very likely that before their issuance the European Court of Justice will summon all parties to hearings.

The second garnishment, also contested by ROMATSA, was set up at EUROCONTROL by Viorel Micula on August 16, 2019. Ioan Micula and the companies also intervened in this, in order to obtain the total amount of 394,963,733.82 euros with penalties, from the amounts collected by EUROCONTROL for the remuneration of the air navigation services provided by ROMATSA. After the payment by the Romanian state of the amount of 912.5 million lei in December 2019, the action was suspended.

Both these legal actions do not produce effects at this moment, but depending on the evolution of the case at the European Court of Justice between the European Commission and the the Micula brothers, in case of an unfavorable decision for the EC the pending cases of ROMATSA vs the Micula brothers may have a negative impact on the financial solidity of the ANSP.

## 1.2 - Traffic Forecasts

### 1.2.1 - En route

#### En route Charging zone 1

Romania

#### En route traffic forecast

Local forecast

Local forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR
									2019-2024
IFR movements (thousands)	673	738	747	320	454	605	702	738	-0.2%
IFR movements (yearly variation in %)		9.6%	1.2%	-57.2%	41.9%	33.3%	16.0%	5.1%	
En route service units (thousands)	4,757	5,101	5,117	2,246	2,870	4,583	5,531	5,825	2.6%
En route service units (yearly variation in %)		7.2%	0.3%	-56.1%	27.8%	59.7%	20.7%	5.3%	

The forecast used is the EUROCONTROL Forecast Update 2022 2024 European Flight Movements and Service Units, June 2022, Base Scenario

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

### 1.2.2 - Terminal

#### Terminal Charging zone 1

Romania - TCZ

#### Terminal traffic forecast

Local forecast

Local forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR
									2019-2024
IFR movements (thousands)	59.0	62.4	62.9	28.3	43.9	56.7	60.2	64.1	0.4%
IFR movements (yearly variation in %)		5.7%	0.8%	-55.0%	55.0%	29.2%	6.2%	6.5%	
Terminal service units (thousands)	67.5	72.2	73.7	31.4	43.4	67.0	71.0	74.0	0.1%
Terminal service units (yearly variation in %)		6.9%	2.1%	-57.4%	38.1%	54.4%	6.0%	4.2%	

The forecast used is the EUROCONTROL Forecast Update 2022 2024 European Flight Mov

### 1.3 - Stakeholder consultation

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

Description of main points raised by stakeholders and explanation of how they were taken into account in developing the performance plan
<p>Following the stakeholder consultation on 25 of august 2021, a number of key points were raised and have been actioned concerning Romania's Performance Plan.</p> <ul style="list-style-type: none"> <li>• Investments have been detailed in terms of description of objectives and also cost-allocation, as the Performance Plan includes cost only related to en-route and regulated terminal (Bucharest Airports).</li> <li>• Asymmetrical incentive scheme at the maximum level allowed by (EU) Regulation 2019317 for en-route capacity, proving ROMATSA's commitment to maintaining its 0-delay policy.</li> </ul> <p>The detailed minutes of the meeting as well as the presentation can be found in Annex C</p> <p>Following the stakeholder consultation on 12 of november 2021 in written format, two comments were received, one from Lufthansa group and one from IATA, appreciating Romania's intend to adjust its traffic forecast to the most recent Statfor values. No negative reactions were raised and no change requests, only a technical error was highlighted and corrected.</p>

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

Topic of consultation	Applicable	Results of consultation
Where applicable, decision to diverge from the STATFOR base forecast	No	The latest STATFOR forecast from 15 October has been used.
Charging policy	Yes	No disagreements.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	Following the consultation meeting, ROMATSA decided on updating its incentive scheme to an asymmetric variant while using the maximum bonus/penalty allowed by the Regulation for en-route.
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	
Establishment or modification of charging zones	No	Not applicable.
Establishment of determined costs included in the cost base for charges	Yes	All cost categories have been reviewed in order to take into account more thorough estimates.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	Not applicable.
Where applicable, decision to apply the simplified charging scheme	No	Not applicable.
New and existing investments, and in particular new major investments, including their expected benefits	Yes	<p>The ANSP has been conservative in its investment plan and reduced its value to cover regulatory and capacity requirements and replacement needs.</p> <p>The ATM system Phase 2 has 100% en-route as it will cover software upgrade and equipments for ACC Bucharest and it is the only major investment for RP3.</p> <p>Further details for all investments have been added, as per the AUs request, in Annex E to the Performance Plan</p>

#### 1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	ROMATSA
Dates of main meetings / correspondence	May-July 2021
Main issues discussed	All chapters of the Performance Plan

Actions agreed upon	Main targets of the Performance Plan and actions to be implemented during the third reference period
Points of disagreement and reasons	No disagreements.
Final outcome of the consultation	Current version of the Performance Plan

Additional comments	

#2 - Airspace Users	
Stakeholder group composition	IATA, Lufthansa Group, Turkish Airlines, Etihad Airways
Dates of main meetings / correspondence	25 august 2021
Main issues discussed	Performance across all of the KPAs, key assumptions and plans related to recruitment, investments and cost of capital decisions. Full detail is available in Annex C.
Actions agreed upon	Review of the cost of capital assumptions, undertaking a sensitivity analysis.
Points of disagreement and reasons	Airspace users advocated for an asymmetric incentive scheme and challenged the cost of capital assumptions. Full detail is available in Annex C.
Final outcome of the consultation	Initial version of the Performance Plan (October 2021)

Additional comments	
12 november 2021 - Supplementary, the second stakeholder consultation was performed in written form (email exchange) starting with 12-th of november 2021 with all the participants of the first consultation in 25 august 2021 including PRB, in line with the COM letter Ares(2021)7488798 and recommendation, on the whole revised performance materials (Revised Performance Plan updated/completed according to the Annex of the COM letter Ares(2021)7488798, Reporting Tables, Additional Information, Annex T highlighting the updates and other information).	

#3 - Airspace Users	
Stakeholder group composition	IATA, Lufthansa Group
Dates of main meetings / correspondence	17.06.2022
Main issues discussed	Performance across all of the KPAs, key assumptions and plans related to recruitment, investments and cost of capital decisions. Full detail is available in Annex C.
Actions agreed upon	Update of Annex E - Investments, for investments postponed from RP2 with information regarding depreciation period already charged to airspace users
Points of disagreement and reasons	Possibilities to mitigate the impact of inflation on costs and actual ability to meet the environment targets
Final outcome of the consultation	Current version of the Performance Plan

Additional comments	
Both IATA and Lufthansa Group have sent written statements on the outcome of the consultations, presented in Annex C.	

#4 - Professional staff representative bodies	
Stakeholder group composition	Romanian Air Traffic Services Union - ATSR
Dates of main meetings / correspondence	21.07.2021 14-22.09.2021
Main issues discussed	Human resources policy, Investment Plan
Actions agreed upon	The main hypothesis for the Performance Plan were agreed (traffic forecast, ATCO recruitment, capacity, safety and environment targets, staff cost increases). The Investment Plan was rediscussed by the management of ROMATSA. The parties agreed to reopen negotiations if the assumptions are not accepted by airspace users  Formalised agreement no. 16534/22.09.2021
Points of disagreement and reasons	The representatives of the Union disagreed with the proposed administrative staff evolution. After extensive negotiating, a formal agreement was reached.
Final outcome of the consultation	Initial version of the Performance Plan (October 2021)

Additional comments	

#5 - Professional staff representative bodies	
Stakeholder group composition	Romanian Air Traffic Services Union - ATSR
Dates of main meetings / correspondence	15.06.2022
Main issues discussed	Investment Plan, actual inflation and new STATFOR traffic forecast
Actions agreed upon	The main hypothesis for the Performance Plan were agreed (traffic forecast, ATCO recruitment, capacity, safety and environment targets, staff cost increases to compensate the decreased purchasing power due to rising inflation and allow also non-recurring compensation for increase in traffic volume and complexity). These aspects have been mentioned in the minutes of the meeting no. 10134/15.06.2022
Points of disagreement and reasons	
Final outcome of the consultation	Current version of the Performance Plan

Additional comments	

#6 - Airport operators	
Stakeholder group composition	
Dates of main meetings / correspondence	
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments	

#7 - Airport coordinator	
Stakeholder group composition	
Dates of main meetings / correspondence	
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments	

#8 - Other (specify)	
Stakeholder group composition	PRB, EUROCONTROL
Dates of main meetings / correspondence	8/25/2021, 17./06/2022
Main issues discussed	See #2, #3 and Annex C



Actions agreed upon	See #2, #3 and Annex C
Points of disagreement and reasons	See #2, #3 and Annex C
Final outcome of the consultation	Current version of the Performance Plan

Additional comments

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

1.4.1 - Airports as per Article 1(3) (IFR movements ≥ 80 000)

ICAO code	Airport name	Charging Zone	IFR air transport movements			
			2016	2017	2018	Average
LROP	Otopeni-Intl.	Romania - TCZ	107,710	116,254	122,586	115,517

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

Number of airports	1		
ICAO code	Airport name	Charging Zone	Additional information
LRBS	Bucharest AUREL VLAICU	Romania - TCZ	

Additional comments

1.5 - Services under market conditions

Number of services under market conditions	0
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1.6 - Process followed to develop and adopt a FAB Performance Plan

Description of the process
Not applicable

1.7 - Establishment and application of a simplified charging scheme

Is the State intending to establish and apply a simplified charging scheme for any charging zone/ANSP?	No
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## SECTION 2: INVESTMENTS

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### **2.1 - Investments - ROMATSA**

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

### **Annexes of relevance to this section**

ANNEX E. INVESTMENTS

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

## 2.1 - Investments - ROMATSA

### 2.1.1 - Summary of investments

Number of new major investments	1
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#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1	ATM System 2015+ Phase 2	33,612,900	33,612,900	27,692	1,053,691	4,424,483	4,960,905	4,634,268	12	100%	0%	30.11.2021
Sub-total of <b>new major investments</b> above (1)		33,612,900	33,612,900	27,692	1,053,691	4,424,483	4,960,905	4,634,268				
Sub-total <b>other new investments</b> (2)		245,650,606	215,261,075	718,115	3,866,132	6,976,132	16,414,434	24,208,814		78.45%	21.55%	
Sub-total <b>existing investments</b> (3)				89,335,196	80,355,500	71,751,393	68,996,001	58,799,379		89.92%	10.08%	
<b>Total new and existing investments</b> (1) + (2) + (3)		279,263,506	248,873,975	90,081,003	85,275,323	83,152,009	90,371,341	87,642,461				

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

### 2.1.2 - Detail of new major investments

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

Name of new major investment 1	ATM System 2015+ Phase 2		Total value of the asset	6,831,529 €
Description of the asset	<p>The "ATM2015+ System" project addresses the flight data processing systems, surveillance data processing systems, human-machine interface systems and the introduction of CPDLC capability. The roadmap of the project includes the following stages of STEP 1 development: the baseline system - phase 1, operational as of the 8th April of 2019 and phase 2 transferred into operations in November 2021 with enhanced functionalities, such as:</p> <ul style="list-style-type: none"> <li>- ASM and Safety Nets enhanced functionalities: Near Term Conflict Alerts (NTCA); further Tactical Tool (TCT) improvements;</li> <li>- Extended AMAN enabled: the new ATM2015+ system - phase 2 supports extended AMAN via the exchange of AMA message. The system has the capability of receiving AMA message from the downstream ATS units. When the extended AMAN requirements for neighboring airports will be clarified in the forthcoming period, the modalities of AMA content presentation (TTG/TTL, Time over fixes or speed advisor) will be adapted;</li> <li>- Support Functions enhanced functionalities implemented in phase 2: CWP Interactive Playback with extended retention time for data analysis and replay (Network Attached Storage (NAS) infrastructure);</li> <li>- Interface of the ATM 2015+ system with the European AIS Database (EAD): the ATM2015+ system is able to import data from EAD, based on AIXM version 5.1 data exchange model;</li> <li>- Implementation of MET Data Display (Radar and Satellite Data)</li> </ul>			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes	Family 1.1.1 Arrival Manager extended to en-route airspace Family 3.1.1 ASM and A-FUA Family 3.1.2 Management of Predefined Airspace Configurations Family 3.2.2 Enhanced Free Route Airspace Operations Family 5.3.1 Aeronautical Information Exchange service		

	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	1.1.1 - Arrival Manager extended to en-route airspace		3.1.1 – ASM and A-FUA 3.1.2 – Management of Predefined Airspace Configurations 3.2.2 – Enhanced Free Route Airspace		5.3.1 – Aeronautical Information Exchange service		
Benefits for airspace users and results of the consultation of airspace users' representatives	<p>The operational transfer to the new ATM system took place on the 8th of April 2019. Phase 2 has been transferred into operations on 15th of November 2021, bringing enhanced functionalities. The system supports a capacity increase with traffic resuming to pre-COVID19 growth.</p> <p>It will improve the civil-military coordination giving greater flexibility according to airspace users' needs.</p> <p>It will enable the dynamically adjusted airspace configuration in response to capacity and demand needs.</p> <p>Improved situational awareness and safety.</p> <p>Environmental benefits both in terms of emissions and noise (airspace users flying their preferred trajectory, CDO and CCO supported)</p>						
Joint investment / partnership	No						
Investment in ATM systems	Yes						
If investment in ATM system, type?	Overhaul of existing system						
If investment in ATM system, Reference to European ATM Master Plan / PCP	PCP	<p>Family 1.1.1 Arrival Manager extended to en-route airspace</p> <p>Family 3.1.1 ASM and A-FUA</p> <p>Family 3.1.2 Management of Predefined Airspace Configurations</p> <p>Family 3.2.2 Enhanced Free Route Airspace Operations</p> <p>Family 5.3.1 Aeronautical Information Exchange service</p>					

### 2.1.3 - Other new and existing investments

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

ROMATSA has taken a conservative approach to the Investment Plan for RP3 to mitigate the risk of investments being delayed, as it was the case during RP2 due to insufficient human resources allocated as well as lengthy public procurement procedures.

ATM system implementation. Significant reductions have been applied in order to cope with the financial difficulties induced by the COVID19 pandemic.

In addition to the core ATM system, there is also the need to sustain the existing functions of the system, by replacing or upgrading end-of-life infrastructure. These upgrades look to help reduce running costs by streamlining existing functionalities

ROMATSA is committed to be a strong European partner in the network and has planned to meet the regulatory requirements during RP3. These include continuing to deploy those mandated by the SES framework regulation and Pilot Common Project/Common Project 1.

Safety and security remain paramount for ROMATSA, and it will continue to invest in new tools to ensure it is able to monitor and respond to emerging risks and threats. Cyber-security is an evolving area, and ROMATSA is committed to working in partnership to assure itself of appropriate proactive action.

Further details about the investment plan for RP3 can be found in Annex E.

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



Number of new other investments	0
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#	Name of investment	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	<b>Determined costs</b> of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	

## SECTION 3: PERFORMANCE TARGETS AND MEASURES FOR THEIR ACHIEVEMENT

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### 3.1 - Safety targets

[3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs](#)

### 3.2 - Environment targets

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

### 3.3 - Capacity targets

[3.3.1 - Capacity KPI #1: En route ATFM delay per flight](#)

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

### 3.4 - Cost efficiency targets

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

En Route Charging Zone #x

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

Terminal Charging Zone #x

[3.4.3 - Pension assumptions](#)

[3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services](#)

[3.4.5 - Restructuring costs](#)

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

### 3.5 - Additional KPIs / Targets

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

[3.6.1 - Interdependencies and trade-offs between safety and other KPAs](#)

[3.6.2 - Interdependencies and trade-offs between capacity and environment](#)

[3.6.3 - Interdependencies and trade-offs between cost-efficiency and capacity](#)

[3.6.4 - Other interdependencies and trade-offs](#)

### Annexes of relevance to this section

ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE)

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)

ANNEX F. BASELINE VALUES (COST-EFFICIENCY)

ANNEX H. RESTRUCTURING MEASURES AND COSTS

ANNEX M. COST ALLOCATION

ANNEX J. OPTIONAL KPIs AND TARGETS

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS

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

## SECTION 3.1: SAFETY KPA

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### 3.1 - Safety targets

#### [3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs](#)

- a) Safety national performance targets
- b) Detailed justifications in case of inconsistency between local and Union-wide safety targets
- c) Main measures put in place to achieve the safety performance targets

#### **Annexes of relevance to this section**

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

### 3 - PERFORMANCE TARGETS AT LOCAL LEVEL

#### 3.1 - Safety targets

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

###### a) Safety performance targets

Number of Air Traffic Service Providers		1					
ROMATSA		2020A	2020	2021	2022	2023	2024
		<i>Actual</i>	Target	Target	Target	Target	Target
	Safety policy and objectives	D	C	C	C	C	C
	Safety risk management	D	C	C	C	C	D
	Safety assurance	D	C	C	C	C	C
	Safety promotion	D	C	C	C	C	C
	Safety culture	D	C	C	C	C	C
Additional comments							

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

ROMATSA has already achieved level D in all safety management objectives and we intend to maintain the current safety level. For consistency with Union-wide safety revised targets, ROMATSA has chosen to adopt these as described in Article 1 of the COMMISSION IMPLEMENTING DECISION (EU) 2021/891 setting revised Union-wide performance targets for the air traffic management network for the third reference period (2020-2024) and repealing Implementing Decision (EU) 2019/903.

\* Refer to Annex O, if necessary.

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

The measures put in place to achieve the Safety Performance Targets are concentrated on the use, on year to year base, of the results of the previous years for the EUROCONTROL CANSO Standard of Excellence in Safety Management Systems (SoE in SMS) and EoSM questionnaires results. The yearly Report of the EUROCONTROL CANSO Standard of Excellence in Safety Management Systems (SoE in SMS) outlines progress made by the organisation towards meeting the requirements of the CANSO SoE in SMS, particularly with respect to the extent that the organisation is aligned with the International Civil Aviation Organisation's (ICAO's) Annex on Safety Management (Annex 19).

Consistently, ROMATSA continued to improve its EoSM, reaching the maturity level D on almost all five Management Objectives which is over the performance targets for 2020 and 2021 obtaining a good score (98,21% effectiveness score for 2020 and 99,1% for 2021) - please see the Romanian answers to the EoSM questionnaire for 2020 and 2021 for the Safety KPA sent to the EASA by the Romanian NSA.

The overall reporting level of occurrences and the quality of the data included in the occurrence reports that falls under the reporting mechanism and under the performance scheme has constantly improved, showing the maturity of the system. All the occurrences were analysed with RAT Methodology (eTOKAI) and are reported under ECR.

No. of RI with safety impact for LROP/LRBS (under the scope of the performance scheme) is equal to 0;

No. of SMI with safety impact (Severity category C) is equal to 3 which falls under the minimum acceptable safety level defined in the SMS of ROMATSA.

The Report confirms the level of maturity of the Safety Management System in ROMATSA, and taking into consideration that ROMATSA already met or surpassed targets in RP1 and RP2, no problems are expected in achieving the RP3 Safety Performance Targets. It is the intention of ROMATSA to continue to implement all the required measures to maintain Level D across all areas.

During the 2020 survey, the impact of COVID-19 on an ANSP's ability to maintain their SMS was discussed. ROMATSA is permanently adapting to the pandemic context and the level of services has been maintained all throughout the crisis with no facilities having been shut down. Thus, the organisation is prepared for returning to normal operations. Current processes and procedures will ensure safe transition to normal operations when needed.

ROMATSA's safety objective is "the improvement of its safety level so that the number of accidents, serious or risk bearing incidents induced by air navigation services provided by ROMATSA do not increase and, whenever possible, decreases."

ROMATSA considers the safety KPA as having priority over other KPAs, with this approach being formalised in the DANUBE FAB Safety Policy: "Safety has priority over commercial, operational, environmental and social pressures". In this respect, safety is paramount and the other KPAs must be managed in a way not to reduce the level of safety.

ROMATSA will take all the necessary actions in order to achieve the Safety Performance Targets established above in letter a).

Romanian NSA performs continuous oversight activities and safety performance monitoring under the related (EU) Regulations, national and internal procedures. Also, ROMATSA has its monitoring process in place based on internal procedure "General Procedure for Safety Monitoring in ATM/ANS".

\* Refer to Annex O, if necessary.

## SECTION 3.2: ENVIRONMENT KPA

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### 3.2 - Environment targets

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

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

### Annexes of relevance to this section

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

### 3.2 - Environment targets

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

##### a) National environment performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	2.17%	n/a	2.10%	2.05%	2.05%	2.05%

	2020	2021	2022	2023	2024
National targets	Target 1.55%	Target 2.10%	Target 2.05%	Target 2.05%	Target 2.05%

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

The values have been extracted from ERNIP and can be achieved under ideal/normal conditions. However, as the regional, geo-political situation currently faced does not foresee any improvement over RP3 and, the optimum trajectories will continue to be bypassed in Romania, the target values are unlikely to be achieved despite measures taken by ROMATSA to allow airspace users to take the most direct route. In this respect, in April 2021, a DANUBE FAB common letter was sent to the PRB to explain our particularities and our views in relation to KEA, as reaction to the PRB Monitoring Report on the Financial and Operational impact of COVID-19 on the SES, underlying that the ENV performance is influenced by factors beyond our control or that of the ANSPs. PRB, in its response acknowledged the weaknesses and strengths of the current KPIs and the need to improve it, PRB also mentioning the highly appreciation for the completion of the SEE FRA in improving the ENV performance.

\* Refer to Annex P, if necessary.

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

EN-ROUTE:

In RP2 traffic in the region has gone through several significant, politically induced, shifts. Most importantly, airline operators have been avoiding the Black Sea, Eastern Ukraine, Crimean Areas, resulting in a change of traffic patterns in the Romanian airspace. In spite of the significant traffic reduction during 2020 and 2021 (as compared to 2019), due to the COVID 19 pandemic, the areas avoided by airline operators have not changed. Similarly, the related (RAD) restrictions and the applicable traffic bans (between Ukraine and Russia) remain in place in the area, affecting traffic flows. Furthermore the invasion of Ukraine by Russia on the 24th of February has vastly extended the area with restrictions and as a result atypical trajectories and new traffic flows can be observed for the Romanian airspace. All the above continuously result in an artificial increase in distance travelled, even for a numerically smaller number of flights, with visible effects on the KEA indicator. This fact proves once again that the methodology for the calculation of KEA should be reviewed so as to eliminate to the maximum extent possible the influence of external factors, which are outside of ROMATSA's control.

In the context of factors which are not under the control or influence of ROMATSA, it should also be noted that the flown distance is also a result of the preference of the airline operators. This is related to the willingness to cross safe and politically stable areas from a geopolitical point of view, making use of cost-efficient airspace, taking into account winds/weather occurrences and factoring in internal company policies and planning procedures, even if it results in flying longer trajectories than those optimum from an environmental perspective.

