

Performance Plan

Poland

Third Reference Period (2020-2024)

Status: Draft performance plan containing revised RP3
targets (Art. 3 of IR 2020/1627 & Art. 12 of IR
Date of issue: 30th September 2021

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Signatories

Performance plan details	
State name	Poland
Status of the Performance Plan	Draft performance plan containing revised RP3 targets (Art. 3 of IR 2020/1627 & Art. 12 of IR 2019/317)
Date of issue	30 th September 2021
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	
Minister of Infrastructure	
Director General of Civil Aviation of the Republic of Poland	

Additional comments	

Document change record		
Version	Date	Reason for change

SECTION 1: INTRODUCTION

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1 - INTRODUCTION

1.1 - The situation

NSA(s) responsible for drawing up the Performance Plan	Polish Civil Aviation Authority acting as NSA

1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs	5	
ANSP name	Services	Geographical scope
Polish Air Navigation Services Agency (PANSa)	ANSP (ATS, CNS, AIS, SAR coordination)	Flight Information Region Warszawa, all airports concerned
Institute of Meteorology and Water Management - National Research Institute (IMWM)	METEO	Flight Information Region Warszawa (excluding EPRA TMA and CTR/ATZ, EPSY TMA and CTR/ATZ, EPBY TMA and CTR/ATZ)
Radom Meteo sp. z o.o.	METEO	EPRA TMA and CTR
Warmia i Mazury sp. z o.o.	ATS (AFIS), CNS (COM), METEO	EPSY METEO: TMA, CTR and ATZ, AFIS: ATZ
Port Lotniczy Bydgoszcz S.A.	ATS (AFIS), METEO	EPBY METEO: TMA, CTR and ATZ, AFIS: ATZ

Cross-border arrangements for the provision of ANS services

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

ANSPs providing services in the FIR of another State	
ANSP Name	Description and scope of the cross-border arrangement
PANSa	In order to reduce the number of coordinations for traffic in AWY L867, a separate area named SOUTH OF DESEN has been established within the PRAHA FIR. This area can be delegated to WARSZAWA ACC and in such case WARSZAWA ACC is responsible for the provision of air traffic control and flight information services within this area. It is based on Letter of Agreement between ANS of the Czech Republic and PANSa and AIP POLAND ENR 2.1.2.

Number CB arrangements where ANSPs from another State provide services in the State	3

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
LVF Group Air Navigation Services (ATCC Malmö)	In order to reduce the number of coordinations over the Baltic high sea, separate areas have been established, within the WARSZAWA FIR. These areas named MIDSEA and RÖNNE SOUTH can be delegated to ATCC MALMÖ and in such case ATCC MALMÖ is responsible for the provision of air traffic control and flight information services within these areas. It is based on Letter of Agreement between ATCC MALMÖ and ACC WARSZAWA and AIP POLAND ENR 2.1.2.
ANS of the Czech Republic (ACC Praha)	In order to reduce the number of coordinations, a separate area WEST of OKX has been established within the WARSZAWA FIR. This area may be delegated to PRAHA ACC and in such case PRAHA ACC is responsible for the provision of air traffic control and flight information services within this area. In order to reduce the number of coordinations for traffic in the AWY, a separate area SOUTH of KŁODZKO has been established within the WARSZAWA FIR. This area can be delegated to PRAHA ACC and in such case PRAHA ACC is responsible for the provision of air traffic control and flight information services within this area. It is based on Letter of Agreement between ANS of the Czech Republic and PANSa and AIP POLAND ENR 2.1.2.
Austro Control GmbH via DFS Deutsche Flugsicherung GmbH	In order to reduce the number of coordinations for flights at Heringsdorf Airport (CTR), the area named CTR Heringsdorf can be delegated to ACC BREMEN and in such case ACC BREMEN is responsible for the provision of air traffic control and flight information services within this area. It is based on Letter of Agreement between ACC BREMEN and ACC WARSZAWA. DFS Deutsche Flugsicherung GmbH (ACC BREMEN) delegated provision of air traffic control and flight information services within this area (CTR Heringsdorf) to Austro Control GmbH as stated in AIP POLAND ENR 2.1.2.

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
Civil Aviation Authority of the Republic of Poland (NSA)	Supervision	Only the part of Polish CAA's budget attributable to activities on supervision of Air Navigation Service Providers related to NSA & partially MS obligations are included in the costs bases for air navigation charges. This is in line with Polish Aviation Act and EU Single European Sky Regulations.

EUROCONTROL	Other/Network	Part of EUROCONTROL budget attributable to Poland's cost base.

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

En-route	Number of en-route charging zones	1
En-route charging zone 1	Poland	
Terminal	Number of terminal charging zones	2
Terminal charging zone 1	Poland - EPWA	
Terminal charging zone 2	Poland - Others	

1.1.4 - Other general information relevant to the plan

Due to the crisis caused by COVID-19, Polish ANSPs were put in a difficult situation in 2020. It was caused both by a significantly lower level of air traffic and existing obligations to provide uninterrupted air navigation services. As a consequence, ANSPs faced problems in several areas of their functioning, including operational, staffing and economic.

In response to the COVID-19 pandemic ANSPs were taking measures aimed at mitigation of the negative impact of the crisis situation. As a consequence, ANSPs were operating in a limited configuration due to the significant decrease in air traffic volume. The duty hours of the operational and engineering staff were reduced respectively. Many of staff training and equipment maintenance plans were postponed due to the introduced physical distancing rules. Some facilities were put in a "sleep" mode due to the absence of operational need and staff availability.

Taking into consideration all above mentioned actions, the situation concerning individual KPI was diverse as indicated below:

KPA SAFETY: COVID-19 pandemic situation did not affect dramatically the safety level of the services provided by ANSPs. The ANSPs have successfully implemented a set of measures to achieve performance targets. Data indicate that safety has remained at a very high level.