Looking forward to the remaining years of RP3 and beyond, conflicts and/or tensions in the Middle East (eg Syria) / Eastern Ukraine are likely to continue to cause airline operators to circumnavigate these areas and, as a result, to travel on greater/atypical distances and trajectories before entering the Romanian airspace. Such behaviour will inevitably have effects on environmental indicators, in spite of operational improvements already offered or planned by ROMATSA to the AUs. It should also be noted that, in the context of COVID 19, Romania is part of the European ATM Network process of relaxing RAD restrictions due to reduced air traffic, but there are certain RADs which are still maintained to manage the traffic flows which plan the flights so as to avoid the Black Sea area, for example.

In terms of operational improvements aimed at enhancing environmental performance, ROMATSA plans to optimise the current sectorisation starting with Q1 2023 to improve the utilisation of the Romanian airspace in the context of both already implemented and planned FRA expansion projects. Maintaining a close collaboration with the NM will ensure traffic flows are managed as efficiently as possible and potential saturation of airspace volumes to be efficiently addressed, as gradual traffic recovery is expected until the end of RP3. As an enabler for improved FRA operations,

ATS routes above FL105 have been removed from București FIR as of the 15th of July 2021 and an on-going process of optimisation and relaxation of RADs is considered, to offer airline operators the opportunity to take full advantage of FRA operations.

ROMATSA aims to continuously improve FRA operations. Trilateral (BULATSA, ROMATSA and HUNGAROCNTROL) night FRA (SEEN FRA) implemented on the 30th of March 2017 has been expanded with Bratislava CTA on the 6th of December 2018. Following the trilateral (BULATSA, ROMATSA and HUNGAROCNTROL) FRA H24 (SEE FRA), implemented on 7th of November 2019, the FRA airspace has been further expanded to include also Bratislava CTA starting from the 28th of January 2021.

SEE FRA expansion with Chișinău CTA together with cross border operations between SEE FRA and BALTIC FRA, have been implemented from the 24th of February 2022, despite the war in Ukraine. This represents a further step in optimizing flight operations by expanding to H24 the cross-border FRA operations in the airspaces of Bratislava CTA, București CTA, Budapest CTA, Chisinau CTA and Sofia CTA and Vilnius CTA and Warszawa CTA, respectively. It provides further operational, environmental protection by contributing to reduced fuel consumption and emissions, while improving flight efficiency and cost benefits in a region of 1 million square kilometres large over Europe and High Seas. The estimated SEE FRA daily benefits will be 168,7 less minutes of flight, 7324,3 kg of fuel savings and reduced CO2 emissions by 23140,9 kg and 101,1 kg less NOx.

The national regulation related to FUA implementation in Romania is a common document developed and signed by the Ministry of Transportation and Ministry of National Defence. Romania is one of the first nations applying for Eurocontrol's airspace management support tool - LARA (Local And sub-Regional Airspace Management support system) - and Romania has the largest LARA network configuration, with all military airbases connected to the central database server located in ROMATSA premises.

ROMATSA reports annually to the EC on the KPIs for Airspace Management Efficiency. Given the civil-military coordination in FUA implementation and evolution is already effective, ROMATSA foresees no significant challenges in this area for RP3. However, ROMATSA plans to implement new airspace architecture that will take into account operational requirements for the new military fighters generation. This requires extended airspace and flexibility, through modularity.

ROMATSA also plans to enhance the application of FUA through better flight planning and airspace release processes, and through the implementation of advanced FUA (depending on SESAR progresses). This will contribute positively to ROMATSA's capacity provision.

Given the aforementioned reasons, from ROMATSA side, every effort is made to meet the environment targets.

#### TERMINAL AIRSPACE:

All instrument flight procedures are the result of co-operation between designer, air operators, ATC, aerodrome operators, MIL and are taking into account all requirements concerning flight efficiency, reduction of fuel consumption, gas emission reduction and noise reduction over cities, as long as safety and design criteria are met.

All existing conventional SID/STAR routes and Instrument Approach Procedures were designed taking into account the optimum vertical descent/climb profiles and shortest possible routes, based on the available ground NAVAIDS infrastructure.

RNAV1 SID/STARs are published for BUCUREȘTI TMA, NAPOC TMA and ARAD TMA. New RNAV1 SID/STARs will be implemented for CONSTANTA TMA in 2022-2023 period.

- The existing RNAV1 SID and STAR routes were designed with an optimized vertical profile on shorter routes, as long as speed and altitude restrictions were not imposed by potential conflict points, or limitations given by restricted areas and cities avoidance.
- Starting mid-autumn 2019, ROMATSA has begun the revision process of all existing conventional and RNAV1 SID/STAR routes and instrument approach procedures and the implementation of new RNP APCH procedures for all airports as part of PBN concept implementation. After completion by end-2022, the instrument flight procedures are expected to facilitate shorter and more direct tracks .
- ROMATSA is planning to implement AMAN (Arrival Manager) in BUCUREȘTI TMA (initially) with the technical specification for the system finalised, but with implementation postponed due to difficult financial situation caused by the COVID19 pandemic.
- Resumption of AIP Romania amendment process, chap. 2.21 Noise abatement procedures with the following specific provisions for aircraft operating at Otopeni Airport:

"In order to reduce aircraft noise and emissions, ATC gives clearances allowing continuous descent (CD) traffic situation permitting. Continuous descent can be planned based on track distance information of the STAR or, when vectored, on estimated track distance provided by ATC. "

ROMATSA is committed to reducing the amount of fuel burn and resulting emissions impact, as best as possible through its services (through implementing projects such as FRA, as described above).

ROMATSA also has a certified ISO 14001 environmental management system and monitors its own carbon footprint on a yearly basis. ROMATSA

## SECTION 3.3: CAPACITY KPA

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### 3.3 - Capacity targets

#### [3.3.1 - Capacity KPI #1: En route ATFM delay per flight](#)

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

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

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

### Annexes of relevance to this section

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS



### 3.3 - Capacity targets

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

##### a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	0.00	n/a	0.02	0.04	0.04	0.04
		2020	2021	2022	2023	2024
		Target	Target	Target	Target	Target
National targets		0.14	0.02	0.04	0.04	0.04

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

N/A  
 ROMATSA has chosen to adopt the national reference values, as they were transmitted by the Network Manager to the European Commission. Actual values for 2020 and 2021 are at 0,00, taking also into account the reduced traffic in the pandemic context

\* Refer to Annex Q, if necessary.

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

###### 1. NEW ATM SYSTEM

A new ATM system entered into operations on 08.04.2019. The new system meets a number of the requirements put forward in the PCP and DP 2018: DP 2018 3.1.4 (Management of Dynamic Airspace Configuration), and DataLink Implementation DP 2018 3.2.1 (Upgrade of ATM systems to support DCT and FRA). Phase 2 of the ATM system including enhanced functionalities (e.g. ASM and Safety Nets, support functions, EAD interface) has been transferred into operations on the 15th of November 2021.

An upgrade of the legacy operational system has been also completed in 2020 to manage increasing traffic and implement DataLink capabilities, as it will remain the fallback system.

Starting with 17th of July 2020, ROMATSA provides DataLink services using ATN protocol and from the 18th of November for FANS equipped aircraft also.

During RP3, further ATM system upgrades are planned, including a traffic load and complexity tool implementation in line with the Capacity Plan for 2019 – 2024 and with the dynamic of ROMATSA post-pandemic financial strength recovery, taking into account the actual pattern of traffic growth. ROMATSA has become a member of the collaborative, pan-European, Centralised Code Assignment and Management System (CCAMS), starting with 15th of October 2021.

CCAMS aims to overcome the current and future shortages of the Secondary Surveillance Radar (SSR) codes used by Air Traffic Control for radar services and provides a unique SSR code to each flight operating in the countries using the service. CCAMS optimises the efficiency of European SSR code management by introducing the dynamic transponder codes allocation, allowing the simultaneous use of the same code in volumes of airspace separated by a buffer zone.

This approach assures the optimal use of SSR codes and reduces the SSR codes shortage and conflicts in the CCAMS region.

Through CCAMS application within București FIR the SSR codes management is more efficient, increasing safety.

It also determines a reduction of the airborne SSR code changes, thus decreasing ATC workload and allowing for more flights to be handled.

Being among the pioneers of Mode S implementation in the entire FIR, CCAMS activation makes ROMATSA one of the few air navigation service providers in Europe that have operationalized both concepts.

###### 2. AIRSPACE CONFIGURATION

ROMATSA plans to optimise the current sectorisation starting from Q1 2023 in order to improve the utilisation of the Romanian airspace in the context of both already implemented and planned FRA expansion projects. Maintaining a close collaboration with the NM will ensure traffic flows are managed as efficiently as possible and potential saturation of airspace volumes to be efficiently addressed, as gradual traffic recovery is expected until the end of RP3. As an enabler for improved FRA operations, ATS routes above FL105 have been removed within București FIR as from the 15th of July 2021 and an on-going process of optimisation and relaxation of RADs is considered, in order to offer airline operators the opportunity to take full advantage of FRA operations.

advantage of FTA operations.

Following the implementation of the trilateral FRA H24 (BULATSA, ROMATSA and HUNGAROCONTROL) which took place on the 7th of November 2019, it has been extended for the entire SEE FRA airspace to include also Bratislava CTA starting from the 28th of January 2021. SEE FRA expansion with Chisinau CTA together with cross border operations between SEE FRA and BALTIC FRA, has been implemented from the 24th of February 2022, and it represents a further step in optimizing flight operations by expanding to H24 the cross-border FRA operations in the airspaces of Bratislava CTA, București CTA, Budapest CTA, Chisinau CTA and Sofia CTA and Vilnius CTA and Warszawa CTA, respectively. It provides further operational, environmental and cost benefits in a region of 1 million square kilometres large over Europe and High Seas. Further SEE FRA expansion is planned for Feb. 2023, by including FRA CZ. ROMATSA is also working closely under NM coordination on the Operational Excellence program where it has been designated Champion within:

WST 02: Application of A-FUA

02.01 Planning of military exercises

02.02 Application of FUA at Level 1, 2 and 3

WST05: Enhancing sectors throughput, including occupancies Champion

05.01 Achievement of higher sector throughputs

05.02 OLDI exchanges of limited trajectory data

05.03 What-If probing tool for traffic complexity and MTCD

05.04 Harmonised implementation of Dynamic Airspace Configurations

WST 07: ANSP/ANSP and ANSP/NM system connectivity and interoperability

07.01 Wider utilization of OLDI transfer and dialogue messages ROMATSA

07.03 TWR/APP/ACC flight data exchanges for notification and coordination purposes - OLDI or legacy ones

### 3 HUMAN RESOURCES POLICY

\* Refer to Annex Q, if necessary.

#### d) ATCO planning

	Actual			Planning			
	2018	2019	2020	2021	2022	2023	2024
<b>Bucharest (LRBB ACC)</b>							
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	25	0	0	0	24	11	24
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	1	4	8	6	4	6	6
Number of ATCOs in OPS planned to be operational at year-end (FTEs)	237	233	225	219	239	244	262

#### Additional comments

The legal retirement age in Romania for ATCOs is currently 65 years old for men and 63 years old for women. However there are many of the ATCOs aged between 40-60 years old that had been appointed under special labour conditions (a law applicable to all ATCOs in operations until the year 2001) and now can benefit from a reduced pension age (1-12 years earlier than the standard age). This varies depending on how many years the ATCO worked under special conditions. Moreover, a new pension law issued in July 2019 granted more derogations from the standard retirement age. A legislative proposal to reduce ATCO pension age by up to 13 years, depending on the number of years worked, has been submitted by ROMATSA to the Ministry of Transport and Infrastructure and the Ministry of Labour and Social Protection to be integrated in the new Pension Law that is being drafted by the Government. However, the recruitment process has not taken this proposal into consideration, only the current retirement scheme and the safety critical abilities that tend to degenerate ATCOs over 50 years and in particular over 55 years. These generate Loss of Licenses and illnesses, offering ATCOs the option to move to training and administrative positions. These can be seen for 2021 where apart from the 2 that were retired, 1 has lost its licence due to medical reasons, 2 more were moved to the simulator due to health issues that prevent them from working in shifts as required in OPS. Due to the impact of the COVID19 pandemic, training of new ATCOs has been delayed and the 24 ATCOs who were supposed to be partially licensed at the end of 2021 will become full FTE in 2022.

Our current forecast is that during RP4 (2025-2029) 112 ATCOs from ACC Bucharest will retire (6 in 2025, 18 in 2026, 26 in 2027, 38 in 2028 and 24 in 2029). If the new proposal for the Pension Law will entry into force during RP3, this will cause the above mentioned figures to be advanced to the end of RP3. We have taken into consideration the average time needed to train and authorize an ATCO and also that these activities are done in-house and there is a limit to the maximum number per year. Thus, the recruitment process is a gradual one with the advantage also that when these new ATCOs reach the retirement age there will not be again a massive exit compressed in a short period of time.

For the intake of ATCOs the FTE takes into consideration 1 FTE for ATCOs that have all sectors authorization. 1 FTE for those that are in the first 12

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

#### a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
	Actual	Target	Target	Target	Target	Target
<b>National targets</b>	0.00	0.50	0.5	0.39	0.39	0.39
Additional comments	Targets have been set taken into consideration actual performance over RP2 and Otopeni airport strategic development planning that foresees starting from 2022 rehabilitation of taxiways M, N, O, P, V, W and C and extension of the aircraft parking platform no.2. Arrival delays targets include only aerodrome causes as ATC capacity will be at an optimum level.					
<b>Airport level</b>	<b>LROP-Otopeni-Intl.</b>	0.00	0.51	0.51	0.40	0.40
	Airport contribution to national targets					
	<b>LRBS-Bucharest AUREL VLAICU</b>	0.00	0.00	0.00	0.00	0.00
	Airport contribution to national targets					

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

Both ROMATSA and Bucharest Airports National Company (encompassing LROP and LRBS) have understood the need to work together to ensure optimum capacity level at terminal level as this impacts the entire network. As such, ROMATSA has implemented a system at Otopeni TWR, consisting of 2 A-SMGCS components: surveillance and electronic flight strips, which is interfaced via OLDI with the Indra system that covers București ACC, 4 TMAs and 15 TWRs. Both systems have been transferred into operations at the same time. - Also a recruitment process has been started by the end of RP2 in order to replace ageing ATCOs and ensure the optimum number of staff for the growing traffic. Bucharest Airports National Company has started an expansion and modernization program through which it will provide an increased number of aircraft parking positions and taxiways and also reopen Baneasa airport for commercial flights easing the pressure on Otopeni. Thus, Bucharest Airports National Company will consolidate over the course of RP3 its position as a reliable aviation hub for the European network in terms of safety, capacity and environment.

\* Refer to Annex Q, if necessary.

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

ROMATSA is not expected to generate over the course of RP3, as in RP2, any arrival delays for Bucharest airports due to ATC. This will be achieved through adequate technological improvements as presented above, optimum number of staff and updated flight procedures to implement Performance Based Navigation by the end of 2021. ROMATSA is a partner in the project SPICE-Synchronised PBN Implementation Cohesion Europe, co-financed by the European Union through the Connecting Europe Facility, that includes the design of PBN flight procedures and DME systems procurement. From 2020 ROMATSA started the revision process of the existing P-RNAV SID and STAR routes and all instrument approach procedures. After the revision, the routes will facilitate shorter and more direct tracks and will allow the use of CDO whenever the traffic permits. ROMATSA is planning to implement AMAN (Arrival Manager) in BUCUREȘTI TMA by the end of RP3 and also to upgrade the ASMGCS to include Advanced Tower Messaging, [improving thus the throuput and predictability for Otopeni](#).

\* Refer to Annex Q, if necessary.

## SECTION 3.4: COST-EFFICIENCY KPA

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### 3.4 - Cost efficiency targets

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

##### En Route Charging Zone #x

- a) RP3 revised cost-efficiency performance targets (IR 2020/1627)
- b) Information on the baseline values for the determined costs and the determined unit costs
- c) Detailed justifications for the adjustments to the baseline values
- d) Where a deviation from the Union-wide performance targets is observed, please indicate if the NSA considers those deviations to be necessary and proportionate
- e) Main measures put in place to achieve the targets for determined unit cost (DUC) for en route ANS
- f) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of

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

##### Terminal Charging Zone #x

- a) RP3 revised cost-efficiency performance targets (IR 2020/1627)
- b) Information on the baseline values for the determined costs and the determined unit costs
- c) Detailed justifications for the adjustments to the baseline values
- d) Main measures put in place to achieve the targets for determined unit cost (DUC) for terminal ANS
- e) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of

#### 3.4.3 - Pension assumptions

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

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

#### 3.4.5 - Restructuring costs

- 3.4.5.1 Restructuring costs from previous reference periods to be recovered in RP3
- 3.4.5.2 Restructuring costs planned for RP3

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

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

### **Annexes of relevance to this section**

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

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

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

- Point 3.3 (f) on assumptions for pension costs and interest on debt for other entities, inflation forecast and adjustments beyond IFRS;
- Point 3.3 (g) on adjustments to the unit rates carried over from previous reference periods;
- Point 3.3 (h) on costs exempt from cost-sharing;
- Point 3.3 (k) reporting tables and additional informations.

### 3.4 - Cost efficiency targets

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

##### En Route Charging Zone #1 - Romania

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

En route charging zone Name of the CZ	Baseline 2014	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D vs. 2014 B	2024 D vs. 2019 B
	2014 B	2019 B	2020/2021 D	2022 D	2023 D	2024 D		
Total en route costs in nominal terms (in national currency)	691,574,731	849,545,633	1,691,620,629	999,844,521	1,137,701,999	1,208,532,282	74.8%	42.3%
<b>Total en route costs in real terms (in national currency at 2017 prices)</b>	<b>689,310,166</b>	<b>794,377,327</b>	<b>1,537,296,595</b>	<b>822,771,096</b>	<b>904,168,391</b>	<b>934,279,954</b>	<b>35.5%</b>	<b>17.6%</b>
Total en route costs in real terms (in EUR2017) <sup>1</sup>	150,956,283	173,965,588	336,662,059	180,183,715	198,009,411	204,603,727	35.5%	17.6%
YoY variation			93.5%	-46.5%	9.9%	3.3%		
Total en route Service Units (TSU)	4,177,663	5,112,320	5,143,703	4,583,000	5,531,000	5,825,000	39.4%	13.9%
YoY variation			0.6%	-10.9%	20.7%	5.3%		
<b>Real en route unit costs (in national currency at 2017 prices)</b>	<b>165.00</b>	<b>155.38</b>	<b>298.87</b>	<b>179.53</b>	<b>163.47</b>	<b>160.39</b>	<b>-2.8%</b>	<b>3.2%</b>
Real en route unit costs (in EUR2017) <sup>1</sup>	<b>36.13</b>	<b>34.03</b>	<b>65.45</b>	<b>39.32</b>	<b>35.80</b>	<b>35.13</b>	<b>-2.8%</b>	<b>3.2%</b>
YoY variation			92.3%	-39.9%	-8.9%	-1.9%		

National currency	RON
<sup>1</sup> Average exchange rate 2017 (1 EUR=)	4.56629

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

En route charging zone Name of the CZ	Baseline 2014	Baseline 2019	Actuals 2014	Actuals 2019	2014 Baseline adjustments	2019 Baseline adjustments
	2014 B	2019 B	2014 A	2019 A		
Total en route costs in nominal terms (in national currency)	691,574,731	849,545,633	691,574,731	849,545,633	0	0
<b>Total en route costs in real terms (in national currency at 2017 prices)</b>	<b>689,310,166</b>	<b>794,377,327</b>	<b>689,310,166</b>	<b>794,377,327</b>	0	0
Total en route costs in real terms (in EUR2017) <sup>1</sup>	150,956,283	173,965,588	150,956,283	173,965,588	0	0
Total en route Service Units (TSU)	4,177,663	5,112,320	4,181,845	5,117,438	-4,182	-5,117

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

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

Number of adjustments	0
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##### c.2) Adjustments to the 2014 service units

Impact of transition to actual route flow	Coefficient M2/M3	Source	Service units
	-	-	-4,182

Other adjustment to the 2014 service units	No
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<b>Total adjustments to the 2014 service units</b>	<b>-4,182</b>
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##### c.3) Adjustments to the 2019 baseline value for the determined costs

Number of adjustments	0
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**c.4) Adjustments to the 2019 service units**

	Coefficient M2/M3	Source	Service units
Impact of transition to actual route flown	-	-	-5,117
Other adjustment to the 2019 service units	No		
<b>Total adjustments to the 2019 service units</b>			<b>-5,117</b>

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

This updated en-route cost-base for Romania fulfils the criterion laid down in point 1.4(a) of Annex IV to Implementing Regulation (EU) 2019/317 with a determined unit cost trend of Romania at charging zone level at 0.9%, lower than the Union-wide trend of 1%. It also continues to fulfill the criterion from point 1.4(c) of Annex IV to Implementing Regulation (EU) 2019/317 with a determined unit cost both at baseline value and in 2024, below the average of the comparator group.

We have made the following modifications to the cost-base:

- Update of 2021 costs with the actual ones and 2021 actual inflation by using the actual inflation rate published by the Commission in the Eurostat Harmonised Index of Consumer Price
- Update of the forecast inflation index for 2022-2024, according to the Consumer Price Index percentage change published by the International Monetary Fund in April 2022
- Update of the traffic forecast with the EUROCONTROL forecast 2022-2024 published on the 3rd of June 2022 that takes into consideration the impact of the war in Ukraine on the Romanian airspace

- Update of ANSPs nominal costs with the following:

Staff costs to include inflation impact and for 2023 and 2024 partial compensation for traffic increase and complexity. According to the latest forecast, traffic in 2023 is 8% higher than in 2019 and in 2024 the increase is of 14% compared to 2019.

- Other costs to include inflation impact and energy price increase

Depreciation – taking into consideration a revised Multi-annual investment plan due to price increases and exchange rate variations

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

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

<b>Additional costs of measures necessary to achieve the capacity targets for RP3</b>	Yes	Detailed in part 3.4.6 of the performance plan
<b>Restructuring costs planned for RP3</b>	No	

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

A wide range of cost reduction measures have been applied both in 2020 and 2021 to adapt to the new environment, both economical and operational, as follows:

- Staff costs: Temporary freezing of new recruitment and promotions, no salaries increase and no inflation adjustment of salaries, reduced pensions and health insurance contributions due to temporary freezing of recruitment and promotions, reduced additional benefits for employees;
- Other operating costs: cancellation/delay of training activities, reduced costs for third party services, reduced costs for transportation, spare parts and other materials;
- Depreciation and cost of capital: cancellation/delay of investments.

In order to minimise the impact of the recruitment process for ATCOs in the increase of costs, several other measures have been put in place to reduce other costs:

- the number of support staff will remain relatively constant over the course of RP3 with new entries to cover retirements only (for crucial positions such as engineers, MET and FIS) with the administrative personnel decreasing;
- the Investment Plan has been reduced to cover mainly capacity enhancers, regulatory requirements, replacement of end-of-life equipment and safety critical areas.

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

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

The NSA conducts regular document verifications, audits/inspections at the air navigation service provider, including on its accounting policies and financial statements. ROMATSA applies IFRS and complies with transparency of accounts principles.

For the revised cost base, the NSA has verified ROMATSA's cost allocation methodology, the actual costs for 2020 and 2021 together with the Financial Statements and the determined costs for 2022-2024. ROMATSA costs comply with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317.

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

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

#### Terminal Charging Zone #1 - Romania - TCZ

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

Terminal charging zone Name of the CZ	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D vs. 2019 B
	2019 B	2020/2021 D	2022 D	2023 D	2024 D	
Total terminal costs in nominal terms (in national currency)	78,798,162	164,720,024	97,263,290	109,965,411	113,486,715	44.0%
<b>Total terminal costs in real terms (in national currency at 2017 prices)</b>	<b>73,519,661</b>	<b>148,793,058</b>	<b>78,876,018</b>	<b>86,224,223</b>	<b>86,638,794</b>	<b>17.8%</b>
Total terminal costs in real terms (in EUR2017) <sup>1</sup>	16,100,524	32,585,109	17,273,546	18,882,774	18,973,564	17.8%
YoY variation		102.4%	-47.0%	9.3%	0.5%	
Total terminal Service Units (TNSU)	74,054	78,587	67,000	71,000	74,000	-0.1%
YoY variation		6.1%	-14.7%	6.0%	4.2%	
<b>Real terminal unit costs (in national currency at 2017 prices)</b>	<b>992.79</b>	<b>1,893.35</b>	<b>1,177.25</b>	<b>1,214.43</b>	<b>1,170.79</b>	<b>17.9%</b>
Real terminal unit costs (in EUR2017) <sup>1</sup>	217.42	414.64	257.81	265.95	256.40	17.9%
YoY variation		90.7%	-37.8%	3.2%	-3.6%	

National currency	RON
<sup>1</sup> Average exchange rate 2017 (1 EUR=)	4.57

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

Terminal charging zone Name of the CZ	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	78,798,162	78,798,162	0
<b>Total terminal costs in real terms (in national currency at 2017 prices)</b>	<b>73,519,661</b>	<b>73,519,661</b>	<b>0</b>
Total terminal costs in real terms (in EUR2017) <sup>1</sup>	16,100,524	16,100,524	0
Total terminal Service Units (TNSU)	74,054	74,054	0



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

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

Number of adjustments	0
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**c.2) Adjustments to the 2019 service units**

Adjustment to the 2014 service units	No
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**d) Description and justification of the contribution of the the local targets to the performance of the European ATM network**

ROMATSA has implemented technological improvements (detailed in section 3.3.2 b)) and has initiated a recruitment process to reach an optimum number of ATCOs in order to accommodate the needed capacity and comply with EU regulations. ROMATSA began the revision process of the existing P-RNAV SID and STAR routes and all instrument approach procedures through an EU-financed project due to be finalised in 2022. AMAN is also due to be implemented by the end of RP3 in Bucuresti TMA, together with an upgrade of ASMGCS to include Advance Tower Messaging. No-ATC caused delay is estimate for the remainder of RP3 at both Otopeni and Baneasa airports, consolidating their position as a safe and reliable aviation hub.

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

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

A wide range of cost reduction measures have been applied both in 2020 and 2021 to adapt to the new environment, both economical and operational. The main measures in this regard have been:

- Staff costs: Temporary freezing of new recruitment and promotions , no salaries increase an no inflation adjustment of salaries, reduced pensions and health insurance contributions due to temporary freezing of recruitment and promotions, reduced additional benefits for employees;
- Other operating costs: cancellation/delay of training activities, reduced costs for third party services, reduced costs for transportation, spare parts and other materials;
- Depreciation and cost of capital: cancellation/delay of investments.

The RP3 trend is now at 4.2% compared with the autumn 2021 submission of 4.3%, despite a lower traffic forecast. A recruitment process has been started by the end of RP2 in order to replace ageing ATCOs and ensure the optimum number of staff for the growing traffic. These costs, combined with the new investments that have been put into operation or are planned for 2022-2023 generate a higher increase trend than for en-route.

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

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

The NSA conducts regular document verifications, audits/inspections at the air navigation service provider, including on its accounting policies and financial statements. ROMATSA applies IFRS and complies with transparency of accounts principles.

For the revised cost base, the NSA has verified ROMATSA's cost allocation methodology, the actual costs for 2020 together with the Financial Statements and the determined costs for 2021-2024. ROMATSA costs comply with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317.

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

### 3.4.3 - Pension assumptions

#### ROMATSA

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

Pension costs	2020D	2021D	2020/2021D	2022D	2023D	2024D
<b>Total pension costs</b>	48,832	52,293	101,125	87,066	112,846	96,327
En-route activity	44,673	47,868	92,541	79,611	103,138	88,063
Terminal activity	4,159	4,425	8,584	7,455	9,708	8,264
Other activities			-			

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

Are there different contribution rates for different staff categories? If yes, how many?	No
--	----

<Staff category name>	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	N/A	N/A	N/A	N/A	N/A	N/A
Employer % contribution rate to this scheme	0	0		0	0	0
<b>Total pension costs in respect of this scheme</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>
Number of employees the employer contributes for in this scheme	N/A	N/A		N/A	N/A	N/A

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

The contribution to the state pension system ("Pay-As-You-Go") is compulsory according to the law.

The main law applicable for the calculation of the contributions is the Romanian Fiscal Act ("Codul Fiscal" – law 227/2015 with all subsequent amendments).

The contribution is based on the gross wages of the employees. The percentage applied to the contribution basis, for normal working conditions, is currently 25% due by the employee.

On 1st of January 2018, after Government Emergency Ordinance 79/2017, all pension contributions were moved from the employer to the employee.

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

N/A

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

The contribution and its methodology is set by law and although for now it has been transferred entirely to the employee, there might be future changes through which the contribution will be again split between employer and employee.

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

Are there different contribution rates for different staff categories? If yes, how many?	No
--	----

<b>ALL STAFF</b>	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	574,488	598,866	1,173,354	644,390	700,906	769,605
Employer % contribution rate to this scheme	x	5.45%		5.45%	5.45%	5.45%
<b>Total pension costs in respect of this scheme</b>	<b>17,407</b>	<b>28,729</b>	<b>46,135</b>	<b>32,708</b>	<b>40,683</b>	<b>44,489</b>
Number of employees the employer contributes for in this scheme	1,500	1,606		1,664	1,720	1,768

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

ROMATSA applies a defined contribution scheme, in accordance with the legal provisions regarding the voluntary contributions to pension funds (called "Pillar III" of the pension system).

In accordance with this system each employee chooses a pension fund to which the employee contributes to. For most of 2020, the contribution has been limited to the minimum deductible amount.

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

The employee pays a minimum amount, while the employer pays, according to the work agreement, 5,4% of the employee's gross wages. For most of 2020, the contribution has been limited to the minimum deductible amount.

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

N/A

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

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

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies			-			
<b>Total pension costs in respect of this scheme</b>	<b>31,425</b>	<b>23,565</b>	<b>54,990</b>	<b>54,358</b>	<b>72,163</b>	<b>51,839</b>
- in respect of regular pension costs			-			
- in respect of non-recurring deficit repair			-			
- reported as staff costs (in reporting tables)	31,425	23,565	54,990	54,358	72,163	51,839
- not reported as staff costs (in reporting tables): please use comment box			-			
<b>Actuarial assumptions</b>						
% discount rate	3.42%	3.42%		4.34%	4.52%	4.61%
% projected increase in benefits						
% annual increase in salaries	0.00%	0.00%		4.60%	5.12%	6.41%
% expected return on plan assets						
Net funding surplus / deficit	31,425	23,565	54,990	54,358	72,163	51,839
Number of employees the employer contributes for in this scheme	1,637	1,602		1,664	1,720	1,768

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

The work agreement of ROMATSA foresees defined benefits (linked to the basic salary) payable to the employees at the time of retirement (one time payment). The amounts are differentiated between employees by staff category and/or the number of years employed in the organisation. In accordance with IFRS (IAS 19) a provision was created for these future payable amounts.

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

The actuarial calculation takes into account the entries for the ATCO recruitment process, retirements for age limit and, where applicable, special working conditions. An increase in salaries was foreseen starting from 2022 taking into consideration inflation rate (IMF forecast April 2021) and compensation for the net loss of income in 2020-2021 due to higher than projected inflation rates and no salaries increase.

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

N/A

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

N/A

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

#### ROMATSA

Select number of loans	1
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**Interest rate assumptions for loans financing the provision of air navigation services  
(Amounts in nominal terms in '000 national currency)**

Loan #1	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description	<p>In 2020 ROMATSA took out a non-revolving commercial loan facility with a 21 months grace period, (no later than 08.07.2022) and a due date on 31.12.2029. In 2022, loan conditions were renegotiated and the grace period has been extended up to 31.03.2023.</p> <p>Main drivers of the loan: Interest rate: 0.6%/year+ROBOR6M* Total value of the loan is 466.000.000 lei</p> <p>*Due to this, the interest amount is subject to change and therefore will be different each year. Another factor that contributes to the amount of interest is the amount of cash still remaining to be drawn (final draw date is 31.12.2022)</p>					
Remaining balance	132,100	319,046		466,000	399,430	332,860
Interest rate %	2.72%	2.52%		4.65%	6.99%	5.97%
Interest amount	289	5,719	6,008	20,484	32,401	23,082

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

Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total remaining balance	132,100	319,046		466,000	399,430	332,860
Average weighted interest rate %	0.22%	1.79%		4.40%	8.11%	6.93%
Interest amount	289	5,719	6,008	20,484	32,401	23,082

### 3.4.5 - Restructuring costs

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

Restructuring costs from previous reference periods approved by the European Commission?	No
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#### 3.4.5.2 Restructuring costs planned for RP3

Restructuring costs foreseen for RP3?	No
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Additional comments

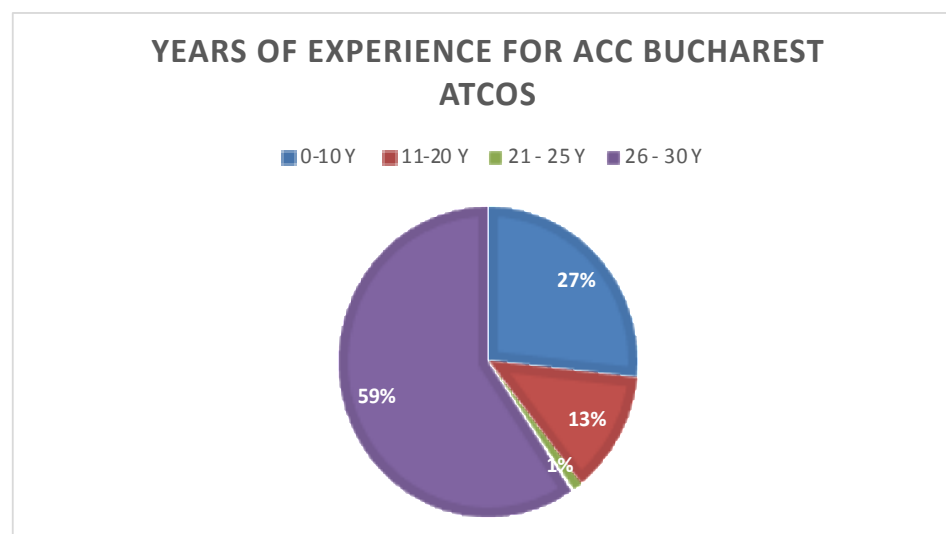
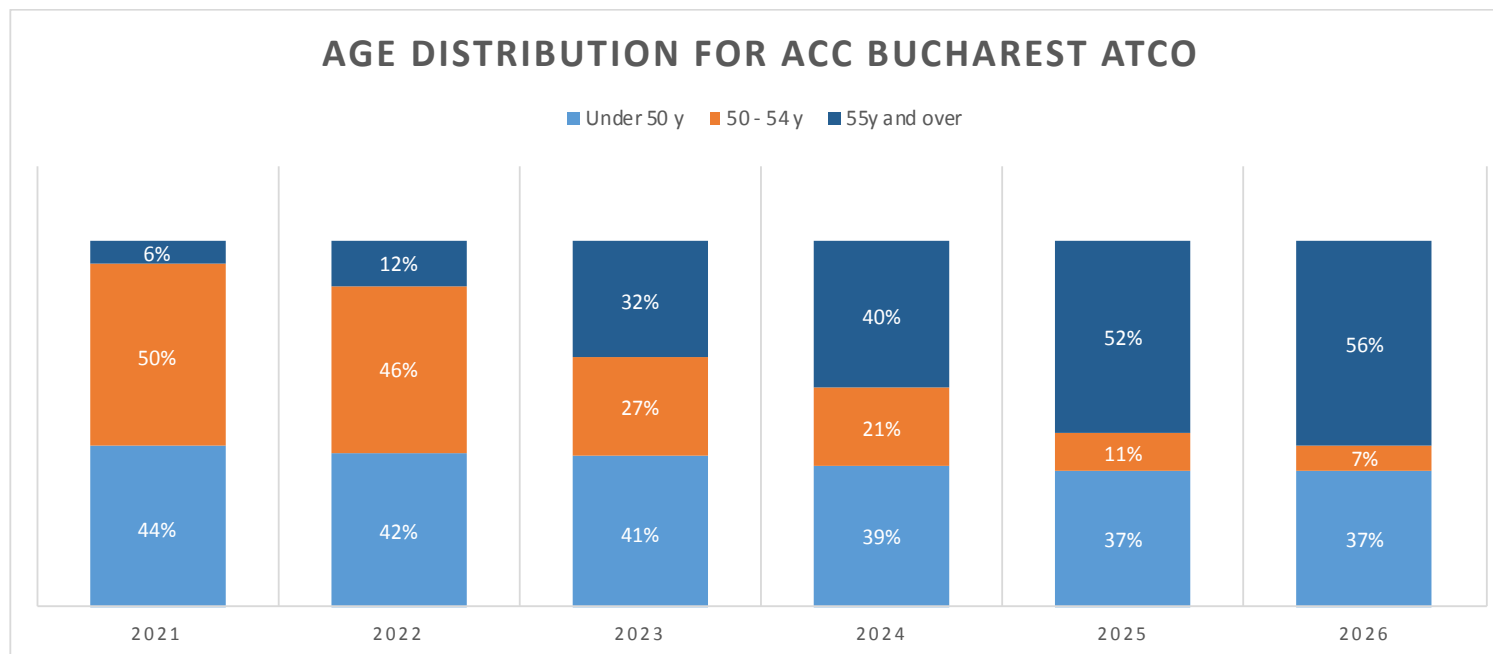
### 3.4.6 - Additional determined costs related to measures necessary to achieve the en route capacity targets

Additional costs of measures necessary to achieve the capacity targets for RP3?	Yes
If yes, number of <b>en route</b> charging zones concerned	1

#### ROMATSA

#### a) Overall description of the measures necessary to achieve the en-route capacity targets for RP3, which induce additional costs

The ATCO age structure has been extensively presented during the RP3 revision and it continues to represent a problem unless actions to gradually recruit new ATCOs are resumed. The revised Human Resource Policy takes into account the financial and operational changes due to COVID19 while at the same time ensuring the needed intake of ATCOs to replace those aged 55 and over, starting at the end of RP3. New controllers recruited at the end of RP2 (2019) will enter fully into operations in 2022 as their training was delayed due to the pandemic. Training has started at the beginning of 22 for a new batch of ab-initio also recruited in 2019 but who were put on hold and we will continue the recruitment as planned with new ab-initios in 2022, 2023 and 2024. We had already an increases of exits in both 2020 and 2021 with 15 ATCOs either retired or lost their licence. So, by end 2024 we will have a total of 59 controllers entering the OPS room (gradually in 2022-2024) These will be the ones who started training in 2019 and 2022 partially. And in 2024, a total of 60 controllers will be in training, to cover the expected retirements. These 119 ATCO recruitments are intended to cover the 154 exits estimated for the 2020-2030 period.



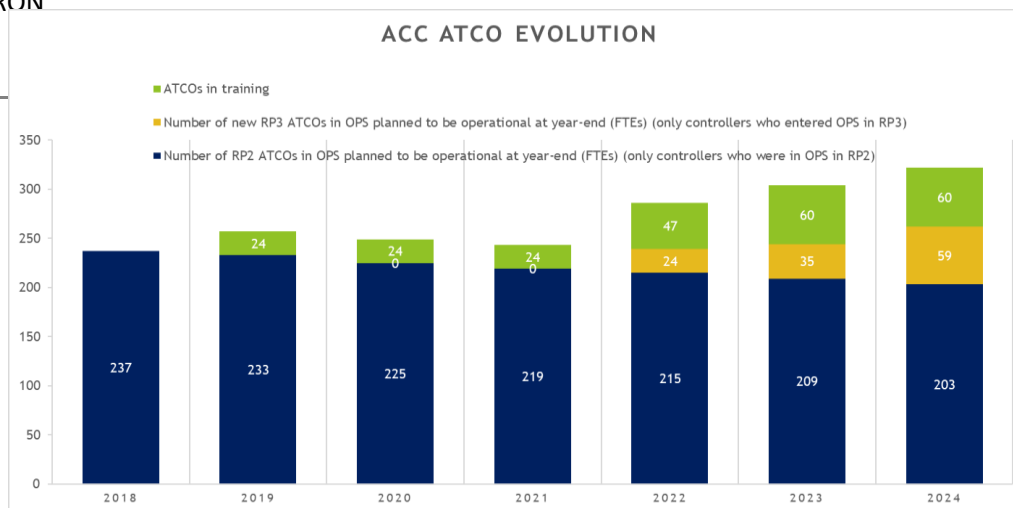
#### b) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3

Number of capacity measures, which induce additional costs	1
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Measure #1	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)	10,182	13,189	23,372	24,993	43,407	74,939
Description and justification of the additional determined costs of the measure						

As presented during the RP2 Romania Performance Plan revision process and in the initial RP3 performance planning, ROMATSA faces a challenge related to the ageing ATCO personnel. This is especially true in ACC Bucharest, with 140 operational ACC ATCOs being aged over 51 years old. For RP3 26 en-route ACC ATCOs have already or are about to retire and another 112 between 2025-2029. As it takes between 3 to 5 years to fully train and authorize an ATCO for ACC, a recruitment process was started in 2017, and planned to continue until the end of RP3, to guarantee proper staffing levels to ensure safety and adequate capacity. The COVID19 pandemic and its impact on the operational and financial situation has forced ROMATSA to freeze the recruitment process during 2020 and until the end of 2021. However, the problems generated by the ageing ATCO population are aggravating with an increase of the number of ATCOs at risk of lose their licences or request an early retirement. Thus, it is necessary to restart the recruitment process so that when air traffic recovers at pre-pandemic levels, ROMATSA can provide safe air navigation services at the required capacity levels.

All costs are in '000 RON



Measure #2	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)			-			
Description and justification of the additional determined costs of the measure						

	2020D	2021D	2020/2021D	2022D	2023D	2024D
<b>Total additional costs of measures ('000 national currency)</b>	10,182	13,189	23,372	24,993	43,407	74,939

**c) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3 by nature by ANSP**

Additional costs of measures necessary to achieve the capacity targets for RP3 (nominal terms in '000 national currency)						
Romania	2020D	2021D	2020/2021D	2022D	2023D	2024D
Staff	1,647	10,770	12,417	16,458	34,872	66,403
of which, pension costs			-			
Other operating costs	8,536	2,419	10,955	9,872	9,872	9,872
Depreciation			-			
Cost of capital			-			
Exceptional items			-			
<b>Total additional costs of measures</b>	10,182	13,189	23,372	26,330	44,744	76,275
<b>Total additional costs of measures ('000 national currency)</b>	10,182	13,189	23,372	26,330	44,744	76,275

Additional comments
Costs taken into consideration include: - ATCO recruitment and training for en-route activity with training costs part of other costs All costs are in '000 RON

**d) Demonstration that the deviation from the Union-wide targets is exclusively due to the additional determined costs related to measures necessary to achieve the performance targets in capacity**

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## SECTION 3.5: ADDITIONAL KPIS / TARGETS

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### [3.5 Additional KPIS / Targets](#)

#### **Annexes of relevance to this section**

ANNEX J. OPTIONAL KPIS AND TARGETS



3.5 - Additional KPIs / Targets

Number of additional KPIs	0
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## SECTION 3.6: DESCRIPTION OF KPAS INTERDEPENDENCIES AND TRADE-OFFS INCLUDING THE ASSUMPTIONS USED TO ASSESS THOSE TRADE-OFFS

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

[3.6.1 - Interdependencies and trade-offs between safety and other KPAs](#)

[3.6.2 - Interdependencies and trade-offs between capacity and environment](#)

[3.6.3 - Interdependencies and trade-offs between cost-efficiency and capacity](#)

[3.6.4 - Other interdependencies and trade-offs](#)

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

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

a) Do the measures to reach the targets in the different KPAs require changes in the ANSP functional system that have safety implications? If yes, which mitigation measures are put in place?

There are no planned major changes in the ANSP functional system that would have safety implications due to measures that need to be implemented in order to reach the Performance Plan KPAs. From 09 April 2019 ROMATSA started the operations of the new ATM 2015+ System that creates the premises to accommodate the required capacity.

During RP3 ROMATSA plans the implementation of new functionalities to the ATM system, including a traffic load and complexity assessment tool. These new functionalities will allow to accommodate more capacity demand and to improve the safety of operations, but these upgrades are not directly linked with other KPAs. The pandemic crisis did not lead to any change in ROMATSA's functional system. All operational and technical

b) What are the main assumptions used to assess the interdependencies between safety and other KPAs?

ATM/ANS provision in the Romanian Airspace is and will remain safe because the regulatory framework applicable, the safety oversight, and the Safety Management, in Romania is sufficient and appropriate to enable safe ATM/ANS provision. All performance KPAs develop interdependencies, but ROMATSA considers the safety KPAs as priority over other KPAs. This approach has been formalised in the DANUBE FAB Safety Policy that states the following: "Safety has priority over commercial, operational, environmental and social pressures". In this respect, safety is paramount and the other KPAs must be assessed in order not to jeopardise safety.

c) What metrics, other than those indicators described in the Regulation, are you monitoring during RP3 to ensure targets in the KPAs of capacity, environment, and cost-efficiency are not degrading safety?

As stated in the Safety Management Manual, ROMATSA uses and shall continue to use the EUROCONTROL eTOKAI Risk Analysis Tool (RAT) for the assessment of at least the following three types of safety events: minima infringement, runway incursion, and ATM specific events.

ROMATSA also monitors on a permanent basis the risks of occurrence of aircraft incidents for the ATM/ANS ROMATSA system considered as a whole:

1. the risk of producing an accident with direct or indirect contribution of the ATM/ANS ROMATSA system,
2. the risk of occurrence of a serious, a major, or a significant incident with direct or indirect contribution of the ANS / ATM ROMATSA system, and

3. the risk of occurrence of an event with direct or indirect contribution to the ATM/ANS ROMATSA system, ROMATSA also monitors the risks of occurrence of specific ATM events for the ATM/ANS ROMATSA system considered as a whole:

1. the risk of occurrence of total incapacity to provide safe air navigation services,

d) Do targets allow trade-offs in operational decision making to managing resource shortfalls in order to preserve safety performance? Do targets restrict the release of staff for safety activities, such as training?