KPA ENVIRONMENT: An improvement in the en-route horizontal flight efficiency indicator (KEA) was reported in 2020. In Poland the value of the KEA was achieved at the level of 1.67% with the planned target value of 1.85%. However, these positive results were caused by a significant reduction of the air traffic volume.

KPA CAPACITY: The year 2020 should be divided into two periods: before COVID, covering months from January to mid-March 2020, and the time of COVID pandemic in the remaining period of the year. During the first period some delays were noted, while during the second – a significant reduction in the number of operations was reported, which significantly improved the situation in this KPA. As a result, the delay at the end of the year in Poland was 0 minutes/flight with a target of 0.30 minutes/flight. Similarly, good results in terminal traffic delays were recorded. In case of Poland, the national target was 0.45 minutes/flight, while the actual result was 0.02 minutes flight.

KPA COST EFFICIENCY: In the area of cost-efficiency, both in terms of en-route and terminal charges, the initial 2020 targets for the COVID-19 pandemic reason have not been achieved. In the area of en-route charges, the total number of service units (TSU) decreased in 2020 compared to 2019 by 56.8%, i.e. from 4.971.806 in 2019 to 2.145.811 in 2020 with a nominal decrease in total ANSP's costs in 2020 by 3.1%, and in constant prices from 2017 by 5.3%. Similarly, in the area of terminal charges at EPWA airport, i.e. in the first zone of terminal charges, the number of TSUs decreased in 2020 compared to 2019 by 59.5%, i.e. from 107.857 in 2019 to 43.367 in 2020, with a nominal decrease total costs in this area in 2020 by 21.9%, and in constant prices from 2017 by 24.1%. On the other hand, in the area of terminal charges in the second zone, the number of TSUs decreased in 2020 compared to 2019 by 55.0%, i.e. from 138.516 in 2019 to 62.352 in 2020, with a nominal decrease in total costs in 2020 by 2.9%, and in constant 2017 prices by 5.3%.

As indicated in the latest STATFOR forecast (May 2021), achievement of air traffic volumes recorded before 2019 will be possible in the latest years of RP3, assuming that the range of COVID-19 remains low and passengers will regain confidence in use of air transport.

It will create the situation when the biggest challenge for next years of the RP3 is to provide navigation service to meet requirements of pre-COVID-19 air traffic. 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) Geographical location, including PL being EU/NATO/NM border country

Being NATO/NM border State leads to lower traffic predictability (out-of-area traffic). It requires application of measures to mitigate greater volatility of unregulated civil and military traffic. It also necessitates use of customized solutions in the area of ATM and flow management, enabling smooth cooperation with third parties (Russia, Belarus, Ukraine).

Political tensions between some non-EU states, impacting flight trajectories – e.g. in South-Eastern part of Poland – being reflected in actual HFE/KEA indicator.

Being EU border state also makes Poland volatile to changes in traffic to/from outside of EU. In the period of COVID-19 pandemic the restrictions impacting long-haul/intercontinental traffic visibly impacted traffic and aircraft structure in FIR Warszawa. Past experience shows that EU/NM border states experience higher volatility in terms of traffic levels, what results in greater difficulty in traffic forecasting (possible lower reliability of forecasting, especially under the current crisis) – therefore PL should be prepared for serving traffic even above STATFOR high forecasts. Possible increase in traffic beyond 2024 as well as possible changes in fleet and traffic flows require continuation of investments increasing flexibility in capacity delivery, based on data exchange and reliability of CNS infrastructure in RP3. This include also investments related to new ATM system (iTEC). These investments require also increase in ATSEP personnel to implement and maintain them, as well as training.

Over the last years of RP2, PL supported the European Network by helping to relieve the most congested parts of the European airspace. Under the current

Over the last years of RP2, it supported the European network by helping to relieve the most congested parts of the European airspace. Under the current circumstances it is unclear when pre-crisis traffic levels might return and whether such support might still be needed by end of RP3/beginning of RP4 (RP3 planning will also impact RP4 in terms of available resources and resulting capacity).

2) Macroeconomic factors, including labour market situation, combined with required employment of highly skilled specialists to support, among others, implementation of new, specialised solutions

Poland experiences constant significant increases in minimum wage, average salary and minimum hourly wage. This impacts staff costs and cost of external services mostly, but also CAPEX (changes to construction labour market). This relates also to 2020 and 2021 – and is expected to continue over the rest of RP3. Data supporting this observation can be provided to EC/PRB if needed.

This, combined with the second lowest unemployment rate among the EU States (vide Eurostat data for August/September 2020), leads to increased pressure on salaries and creates so called “employee-orientated” market.

To be able to implement modern solutions related to, among others, digitalisation and CNS infrastructure or ATM systems (maintenance and development, including implementation of new ATM system - ITEC), PANSA needs to employ highly-skilled staff. The labour market situation again puts pressure on salaries in this group of employees.

As a developing economy, Poland experiences higher changes in GDP than developed economies. There is unquestionable relationship between GDP growth and air traffic growth – therefore Poland needs to be prepared for again increased traffic when crisis and its consequences are over.

As not part of the Euro-zone, Polish entities experience financial risks related to exchange rates. The non-EUR currency and developing economy impacts risk-free rate and State risk, what should be duly reflected in cost of capital.

3) Preparations for new greenfield hub airport

Poland plans to open new, greenfield hub airport (Solidarity Transport Hub) in the RP4 perspective. This requires works to be undertaken already in RP3. Those include, among others, airspace restructuring processes (required to both support area control management and approach control, as well as redesign of TMAs around airports) and preparatory works for a number of investment projects (for infrastructure and systems related to ATM/ANS).

Additional comments

Not applicable.