The safety performance within ROMATSA will be preserved during the entire RP3 and ROMATSA does not foresee any resource shortfalls that will need decisions with operational impact, given RP3 staffing projection is approved and followed. However, as stated before, ROMATSA considers the safety KPAs as having priority over all other KPAs, and there will be no compromise decision regarding safety, in order to allow trade-offs in

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

The Romanian Civil Aeronautical Authority and the Ministry of Transport and Infrastructure fully supported and endorsed ROMATSA's Staff Policy and financial projections, included in the pandemic crisis. That will be continued in the same trend in RP3. The Staff Policy included in the Performance Plan for RP3 and the financial projections developed to fundament this policy will create the premises to support both the sustainable development of the Romanian ANSP while at the same time maintain the provision of services in Romania at the same level of safety that has always been in line with the Union Wide level of safety.

Romanian Civil Aeronautical Authority performs the oversight of ROMATSA as per applicable regulations,

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

As operating costs of each flight execution may be affected by emission charges, the airlines' efforts towards a more environmentally friendly policy may lead to increased use of a number of preferred trajectories for the same city-pairs. This aspect may prove to be challenging in the context of the ANSP efforts of accommodating an increased number of flights within some preferred airspace volumes, while maintaining available capacity in others. This situation will lead to an increased number of simultaneously open sectors and, consequently necessary adjustment allocated to human resources.

On the other hand, in the context of the resulted hotspots, some horizontal (vectoring) or vertical (FL change) manoeuvres may be required for safety reasons, detrimental to environment KPIs. This aspect might be even more stressed whenever weather conditions require avoiding measures.

Also, technological gains leading to higher maximum capacity are not always fast enough to keep up with the increase of traffic. Within the RP3 timeframe it is envisaged that ANSPs won't be able to entirely expand and decrease their capacity at will, because of hiring and training complex process and also because of limited accuracy of the traffic predictions, including due to geopolitical evolution.

Reference: <https://www.sesarju.eu/projects/vista>, D5.2 Final Assessment Report, H2020-SESAR-2015-1 , SESAR-05-2015 Economics and Legal Change in ATM. Consortium coordinator: University of Westminster. Edition date:

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

Despite the cost cutting measures taken to adapt to the financial constraints and operational impact of the COVID19, ROMATSA's costs see an increase over the course of RP3. This is predominantly driven by the ATCO recruitment and training program agreed and approved during the the RP2 revision process, aimed at replacing ageing ATCOs to guarantee proper staffing resources for the traffic growth and complexity foreseen at that time. The recruitment program has been frozen for 2020 and 2021, but with the current age structure and the foreseen return of traffic growth by the end of RP3 needs to be restarted in to ensure sufficient staffing is available in RP4. The recruitment process cannot be further delayed, as the expected retirements will not be delayed, and it takes between 3-5 years to fully train and authorize a new ATCO.

The newly selected ATCOs will reach their full potential by the end of RP3 having the necessary skills and abilities to use technological advances and cope with the increasing traffic growth and complexity. Until then the assistance of aged and experienced ATCOs will guarantee that ROMATSA maintains its position as a safe and reliable air navigation service provider.

RP3 costs also include depreciation costs related to the new ATM system, which entered into operations in 2019. New functionalities added over the course of RP3 to comply with EU regulations (Datalink and CP1). Without these cost increases ROMATSA's only solution would be to reduce capacity to the minimum levels for which safety standards can be guaranteed, which would likely be lower than in the past, given the ageing

### 3.6.4 - Other interdependencies and trade-offs

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## SECTION 4: CROSS-BORDER INITIATIVES AND SESAR IMPLEMENTATION

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

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

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

### **4.2 - Deployment of SESAR Common Projects**

### **4.3 - Change management**

#### **Annexes of relevance to this section**

ANNEX N. CROSS-BORDER INITIATIVES

## 4.1 - Cross-border initiatives and synergies

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

Number of cross-border initiatives	2
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Initiative #1	
Name	Cross Border Sectors
Description	The Republic of Bulgaria and Romania maintain two cross border sectors above FL245 between the Bucharest and Sofia FIRs. Established in December 2014 these sectors have been operational 24 hours a day, providing distance reduction for en-route overflights. Charging mechanisms have been established such that the revenue from each sector is collected by the authority providing the air traffic control. Operations of these cross-border sectors, under the described charging arrangement, will continue for the period covered by RP3.
Expected performance benefits	Improved capacity and environment benefits

Initiative #2	
Name	SEE FRA
Description	The 24/7 South-East Europe Free Route Airspace (SEE FRA) concept builds on the night FRA implementation in the airspaces of Budapest, București and Sofia CTAs (SEEN FRA) and it was fully implemented on 7th November 2019. On 28th January 2021 Slovakia joined SEE FRA. Following discussions held with Republic of Moldova towards the expansion of SEE FRA, a project implementation roadmap was agreed, and this implementation together with cross border operations between SEE FRA and BALTIC FRA are have been implemented on the 24th of February 2022, despite the start of the war in Ukraine and restrictions applied in Moldavian airspace from that day.
Expected performance benefits	Improved capacity and environment benefits. The estimated SEE FRA daily benefits are 168,7 less minutes of flight, 7324,3 kg of fuel savings and reduced CO2 emissions by 23140,9 kg and 101,1 kg less NOx.

Additional comments

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

Details of synergies in terms of common infrastructure and common procurement
N/A

## 4.2 - Deployment of SESAR Common Projects

### 4.2.1 - Common Project One (CP1)

CP1 ATM Functionality (CP1-AF) / Sub functionality (CP1-s-AF)	Recent and expected progress
<b>CP1-AF1 - Extended AMAN and Integrated AMAN/DMAN in High-Density TMAs</b>	
CP1-s-AF1.1 AMAN extended to en-route airspace	1.1.1. Arrival Management extended to en-route airspace. Outside geographical scope. Romania is not in the applicability area MPL3 ed. 2021 Objective Link: ATC15.2 bis – Arrival Management Extended to En-route Airspace (non CP1) (Ongoing: the new ATM2015+ system - Indra phase 2, that was put into operations in November 2021 supports the extended AMAN via the exchange of AMA message; further developments will be considered when the extended AMAN requirements for neighboring airports will be clarified in the forthcoming period).
CP1-s-AF1.2 AMAN/DMAN Integration	1.2.1 AMAN/DMAN Integration. Outside geographical scope. Romania is not in the applicability area MPL3 ed. 2021 Objective Link: ATC19 - Enhanced AMAN-DMAN integration (Not Applicable)
Note: Romania is not in the applicability area for AF1 except for extended AMAN as the feeding sector for some CP1 airports.	
<b>CP1-AF2 - Airport Integration and Throughput</b>	
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	2.1.1 Departure Management Synchronised. Outside geographical scope. Romania is not in the applicability area MPL3 ed. 2021 Objective Link: AOP19 Departure Management Synchronised with Pre-departure sequencing (Not Applicable)
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	2.2.1 Initial AOP. Outside geographical scope. Romania is not in the applicability area (CP1 airports) MPL3 ed. 2021 Objective Link: AOP11.1 - Initial Airport Operations Plan (Not Applicable)
CP1-s-AF2.2.2 Airport operations plan (AOP)	2.2.2. Extended AOP. Outside geographical scope. Romania is not in the applicability area MPL3 ed. 2021 Objective Link: AOP11.2 - Extended Airport Operations Plan (Not Applicable)
CP1-s-AF2.3 Airport safety nets	2.3.1 Airport Safety Nets. Outside geographical scope. Romania is not in the applicability area MPL3 ed. 2021 Objective Link: AOP12.1 - Airport Safety Nets (Not Applicable) - other links: • AOP04.1 — Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1) - Romania is in the applicability area, the lines of action under ROMATSA responsibility being implemented in April 2019. • AOP04.2 — Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2) - Romania is in the applicability area, the lines of action under ROMATSA responsibility being implemented in April 2019. The electronic strips component installed at TWR Otopeni interfaces with the ATM 2015+ (Indra) system. A-SMGCS components are deployed at Otopeni airport as a separate system and the interface with ATM2015+ is via OLDI data exchanges.
<b>CP1-AF3 - Flexible Airspace Management and Free Route Airspace</b>	



<p>CP1-s-AF3.1 Airspace management and advanced flexible use of airspace</p>	<p>3.1.1 ASM and A-FUA: CIAM is still used. LARA is not yet integrated with NM systems via B2B; ROMATSA is using pre-operational B2B certificate. Connecting LARA to the ATM 2015+ System is considered for a future development phase of the ATM System. MPL3 ed. 2021 Objective Link: AOM19.5 - ASM and FUA (ongoing) ASM system support implemented (LARA). Romanian CAA certified LARA. ROMATSA is still using pre-operational B2B certificate, full operational certificate will be requested in 2022. AUP/UUP is daily sent to CADF NM Eurocontrol via CIAM. LoA for cross border operations are in force. Exchange of ASM not yet considered at this time. Procedures for real-time ASM level 3 for NM, Military, AMC, ATC in place for current systems. Connecting LARA to the ATM ROMATSA System is considered for a future development phase of the ATM System.</p> <p>3.1.2 Management of Predefined Airspace Configurations MPL3 ed. 2021 Objective Links: AOM19.4 - Management of Pre-defined Airspace Configurations (ongoing) The airspace configuration management module of the ATM system 2015+ supports the concept of basic sectors, flight sectors and OPS sectors, which can be grouped/regrouped in horizontal and vertical planes. The graphical tool for management of airspace configurations is highly flexible and powerful proving the OPS manager with excellent capabilities to adapt the ATC sectorisation according to the expected traffic flow. The system also supports the exchange of sectorisation message with VCS for the application of ATM system sectorisation changes. ATS predefined Sector configurations are published on NM ENV and Bucharest FMP update the current configuration using CIFLO application whenever is necessary. All published TRAs are published in Romanian AIP and are send to NM Environment. Romania AMC send daily AUP to NM via CIAM and via LARA (preops. B2B certificate). This not a full automated process.</p>
<p>CP1-s-AF3.2 Free route airspace</p>	<p>3.2.1 Initial FRA - Fully implemented MPL3 ed. 2021 Objective Links: AOM21.2 - Initial Free Route Airspace (completed) Night FRA within FIR Bucuresti was implemented in November 2013. As a further step in FRA implementation, Night Free Route Airspace between Bucuresti CTA and Budapest FIR (N-FRAB) has been implemented starting from the 20th of August 2015. Following the coordination process between ROMASTA, BULATSA and HUNGAROCNTROL, in order to extend the Night FRA operations between Hungary, Romania and Bulgaria SEEN FRA (South East European Night Free Route) was implemented on 30th of March 2017. As a further step in optimizing flight operations in a large volume of airspace, the night cross-border FRA operations within the airspace of Bucuresti CTA, Sofia CTA and Budapest FIR expanded towards Bratislava CTA on 6th December 2018. ROMATSA, together with BULATSA and HUNGAROCNTROL have continued to extend free route airspace implementation with the completion of the SEE FRA project (South East Europe Free Route Airspace) for implementing H24/7 cross border free route operations across the airspace of Bulgaria, Hungary and Romania as of 7th of November 2019. The SEE FRA was extended with the airspace of Slovakia as of the 28th of January 2021 and with the airspace of Moldova as of 24th February 2022. SEE FRA expansion together with cross border operations between SEE FRA and BALTIC FRA, has been implemented from the 24th of February 2022, and it represents a further step in optimizing flight operations by expanding to H24 the cross-border FRA operations in the airspaces of Bratislava CTA, București CTA, Budapest CTA, Chisinau CTA and Sofia CTA and Vilnius CTA and Warszawa CTA, respectively.</p> <p>ATC02.8 - Ground-Based Safety Nets (completed, April 2019) DAIW function, MSAW function, and APM function have been implemented, tested, validated and are in operational use in the actual version of the new ATM System (April 2019).</p>
<p><b>CP1-AF4 - Network Collaborative Management</b></p>	
<p>CP1-s-AF4.1 Enhanced short-term ATFCM measures</p>	<p>4.1.1. Enhanced Short Term ATFCM Measures - Planned MPL3 ed. 2021 Objective Link: FCM04.2 - Short Term ATFCM Measures (STAM) - Phase 2 (Planned to implement STAM Phase 2 in the MPL3 FOC: 12/2022 as long as NM will provide a system support to automate the process as much as possible)</p>
<p>CP1-s-AF4.2 Collaborative NOP</p>	<p>4.2.1. Interactive Rolling NOP - Not Yet Planned MPL3 ed. 2021 Objective Link: FCM10 -Interactive Rolling NOP (Not Yet Planned) 4.2.2 Initial AOP/NOP Information Sharing - Outside geographical scope. Romania is not in the applicability area</p>

CP1-s-AF4.3 Automated support for traffic complexity assessment	<p>4.3.1 Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces - Ongoing .</p> <p>The implementation of this objective has been re-evaluated and postponed in the context of significant financial constraints generated by COVID-19 pandemic and traffic volatility.</p> <p>MPL3 ed. 2021 Objective Link:</p> <ul style="list-style-type: none"> <li>• FCM06.1 - Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces (Ongoing, 05/2024)</li> </ul> <p>Capability to automatically process APL and ACH messages is used in operations. Capability allowing the automatic provisions of AFP messages to NM is technically available. Functional and Technical Specifications for the Local Traffic Complexity Tool finalized in 2021; procurement postponed for 2022 due to financial situation generated by the COVID-19 pandemic extension; expected implementation before summer 2024.</p>
CP1-s-AF4.4 AOP/NOP integration	<p>4.4.1 AOP/NOP Integration. Outside geographical scope. Romania is not in the applicability area (CP1 airports)</p> <p>MPL3 ed. 2021 Objective Link: FCM11.2 - AOP/NOP Integration (Not applicable)</p>
<b>CP1-AF5 - SWIM</b>	
CP1-s-AF5.1 Common infrastructure components	<p>5.1.1. Common SWIM PKI and cyber security. ROMATSA is a partner in the „SWIM Common PKI and policies &amp; procedures for establishing a Trust framework” project, co-financed through 2017 CEF Transport Call. A coherent planning on the implementation of the technological and operational elements associated with the project will be taken into account.</p>
CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	<p>5.2.1 Stakeholders SWIM PKI and cyber security. ROMATSA is a partner in the „SWIM Common PKI and policies &amp; procedures for establishing a Trust framework” project, co-financed through 2017 CEF Transport Call. A coherent planning on the implementation of the technological and operational elements associated with the project will be taken into account.</p> <p>MPL3 ed. 2021 Objective Link: INF10.2 — Stakeholders’ SWIM PKI and cyber security (not yet planned)</p>
CP1-s-AF5.3 Aeronautical information exchange	<p>5.3.1 Aeronautical Information Exchange</p> <p>MPL3 ed. 2021 Objective Links:</p> <ul style="list-style-type: none"> <li>• INF10.3 - Aeronautical Information Exchange - Airspace structure service (ongoing)</li> </ul> <p>ASM system support implemented (LARA). Romanian CAA certified LARA. ROMATSA is still using pre-operational B2B certificate, full operational certificate will be requested in 2022.</p> <p>AUP/UUP is daily sent to CADF NM Eurocontrol via CIAM.</p> <ul style="list-style-type: none"> <li>• INF10.4 - Aeronautical Information Exchange - Airspace availability service (ongoing)</li> </ul> <p>AUP/UUP is daily sent to NM Eurocontrol via CIAM. ROMATSA is still using pre-operational B2B certificate, full operational certificate will be requested in 2022.</p> <ul style="list-style-type: none"> <li>• INF10.5 - Aeronautical Information Exchange - Airspace reservation (Planned)</li> </ul> <p>Adapting/ Implementing ASM system to provide ARES information to local civil/military stakeholders and publishing ARES service in the Registry are planned.</p> <ul style="list-style-type: none"> <li>• INF10.6 - Aeronautical Information Exchange - Digital NOTAM (Planned)</li> <li>• INF10.7 - Aeronautical Information Exchange - Aerodrome Mapping service (Not Yet planned)</li> <li>• INF10.8 -Aeronautical Information Exchange - Aeronautical Information Features service (Planned)</li> </ul>
CP1-s-AF5.4 Meteorological information exchange	<p>5.4.1 Meteorological Information Exchange -</p> <p>MPL3 ed. 2021 Objective Links:</p> <ul style="list-style-type: none"> <li>• INF10.9 - Meteorological Information Exchange - Volcanic Ash Mass Concentration information service (Not Yet planned)</li> <li>• INF10.10 - Meteorological Information Exchange - Aerodrome Meteorological information Service (ongoing)</li> <li>• INF10.11 - Meteorological Information Exchange - En-Route and Approach Meteorological information service (ongoing)</li> <li>• INF10.12 - Meteorological Information Exchange - Network Meteorological Information (Not Yet Planned)</li> </ul>

CP1-s-AF5.5 Cooperative network information exchange	<p>5.5.1 Cooperative Network Information Exchange. Not yet planned MPL3 ed. 2021 Objective Links:</p> <ul style="list-style-type: none"> <li>• INF10.13 - Cooperative Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute) (Not Yet Planned)</li> <li>• INF10.14 - Cooperative Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration) (Not yet Planned)</li> <li>• INF10.15 - Cooperative Network Information Exchange – Measures Service (Traffic Regulation) (Planned)</li> <li>• INF10.16 - Cooperative Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures) (Planned)</li> <li>• INF10.17 - Cooperative Network Information Exchange – Counts service (ATFCM Congestion Points) (Not Yet Planned)</li> </ul>
CP1-s-AF5.6 Flight information exchange (yellow profile)	<p>5.6.1 Flight Information Exchange. - Not yet planned MPL3 ed. 2021 Objective Links:</p> <ul style="list-style-type: none"> <li>• INF10.19 -Flight Information Exchange (Yellow Profile) - Flight Data Request Service (Not Yet Planned)</li> <li>• INF10.20 - Flight Information Exchange (Yellow Profile) - Notification Service (Not Yet Planned)</li> <li>• INF10.21 - Flight Information Exchange (Yellow Profile) - Data Publication Service (Not yet planned)</li> <li>• INF10.23 - Flight Information Exchange (Yellow Profile) - Extended AMAN SWIM Service (Not Yet Planned)</li> </ul>
<b>CP1-AF6 - Initial Trajectory Information Sharing</b>	
CP1-s-AF6.1 Initial air-ground trajectory information sharing	<p>6.1.1 Initial Air-Ground Trajectory Information Sharing (Airborne Domain) - N/A 6.1.2. Initial Air-Ground Trajectory Information Sharing (Ground Domain). The ATM2015+ system is fully capable to support the AGDL requirement (ATN and FANS). All AGDL service and messages are implemented. The system is capable to uplink the AGDL messages from the track label sensitive fields and/or context popup menus. The AGDL important data are contained in the flight hook info window (extended track label) and CPDLC message window. The CPDLC message in/out data is contained in a single CPDLC message window. The CPDLC message recording is covered through the ATM2015+ recording capabilities and they are available off-line. It might consider that a portion of these recorded data could be used by the on-line environment and displayed within the CPDLC history window. Starting with 17.07.2020, controller-pilot communications via data link became operational in FIR București above flight level FL285, being available for ATN equipped aircraft. Also, starting with 18.11.2020, controller-pilot communications via data link have become available for FANS equipped aircraft as well.</p>
CP1-s-AF6.2 Network Manager trajectory information enhancement	6.2.1 Network Manager Trajectory Information Enhancement. Not applicable
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	6.3.1 Initial trajectory Information Sharing ground distribution. Pending confirmation after the industrialisation target date (31 December 2023, pursuant to Article 4 of Implementing Regulation (EU) No 409/2013).

### 4.3 - Change management

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

Change management is a constituent part of ROMATSA's Safety Management Manual, having established regarding this topic the following Procedures:

- Procedure PIN 1220 "General Procedure Regarding Change Management in ATM/ANS"
- Procedure PIN 1221 "General Procedure Regarding Software Safety Assurance in ATM/ANS"

Changes are put (released) into service only after they were safety assessed/ support safety assessed by the Romanian NSA according to the national procedure PIAC-ATM/ANS "Supervision of ATM/ANS service providers", Part IV: "Safety Oversight of Changes in ATM/ANS", ed. 1/ 2019 and mitigation means implemented in respect with safety procedures.

Changes are monitored after entering into service and results are compared to what was designed. Should additional risk controls be established then measures are taken.

Change management processes cover the whole lifecycle of change, including implementation and operation.

Change management processes impose that affected stakeholders are to be involved from the very beginning in the change management.

As mentioned in Chapter 3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs, there are no planned major changes in the ANSP functional system, and we do not expect any negative impact on the network performance. From 09 April 2019 ROMATSA started the operations of the new ATM 2015+ System that creates the premises to accommodate the requested increase in capacity as forecasted for RP3. During RP3 ROMATSA will implement new tools and functionalities for the ATM system in order to accommodate the traffic growth and complexity and to improve the safety of operations, and analyses the implementation of a new re-sectorisation of FIR Bucharest, but all these changes will be evaluated as per internal Procedures stated above.