1.2 - Traffic Forecasts

1.2.1 - En route

En route Charging zone 1

Poland

En route traffic forecast

STATFOR Base forecast MAY 2021 (Flight Plan 2017-19, Actual Route 2020-2024)

STATFOR Base forecast MAY 2021 (Flight Plan 2017-19, Actual Route 2020-2024)	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	793	872	912	377	390	643	781	888	-0,5%
IFR movements (yearly variation in %)		10,0%	4,7%	-58,7%	3,6%	64,7%	21,5%	13,7%	
En route service units (thousands)	4 291	4 666	4 972	2 146	2 241	3 496	4 186	4 802	-0,7%
En route service units (yearly variation in %)		8,8%	6,6%	-56,8%	4,4%	56,0%	19,8%	14,7%	

1.2.2 - Terminal

Terminal Charging zone 1

Poland - EPWA

Terminal traffic forecast

STATFOR Base forecast MAY 2021

STATFOR Base forecast MAY 2021	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	85,6	93,6	97,1	39,9	43,0	68,1	85,9	96,4	-0,1%
IFR movements (yearly variation in %)		9,4%	3,7%	-58,9%	7,7%	58,5%	26,0%	12,2%	
Terminal service units (thousands)	90,7	102,6	107,0	43,4	46,2	75,2	96,1	108,7	0,3%
Terminal service units (yearly variation in %)		13,2%	4,3%	-59,4%	6,3%	62,8%	27,8%	13,1%	

Terminal Charging zone 2

Poland - Others

Terminal traffic forecast

STATFOR Base forecast MAY 2021

STATFOR Base forecast MAY 2021	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	106,6	119,5	124,2	57,2	59,2	92,0	113,5	124,3	0,0%
IFR movements (yearly variation in %)		12,1%	3,9%	-54,0%	3,4%	55,5%	23,4%	9,5%	
Terminal service units (thousands)	113,4	130,9	137,4	59,2	60,9	100,8	125,7	138,9	0,2%
Terminal service units (yearly variation in %)		15,4%	5,0%	-56,9%	3,0%	65,4%	24,7%	10,5%	

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
During meetings held with stakeholders Polish NSA presented proposals of the changes to the Performance Plan developed in 2019, resulting from COVID-19 pandemic. Discussions were focused on Key Performance Areas including safety, environment, capacity and cost-efficiency, and additionally on the incentive scheme mechanism. During the consultation the priorities and requirements of the performance plan were discussed. It was also an opportunity to incorporate agreed changes into the plan. Stakeholders agreed with many of NSA proposals, nevertheless there were also areas of disagreement. Discussion during the meetings was open and created room for stakeholders to present their positions and expectations. Polish NSA conducted meetings on following dates: - 27 May 2021; - 28 June 2021; - 31 August 2021. Details concerning the results of the meetings are provided in the Annex C.

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	For the purpose of revised draft RP3 PP development, the scenario 2 (base) of May 2021 STATFOR forecast was used. However, it needs to be considered that STATFOR forecast provides only annual values – and some expected differences in traffic distribution over a year need to be considered. Based on information provided by NM as well as observations of actual traffic developments over 2021, it is expected that annual distribution of traffic over 2022+ will be different than the one observed in 2019 – with higher traffic levels over the peak summer season and lower levels over the remaining period. Latest data shows greater seasonality of traffic with summer season traffic recovering faster than annual averages – therefore for OPS staff planning it should be considered that for summer months 2019 traffic levels can be reached earlier than 2024 and that over summer months of 2024 traffic levels can be higher than 2019 actuals for this period. Moreover, under the 2022-2026 NOP planning process NM advised to consider scenario 1 for the summer season.
Charging policy	Yes	The charging policy in RP3 will be in line with Regulation 2019/317. The details about adjustments were presented in Annexes A (reporting tables for charging zones). No modulation of charges is planned to be implemented. CAA has not received any negative feedback on this topic.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	For both en-route and terminal CAPACITY the incentive scheme provides similar advantages and disadvantages: - Max Bonus - 0.50% of DC - Max Penalty - 0.50% of DC
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	For en-route CAPACITY - based on NOP; For terminal CAPACITY - based on delays causes related to ATC (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).
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	Dead Band was set to ensure that slight deviations in ATFM delays around the Pivot Value will not lead to the application of penalties or bonuses. In case of Poland the value of the Dead Band is: - 20% min for en-route CAPACITY, - 20% for terminal CAPACITY.
Establishment or modification of charging zones	Yes	Poland has decided to maintain the current configuration of terminal charging zones (two TCZ). The decision upon its establishment was taken by the Polish Ministry of Infrastructure and delivered to EC. CAA has received not-supporting feedback from several airport managing bodies. In addition some of airspace users representatives (Lufthansa, IATA) expressed their support for site-specific configuration of terminal charging zones, while the representative of PLL LOT stated that two terminal charging zones are the required minimum.

Establishment of determined costs included in the cost base for charges	Yes	The proposed cost bases were presented in the draft Performance Plan and at the consultation meeting. The consistency between local and EU-wide cost-efficiency target was also presented. In general, CAA has received a negative feedback on the planned increase of air navigation charges, mainly in the second terminal charging zone. Additionally, negative feedback was expressed on the lack of public support for ANSPs.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	CAA does not plan to modulate the traffic risk sharing mechanism parameters
Where applicable, decision to apply the simplified charging scheme	No	CAA does not plan to implement simplified charging scheme.
New and existing investments, and in particular new major investments, including their expected benefits	Yes	For details, see Annex E.

1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	PANSA (ATS, CNS, AIS, SAR coordination provider), Warmia i Mazury sp. z o.o. (AFIS, COM, MET provider), Port Lotniczy Bydgoszcz S.A. (AFIS, MET provider), Radom METEO (MET provider) and the Institute of Meteorology and Water Management – National Research Institute (MET provider).
Dates of main meetings / correspondence	27 May 2021; 28 June 2021; 31 August 2021 Exchange of information in a day to day working contact with ANSPs.
Main issues discussed	Presentation of the local targets values for the RP3 within KPAs of Safety, Environment, Capacity, Cost Efficiency and Incentive Scheme. Discussion concerning ANSPs development including investment plan and ATCO training plan. Presentation of the implementation and monitoring of the performance plans.
Actions agreed upon	ANSPs will take all necessary efforts to provide required capabilities to fulfil obligations and meet targets in all performance areas.
Points of disagreement and reasons	The Agency has very limited room for improvement of the KEA indicator depending only on factors beyond the Agency's control. ANSPs will do their utmost to reach the KEA values established by the European Commission (1.65%) but the political situation (Belarus, Ukraine, Kaliningrad, Afghanistan and other) is impacting KEA value in the Polish airspace.
Final outcome of the consultation	The targets of Safety, Environment and Capacity consisted with reference value have been agreed. CAA has not received any final negative opinion upon the cost-efficiency target from any ANSP.

Additional comments
Due to the pandemic situation the direct contact with representatives of ANSPs was limited. The cooperation was conducted mainly via electronic ways of communication.

#2 - Airspace Users	
Stakeholder group composition	IATA, LOT Polish Airlines, ENTER Air, Lufthansa, Ryanair, Polish Medical Air Rescue.
Dates of main meetings / correspondence	31 August 2021 / Correspondence: RYANAIR (20th August 2021), LOT (30th August 2021); Lufthansa (20th August 2021).
Main issues discussed	Presentation of the local targets values for the RP3 within KPAs of Safety, Environment, Capacity and Cost Efficiency. Presentation of the Investments and Incentive Scheme. The main issues discussed were concentrated on: 1. KPA Safety targets, 2. KPA Environment. The influence of the geopolitical situation on the performance plan, especially on horizontal flight efficiency. 3. KPA Capacity targets and incentive scheme, 4. Investments, including the changes in the scope and cost of investments, 5. ATCO training plans, especially the plans to increase the number of ATCO and ATCO productivity, 6. Planned increase of air navigation charges compared to 2021.

Actions agreed upon	1. Airspace Users agreed the proposed targets in KPA Safety. 2. Airspace Users expressed their support to proposed local HFE targets. They expressed their understanding for the ambitious EU Environment target and reference values for Poland. They appreciated Polish ANSPs aims to make all possible efforts to meet the target. The consensus was achieved despite of fact that there are some elements beyond PANSA's control which create a risk in this area. In the current unstable and unforeseeable circumstances the STATFOR having the best knowledge and anticipation of possible traffic evolution in the coming years, would be for us the most credible source of forecast. 3. Airspace Users agreed the proposed targets in KPA Capacity. 4. A number of investments implemented by ANSPs are interrelated and need to be implemented jointly to reach the goal. As a local factor a strong increase in construction material prices in Poland should be considered, which leads to increase in the value of investment tasks. 5. Airspace Users understood the plans to increase number of ATCOs in RP3. Current plans are combination of several factors, among other the following are the most important: a. Planned comprehensive FIR EPWW airspace changes. b. Planned airspace re-sectorisation following implementation of three layers vertical split, c. Increased needs related to ATCOs training. d. Expected possible different traffic distribution over seasons/months/weeks/weekdays/hours. 6. Airspace users gave a negative feedback in terms of planned increase of air navigation charges compared to 2021. In addition, the CAA received a strong suggestion that ANSPs should be supported by public funds to limit the increase of air navigation charges. As regards UR increases, CAA stressed that the increases are visible in all States (lower traffic forecasts). As far as public support is concerned it was indicated that PL Government is supporting PANSA through a loan (the loan was offered by a state bank). Additional explanations on this regard were provided shortly after the consultation meeting.
Points of disagreement and reasons	6.No further questions or concerns on this from the airspace users' representatives.
Final outcome of the consultation	Despite critical comments concerning some of the proposed revised targets of the Performance Plan, only a limited number of issues is still questioned by Airspace Users. Both service providers and Airspace Users are open for further discussion and they are ready to cooperate to provide safe and efficient air navigation system. The influence of the COVID-19 pandemic is still very significant. The recovery of the aviation sector needs close cooperation, mutual understanding and continuation of endeavours providing conditions to achieve assigned tasks.

Additional comments
Please see Annex C for detailed description of the consultation meeting.

#3 - Professional staff representative bodies	
Stakeholder group composition	Technical Trade Union of PANSA.
Dates of main meetings / correspondence	31 August 2021
Main issues discussed	Technical Trade Union of PANSA recognizes the need of further digitization of processes in PANSA. An important part of this process is revolution is the iTEC system. This is the future core ATM system.
Actions agreed upon	The social site supported efforts aimed at further implementation of the new technologies and is deeply concerned about the risk of any plans of reducing the investment in innovations.
Points of disagreement and reasons	No disagreements.
Final outcome of the consultation	Support to the modernization plans.

Additional comments
Please see Annex C for detailed description of the consultation meeting.

#4 - Airport operators	
Stakeholder group composition	Solidarity Transport Hub Poland, Warszawa/Modlin Airport, Katowice Airport, Kraków Airport, Wrocław Airport, Gdańsk Airport, Lublin Airport, Łódź Airport.
Dates of main meetings / correspondence	31 August 2021 / Correspondence: Kraków-Balice Airport (17th August 2021), Lublin Airport (19th August 2021) Wrocław-Strachowice Airport (19th August 2021), Katowice-Pyrzowice Airport (19th August 2021), Łódź Airport (20th August 2021), Gdańsk im. Lecha Wałęsy Airport (7th September 2021)
Main issues discussed	1. Investments, including: a. investment related to Solidarity Transport Hub –STH, b. cost allocation of the new investments, 2. Airport conditions due to the COVID pandemic and support for the airports, 3. Terminal charging zone configuration for RP3. 4. Planned increase of air navigation charges compared to 2021.