## SECTION 5: TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES

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### **5.1 - Traffic risk sharing parameters**

[5.1.1 Traffic risk sharing - En route charging zones](#)

[5.1.2 Traffic risk sharing - Terminal charging zones](#)

### **5.2 - Capacity incentive schemes**

[5.2.1 - Capacity incentive scheme - Enroute](#)

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

5.2.1.2 Rationale and justification - Enroute

[5.2.2 - Capacity incentive scheme - Terminal](#)

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

5.2.2.2 Rationale and justification - Terminal

### **5.3 - Optional incentives**

#### **Annexes of relevance to this section**

ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING

ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES

ANNEX K. OPTIONAL INCENTIVE SCHEMES

## 5.1 - Traffic risk sharing

### 5.1.1 Traffic risk sharing - En route charging zones

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

### 5.1.2 Traffic risk sharing - Terminal charging zones

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

## 5.2 - Capacity incentive schemes

### 5.2.1 - Capacity incentive scheme - Enroute

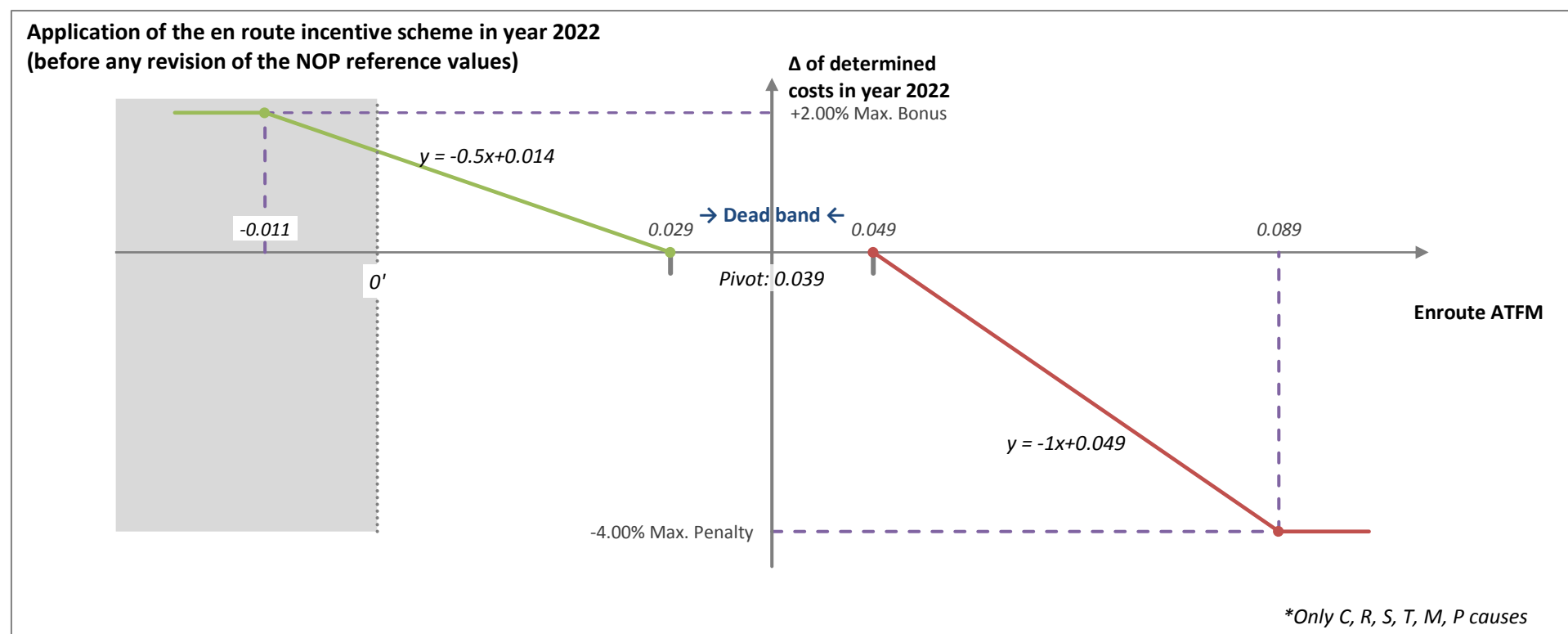
#### 5.2.1.1 Parameters for the calculation of financial advantages or disadvantages - Enroute

Enroute	Expressed in	Value
Dead band $\Delta$	fraction of min	$\pm 0.010$ min
Max bonus ( $\leq 2\%$ )	% of DC	2.00%
Max penalty ( $\geq$ Max bonus)	% of DC	4.00%
The pivot values for RP3 are	modulated	

#### ROMATSA

	2020	2021	2022	2023	2024
NOP reference values (mins of ATFM delay per flight)			0.04	0.04	0.04
Alert threshold ( $\Delta$ Ref. value in fraction of min)			$\pm 0.050$	$\pm 0.050$	$\pm 0.050$
Performance Plan targets (mins of ATFM delay per flight)			0.04	0.04	0.04
Pivot values for RP3 (mins of ATFM delay per flight)*			0.04	0.02	0.02
Financial advantages / disadvantages	Dead band range		[0.029-0.049]	[0.012-0.032]	[0.012-0.032]
	Bonus sliding range		[0-0.029]	[0-0.012]	[0-0.012]
	Penalty sliding range		[0.049-0.089]	[0.032-0.072]	[0.032-0.072]

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



#### 5.2.1.2 Rationale and justification - Enroute

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:	
a) In order to enable significant and unforeseen changes in traffic to be taken into account:	
a.1) The pivot value for year n IS the reference value from the November release of year n-1 of the NOP.	Yes
a.2) The pivot value for year n is informed by the November release of the year n-1 of the NOP and calculated according to the following principles and formulas:**	No
Not applicable. The pivot value for year n is the reference value from the November release of year n-1 of the NOP.	
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	Yes
Romania proposes a scheme in which it would not be penalised for effects beyond its control. Romania will only apply the C, R, S, T, M, P codes in the incentive scheme. The pivot values above will be amended for the calculation by the weight representing the proportion of delay caused due to C, R, S, T, M, P causes on total delay experienced in the previous three years. According to data on ANS performance dashboard ( <a href="https://ansperformance.eu/data/">https://ansperformance.eu/data/</a> ), this proportion was 55.6% in the period of 2018-2019.	

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

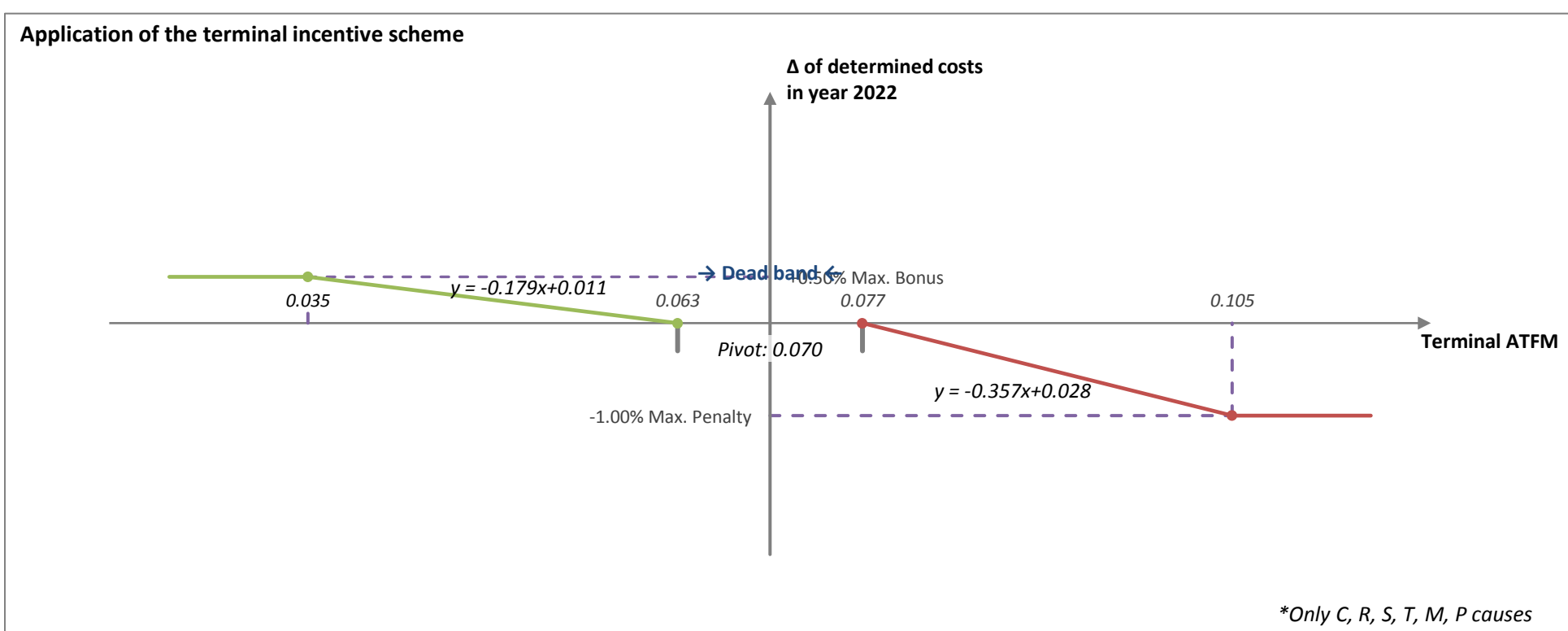
## 5.2.2 - Capacity incentive scheme - Terminal

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

Terminal	Expressed in	Value
Dead band Δ	%	±10.0%
Bonus/penalty range (% of pivot value)	%	±50%
Max bonus	% of DC	0.50%
Max penalty	% of DC	1.00%
The pivot values for RP3 are	modulated	

	2020	2021	2022	2023	2024
Performance Plan targets (mins of ATFM delay per flight)			0.39	0.39	0.39
Bonus/penalty range Δ (in fraction of min)			±0.035	±0.020	±0.010
Pivot values for RP3 (mins of ATFM delay per flight)*			0.07	0.04	0.02
Financial advantages / disadvantages	Dead band range		[0.063-0.077]	[0.036-0.044]	[0.018-0.022]
	Bonus sliding range		[0.035-0.063]	[0.02-0.036]	[0.01-0.018]
	Penalty sliding range		[0.077-0.105]	[0.044-0.06]	[0.022-0.03]

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



### 5.2.2.2 Rationale and justification - Terminal

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

Not applicable.

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

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:

a) The pivot value for year n is modulated in order to enable significant and unforeseen changes in traffic to be taken into account and is based on the principles explained below:\*\*

No

Not applicable.

b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.

Yes

Romania proposes a scheme in which it would not be penalised for effects beyond its control. Romania will only apply the C, R, S, T, M, P codes in the incentive scheme. The pivot values above are only indicative and will be amended for the calculation by the weight representing the proportion of delay caused due to C, R, S, T, M, P causes on total delay experienced in the previous three years. According to data on ANS performance dashboard (<https://ansperformance.eu/data/>), this proportion was 13.3% in the period of 2018-2019.

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



### 5.3 - Optional incentives

Total maximum bonus for all optional incentives (≤2%):	0.0%
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Total maximum penalty for optional incentives (≤4%):	0.0%
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Number of optional incentives	Click to select
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## SECTION 6: IMPLEMENTATION OF THE PERFORMANCE PLAN

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### [6.1 Monitoring of the implementation plan](#)

### [6.2 Non-compliance with targets during the reference period](#)

## 6 - IMPLEMENTATION OF THE PERFORMANCE PLAN

### 6.1 Monitoring of the implementation plan

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

The Romanian Civil Aeronautical Authority, acting as Romanian National Supervisory Authority (RO NSA), for all matters, including security (in accordance with Government Decision no. 645/ 2013 and MoT Order no. 1547/ 2013) is the authority responsible for monitoring the performance targets at national and European level, covered by the present Performance Plan.

The process has been established for the oversight of all KPAs within the scope of the Performance plan for RP3. The following processes are covered by: • Data collection; • Data assessment; • Data validation; • Documents verification; • Audits and Inspections, according with the national procedures PIAC-ATM/ANS “Supervision of ATM/ANS service providers”; • Data reporting according to (EU) related legislation; • Other activities.

The oversight process is done at national level, but not limited to mainly Reg. (EU) 2017/373 (AMC & GM), or relevant in the Performance Plan context, Reg. (EU) 2019/317 (including AMC & GM for SKPI), together with the related Reg. (EU) 2020/1627 on exceptional measures. They are implemented under national procedures PIAC-ATM/ANS “Supervision of ATM/ANS service providers”:

Part I: “Certification and oversight of ATM/ANS service providers”, ed. 1/ 2019;

Part II: “Audit and inspection Methodology”, ed. 1/ 2019, which is the framework procedure.

Also, e.g. related to the Cost Bases, national procedure PIAC-BC “the issuance and assessment of the Cost Bases” or related to the Safety performance PI-NS-MPS “Monitoring of Safety Performance”; national regulation RACR-REAC – “Civil Aviation Occurrence Reporting”, approved by OMT no. 600/ 20.07.2016; the analysis and managing of occurrence reports are realized according to the internal procedure PI-SG-GRE “Managing the safety occurrence reporting in civil aviation”. In line with Romanian SSP (3rd ed.) approved by OMT no. 1182/ 2016, a National Plan for Aviation Safety (pNSAC) is issued for 2020 – 2024 containing a part of the safety performance objectives in line with the performance scheme (e.g. reducing the risk of RI, SMI, AI, SESAR solutions implementation, SMS assessment).

The monitoring of progress in achieving the performance targets set in Reg. (EU) 2019/317, Reg. (EU) 2020/1627 and new (UE) Decision 2021/891 is performed by dedicated NSA inspectors, using specific methods according to the internal procedures developed at national level mentioned above, using the best practices from the previous reference periods.

Based on all the data gathered from all the related sources (ROMATSA, internal RO NSA, PRB, COM dedicated platforms, EUROCONTROL/NM, EASA, etc.), RO NSA prepares Annual monitoring reports submitted to the EC in respect to the performance legislation.

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

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

In case that any of the target values is not met at national level, the RO NSA initiate actions to identify potential underlying issues, coordinates with ANSP, performs audits or inspections, issue non-conformities and request corrective measures designed by the ANSP to rectify the situation, subsequently informs the EC in accordance with Art. 37, Reg. (EU) 2019/317, if it will be the case.

All the related information and the achieved performance could be found in Annual monitoring reports prepared by the RO NSA and submitted to the European Commission in respect to the performance legislation.

## 7 - ANNEXES

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ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE)

ANNEX A.x - En route Charging Zone #x

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)

ANNEX B.x - Terminal Charging Zone #x

ANNEX C. CONSULTATION

ANNEX D. LOCAL TRAFFIC FORECASTS

ANNEX E. INVESTMENTS

ANNEX F. BASELINE VALUES (COST-EFFICIENCY)

ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING

ANNEX H. RESTRUCTURING MEASURES AND COSTS

ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES

ANNEX J. OPTIONAL KPIs AND TARGETS

ANNEX K. OPTIONAL INCENTIVE SCHEMES

ANNEX L. JUSTIFICATION FOR SIMPLIFIED CHARGING SCHEME

ANNEX M. COST ALLOCATION

ANNEX N. CROSS-BORDER INITIATIVES

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS

ANNEX S. INTERDEPENDENCIES

ANNEX T. OTHER MATERIAL

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

ANNEX Z. CORRECTIVE MEASURES\*

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

NO\_PRINT States, Main ANSP & En-route Charging Zones

ISO_COD	ICAO_C	ICAO_CC	Country_Name	FAB_Name	Main_ANSP_Name
AT	LO		Austria	FAB CE	Austro Control
BE	EB		Belgium	FABEC	skeyes
BG	LB		Bulgaria	DANUBE FAB	BULATSA
HR	LD		Croatia	FAB CE	Croatia Control
CY	LC		Cyprus	BLUE MED FAB	DCAC Cyprus
CZ	LK		Czech Republic	FAB CE	ANS CR
DK	EK		Denmark	DK-SE FAB	NAVIAIR
EE	EE		Estonia	NEFAB	EANS
FI	EF		Finland	NEFAB	Fintraffic ANS
FR	LF		France	FABEC	DSNA
DE	ED		Germany	FABEC	DFS
GR	LG		Greece	BLUE MED FAB	HCAA
HU	LH		Hungary	FAB CE	HungaroControl
IE	EI		Ireland	UK-Ireland FAB	IAA
IT	LI		Italy	BLUE MED FAB	ENAV
LV	EV		Latvia	NEFAB	LGS
LT	EY		Lithuania	Baltic FAB	Oro Navigacija
LE	EL		Luxembourg	FABEC	ANA LUX
MT	LM		Malta	BLUE MED FAB	MATS
NL	EH		Netherlands	FABEC	LVNL
NO	EN		Norway	NEFAB	Avinor
PL	EP		Poland	Baltic FAB	PANSA
PT	LP		Portugal	SW FAB	NAV Portugal (Continer
RO	LR		Romania	DANUBE FAB	ROMATSA
SK	LZ		Slovakia	FAB CE	LPS
SI	LJ		Slovenia	FAB CE	Slovenia Control
ES	LE	GC	Spain	SW FAB	ENAIRE
SE	ES		Sweden	DK-SE FAB	LFV
CH	LS		Switzerland	FABEC	Skyguide
GB	EG		United Kingdom	UK-Ireland FAB	NATS (Continental)









Main_ANSP_Code	Safety_ANSP	ER_CZ_1	ER_CZ_2
LO_ANSP	Austro Control	Austria	
EBEL_ANSP	skeyes	Belgium-Luxembourg	
LB_ANSP	BULATSA	Bulgaria	
LD_ANSP	Croatia Control	Croatia	
LC_ANSP	CYATS	Cyprus	
LK_ANSP	ANS CR	Czech Republic	
EK_ANSP	NAVIAR	Denmark	
EE_ANSP	EANS	Estonia	
EF_ANSP	Fintraffic ANS	Finland	
LF_ANSP	DSNA	France	
ED_ANSP	DFS	Germany	
LG_ANSP	HANSP	Greece	
LH_ANSP	Hungarocontrol	Hungary	
EI_ANSP	IAA	Ireland	
LI_ANSP_ENAV	ENAV	Italy	
EV_ANSP	LGS	Latvia	
EY_ANSP	Oro Navigacija	Lithuania	
	ANA LUX	Belgium-Luxembourg	
LM_ANSP	MATS	Malta	
EH_ANSP	LVNL	Netherlands	
EN_ANSP	Avinor	Norway	
EP_ANSP	PANSA	Poland	
LP_ANSP	NAV Portugal	Portugal Continental	
LR_ANSP	ROMATSA	Romania	
LZ_ANSP	LPS SR	Slovakia	
LJ_ANSP	Slovenia Control	Slovenia	
LE_ANSP_AENA	ENAIRE	Spain Continental	Spain Canarias
ES_ANSP_LFV	LFV NUAC	Sweden	
LS_ANSP	SKYGUIDE	Switzerland	
EG_ANSP	NATS NERL	United Kingdom	







**Performance plan status**

**ACCs**

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Updated draft performance plan (Art. 13(2) of IR 2019/317)	3
Revised draft performance plan (Art. 14(3) of IR 2019/317)	4
Draft performance plan containing revised RP3 targets (Art. 15(1) of IR 2019/317)	5
Updated draft performance plan containing revised RP3 targets (Art. 15(2) of IR 2019/317)	6
Revised draft after detailed examination (Art. 15(3) of IR 2019/317)	7
Revised draft performance plan with corrective measures (Art. 15(4) of IR 2019/317)	8
Final adopted performance plan (Art. 16(a and b) of IR 2019/317)	9
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## List of airports

# airports

Country_Name	ACC_Code	ACC_Name	ACC_Long_Name
Austria	LOVV ACC	Vienna	Vienna (LOVV ACC)
Belgium	EBBU ACC	Brussels	Brussels (EBBU ACC)
Bulgaria	LBSR ACC	Sofia	Sofia (LBSR ACC)
Croatia	LDZO ACC	Zagreb	Zagreb (LDZO ACC)
Cyprus	LCCC ACC	Nicosia	Nicosia (LCCC ACC)
Czech Republic	LKAA ACC	Prague	Prague (LKAA ACC)
Denmark	EKDK ACC	Copenhagen	Copenhagen (EKDK ACC)
Estonia	EETT ACC	Tallinn	Tallinn (EETT ACC)
Finland	EFIN ACC	Tampere	Tampere (EFIN ACC)
France	LFBB ACC	Bordeaux	Bordeaux (LFBB ACC)
France	LFRRACC	Brest	Brest (LFRRACC)
France	LFMM ACC	Marseille	Marseille (LFMM ACC)
France	LFFF ACC	Paris	Paris (LFFF ACC)
France	LFEE ACC	Reims	Reims (LFEE ACC)
Germany	EDWW ACC	Bremen	Bremen (EDWW ACC)
Germany	EDUU UAC	Karlsruhe	Karlsruhe (EDUU UAC)
Germany	EDGG ACC	Langen	Langen (EDGG ACC)
Germany	EDMM ACC	Munich	Munich (EDMM ACC)
Greece	LGGG ACC	Athens	Athens (LGGG ACC)
Greece	LGMD ACC	Makedonia	Makedonia (LGMD ACC)
Hungary	LHCC ACC	Budapest	Budapest (LHCC ACC)
Ireland	EIDW ACC	Dublin	Dublin (EIDW ACC)
Ireland	EISN ACC	Shannon	Shannon (EISN ACC)
Italy	LIBB ACC	Brindisi	Brindisi (LIBB ACC)
Italy	LIMM ACC	Milano	Milano (LIMM ACC)
Italy	LIPP ACC	Padova	Padova (LIPP ACC)
Italy	LIRR ACC	Rome	Rome (LIRR ACC)
Latvia	EVRR ACC	Riga	Riga (EVRR ACC)
Lithuania	EYVC ACC	Vilnius	Vilnius (EYVC ACC)
Malta	LMMM ACC	Malta	Malta (LMMM ACC)
Netherlands	EHAA ACC	Amsterdam	Amsterdam (EHAA ACC)
Netherlands	EDYY UAC	Maastricht	Maastricht (EDYY UAC)
Norway	ENBD ACC	Bodo	Bodo (ENBD ACC)
Norway	ENOSE ACC	Oslo	Oslo (ENOSE ACC)
Norway	ENOSW ACC	Stavanger	Stavanger (ENOSW ACC)
Poland	EPWW ACC	Warsaw	Warsaw (EPWW ACC)
Portugal	LPPC ACC	Lisbon	Lisbon (LPPC ACC)
Romania	LRBB ACC	Bucharest	Bucharest (LRBB ACC)
Slovakia	LZBB ACC	Bratislava	Bratislava (LZBB ACC)
Slovenia	LJLA ACC	Ljubljana	Ljubljana (LJLA ACC)
Spain	LECB ACC	Barcelona	Barcelona (LECB ACC)
Spain	LECM ACC	Madrid	Madrid (LECM ACC)
Spain	LECP ACC	Palma	Palma (LECP ACC)
Spain	LECS ACC	Sevilla	Sevilla (LECS ACC)
Spain	GCCC ACC	Canarias	Canarias (GCCC ACC)
Sweden	ESMM ACC	Malmo	Malmo (ESMM ACC)

AIRPORT_
EHAM
EDDF
LFPG
EGLL
EDDM
LEMD
LEBL
LIRF
EGKK
LSZH
EKCH
ENGM
LOWW
ESSA
LFPO
EBBR
EIDW
EDDL
LEPA
LPPT
EGCC
LGAV
EGSS
LSGG
EDDT
LIMC
EFHK
EPWA
EDDH
LKPR
LFMN
EDDK
EGGW
LEMG
EGPH
EDDS
GCLP
LIML
LROP
EGBB
LFLL
LHBP
EDDB
LFML
LFBO
LEAL

Sweden	ESOS ACC	Stockholm	Stockholm (ESOS ACC)
Switzerland	LSAG ACC	Geneva	Geneva (LSAG ACC)
Switzerland	LSAZ ACC	Zurich	Zurich (LSAZ ACC)
United Kingdom	EGTT ACC	London	London (EGTT ACC)
United Kingdom	EGTTT TC	London Terminal	London Terminal (EGTTT TC)
United Kingdom	EGPX ACC	Prestwick	Prestwick (EGPX ACC)
Luxembourg	ELXY	No ACC	No ACC

EGPF
LIPZ
LPPR
ENBR
LIME
EGLC
LFSB
EVRA
LEIB
LIRN
ESGG
LIPE
ELLX





**ports with Traffic (data source: EUROCONTROL/NM)**

>80,000 movements                      1                      # airports between 70,000 and 80,000 movements                      0