Actions agreed upon	The current stage of STH development is the planning phase. PANSA is closely cooperating with the company responsible for the STH project and if there are any changes in the schedule for that project PANSA will adjust investment plans respectively. Some of Airport operators representatives supported the two charging zones configuration as presented in the PP. 3. Some airport operators representatives expressed their negative feedback on the two charging zones configuration, suggesting that one charging zone would be a better option, especially considering the COVID-19 pandemic impact. CAA provided an explanation on this topic and informed that the current configuration of terminal charging zones (two TCZ, decision taken by the Polish Ministry of Infrastructure) will be maintained. 4. Airport operators representatives expressed their disagreement with reference to the planned increase of air navigation charges. In addition they also raised the issue of no public support for ANSPs. CAA clarified the issue, both during and shortly after the consultation meeting (email correspondence).
Points of disagreement and reasons	3. Terminal charging zone configuration will not be changed during RP3, CAA clarified the issue during the consultation meeting and there were no further questions or concerns on this from the airport operators representatives. 4. Airport operators maintain their position expressed during the consultation meeting, i.e. no approval for the planned increase of terminal charges and the need for public support for ANSPs.
Final outcome of the consultation	Some of Airport operators did not support the planned increase of air navigation charges. The Airport operators at EPGD, EPLL have provided their additional statements to this regard.

Additional comments
Please see Annex C for detailed description of the consultation meeting.

#5 - Airport coordinator	
Stakeholder group composition	Not applicable.
Dates of main meetings / correspondence	Not applicable.
Main issues discussed	Not applicable.
Actions agreed upon	Not applicable.
Points of disagreement and reasons	Not applicable.
Final outcome of the consultation	Not applicable.

Additional comments
Not applicable.

#6 - Other (specify)	
Stakeholder group composition	Representatives of PRB, EUROCONTROL and Ministry of Infrastructure.
Dates of main meetings / correspondence	31 August 2021
Main issues discussed	1. The local factors influencing Performance Plan. 2. The values of performance targets
Actions agreed upon	Not applicable.
Points of disagreement and reasons	Not applicable.
Final outcome of the consultation	The remarks concerning revised Polish Performance Plan were taken.

Additional comments
Please see Annex C for detailed description of the consultation meeting.

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

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

ICAO code	Airport name	Charging Zone	IFR air transport movements			
			2016	2017	2018	Average
EPWA	Chopina w Warszawie	Poland - EPWA	153 805	171 059	187 235	170 700

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

Number of airports	14		
ICAO code	Airport name	Charging Zone	Additional information
EPKK	Kraków-Balice	Poland - Others	Average IFR movements in 2016-2018: 49 897
EPGD	Gdańsk im. Lecha Wałęsy	Poland - Others	Average IFR movements in 2016-2018: 40 394
EPKT	Katowice-Pyrzowice	Poland - Others	Average IFR movements in 2016-2018: 32 499
EPWR	Wrocław-Strachowice	Poland - Others	Average IFR movements in 2016-2018: 27 247
EPPO	Poznań-Ławica	Poland - Others	Average IFR movements in 2016-2018: 20 750
EPRZ	Rzeszów-Jasionka	Poland - Others	Average IFR movements in 2016-2018: 8 467
EPSC	Szczecin-Goleniów	Poland - Others	Average IFR movements in 2016-2018: 5 701
EPBY	Bydgoszcz	Poland - Others	Average IFR movements in 2016-2018: 3 598
EPMO	Warszawa/Modlin	Poland - Others	Average IFR movements in 2016-2018: 19 196
EPLL	Łódź	Poland - Others	Average IFR movements in 2016-2018: 4 139
EPLB	Lublin	Poland - Others	Average IFR movements in 2016-2018: 3 856
EPZG	Zielona Góra-Babimost	Poland - Others	Average IFR movements in 2016-2018: 855
EPRA	Radom-Sadków	Poland - Others	Average IFR movements in 2016-2018: 1 031
EPSY	Olsztyn-Mazury	Poland - Others	Average IFR movements in 2016-2018: 1 349

Additional comments
In Poland only Warsaw Chopin Airport (EPWA) has more than 80.000 IFR movements per year, so the Performance and Charging Regulation (Implementing Regulation 2019/317) directly applies to this airport. In addition, based on the decision of the Minister of Infrastructure, Poland acted in line with the Article 1.4. of the Regulation 2019/317; therefore it was decided to apply the provisions of the Regulation to the terminal ANS at fourteen regional airports (Kraków-Balice, Gdańsk im. Lecha Wałęsy, Katowice-Pyrzowice, Wrocław-Strachowice, Poznań-Ławica, Rzeszów-Jasionka, Szczecin-Goleniów, Bydgoszcz, Warszawa/Modlin, Łódź, Lublin, Zielona Góra-Babimost, Radom-Sadków and Olsztyn-Mazury) with fewer than 80.000 IFR movements per year, as they are part of the common Terminal Charging Zone - TNC-Other. For actual figures of IFR MVS for regional airports, see: EUROPEAN ANS Performance Data Repository http://ansperformance.eu/data/performancearea/

1.5 - Services under market conditions

Number of services under market conditions	0

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

Description of the process
Not applicable

1.7 - Establishment and application of a simplified charging scheme

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

SECTION 2: INVESTMENTS

#ADR!

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

2.2 - Investments - Institute of Meteorology and Water Management - National Research Institute (IMWM)

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

2.3 - Investments - Radom Meteo sp. z o.o.

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

2.4 - Investments - Warmia i Mazury sp. z o.o.

- 2.4.1 - Summary of investments
- 2.4.2 - Detail of new major investments
- 2.4.3 - Other new and existing investments

2.5 - Investments - Port Lotniczy Bydgoszcz S.A.