IFR air transport movements

AIRPORT_NAME	Country_Nar	2016	2017	2018	Average	Category?
Amsterdam	Netherlands	490436	508299	511321	503352	
Frankfurt	Germany	462903	475535	512099	483512	
Paris/Charles-De-Gaulle	France	479199	482678	488117	483331	
London/Heathrow	United Kingdom	475064	475963	477824	476284	
Munich	Germany	391744	401849	410528	401374	
Madrid/Barajas	Spain	378078	387517	409676	391757	
Barcelona	Spain	307805	323471	335634	322303	
Rome/Fiumicino	Italy	313936	297395	307619	306317	
London/Gatwick	United Kingdom	280080	285945	283965	283330	
Zurich	Switzerland	262610	263549	271578	265912	
Copenhagen/Kastrup	Denmark	265768	259310	266207	263762	
Oslo/Gardermoen	Norway	245093	251193	257474	251253	
Vienna	Austria	241775	240095	256393	246088	
Stockholm/Arlanda	Sweden	234537	248865	243779	242394	
Paris/Orly	France	237708	232139	232374	234074	
Brussels	Belgium	218120	232719	229957	226932	
Dublin	Ireland	214048	222326	232414	222929	
Dusseldorf	Germany	217041	221067	218391	218833	
Palma de Mallorca	Spain	197430	208694	220206	208777	
Lisbon	Portugal	182549	203427	217555	201177	
Manchester	United Kingdom	192154	203621	201256	199010	
Athens	Greece	182243	189681	211384	194436	
London/Stansted	United Kingdom	178968	188156	200134	189086	
Geneva	Switzerland	183079	183591	180221	182297	
Berlin-Tegel	Germany	183959	171882	185309	180383	
Milan/Malpensa	Italy	166770	178834	194434	180013	
Helsinki-Vantaa	Finland	168581	176997	192494	179357	
Warsaw/Okecie	Poland	153805	171059	187235	170700	
Hamburg	Germany	152323	154478	149338	152046	
Prague/Ruzyně	Czech Republic	132026	144013	151050	142363	
Nice	France	139549	142623	143599	141924	
Cologne/Bonn	Germany	134393	138832	141991	138405	
London/Luton	United Kingdom	130914	135083	135772	133923	
Malaga	Spain	122033	134817	137509	131453	
Edinburgh	United Kingdom	121219	127268	129525	126004	
Stuttgart	Germany	119023	117993	128323	121780	
Las Palmas	Spain	109433	115790	127865	117696	
Milan/Linate	Italy	117101	116066	113790	115652	
Otopeni-Intl.	Romania	107710	116254	122586	115517	
Birmingham	United Kingdom	110708	119143	110076	113309	
Lyon/Sartolas	France	110638	112331	113434	112134	
Budapest/Ferihegy	Hungary	95743	102266	114474	104161	
Schoenefeld-Berlin	Germany	95088	100122	101054	98755	
Marseille/Provence	France	96281	97473	97770	97175	
Toulouse/Blagnac	France	90977	98991	97154	95707	
Alicante	Spain	86830	95133	96561	92841	

Glasgow	United Kingdom	92504	95151	90623	92759
Venice/Tessera	Italy	89969	92147	95250	92455
Porto	Portugal	78720	86718	93720	86386
Bergen/Flesland	Norway	87144	83653	85443	85413
Bergamo/Orio Alserio	Italy	79638	85849	89376	84954
London/City	United Kingdom	85007	80382	80762	82050
Basle/Mulhouse	France	77371	78800	81866	79346
Riga Intl	Latvia	67775	74482	83108	75122
Ibiza	Spain	69368	73336	75017	72574
Napoli Capodichino	Italy	62871	74113	79329	72104
Gotenborg/Landvetter	Sweden	70575	72636	72488	71900
Bologna	Italy	69131	71260	71414	70602
Luxembourg	Luxembourg	65552	70667	74875	70365







**Flight Efficiency (KEA)****Union-wide targets** 2.37% 2.37% 2.40%

2020A-T updated 23-April-2021 in line with monitoring templates. RVs updated with email se

COUNTRY_FAB_Name	2020A	2020T	2020RV	2021RV	2022RV	2023RV
Austria	1.92%	1.90%	1.90%	1.96%	1.96%	1.96%
Belgium		7.12%	2.90%	3.10%	3.05%	3.00%
Bulgaria	2.55%	1.95%	1.95%	2.25%	2.25%	2.25%
Croatia	1.47%	1.49%	1.49%	1.46%	1.46%	1.46%
Cyprus	3.89%	4.10%	4.10%	3.84%	3.84%	3.84%
Czech Republic	2.18%	2.26%	2.26%	2.05%	2.05%	2.05%
Denmark	1.12%	1.21%	1.21%	1.14%	1.14%	1.14%
Estonia	1.21%	1.33%	1.33%	1.22%	1.22%	1.22%
Finland	0.88%	0.97%	0.97%	0.88%	0.88%	0.88%
France		3.33%	2.90%	2.92%	2.83%	2.83%
Germany		3.24%	0.00%	2.31%	2.30%	2.30%
Greece	2.51%	1.94%	1.94%	2.00%	1.92%	1.92%
Hungary	1.51%	1.45%	1.45%	1.50%	1.49%	1.49%
Ireland	1.11%	1.56%	1.56%	1.13%	1.13%	1.13%
Italy	2.85%	2.83%	2.83%	2.67%	2.67%	2.67%
Latvia	1.24%	1.30%	1.30%	1.25%	1.25%	1.25%
Lithuania	1.90%	1.90%	1.90%	1.93%	1.92%	1.92%
Malta	2.53%	1.46%	1.46%	1.82%	1.80%	1.80%
Netherlands		7.22%	0.00%	2.63%	2.62%	2.62%
Norway	1.52%	1.43%	1.43%	1.55%	1.55%	1.55%
Poland	1.67%	1.85%	1.67%	1.65%	1.65%	1.65%
Portugal	1.79%	1.76%	1.76%	1.80%	1.80%	1.80%
Romania	2.17%	1.55%	1.55%	2.10%	2.05%	2.05%
Slovakia	2.22%	2.10%	2.10%	2.15%	2.13%	2.13%
Slovenia	1.51%	1.68%	1.68%	1.55%	1.55%	1.55%
Spain	3.11%	3.23%	3.23%	3.08%	3.08%	3.08%
Sweden	1.03%	1.26%	1.26%	1.05%	1.05%	1.05%
Switzerland		4.78%	0.00%	3.95%	3.95%	3.95%
United Kingdom	3.35%	4.06%	3.53%			
FABEC	2.94%	3.25%	2.90%	3.32%	2.75%	2.75%







2.40%

ent by Razvan 7-Jun-2021

2024RV
1.96%
3.00%
2.25%
1.46%
3.84%
2.05%
1.14%
1.22%
0.88%
2.83%
2.30%
1.92%
1.49%
1.13%
2.67%
1.25%
1.92%
1.80%
2.62%
1.55%
1.65%
1.80%
2.05%
2.13%
1.55%
3.08%
1.05%
3.95%
2.75%

### En-route delay per flight

#### Union-wide targets

2020A-T updated 23-April-2021 in line with monitoring templates.

COUNTRY_FAB_Name	2020A	2020T	2020RV
Austria	0	0.95	0.37
Belgium	0.06388842	0.64	-
Bulgaria	0	0.17	0.17
Croatia	0	0.43	0.33
Cyprus	0.20267901	1	0.36
Czech Republic	0.00261186	0.2	0.2
Denmark	0.00026045	0.07	0.14
Estonia	0	0.05	0.05
Finland	0	0.09	0.09
France	0.60782207	3.12	-
Germany	0.17748722	2.73	-
Greece	0.01543012	0.34	0.34
Hungary	0	0.9	0.14
Ireland	0	0.07	0.07
Italy	0.00711538	0.25	0.25
Latvia	0	0.06	0.06
Lithuania	0	0.05	0.05
Malta	0	0.02	0.02
Netherlands	0.00841744	0.13	-
Norway	0.00984337	0.08	0.18
Poland	0.00384599	0.3	0.3
Portugal	0.25413231	0.23	0.23
Romania	0	0.14	0.14
Slovakia	0	0.6	0.18
Slovenia	0.00123226	0.23	0.23
Spain	0.3966021	0.47	0.36
Sweden	0.00793322	0.115	0.15
Switzerland	0.03607006	0.47	-
United Kingdom	0.02088869	0.26	0.34
FABEC	0.41679818	3.45	0.69
EUROCONTROL	0.01301375	0.95	-
BALTIC			
BLUEMED			
DANUBE			
DENMARK/SWEDEN			
FABCE			
NEFAB			
SOUTHWEST			
UK/IRELAND			

















es and airports- Updated with RP3 situation

in line with monitoring templates

TCZ_Name	TCZ_Code	APT_CODE	APT_Name	2020_ACTI	2020_TARC
Austria - TCZ	LO_TCZ	LOWW	Vienna	0.488809	1.27
Austria - TCZ	LO_TCZ	LOWS	Salzburg	0.037859	0.11
Austria - TCZ	LO_TCZ	LOWG	Graz	0	0.01
Austria - TCZ	LO_TCZ	LOWI	Innsbruck	0.177227	0.15
Austria - TCZ	LO_TCZ	LOWL	Linz	0	0.01
Austria - TCZ	LO_TCZ	LOWK	Klagenfurt	0	0.01
Belgium EBBR	EB_TCZ_EBBR	EBBR	Brussels	0.375093	1.82
Czech Republic - TCZ	LK_TCZ	LKPR	Prague/Ruzyne	0.088607	0.4
Czech Republic - TCZ	LK_TCZ	LKTB	Brno Turany	0	0.1
Czech Republic - TCZ	LK_TCZ	LKMT	Ostrava	0	0.1
Czech Republic - TCZ	LK_TCZ	LKKV	Karlovy Vary	0	0.1
Denmark - TCZ	EK_TCZ	EKCH	Copenhagen	0	0.1
Estonia - TCZ	EE_TCZ	EETN	Tallin	0	0
Estonia - TCZ	EE_TCZ	EETU	Tartu	0	0
Finland - TCZ	EF_TCZ	EFHK	Helsinki-Vantaa	0.197841	0.39
France - Zone 1	LF_TCZ_1	LFPG	Paris/Charles-De	0.108561	0.8
France - Zone 1	LF_TCZ_1	LFPO	Paris/Orly	0.960808	1.2
France - Zone 2	LF_TCZ_2	LFMN	Nice	0.133932	0.4
France - Zone 2	LF_TCZ_2	LFLM	Lyon	0.027733	0.44
France - Zone 2	LF_TCZ_2	LFML	Marseille/Prove	0.098058	0.16
France - Zone 2	LF_TCZ_2	LFBO	Toulouse/Blagn	0.160487	0.3
France - Zone 2	LF_TCZ_2	LFSB	Bale/Mulhouse	0.41	-
France - Zone 2	LF_TCZ_2	LFBD	Bordeaux/Merit	0.77	-
France - Zone 2	LF_TCZ_2	LFPB	Paris/Le Bourge	0.60	-
France - Zone 2	LF_TCZ_2	LFRS	Nantes	0.24	-
France - Zone 2	LF_TCZ_2	LFMT	Montpellier/Mé	0.01	-
France - Zone 2	LF_TCZ_2	LFST	Strasbourg/Entz	0.03	-
France - Zone 2	LF_TCZ_2	LFOB	Beauvais/Tillé	0.05	-
France - Zone 2	LF_TCZ_2	LFQQ	Lille/Lesquin	0.33	-
France - Zone 2	LF_TCZ_2	LFRN	Rennes/St-Jacq	0.00	-
France - Zone 2	LF_TCZ_2	LFKJ	Ajaccio/Napolé	0.00	-
France - Zone 2	LF_TCZ_2	LFM	Clermont-Ferrai	0.00	-
France - Zone 2	LF_TCZ_2	LFRB	Brest/Bretagne	0.00	-
France - Zone 2	LF_TCZ_2	LFMD	Cannes/Mandel	2.97	-
France - Zone 2	LF_TCZ_2	LFKB	Bastia/Poretta	0.00	-
France - Zone 2	LF_TCZ_2	LFBZ	Biarritz/Bayonn	0.05	-
France - Zone 2	LF_TCZ_2	LFBP	Pau/Pyrénées	1.45	-
France - Zone 2	LF_TCZ_2	LFPN	Toussus/Le-Nok	0.97	-
France - Zone 2	LF_TCZ_2	LFTH	Hyères/Le-Paly	0.06	-
France - Zone 2	LF_TCZ_2	LFKF	Figari/Sud-Corse	0.18	-
France - Zone 2	LF_TCZ_2	LFLY	Lyon/Bron	0.01	-
France - Zone 2	LF_TCZ_2	LFMP	Perpignan/Rive	0.07	-
France - Zone 2	LF_TCZ_2	LFBL	Limoges/Belleg	0.19	-
France - Zone 2	LF_TCZ_2	LFRH	Lorient/Lann-Bi	0.00	-
France - Zone 2	LF_TCZ_2	LFBT	Tarbes-Lourdes,	0.00	-
France - Zone 2	LF_TCZ_2	LFLB	Chambéry/Aix-l	1.67	-

France - Zone 2	LF_TCZ_2	LFBH	La-Rochelle/Ile d	0.00	-
France - Zone 2	LF_TCZ_2	LFJL	Metz-Nancy/Loi	0.00	-
France - Zone 2	LF_TCZ_2	LFLS	Grenoble/Isère	0.50	-
France - Zone 2	LF_TCZ_2	LFCR	Rodez/Marcillac	0.00	-
France - Zone 2	LF_TCZ_2	LFKC	Calvi/Sainte-Cat	0.07	-
France - Zone 2	LF_TCZ_2	LFMV	Avignon/Caumc	0.23	-
France - Zone 2	LF_TCZ_2	LFMK	Carcassonne/Sa	0.00	-
France - Zone 2	LF_TCZ_2	LFBI	Poitiers/Biard	0.00	-
France - Zone 2	LF_TCZ_2	LFMU	Béziers/Vias	0.00	-
France - Zone 2	LF_TCZ_2	LFRK	Caen/Carpiquet	0.00	-
France - Zone 2	LF_TCZ_2	LFBA	Agen/La-Garenr	0.00	-
France - Zone 2	LF_TCZ_2	LFBE	Bergerac/Roum	0.00	-
France - Zone 2	LF_TCZ_2	LFMI	Istres/Le-Tubé	0.00	-
France - Zone 2	LF_TCZ_2	LFRD	Dinard/Pleurtui	0.00	-
France - Zone 2	LF_TCZ_2	LFRG	Deauville/Norm	0.00	-
France - Zone 2	LF_TCZ_2	LFTW	Nîmes/Garons	0.00	-
France - Zone 2	LF_TCZ_2	LFLP	Annecy/Meythe	0.16	-
France - Zone 2	LF_TCZ_2	LFGJ	Dole/Tavaux	0.00	-
France - Zone 2	LF_TCZ_2	LFRQ	Quimper/Plugui	0.00	-
France - Zone 2	LF_TCZ_2	LFOK	Châlons/Vatry	0.50	-
France - Zone 2	LF_TCZ_2	LFOP	Rouen/Vallée-d	0.13	-
France - Zone 2	LF_TCZ_2	LFMH	Saint-Etienne/B	0.00	-
France - Zone 2	LF_TCZ_2	LFSL	Brive/Souillac	0.00	-
France - Zone 2	LF_TCZ_2	LFOT	Tours/Val-de-Lc	0.00	-
France - Zone 2	LF_TCZ_2	LFRZ	Saint-Nazaire/N	0.00	-
France - Zone 2	LF_TCZ_2	LFLX	Châteauroux/Dc	0.00	-
France - Zone 2	LF_TCZ_2	LFAQ	Albert/Bray	0.00	-
Germany - TCZ	ED_TCZ	EDDF	Frankfurt	0.186731	1.785005
Germany - TCZ	ED_TCZ	EDDM	München	0.079415	0.898602
Germany - TCZ	ED_TCZ	EDDL	Düsseldorf	0.264989	0.91239
Germany - TCZ	ED_TCZ	EDDT	Berlin-Tegel	0.049724	0.529501
Germany - TCZ	ED_TCZ	EDDH	Hamburg	0.031277	1.061645
Germany - TCZ	ED_TCZ	EDDK	Köln-Bonn	0.033501	0.942825
Germany - TCZ	ED_TCZ	EDDS	Stuttgart	0	0.460263
Germany - TCZ	ED_TCZ	EDDB	Berlin Schönefe	0	0.280074
Germany - TCZ	ED_TCZ	EDDV	Hannover	0	0.309987
Germany - TCZ	ED_TCZ	EDDP	Leipzig	0.141187	0.763935
Germany - TCZ	ED_TCZ	EDDN	Nürnberg	0	0.261865
Germany - TCZ	ED_TCZ	EDDW	Bremen	0.008767	0.860993
Germany - TCZ	ED_TCZ	EDDC	Dresden	0	0.92
Germany - TCZ	ED_TCZ	EDDG	Münster-Osnab	0	0.92
Germany - TCZ	ED_TCZ	EDDR	Saarbrücken	0	0.92
Germany - TCZ	ED_TCZ	EDDE	Erfurt	0	0.270428
Greece - TCZ	LG_TCZ	LGAV	Athens	0.041228	1.2
Hungary - TCZ	LH_TCZ	LHBP	Budapest	0.079926	0.05
Ireland - TCZ	EI_TCZ	EIDW	Dublin	0.140737	0.25
Ireland - TCZ	EI_TCZ	EICK	Cork	0	0
Ireland - TCZ	EI_TCZ	EINN	Shannon	0	0
Italy - Zone 1	LI_TCZ_1	LIRF	Fiumicino	0.02218	0.5
Italy - Zone 2	LI_TCZ_2	LIMC	Malpensa	0.019815	0.1

Italy - Zone 2	LI_TCZ_2	LIML	Linate	0.057385	0.5
Italy - Zone 2	LI_TCZ_2	LIPZ	Venice Tessera	0.158894	0.4
Italy - Zone 2	LI_TCZ_2	LIME	Orio Al Serio	0.037029	0.03
Latvia - TCZ	EV_TCZ	EVRA	Riga	0	0.02
Latvia - TCZ	EV_TCZ	EVLA	Liepaya	0	0
Latvia - TCZ	EV_TCZ	EVVA	Ventstpils	0	0
Latvia - TCZ	EV_TCZ	EVJA	Tukums	0	0
Luxembourg - TCZ	EL_TCZ	ELLX	Luxembourg	0.056175	0.12
Malta - TCZ	LM_TCZ	LMML	Malta/Luqa	0	0
Netherlands - TCZ	EH_TCZ	EHAM	Schiphol	1.407993	2.2
Netherlands - TCZ	EH_TCZ	EHRD	Rotterdam	0	0
Netherlands - TCZ	EH_TCZ	EHGG	Eelde	0.005916	0
Netherlands - TCZ	EH_TCZ	EHBK	Beek	0	0
Norway - TCZ	EN_TCZ	ENGM	Oslo/Gardermo	0.052006	0.5
Norway - TCZ	EN_TCZ	ENBR	Bergen/Fleslanc	0.010757	0.5
Norway - TCZ	EN_TCZ	ENZV	Stavanger/Sola	0.027012	0.5
Norway - TCZ	EN_TCZ	ENVA	Trondheim/Vae	0.026995	0.5
Poland - EPWA	EP_TCZ_EPWA	EPWA	Warsaw	0.035721	0.95
Poland - Others	EP_TCZ_Other	EPKK	Krakow	0.035749	0.06
Poland - Others	EP_TCZ_Other	EPGD	Gdansk	0	0
Poland - Others	EP_TCZ_Other	EPKT	Katowice	0	0.02
Poland - Others	EP_TCZ_Other	EPWR	Wroclaw Airpor	0	0
Poland - Others	EP_TCZ_Other	EPPO	Poznan	0	0.08
Poland - Others	EP_TCZ_Other	EPRZ	Rzeszow	0	0
Poland - Others	EP_TCZ_Other	EPSC	Szczecin	0	0
Poland - Others	EP_TCZ_Other	EPBY	Bydgoszcz	0	0
Poland - Others	EP_TCZ_Other	EPMO	Modlin	0.010611	0.24
Poland - Others	EP_TCZ_Other	EPLL	Lodz	0	0
Poland - Others	EP_TCZ_Other	EPLB	Lublin / Świdnik	0	0
Poland - Others	EP_TCZ_Other	EPZG	Zielona Gora	0	0
Poland - Others	EP_TCZ_Other	EPRA	Radom	0	0
Poland - Others	EP_TCZ_Other	EPSY	Olsztyn-Mazury	0	0
Portugal - TCZ	LP_TCZ	LPPT	Lisbon	1.722939	5.060035
Portugal - TCZ	LP_TCZ	LPPR	Porto	0.772181	2.479834
Portugal - TCZ	LP_TCZ	LPFR	Faro	0	0.097587
Portugal - TCZ	LP_TCZ	LPMA	Madeira	0	0.027971
Portugal - TCZ	LP_TCZ	LPPD	Ponta Delgada	0	0.02
Portugal - TCZ	LP_TCZ	LPHR	Horta	0	0.02
Portugal - TCZ	LP_TCZ	LPAZ	Santa Maria	0	0.02
Portugal - TCZ	LP_TCZ	LPPS	Porto Santo	0	0.0204
Portugal - TCZ	LP_TCZ	LPFL	Flores	0	0.02
Portugal - TCZ	LP_TCZ	LPCS	Cascais	0	0.02
Portugal - TCZ	LP_TCZ	LPMT	Montijo	0	0
Romania - TCZ	LR_TCZ	LROP	Bucharest HENF	0.001661	0.51
Romania - TCZ	LR_TCZ	LRBS	Bucharest AURE	0	0
Spain - TCZ	LE_TCZ	LEMD	Madrid/Barajas	0.493359	0.7
Spain - TCZ	LE_TCZ	LEBL	Barcelona	0.120748	1.68
Spain - TCZ	LE_TCZ	LEPA	Palma De Mallo	0.051393	1.4
Spain - TCZ	LE_TCZ	LEIB	Ibiza	0	0.54
Spain - TCZ	LE_TCZ	LEAL	Alicante	0.01789	0.06

Spain - TCZ	LE_TCZ	LEMG	Malaga	0.014142	0.12
Spain - TCZ	LE_TCZ	GCLP	Las Palmas	0.97272	0.34
Sweden - TCZ	ES_TCZ_A	ESSA	Stockholm/Arla	0.004719	0.35
Switzerland - TCZ	LS_TCZ	LSZH	Zurich	0.604374	2.14
Switzerland - TCZ	LS_TCZ	LSGG	Geneva	0.485722	1.37
UK - Zone B	EG_TCZ_B	EGLL	Heathrow	N/A	1.93
UK - Zone B	EG_TCZ_B	EGKK	Gatwick	N/A	2.04
UK - Zone B	EG_TCZ_B	EGCC	Manchester	N/A	0.22
UK - Zone B	EG_TCZ_B	EGSS	Stansted	N/A	0.72
UK - Zone B	EG_TCZ_B	EGPH	Edinburgh	N/A	0.02
UK - Zone B	EG_TCZ_B	EGGW	London Luton	N/A	0.47
UK - Zone B	EG_TCZ_B	EGBB	Birmingham	N/A	0.09
UK - Zone B	EG_TCZ_B	EGPF	Glasgow	N/A	0.01
UK - Zone B	EG_TCZ_B	EGLC	London City	N/A	1.38
UK - Zone C	EG_TCZ_C	EGKB	Biggin Hill airpo	N/A	-