- 2.5.1 - Summary of investments
- 2.5.2 - Detail of new major investments
- 2.5.3 - 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 - Polish Air Navigation Services Agency (PANSa)

2.1.1 - Summary of investments

Number of new major investments	12

#	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	01440701_Campus	722 261 693,19	167 859 621	539 484	619 551	652 808	2 246 061	7 025 041	40	93%	7%	after RP3
2	02440701_Communication_systems	54 777 201,50	40 095 848	111 853	569 155	1 819 892	3 131 656	4 574 621	00/15/20	100%	0%	2024, after RP3
3	03440701_ITEC	274 984 161,16	170 534 160	1 015 705	1 635 818	2 572 695	5 228 580	7 157 114	10	100%	0%	after RP3
4	06440701_VCS_system	34 620 195,72	14 820 196	0	21 450	112 909	312 906	722 678	05/15	100%	0%	after RP3
5	21440701_ATM_OPS_Centre_Poznan	92 335 658,74	4 447 011	4 523 618	5 077 184	5 946 484	5 879 955	5 788 087	07/20/40	100%	0%	2021, 2022
6	IP470701_U-Space_Program	29 110 511,63	11 242 540	51 473	208 016	515 944	852 023	1 142 493	10	0%	100%	after RP3
7	IT170202_Tower_at_the_Central_Hub_Airport	61 538 020,32	38 020	0	0	0	0	1 101	15/40	30%	70%	after RP3
8	IT430803_Radar_PSR/MSSR_Gdańsk	24 966 688,34	24 960 773	333	964	132 442	852 423	2 548 379	15/20	100%	0%	2024
9	IT430900_Modernization_of_the_ATM_system_2	101 011 895,22	34 821 458	256 416	1 131 766	2 991 154	4 190 428	4 063 093	10/15	88%	12%	2022
10	IT440732_MLAT_system_for_FIR_Warsaw	35 950 118,80	22 683 430	0	3 356	96 882	455 953	1 929 963	10	90%	10%	after RP3
11	IR470209_CWP_TWR	32 313 561,60	8 445 298	37 044	83 873	314 487	373 177	512 876	07/10/40	88%	12%	after RP3
12	IT430404_Server_Business_Infrastructure	25 985 556,32	20 795 077	0	32 991	556 156	2 253 333	4 307 581	05	81%	19%	recurring
Sub-total of new major investments above (1)		1 489 855 263	520 743 431	6 535 926	9 384 123	15 711 853	25 776 494	39 773 026				
Sub-total other new investments (2)		822 072 250	406 576 722	4 363 720	8 519 952	21 172 041	36 929 337	46 878 526		86%	14%	
Sub-total existing investments (3)				177 472 397	176 988 816	166 999 981	151 966 481	138 743 506		84%	16%	
Total new and existing investments (1) + (2) + (3)		2 311 927 513	927 320 153	188 372 043	194 892 891	203 883 875	214 672 312	225 395 059				

* 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	01440701_Campus	Total value of the asset	722 261 693,19 PLN

Description of the asset	The aim of the project is to build a new PANSA headquarters. The project includes construction of a new ACC and APP OPS room to take over all operational functions of the current facility in Warsaw (excluding EPWA TWR and Training Center). The new Campus will become the place from which the majority of air traffic (ACC, APP) and auxiliary services for Poland will be performed. The new Campus will replace the existing facilities of the PANSA used to that end. Current PANSA premises do not provide enough space and are functionally not sufficient and their technical limitations prevent further development. The following main functionalities are planned at the Campus: • Significantly larger ACC OPS room enabling installation of new ATCO workstations necessary to open more sectors wherever the need arises, also correlated with the Solidarity CTH investments. • Creation of new autonomous APP OPS rooms (currently APP and ACC OPS rooms in Warsaw premises are combined with very limited space and technical possibilities for development). • Construction allowing for installation of technical equipment outside OPS room – improving ATCO working conditions. • Infrastructure for creation of a Big Data Centre - application of solutions ensuring data security. • Providing space for future virtual airport control towers (rTWR). • Creating infrastructure for development of other technologies. • Facilities for crisis prevention and management. • Solutions supporting new technologies and required level of safety and security, as well as energy savings. New Campus will house installation of the new ATM system - ITEC, which due to technical limitations cannot be installed in the current Warsaw buildings. The total value of the assets increased (in comparison with 2019 CAPEX forecast), as a result of the accomplishment of the project development phase of the investment. It should be emphasized that until the design documentation was accomplished, the value of the investment was an estimation and was based on the indicative price estimation method. As a result of the completion of the design phase the priced bill of quantities was prepared, and the total value of the investment has been made more realistic taking into account the actual (at the time of preparing the documentation) valuation of the applied solutions against the estimated valuation. Due to the COVID-19 pandemic, the investment schedule has been revised and phased approach has been foreseen to the Campus construction. The construction schedule and phasing is closely correlated with the schedule of the ATM system (ITEC) implementation. The schedule and detailed elements of each phase can be subject to further refinements. At the current stage the following phases are considered: I phase - The operational building A and B, which includes technical building with the power supply, compressive underground infrastructure (waste water and rain water sewer network, water mains), fire-protection systems that allow early fire detection (SAP), a fire-extinguishing system located in the premises that are most critical for operations, utilities i.e. electricity, gas, water, sewage system, access and internal roads as well as parking places and guard-houses for security; the planned start of the stage is 2023, and the planned completion date after RP3 (2029). II phase - HQ building with a underground staff car park; planned start of the stage is after RP3. III phase - The warehouse and social housing; planned start of the stage is after RP3. Preparation of time and work schedule for the first phase of the project (construction of operational elements of the facility) is currently ongoing.	
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No	
Level of impact of the investment	Network	Yes
	Local	Yes
	Non-performance	
Quantitative impact per KPA	Safety	Improving safety in FIR Warszawa through elimination of “single points of failure” and prevention of any possible failures in the main ATM system (reduced risk of ATM system and database failure). Ensuring the continuity of ANS provision and security along the increase in air traffic. Improving safety through increased system resilience to cybersecurity threat. Improvement of work standards in CWP, including improvement of ATCO working conditions, the ability to implemented a new ATM system without distrupction or interruption of air operations.
	Environment	Possibility of opening additional sectors will have positive impact on flight trajectories (shorter routes and optimisation of flight profile)
	Capacity	Improved ability to adapt to air traffic flows and increase of airspace capacity through additional workstations (possibility to open additional ACC sectors) and implemented new ATM system. Allowing for uninterrupted air operations - reduced risk of irregularities (reduced cost of delays/interruptions). Ability to implemented a new ATM system without distrupction or interruption of air operations.