**Terminal delay per flight**

Updated 23-April-2021 in line with monitoring templates

COUNTRY_FAB_Name	2020A	2020T
Austria	0.36461303	1.25
Belgium	0.37509305	1.82
Bulgaria	N/A	N/A
Croatia	N/A	N/A
Cyprus	N/A	N/A
Czech Republic	0.07236842	0.37
Denmark	0	0.1
Estonia	0	0
Finland	0.19784084	0.39
France	0.30042078	0.4
Germany	0.10061089	0.66
Greece	0.04122825	1.2
Hungary	0.07992635	0.05
Ireland	0.1135385	0.25
Italy	0.04310662	0.41
Latvia	0	0.02
Lithuania	N/A	N/A
Malta	0	0
Netherlands	1.25828753	2
Norway	0.03483646	0.5
Poland	0.0201067	0.45
Portugal	0.96809292	3.1172503
Romania	0.00151702	0.5
Slovakia	N/A	N/A
Slovenia	N/A	N/A
Spain	0.29762248	0.91
Sweden	0.00471917	0.35
Switzerland	0.55368172	1.94
United Kingdom	N/A	1.09

**Inflation index 2014/201**

ER_CZ
Austria
Belgium-Luxembourg
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Malta
Netherlands
Norway
Poland
Portugal Continental
Romania
Slovakia
Slovenia
Spain Continental
Spain Canarias
Sweden
Switzerland
United Kingdom









**9 per en route charging zone**

Inflation Index 2014 Actual	Inflation Index 2019 Actual
96.10969	103.63150
95.54398	103.52760
101.22926	105.16500
99.61139	102.41280
102.04162	101.30400
96.78346	104.65200
98.71454	101.40490
95.57111	105.77820
99.00912	102.31320
98.45919	103.42730
97.83883	103.32660
100.01210	101.30400
97.17001	106.39860
99.90070	101.60630
98.71678	101.80720
96.89086	105.37020
96.43674	104.75500
96.67605	103.22550
98.42122	104.34320
92.59981	105.36900
99.31767	103.32520
97.35141	101.50360
100.41376	108.15990
99.41314	105.37000
99.41778	103.63230
98.92779	102.51360
98.92779	102.51360
96.39293	103.73400
100.70876	101.30360
96.69412	104.35593







**CRCO correction factors M2/M3**

ECZ	19 (based on 12 r
Denmark	-5.70%
North Macedonia	-4.11%
Switzerland	-3.44%
Belgium-Luxembourg	-3.13%
Malta	-2.31%
Albania	-2.16%
Netherlands	-1.97%
Slovenia	-1.50%
Armenia	-1.28%
Hungary	-1.19%
Czech Republic	-1.11%
Cyprus	-0.85%
Sweden	-0.83%
Ireland	-0.74%
Latvia	-0.64%
Portugal Continental	-0.64%
Estonia	-0.47%
Austria	-0.41%
<b>Total</b>	<b>-0.31%</b>
Georgia	-0.29%
Bulgaria	-0.26%
Poland	-0.25%
Serbia & Montenegro	-0.19%
Bosnia-Herzegovina	-0.18%
Turkey	-0.16%
Portugal Santa Maria	-0.10%
Romania	-0.10%
Croatia	-0.07%
Norway	-0.05%
Greece	-0.01%
Finland	0.10%
Spain Continental	0.12%
Spain Canarias	0.13%
Italy	0.14%
Germany	0.15%
United Kingdom	0.20%
France	0.25%
Slovakia	0.27%
Lithuania	0.28%
Moldova	1.33%

**Safety 2020 targets**

STATE	ANSP
Czech Repl	ANS CR
Czech Repl	ANS CR
Czech Repl	ANS CR
Czech Repl	ANS CR
Czech Repl	ANS CR
Spain	ENAIRES
Spain	ENAIRES
Spain	ENAIRES
Spain	ENAIRES
Spain	ENAIRES
Spain	FERRONAT
Spain	FERRONAT
Spain	FERRONAT
Spain	FERRONAT
Denmark	NAVIAIR
Denmark	NAVIAIR
Denmark	NAVIAIR
Denmark	NAVIAIR
Denmark	NAVIAIR
Slovenia	Slovenia Co
Slovenia	Slovenia Co
Slovenia	Slovenia Co
Slovenia	Slovenia Co
Slovenia	Slovenia Co
Cyprus	CYATS
Cyprus	CYATS
Cyprus	CYATS
Cyprus	CYATS
Cyprus	CYATS
Finland	ANS Finland
Finland	ANS Finland
Finland	ANS Finland
Finland	ANS Finland
Finland	ANS Finland
Malta	MATS
Malta	MATS
Malta	MATS
Malta	MATS
Malta	MATS
Sweden	LFV
Sweden	LFV
Sweden	LFV
Sweden	LFV
Sweden	LFV
Bulgaria	BULATSA





Luxembourg ANA LUX
Luxembourg ANA LUX
Luxembourg ANA LUX
Luxembourg ANA LUX
Netherland LVNL
Netherland LVNL
Netherland LVNL
Netherland LVNL
Netherland LVNL
Netherland LVNL
Switzerland Skyguide
Switzerland Skyguide
Switzerland Skyguide
Switzerland Skyguide
Switzerland Skyguide
MUAC MUAC
MUAC MUAC
MUAC MUAC
MUAC MUAC
MUAC MUAC
MUAC MUAC
Norway Avinor
Norway Avinor
Norway Avinor
Norway Avinor
Norway Avinor



Safety Area	2020T	Helper
Safety policy and objectives	C	ANS CRSafety policy and objectives
Safety risk management	C	ANS CRSafety risk management
Safety assurance	C	ANS CRSafety assurance
Safety promotion	C	ANS CRSafety promotion
Safety culture	C	ANS CRSafety culture
Safety policy and objectives	C	ENAIRESafety policy and objectives
Safety risk management	C	ENAIRESafety risk management
Safety assurance	C	ENAIRESafety assurance
Safety promotion	C	ENAIRESafety promotion
Safety culture	C	ENAIRESafety culture
Safety policy and objectives	C	FERRONATSSafety policy and objectives
Safety risk management	C	FERRONATSSafety risk management
Safety assurance	C	FERRONATSSafety assurance
Safety promotion	C	FERRONATSSafety promotion
Safety culture	C	FERRONATSSafety culture
Safety policy and objectives	B	NAVIAIRSafety policy and objectives
Safety risk management	B	NAVIAIRSafety risk management
Safety assurance	B	NAVIAIRSafety assurance
Safety promotion	B	NAVIAIRSafety promotion
Safety culture	B	NAVIAIRSafety culture
Safety policy and objectives	C	Slovenia ControlSafety policy and objectives
Safety risk management	C	Slovenia ControlSafety risk management
Safety assurance	C	Slovenia ControlSafety assurance
Safety promotion	C	Slovenia ControlSafety promotion
Safety culture	C	Slovenia ControlSafety culture
Safety policy and objectives	C	CYATSSafety policy and objectives
Safety risk management	D	CYATSSafety risk management
Safety assurance	C	CYATSSafety assurance
Safety promotion	C	CYATSSafety promotion
Safety culture	C	CYATSSafety culture
Safety policy and objectives	C	ANS FinlandSafety policy and objectives
Safety risk management	D	ANS FinlandSafety risk management
Safety assurance	C	ANS FinlandSafety assurance
Safety promotion	C	ANS FinlandSafety promotion
Safety culture	C	ANS FinlandSafety culture
Safety policy and objectives	C	MATSSafety policy and objectives
Safety risk management	C	MATSSafety risk management
Safety assurance	C	MATSSafety assurance
Safety promotion	C	MATSSafety promotion
Safety culture	C	MATSSafety culture
Safety policy and objectives	C	LFVSafety policy and objectives
Safety risk management	D	LFVSafety risk management
Safety assurance	C	LFVSafety assurance
Safety promotion	C	LFVSafety promotion
Safety culture	C	LFVSafety culture
Safety policy and objectives	C	BULATSASafety policy and objectives

Safety risk management	C	BULATSAS	Safety risk management
Safety assurance	C	BULATSAS	Safety assurance
Safety promotion	C	BULATSAS	Safety promotion
Safety culture	C	BULATSAS	Safety culture
Safety policy and objectives	B	Croatia Control	Safety policy and objectives
Safety risk management	B	Croatia Control	Safety risk management
Safety assurance	B	Croatia Control	Safety assurance
Safety promotion	B	Croatia Control	Safety promotion
Safety culture	B	Croatia Control	Safety culture
Safety policy and objectives	C	HANSP	Safety policy and objectives
Safety risk management	C	HANSP	Safety risk management
Safety assurance	C	HANSP	Safety assurance
Safety promotion	C	HANSP	Safety promotion
Safety culture	C	HANSP	Safety culture
Safety policy and objectives	C	Hungarocontrol	Safety policy and objectives
Safety risk management	C	Hungarocontrol	Safety risk management
Safety assurance	C	Hungarocontrol	Safety assurance
Safety promotion	C	Hungarocontrol	Safety promotion
Safety culture	C	Hungarocontrol	Safety culture
Safety policy and objectives	C	IAA	Safety policy and objectives
Safety risk management	D	IAA	Safety risk management
Safety assurance	C	IAA	Safety assurance
Safety promotion	C	IAA	Safety promotion
Safety culture	C	IAA	Safety culture
Safety policy and objectives	C	ENAV	Safety policy and objectives
Safety risk management	C	ENAV	Safety risk management
Safety assurance	C	ENAV	Safety assurance
Safety promotion	C	ENAV	Safety promotion
Safety culture	B	ENAV	Safety culture
Safety policy and objectives	C	LGSS	Safety policy and objectives
Safety risk management	C	LGSS	Safety risk management
Safety assurance	C	LGSS	Safety assurance
Safety promotion	C	LGSS	Safety promotion
Safety culture	C	LGSS	Safety culture
Safety policy and objectives	C	SE Oro Navigacija (ON)	Safety policy and objectives
Safety risk management	C	SE Oro Navigacija (ON)	Safety risk management
Safety assurance	C	SE Oro Navigacija (ON)	Safety assurance
Safety promotion	C	SE Oro Navigacija (ON)	Safety promotion
Safety culture	B	SE Oro Navigacija (ON)	Safety culture
Safety policy and objectives	C	NAV Portugal	Safety policy and objectives
Safety risk management	C	NAV Portugal	Safety risk management
Safety assurance	C	NAV Portugal	Safety assurance
Safety promotion	C	NAV Portugal	Safety promotion
Safety culture	C	NAV Portugal	Safety culture
Safety policy and objectives	C	ROMATSAS	Safety policy and objectives
Safety risk management	C	ROMATSAS	Safety risk management
Safety assurance	C	ROMATSAS	Safety assurance
Safety promotion	C	ROMATSAS	Safety promotion
Safety culture	C	ROMATSAS	Safety culture
Safety policy and objectives	B	Austro Control	Safety policy and objectives

Safety risk management	C	Austro Control	Safety risk management
Safety assurance	B	Austro Control	Safety assurance
Safety promotion	B	Austro Control	Safety promotion
Safety culture	B	Austro Control	Safety culture
Safety policy and objectives	B	LPS SR	Safety policy and objectives
Safety risk management	C	LPS SR	Safety risk management
Safety assurance	B	LPS SR	Safety assurance
Safety promotion	B	LPS SR	Safety promotion
Safety culture	B	LPS SR	Safety culture
Safety policy and objectives	C	NATS NERL	Safety policy and objectives
Safety risk management	D	NATS NERL	Safety risk management
Safety assurance	C	NATS NERL	Safety assurance
Safety promotion	C	NATS NERL	Safety promotion
Safety culture	C	NATS NERL	Safety culture
Safety policy and objectives	C	PANSAS	Safety policy and objectives
Safety risk management	C	PANSAS	Safety risk management
Safety assurance	C	PANSAS	Safety assurance
Safety promotion	C	PANSAS	Safety promotion
Safety culture	C	PANSAS	Safety culture
Safety policy and objectives	C	Warmia i Mazury sp. z o.o.	Safety policy and objectives
Safety risk management	C	Warmia i Mazury sp. z o.o.	Safety risk management
Safety assurance	C	Warmia i Mazury sp. z o.o.	Safety assurance
Safety promotion	C	Warmia i Mazury sp. z o.o.	Safety promotion
Safety culture	C	Warmia i Mazury sp. z o.o.	Safety culture
Safety policy and objectives	C	Port Lotniczy Bydgoszcz S.A.	Safety policy and objectives
Safety risk management	C	Port Lotniczy Bydgoszcz S.A.	Safety risk management
Safety assurance	C	Port Lotniczy Bydgoszcz S.A.	Safety assurance
Safety promotion	C	Port Lotniczy Bydgoszcz S.A.	Safety promotion
Safety culture	C	Port Lotniczy Bydgoszcz S.A.	Safety culture
Safety policy and objectives	C	EAANS	Safety policy and objectives
Safety risk management	C	EAANS	Safety risk management
Safety assurance	C	EAANS	Safety assurance
Safety promotion	C	EAANS	Safety promotion
Safety culture	C	EAANS	Safety culture
Safety policy and objectives	-	skeyes	Safety policy and objectives
Safety risk management	-	skeyes	Safety risk management
Safety assurance	-	skeyes	Safety assurance
Safety promotion	-	skeyes	Safety promotion
Safety culture	-	skeyes	Safety culture
Safety policy and objectives	-	DSNAS	Safety policy and objectives
Safety risk management	-	DSNAS	Safety risk management
Safety assurance	-	DSNAS	Safety assurance
Safety promotion	-	DSNAS	Safety promotion
Safety culture	-	DSNAS	Safety culture
Safety policy and objectives	-	DFSS	Safety policy and objectives
Safety risk management	-	DFSS	Safety risk management
Safety assurance	-	DFSS	Safety assurance
Safety promotion	-	DFSS	Safety promotion
Safety culture	-	DFSS	Safety culture
Safety policy and objectives	-	ANA LUX	Safety policy and objectives

Safety risk management	-	ANA LUX	Safety risk management
Safety assurance	-	ANA LUX	Safety assurance
Safety promotion	-	ANA LUX	Safety promotion
Safety culture	-	ANA LUX	Safety culture
Safety policy and objectives	-	LVNL	Safety policy and objectives
Safety risk management	-	LVNL	Safety risk management
Safety assurance	-	LVNL	Safety assurance
Safety promotion	-	LVNL	Safety promotion
Safety culture	-	LVNL	Safety culture
Safety policy and objectives	-	Skyguide	Safety policy and objectives
Safety risk management	-	Skyguide	Safety risk management
Safety assurance	-	Skyguide	Safety assurance
Safety promotion	-	Skyguide	Safety promotion
Safety culture	-	Skyguide	Safety culture
Safety policy and objectives	-	MUAC	Safety policy and objectives
Safety risk management	-	MUAC	Safety risk management
Safety assurance	-	MUAC	Safety assurance
Safety promotion	-	MUAC	Safety promotion
Safety culture	-	MUAC	Safety culture
Safety policy and objectives	C	Avinor	Safety policy and objectives
Safety risk management	C	Avinor	Safety risk management
Safety assurance	C	Avinor	Safety assurance
Safety promotion	C	Avinor	Safety promotion
Safety culture	C	Avinor	Safety culture







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Forecasts in this sheet

Enroute Terminal

STATFOR-CSTATFOR-OCTOBER

- -

Oct 2021 Forecast - En route Mvts

2019-2020

ER_CZ	2017	2018	2019
Austria	1232247	1300677	1364566
Baltic FAB	889385	977499	
Belgium-Luxembourg	1239835	1275219	1248754
BLUE MED FAB	2484906	2662472	
Bulgaria	783223	871164	879375
Croatia	586684	646656	714219
Cyprus	359543	393556	411466
Czech Republic	816884	877269	867234
Danube FAB	950728	1045210	
Denmark	646675	669725	669374
DK-SE FAB	1061385	1089896	
Estonia	215439	231685	228732
FAB CE	2153020	2311471	
FABEC	6047895	6237721	
Finland	262574	282791	285190
France	3241079	3327909	3371771
Germany	3259112	3403625	3393743
Greece	745432	832333	884090
Hungary	822166	904009	891964
Ireland	620922	635022	646596
Italy	1785541	1880251	1962182
Latvia	267807	290125	298026
Lithuania	276814	300728	303166
Malta	115544	125012	130230
NEFAB	1030914	1077018	
Netherlands	1286807	1328606	1331535
Norway	591121	594493	591272
Poland	792729	871805	912473
Portugal Continental	612522	633977	651223
Romania	673314	738093	747230
Slovakia	514884	567120	561881
Slovenia	385897	423154	459608
South West FAB	2059314	2168415	
Spain Canarias	332528	355574	357826
Spain Continental	1879561	1970164	2017990
Sweden	808370	831277	823408
Switzerland	1109597	1167096	1176605
UK-Ireland FAB	2576012	2598293	
United Kingdom	2534022	2557783	2580231















Actuals up 2021-2024 Updated with latest STATFOR forecast (Oct 2021)

2020	2021B	2021H	2021L	2022B	2022H	2022L	2023B	2023H
590080	609876	715897.9	503350.4	985275.7	1178167	759170.6	1163180	1377067
	419401	484486.7	349555.8	684615.7	791102.4	538759.4	828109.2	949820.6
541454	560161	653508.4	464801.5	858139.6	1021481	659946.9	998715.6	1176649
	1185728	1381559	974934.4	1853691	2211065	1436433	2199831	2605709
376180	383234	448482.2	321973.7	570131.9	675187.2	453125.7	691889.4	818411.6
301099	327258	382121.7	273092.9	500771.6	598178.3	394591.7	605213.2	717201.8
164210	186465	212939.7	163555.2	290349.6	336923.8	236159.2	346649.7	404780.6
339690	359258	417346.1	302595.4	574555.7	678176.2	451794.7	683737.9	799376.7
	441951	516246.7	368324.9	660318.8	783386.8	523951.1	798278.8	944196.9
274508	284461	325948.9	248276.8	468557.5	540935.2	386145.6	549500	632586
	442844	505419.1	392943.2	727020.5	837781.2	606648	850604.5	976135.4
97128	95130.5	108800.3	83826.22	157732.1	176758.4	126017.5	181771.6	209762.5
	974581	1141507	810410	1563055	1862126	1217400	1865871	2202285
	2755042	3201482	2296804	4266596	5066788	3364796	5028090	5891059
119053	121311	137749.4	111487.1	203194.6	231333.9	167476.2	230242.5	263255.3
1389815	1519667	1766688	1265920	2406062	2862579	1876658	2838635	3342170
1479122	1529396	1771568	1283187	2306918	2740440	1838971	2724235	3180145
382546	415976	480540.5	351577.1	610672.2	720332	485233.8	722755.9	850488.8
381260	383714	448921.5	322000.6	601042.6	712669.1	474285.8	724502.6	854755.9
263107	276703	334088.8	249963.5	458884.4	530925.6	381735.3	561973	643373.2
781672	868434	1015489	705890	1384609	1658442	1061118	1638000	1944425
130540	127403	145814	110546.9	211211	238546.2	168801.1	246197.5	285278.4
139336	140579	158171	120448.5	219918.4	247316.9	176627.8	255248.2	294298.6
56032	53457.3	61619.85	44937.28	84801.73	100034.7	68383.69	102409.6	120614.9
	532077	599218.2	483486.9	736902.6	832459	634863.5	853321.8	967491.4
595803	592512	695227.2	481268.8	919773.4	1089370	717572.6	1082724	1268555
344331	342609	383084.9	315350.6	414328.6	467926.7	374513	483415.7	541233.5
376916	390395	452382.7	325355.7	643045.5	743186.3	505473.1	781066.5	895112.3
266605	280100	335700	210938.5	453894.5	554114.7	337834.3	540835.8	655154.3
319994	418026	384065.4	278421.7	608670.9	578768.4	395077	686182.7	696109.2
200783	220409	255969.3	187843.8	350950.8	409522.3	278324	422058.2	493638.7
195283	209000	244619.9	175297.3	323006.1	386386.1	253366	388699.7	460190.9
	974198	1145839	785466.4	1572180	1897836	1183864	1849091	2211261
172387	175190	202657.8	132381.5	252628.9	300468.4	195864	289478.4	342365
780024	884903	1045086	717345.3	1459484	1769763	1089757	1724794	2069232
351175	358098	407157.8	320911	589952.5	675749	492829.6	687580	786751.9
477007	513093	601313	418803.6	820619.8	985241.8	638724.2	978034.7	1156573
	1059780	1238548	916366.5	1815579	2104401	1441027	2125811	2444504
1029166	1089087	1268888	943378.9	1852176	2140981	1471505	2167212	2485604















2023L	2024B	2024H	2024L
870115.1	1333224	1500149	987718.3
622044.7	941775.1	1020143	705839.5
744801.8	1134169	1280880	832650.7
1654366	2505606	2870842	1886641
530542	799743	913267.8	613178.7
455792.5	696202.7	793644	521785.8
280998.7	398644.5	460287.9	330465.6
517386.6	782362.2	870469.7	586490.5
610462.3	923899.2	1052270	703816.9
434576.3	624357.9	685466.8	483775.2
679349.9	964134.8	1057098	754854.4
146003.9	207601.4	224331.2	165155.9
1401631	2144995	2413122	1597165
3796775	5698853	6404579	4243850
188010.2	259625	282814.2	208470.7
2126525	3219272	3650268	2381097
2070009	3085110	3447491	2310957
558765.9	816379.6	940749.2	636736.1
550871.3	836455.3	945296.4	632478.6
440867.4	651778.4	698900.2	488691.2
1215287	1861616	2128182	1376242
195652.8	282355.4	305248.7	221642.5
203394.3	291051.7	312986.4	228973.2
81863.68	115716.4	136836.8	97571.98
706477.3	958021.3	1033960	777453.2
811954.2	1234979	1370561	909437.2
409122.7	537449.6	578363.7	443538.1
585385	887829.8	960934.7	665205.1
388538.8	620181.3	722212.1	440251.5
459930	717638.4	774696	528763.2
324638.7	485946.7	540927	371728.6
291545.9	446899.1	506893.8	332723.9
1345889	2111050	2433424	1521096
218998.4	324953.9	373444.9	243805.6
1244606	1976643	2283470	1412558
551756.3	778166.6	850777.4	613101.6
725414.9	1113176	1264366	815352.3
1618513	2413450	2653146	1792936
1652076	2457967	2696270	1828846