	Cost Efficiency	Cost-effectiveness, obtained from the implementation of solutions for new infrastructure (e.g. energy saving infrastructure). For quantitative impact of RP3 major investments (result of CBA analysis expressed in NPV) please see Annex E.
Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	No	
Investment in ATM systems	No	The campus construction itself does not constitute investment in ATM system. However, new campus is a compulsory element for iTEC implementation in PANSa - the current HQ does not meet the infrastructure requirements for system installation. Therefore campus should be considered as enabler to the new ATM system implementation. As such, the investment is also a key enabler for PANSa's future, continuous process of digital transformation by enabling optimisation, automatization, virtualization and digitalisation of key processes and by enabling future deployment of new technologies.
If investment in ATM system, type?	Click to select	Not applicable.
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	Not applicable.

Name of new major investment 2	02440701_Communication_systems	Total value of the asset	54 777 201,50 PLN
Description of the asset	The project is directly related to new ATC centres: Campus and ATM OPS Centre Poznań aimed at providing ACC and APP services, and to the new ATM system. The project goal is to provide the newly-built air traffic control centres with the necessary communication infrastructure/systems (G-G, A-G) for both voice and data transmission. A part of the project is building new radio-communication stations for ATS (ACC). Additionally, the project requires installation of necessary technical equipment such as: structured cabling, rack cabinets and a power system for devices installed in cabinets, etc. The project covers only COM system for en-route services – does not include TWR units. Providing the Poznań ATC Center and the ATC Center in Reguły with the necessary systems for voice communication and data transmission is a precondition for achieving operational capabilities by the Poznań ATC Center and the ATC Center in Reguły. The following main functionalities are planned: • Creation of infrastructure necessary for digital data transmission, • Creation of reliable, professional voice and data transmission systems, improving efficiency of ATCO work and enabling reducing reaction time, * Equipment and infrastructure necessary for new radiolocation centre, • Enabling implementation of new technologies and system solutions, including satellite communication. The communication systems are precondition for achieving full operational efficiency of the new ATC centres - current ATC facilities in Warsaw do not provide sufficient space or technical possibilities for implementation of new technologies. Also, the implementation of this investment is a key factor for enabling some important features related to the Common Project 1 (s-AF 5.6 Flight information exchange (FO)) as well as to the ATM MP/LSSIP objectives (COM11.1 Voice over Internet protocol (VoIP) in en-route). An efficient data flow is based on a data transmission skeleton which will be created as a main project's product. It will also be a key factor/enabler for providing ATM Data Service (ADS) to all potential clients/beneficiaries. Final costs are not available yet, but to provide reliable estimation current value is based on information collected from the ATM system provider in 2021.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No		
Level of impact of the investment	Network	Yes (as the new Campus and ATC OPS Centre Poznań)	
	Local	Yes	
	Non-performance		
	Safety	Securing continued access to services. Ensuring the safety of operations by securing ground and air-to-ground communication. Safety level maintained along traffic growth. Improving safety through reduction of reaction time to operational events and increasing situational awareness of ATCOs.	
	Environment	No impact	

Quantitative impact per KPA	Capacity	Ensuring continuity of ANS in case of ATC centre in Warsaw failure (contingency provision). Increased airspace capacity through enabling operational implementation of new ATC centres. Reduced risk of irregularities resulting in lower cost of delays.
	Cost Efficiency	Benefits should be considered in conjunction with the Poznań ATC Centre and the ATC Centre in Reguły. For quantitative impact of RP3 major investments (result of CBA analysis expressed in NPV) please see Annex E.
Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	No	
Investment in ATM systems	No	The communication systems itself do not constitute investment in ATM system. However, the project is directly related to ATC centres and should be considered as enabler to putting into operation new ATC centres, which are a condition for the new ATM system implementation.
If investment in ATM system, type?	Click to select	
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	Although the investment does not constitute investment in ATM system, the following links to ATM MP can be identified: ATM MP/LSSIP: COM11; ITY-AGVCS2; The investment falls under a digitalisation thread and contributes to the idea of Digital European Sky concept. CP1: an enabler for s-AF5.6 Flight information exchange.

Name of new major investment 3	03440701_iTEC	Total value of the asset	274 984 161,16 PLN
Description of the asset	The project covers new iTEC core ATM system planned to be installed in the new ATM OPS Center in Poznan and new Campus in Reguły. iTEC system will be an evolution of the currently-used PEGASUS_21 combined with key components acquired as part of iTEC Collaboration, which are jointly developed and financed by a group of leading ANSPs in Europe. Currently, the scope of cooperation includes iFDP modules (Flight Plan Data Processing), iCWP (Controller Working Position) and iMAS (Middleware), but further convergence is foreseen to elaborate a single operational concept and uniform ATM system. iTEC will be primarily dedicated to ACC and APP units – TWR units are to be supported by other systems (following implementation of Electronic Flight progrEss Strips and Virtualization of ATS airport services). The following main functionalities are planned: • Modern system, based on common, uniform open code standards (easier development and extension than P_21), • Full interoperability (incl. Flight Object Interoperability, SWIM), • 4D flight trajectory, • Flexible airspace structures management with increased number of elementary structures, • Advanced trajectory modelling /management algorithm, enabling full cross-border FRA implementation (comes along with the bulltet on FO IOP; the fact that the P_21/iTEC system will be an evolution of the currently-used PEGASUS_21 is determining the continuity of the cross-border FRA implementation; the fact that it will be the iTEC system is driving towards FO IOP functuonality and the inter-system trajectory connectivity), • Virtualization (independent of equipment and facilities), • Increased reliability, • Test/validation environment for SESAR2020 R&D solutions and trainings. Positive impact is expected through: modular architecture, cheaper and faster implementation of new technologies, vitrualization/reliability/flexibility of the system, more efficient international cooperation, easier implementation of new SESAR solutions. The project will be implemented in two stages. The first is the new ATM contingency system in ATC Center Poznań (delivery, installation and implementation of the first version in ATC Center Poznań for testing, validation and ATCO training), while the second includes implementation of the new ATM system in new Campus (an upgrade version to support the complexities of the airspace in this area). The total value of the asset increased as a result of change in valuation and scope. Current concept of installing the system in Poznań ATC Center assumes system based on iTEC V3 components, while earlier iTEC V2 was considered. The total value of the asset was revised but the value of the asset allocated to ANS in the scope of the RP3 PP is not expected to change, as large part of the project will extend beyond the RP3 timeframe.		