Oct 2021 Forecast - En-route 5

ER_CZ	2017
Austria	2973818.56
Baltic FAB	
Belgium-Lu	2593651.59
BLUE MED FAB	
Bulgaria	3513254.327
Croatia	1799166.289
Cyprus	1727957.728
Czech Rept	2823895.282
Danube FAB	
Denmark	1665677.934
DK-SE FAB	
Estonia	865652.9483
FAB CE	
FABEC	
Finland	848429.8447
France	20862128.94
Germany	14374174.67
Greece	5158193.97
Hungary	2973194.515
Ireland	4465252.571
Italy	8631815.977
Latvia	877213.5205
Lithuania	540776.0703
Malta	915945.4788
NEFAB	
Netherland	3223221.161
Norway	2526845.769
Poland	4290520.11
Portugal Cc	3777023.563
Romania	4756851.715
Slovakia	1189020.346
Slovenia	524771.1726
South West FAB	
Spain Cana	1602003.359
Spain Conti	10440757.38
Sweden	3615171.296
Switzerlanc	1603673.511
UK-Ireland FAB	
United Kinç	11767621.09















5Us	Flight Plan	Actual routes 2020-2024			2019-2020 Actuals upc 2021-2024 Updated wi			
2018	2019	2020	2021B	2021H	2021L	2022B	2022H	2022L
3198238	3338330	1508629	1500908	1767376	1239471	2346414	2823369	1821974
			2582203	2980916	2196034	3972575	4504524	3206366
2643568	2619592	1080873	1084388	1275330	895138	1665041	1996282	1285327
			8344890	9776542	6955411	13549978	16335174	10500572
3937596	4031643	1766031	1727276	2022019	1443311	2451129	2859152	1972997
1993898	2193426	929104.9	1016785	1201780	841544	1581839	1918218	1231262
1897492	2068170	852578.7	926027	1055399	806368	1436347	1645323	1175313
3041481	2936186	1138417	1165120	1360946	972586	1840802	2179435	1447497
			3886067	4529329	3246959	5685173	6596931	4553325
1709063	1780648	716778	735380	853667	635075	1163853	1343385	954869
			2472409	2850505	2175621	3828172	4381432	3196404
919795	900911.5	418748.5	416379	474036	368316	619047	676483	510000
			6454772	7584118	5396186	9940469	11834388	7828832
			19231267	22633167	15925293	31033801	37437192	24037712
940207.8	1010679	462057.6	447976	517514	412301	766364	879029	632221
21449867	21782108	8547246	9186013	10848904	7571105	15581787	18993800	11858673
14989181	15180482	6886812	6818081	7981256	5685681	10371406	12336120	8224390
5600105	6004800	2755521	2906903	3405557	2441228	4261032	5034631	3385801
3235675	3161594	1423059	1402069	1637046	1178800	2063770	2419349	1652464
4549883	4640860	1988290	2071673	2557971	1914968	3202365	3680613	2730530
9433866	10045778	3989844	4170337	4918582	3407947	7251799	8912431	5458023
938371.9	957532.6	439248.1	422779	483229	368993	652403	729245	532473
602689.5	618821.8	332616.3	341360	383256	295668	476863	529816	396064
934710.4	1019977	395964.1	341624	397004	299868	600800	742788	481435
			2468648	2853305	2243085	3804961	4320231	3203937
3392469	3380622	1479593	1461086	1719968	1215916	2251050	2666661	1784494
2522273	2437377	1229871	1181513	1378525	1093474	1767147	2035473	1529243
4666097	4971806	2145811	2240843	2597659	1900366	3495712	3974709	2810302
3855541	4059860	1556016	1581179	1908254	1199204	2769645	3465192	2034990
5100776	5117438	2245622	2898081	2507309	1803648	4360417	3737779	2580328
1296243	1291606	475362.2	503617	601187	441998	798052	925034	637917
571894.1	627328.5	263993.6	270094	317621	225250	419005	507991	328196
			7263057	8683441	5737080	12486443	15437821	9243220
1788036	1951121	802931.6	810188	954223	634782	1301632	1572788	997371
11058991	11488296	4436942	4871690	5820964	3903094	8415165	10399841	6210858
3812797	3820393	1676463	1737029	1996838	1540546	2664319	3038048	2241535
1741384	1768952	650488.3	681699	807708	557452	1164519	1444329	884826
			7450733	8953972	6611843	12194329	14313190	9917371
12194153	12593899	5099179	5379060	6396001	4696875	8991964	10632577	7186841















with latest STATFOR forecast (Oct 2021)

2023B	2023H	2023L	2024B	2024H	2024L
2806008	3330601	2095000	3224412	3642971	2382539
4733201	5452147	3693942	5423398	5856281	4175252
1967565	2326739	1462050	2251192	2544348	1644682
16463870	19550846	12441710	18826008	21740630	14461129
2923798	3441782	2269608	3354978	3838326	2599543
1945714	2319016	1447526	2251180	2571702	1672362
1691390	1965640	1383490	1935110	2240831	1622775
2195628	2571193	1659618	2514308	2799602	1881479
6765811	7935454	5265464	7765302	8845969	6042316
1368920	1583685	1076193	1563249	1718738	1200617
4475511	5135002	3577584	5082137	5568038	3974388
697284	797541	574691	791542	855329	640437
11936385	14094644	9021959	13723443	15496078	10290129
37330415	44107014	27625607	42766207	48287725	31243126
904072	1032099	736303	1028742	1109481	829064
18888484	22501929	13774487	21710040	24734970	15669997
12365584	14428691	9335075	14084693	15713098	10483121
5067070	5988278	3925570	5723626	6675904	4518920
2451811	2881187	1886373	2815285	3181615	2145112
4038945	4594038	3200187	4725720	4980088	3533297
8932709	10664211	6513215	10297720	11754751	7549807
752196	868294	606914	859599	929295	680765
546862	627854	445384	621783	668643	494882
772701	932717	619434	869551	1069143	769627
4527908	5157276	3701804	5158763	5541581	4137159
2673571	3128684	2016610	3066469	3407506	2259743
2174357	2459342	1783895	2478881	2647476	1986894
4186339	4824293	3248558	4801615	5187638	3680371
3407484	4155929	2419668	3948993	4592753	2789628
5022431	4493672	2995856	5269048	5007643	3442773
952668	1111658	737617	1094249	1218053	840715
511077	608914	380673	589747	671038	436087
15135730	18332926	10844665	17488732	20327100	12485856
1541592	1854970	1185575	1736604	2059403	1366659
10186655	12322026	7239423	11803136	13674944	8329569
3106592	3551317	2501391	3518888	3849301	2773771
1435212	1720971	1037385	1653812	1887802	1185583
14948462	17216685	11475720	17256075	18688304	12773313
10909517	12622647	8275533	12530354	13708216	9240016















## Oct 2021 Forecast - Terminal Mvts

2019-2020 Actuals upc 2021-2024 Updated wi

TCZ_Name	TCZ_Code	2017	2018	2019	2020	2021B	2021H
Austria - TCZ	LO_TCZ	165474	174680	184825	75658	81090	94125
Belgium EBAW	EB_TCZ_EBAW	5789	6458	5445	4051	4373	4619
Belgium EBBR	EB_TCZ_EBBR	116148	114908	114578	45668	50641	59696
Belgium EBCI	EB_TCZ_EBCI	25258	26421	27035	12412	11843	14011
Belgium EBLG	EB_TCZ_EBLG	16130	17154	17295	18356	16982	17962
Belgium EBOS	EB_TCZ_EBOS	2952	3051	3296	2603	2127	2308
Bulgaria - TCZ	LB_TCZ	28475	29882	30253			
Croatia - TCZ	LD_TCZ	21231	21825	22685			
Croatia - TCZ Zone 1	LD_TCZ_1				10628	11820	13205
Croatia - TCZ Zone 2	LD_TCZ_2				15222	21384	23737
Cyprus - TCZ	LC_TCZ	39675	41541	40449			
Czech Republic - TCZ	LK_TCZ	81588	84892	83234	30501	36455	41214
Denmark - TCZ	EK_TCZ	129517	132967	131625	49097	52742	60036
Estonia - TCZ	EE_TCZ	24874	23239	22773	10040	11114	12339
Finland - TCZ	EF_TCZ	87881	95602	96802	36386	37801	43183
France - Zone 1	LF_TCZ_1	357422	360563	363265	152724	156974	183877
France - Zone 2	LF_TCZ_2	566426	571659	579101	287081	323708	357947
Germany - TCZ	ED_TCZ	1022307	1061513	1062341	436595	501221	577287
Greece - TCZ	LG_TCZ	94817	105576	110030	54498	59162	67778
Hungary - TCZ	LH_TCZ	51063	57234	61112	23873	25126	29147
Ireland - TCZ	EI_TCZ	132223	137948	140733	53813	58594	67960
Italy - Zone 1	LI_TCZ_1	148665	153809	154899	51702	65703	78432
Italy - Zone 2	LI_TCZ_2	237141	247377	255048	103095	114256	134043
Latvia - TCZ	EV_TCZ	37298	41708	43742	17918	18376	20967
Lithuania - TCZ	EY_TCZ	28663	31608	32595	15517	16076	17489
Luxembourg - TCZ	EL_TCZ	35311	37382	38085	20148	18508	21406
Malta - TCZ	LM_TCZ	25796	29200	30095	12217	13167	15232
Netherlands - TCZ	EH_TCZ	290423	295144	293192	131741	136961	160736
Norway - TCZ	EN_TCZ	214485	215699	213725	130486	138422	153856
Poland - EPWA	EP_TCZ_EPWA	85560	93641	97070	39923	42993	49955
Poland - Others	EP_TCZ_Othr	106622	119514	124227	57200	59151	67906
Portugal - TCZ	LP_TCZ	205202	215781	221235	96945	106965	125941
Romania - TCZ	LR_TCZ	59016	62400	62893	28311	43886	37752.81
Slovakia - TCZ	LZ_TCZ	11020	11899	11243			
Slovenia - TCZ	LJ_TCZ	16961	17749	16114			
Spain - TCZ	LE_TCZ	586095	617670	629043	277844	327905	383307
Sweden - TCZ	ES_TCZ_A	160492	158066	151011	43065	42555	48935
Switzerland - TCZ	LS_TCZ	222912	225916	224233	92108	98786	115966
UK - Zone B	EG_TCZ_B	855640	855483	857199	315239	333934	393491
UK - Zone C	EG_TCZ_C	583113	589712	593691	226648	222088	264723















th latest STATFOR forecast (Oct 2021)

2021L	2022B	2022H	2022L	2023B	2023H	2023L	2024B	2024H
68347	140808	165155	106616	156057	182104	119857	177101	191853
4037	5048	5414	4292	5502	5857	4677	5827	6143
41734	78507	94297	57924	89452	106392	65700	102210	116622
9560	19276	23373	13910	22479	26856	16104	26245	30017
16042	16959	17938	14904	16956	17975	14931	16920	17871
1911	2669	2983	2198	2945	3294	2410	3198	3535
10718	15631	18193	13188	18879	21795	14768	21520	23844
19488	28890	33450	24406	34806	40008	27316	39814	44038
32543	59151	68807	47402	70783	82315	54099	82087	91193
46603	92090	106883	77393	108054	124003	86436	122681	135226
9955	16271	18791	13582	18944	21777	15112	21509	23607
34488	67281	78366	54304	75974	87973	60628	86044	95004
131652	251911	297974	205085	299400	351631	231282	339120	383201
285870	432886	489809	370635	494542	554162	408282	539931	589270
421725	708872	849500	578267	837815	974608	641960	941660	1050453
49804	79952	93119	63368	92745	107724	71021	104030	116883
21678	42970	51484	33679	52654	62200	39229	62143	69806
51073	104359	122016	84344	122351	141684	94952	140362	155007
51215	111125	133925	83478	131246	157087	95638	150067	171869
91185	183188	219847	138197	213913	254428	156209	242231	276518
15984	29864	34966	24376	35436	41554	27815	40940	45097
12787	22332	26201	18490	26479	30818	20765	30343	33664
15627	26742	31362	20487	30102	35040	22988	33644	37851
10601	21288	25291	16728	25645	29911	19516	29808	33442
105650	192565	229989	149466	224903	266305	168550	256234	283392
126882	161092	182455	146490	186402	208680	158199	206065	222848
34402	68146	80892	52888	85881	97539	59230	96385	105750
48468	91998	108584	72398	113529	124896	80802	124273	134157
81544	162866	196858	123238	191247	230096	139028	216302	250192
27835.19	56690	55131.23	38414.58	60230	64226.01	43120.09	64139	70974.033
269619	522090	626003	394204	607975	722100	445230	691165	791675
38561	79882	93343	66672	93544	108290	74303	106640	118219
79880	163086	193698	130176	194871	228446	146722	221429	248652
286060	614201	718530	481712	714056	829500	539268	810551	902875
188589	420133	494682	324943	493823	577436	367562	564455	631018















2024L
133810
4945
73884
18502
15052
2631
16503
30545
61818
96040
16849
67378
259425
440520
709425
78283
45686
106002
108310
174928
31434
23302
25346
22680
188305
171137
66577
90837
154508
48557.4
500179
82956
164189
599343
411454

Oct 2021 Forecast - Terminal SUs

TCZ_Name	TCZ_Code	2017	2018
Austria - TCZ	LO_TCZ	183368.7	197175.7
Belgium EBAW	EB_TCZ_EBAW	2406.182	2814.731
Belgium EBBR	EB_TCZ_EBBR	157783.5	161137.4
Belgium EBCI	EB_TCZ_EBCI	30989.96	32433.75
Belgium EBLG	EB_TCZ_EBLG	30782.32	35192.13
Belgium EBOS	EB_TCZ_EBOS	2965.98	3399.581
Bulgaria - TCZ	LB_TCZ	32975.89	34889.05
Croatia - TCZ	LD_TCZ	19576.98	21021.75
Croatia - TCZ Zone 1	LD_TCZ_1		
Croatia - TCZ Zone 2	LD_TCZ_2		
Cyprus - TCZ	LC_TCZ	54225.4	56667.72
Czech Republic - TCZ	LK_TCZ	90406.51	97540.29
Denmark - TCZ	EK_TCZ	165019.6	171646.2
Estonia - TCZ	EE_TCZ	18321.25	19373.36
Finland - TCZ	EF_TCZ	108789.3	120914.3
France - Zone 1	LF_TCZ_1	581132.1	593718.1
France - Zone 2	LF_TCZ_2	518428	527994
Germany - TCZ	ED_TCZ	1414362	1464253
Greece - TCZ	LG_TCZ	113002.9	126274.9
Hungary - TCZ	LH_TCZ	63896.56	73183.91
Ireland - TCZ	EI_TCZ	171665	182545.7
Italy - Zone 1	LI_TCZ_1	217688.9	230047
Italy - Zone 2	LI_TCZ_2	313533.1	330580.4
Latvia - TCZ	EV_TCZ	36031.96	41366.53
Lithuania - TCZ	EY_TCZ	29069	33157.67
Luxembourg - TCZ	EL_TCZ	51201.15	54700.12
Malta - TCZ	LM_TCZ	31200.38	35091.83
Netherlands - TCZ	EH_TCZ	406059.8	412908.8
Norway - TCZ	EN_TCZ	246209.6	252577.5
Poland - EPWA	EP_TCZ_EPWA	90674.62	102609.9
Poland - Others	EP_TCZ_Othr	113412.2	130895.7
Portugal - TCZ	LP_TCZ	257608.3	273413.7
Romania - TCZ	LR_TCZ	67510.97	72151.78
Slovakia - TCZ	LZ_TCZ	11118.35	12452.88
Slovenia - TCZ	LJ_TCZ	13032.34	13945.59
Spain - TCZ	LE_TCZ	781477.3	825263.9
Sweden - TCZ	ES_TCZ_A	192963	194247.7
Switzerland - TCZ	LS_TCZ	283798.7	290974.4
UK - Zone B	EG_TCZ_B	1292580	1304080
UK - Zone C	EG_TCZ_C	964876.3	982400.7













2019-2020 Actuals upc 2021-2024 Updated with latest STATFOR forecast (Oct 2021)

2019	2020	2021B	2021H	2021L	2022B	2022H	2022L	2023B
214769.7	82147.49	86163.26	101719.8	71057.75	163619.1	194417.8	121801.6	182622.9
2427.689	1095.451							
162346.6	72921.4	76654.27	86904.9	63080.32	115235.8	134701.1	88134.67	127646.5
33083.91	14137.7							
37106.34	42984.08							
3398.235	3719.421							
35364.81								
21613.39								
	9109.096	10627.26	12140.55	9618.753	14872.92	17675.24	11973.61	18354.67
	11596.49	18599.84	22086.04	16396.92	28503.52	34027.4	22752.54	35465.58
55807.73								
99036.29	30771.49	38012.83	43455.94	33534.99	67390.52	81188.79	52062.21	83551.39
171748.7	63465.13	64296.86	73910.7	56514.69	116258	136679.1	96162.07	139826.4
19604.13	8201.18	9132.781	10554.48	8193.847	13715.05	16154.24	11239.02	16234.18
124927.1	44088.17	44026.78	51886.16	39500.9	83740.06	100412.9	65155.86	96147.22
603663.8	267088.3	255854.7	300324.6	217302.3	412263.4	485024.1	338175.4	496078
545626.2	244546.2	283932.8	314521.9	244423.1	403022.2	462368.2	342122.4	463479.4
1483851	626801.8	687834.3	788070.8	575353.8	976073.7	1166931	797288.1	1158429
131553.2	58815.19	64788.45	75569.44	52651.91	91892.88	109166.7	70857.02	109249.3
79830.63	31091.54	33137.64	38256.41	28061.71	57180.64	68284.44	45011.35	69033.34
187709.4	70511.44	76703.59	88245.73	67666.65	136070.1	160319.9	112331.1	163328.2
233682.4	73300.33	97927.76	117741.3	75881.83	167559.2	200587.2	127698.7	199254.8
344286.6	143054.5	157481.3	180441.1	124280.1	252316.8	297586	194909.4	290586.9
44699.6	18166.59	18929.75	22197.75	15775.3	30590.8	35590.92	25347.9	35952.86
34118.43	16440.13	16985.19	18672.89	13195.38	23799.45	28465.1	19708.66	27852.95
56435.66	40237.34	33027.12	36993.13	29495.53	42509.07	48573.98	34577.94	47559.42
36971.99	14527.98	15441.86	17860.21	11515.95	26540.75	32332.87	20147.05	32809.3
412020.6	210653.1	208982.9	242303.3	160496	284919.5	336414.4	226705.4	333830.5
251004.9	128994.9	150248.1	171373.8	134865.6	182561.8	201733.4	162243.1	206787.2
107047	43439.97	46170.3	53942.37	36800.42	75168.26	89086.58	57664.58	96102.02
137417.6	59183.14	60938.79	71733.42	47809.71	100765.9	120245.3	77155.32	125662.6
291360.1	120965.8	134507.7	158296.9	100482.2	208637.3	255570.8	155209.3	249119.6
73692.62	31417.5	46861.13	44301.02	30589.23	67547.89	65596.64	44080.46	71863.29
12061.2								
12575.85								
846003	349848.6	412756.9	487016.2	333096.2	686387.5	826915.5	511496.1	807395.9
189086.2	54147.13	51419.51	59598.21	45734.6	101519.9	119164.2	84354.48	120327.5
292924	111807.5	120153.9	142708.7	95057.7	209806.8	250783.6	166978.6	255377.4
1312454	504648	496819.3	588279.6	426145	931028.8	1082303	735854.4	1088341
988876.7	398602	365723.8	439934.2	314526.9	694987	807359.5	545704	817855.5















2023H	2023L	2024B	2024H	2024L
215468.7	138125.3	209754.9	228700.7	156279.5
149042.2	102389.1	144432.6	162238	115233.4
21053.14	13453.98	20576.34	23121.08	15267.32
41885.81	26103.26	41420.12	46955.89	29728.18
98821.87	61473.14	98695.41	111028.9	71957.34
163303	109507.9	161611.5	179607.3	121661.5
18766.89	12316.01	18376.42	20605.11	13936.94
114903.3	74051.25	112724	126322.6	83498.6
581128.3	390526	564757.4	646668.5	443422.6
528123.5	380882	515056	566159.8	417444.2
1356069	901834.1	1313125	1468129	1005127
129446.8	80700.91	124796.6	141437.6	90601.32
81082.15	53085.01	81748.39	92815.14	61881.68
188262.7	127807.7	188289.6	206904.8	145161.9
238017.5	148191.1	228633.9	264602	168593.9
342098	223942.2	329236.6	374003.5	252860.2
42487.1	28485.74	41780.99	47482.42	32126.09
32837.97	21725.64	32009.46	36088.95	24824.07
54306.56	38498.14	52470.25	58118.87	41735.33
38913.6	23917.25	38926.52	43568.31	28792.67
391518.7	260176.7	378821.3	419070.3	293256.2
236077.4	177284.6	233292.7	254418.6	193774.5
109804.9	65969	108711.3	120109.8	75128.25
139963.1	87404.23	138905.6	151404.5	99000.55
303823	177459.6	284740.9	334769.2	199995.1
76348.72	50400.69	76385.28	84529.22	56739.74
963325.4	589523.1	923608.5	1067305	673293
139830.1	96128.35	138436.6	153811.7	108036.6
300239.5	193472.2	293126.8	328875.3	218392.2
1268838	839911.1	1246379	1390234	944760.5
956606	625942.2	939686.3	1049018	704193



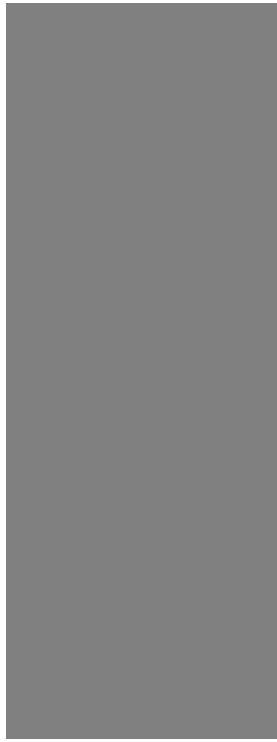






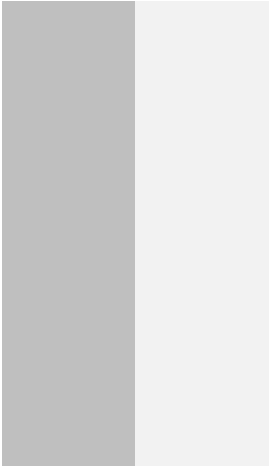












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ER Selector	#	
Click to select		2
Romania		

All CZs Selector

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Romania	En-route	
Romania - TCZ	Terminal	





ANSPs\_Selector

Enroute Traffic Forecast Selector

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All ANSPs Selector

Click to select  
ROMATSA

2

Select traffic forecast

3

STATFOR Base forecast OCTOBER 2021 (Flight Plan)  
Local forecast





Terminal Traffic forecast selector

=OFFSET('Dynamic lists'!\$v\$5;;; 'Dynamic lists'!\$w\$5)

Select traffic forecast 3

STATFOR Base forecast OCTOBER 2021

Local forecast