The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes	The new ATM system will include functionalites mandated by CP1 (EU Regulation 2020/116 on the establishment of the Common Project One supporting the implementation of the European Air Traffic Management Master Plan) - it will continue with fuctionalities listed under PEGASUS system upgrade 2 below.						
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
			• AF#3 - Flexible ASM and FRA - o Sub-AF 3.1 Airspace management and advanced flexible use of airspace - o Sub-AF 3.2 Free Route Airspace		• AF#5 - Initial SWIM - o Sub-AF 5.6 Flight information exchange (FO) - yellow profile	• AF#6 - Initial Trajectory Information Sharing - o Sub-AF 6.1 Initial Air-Ground trajectory information sharing - o Sub-AF 6.3 Initial trajectory information sharing ground distribution		
Benefits for airspace users and results of the consultation of airspace users' representatives	Please see Annex E.							
Joint investment / partnership	Yes	The system deployed in the new centers will have the core components upgraded to the versions developed within the iTEC alliance. PANSA is part of iTEC Collaboration, alliance aiming at development of common ATM system amongst all partners (DFS, NATS, ENAIRE, LVNL, AVINOR, PANSA, ON and INDRA). The system deployed in the new centers will have core components which will be part of iTEC Collaboration common activities and projects. PANSA and SE OroNavigacija, both as iTEC Collaboration partners and Baltic FAB partners cooperate in the frame of SDM governed implementing projects to deploy PCP and CP1 framework.						
Investment in ATM systems	Yes							
If investment in ATM system, type?	Overhaul of existing system	The iTEC system will be an evolution of the currently-used PEGASUS_21 combined with key components acquired as part of iTEC Collaboration.						
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	iTEC core components are enablers for the medium to long-term Master Plan subjects, especially: • ATC15.2 - Arrival Management Extended to En-route Airspace • ATC17 - Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer • ATC18 - Multi Sector Planning En-route - 1P2T • OD-5 – Virtual Centre concept, CWP and service interface • FCM08 - Extended Flight Plan The investment is linked with and supports the implementation of the following ATM Functionalities of the PCP/CP1 regulation: • s-AF 1.1 Arrival management extended to en-route airspace (Poland/PANSA outside of the geographical scope of the CP1 regulation) • s-AF 3.1 Airspace management and advanced flexible use of airspace • s-AF 3.2 Free Route Airspace • s-AF 5.6 Flight information Exchange (yellow profile) • s-AF 6.1 Initial Air-Ground trajectory information sharing • s-AF 6.3 Initial trajectory information sharing ground distribution						

Name of new major investment 4	06440701_VCS_system				Total value of the asset		34 620 195,72 PLN	
Description of the asset	The project covers VCS system (technical devices) for FIR Warszawa (directly related to PANSA new ATC centres: in Poznan and the new Campus, aimed at providing ACC and APP services) with dedicated communication infrastructure. The project consists of equipping the air traffic controller stations in these two new OPS centres with the VCS (Voice Communication System) system, integrating all available communication systems. The following main functionalities are planned: • Integration of aeronautical communication networks (radio and fixed) with access from all ATCO workstations, • Recording of all communication at ATCO workplace – required for occurrence investigation, • VCS system in ATC OPS Centre Poznań reflecting system implemented in current ATC OPS room in Warsaw to facilitate prompt shifting of operations in case of Warsaw location unavailability (contingency), • Additional functionalities in OPS room in Campus – integration of VCS with ATM system, • Implementation of Voice over IP functionality supporting flexible access management. This project aims at deployment of infrastructure that is necessary for voice transmission and it falls within the digital transformation of PANSA. In a broader context, it is also an enabler for the concept of VoIP Services that consists in the digital evolution of the current European ATM infrastructure (respectively VCS). As such, it falls within the development of a new technology solution allowing the implementation of new ATM Data Services and it is aligned with EC's SES2+ recent proposals and ideas depicted in the Airspace Architecture Study (AAS)/AAS Transition Plan and the ATM Master Plan (edition 2020). On the basis of a holistic approach for COM services and the need for ADSP-oriented business model creation, VCS is a part of future COM architecture. The VCS system is required for operational implementation of the new ATC (ACC, APP) centres - current ATC facilities in Warsaw do not provide sufficient space for installation of new technologies. The schedule was adjusted to the implementation schedules of the Poznań ATC Center and the Reguły ATC Center.							
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							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
			• AF#3 - Flexible ASM and FRA o Sub-AF 3.1 Airspace Management and Advanced Flexible Use of Airspace					
Benefits for airspace users and results of the consultation of airspace users' representatives	Please see Annex E.							
Joint investment / partnership	No							
Investment in ATM systems	No		The VCS system itself does not constitute investment in ATM system. However, the project is directly related to ATC centres and should be considered as enabler to the new ATM system implementation.					
If investment in ATM system, type?	Click to select		Not applicable.					

If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	The following links with ATM MP and CP1 and other strategic documents can be identified: ATM MP/LSSIP: COM11 Voice over Internet protocol (VoIP), SESAR Enablers: CTE-C05a, CTE-C05b; AAS Transition Plan: Milestone 1.3; CP1: AF#3 - Flexible ASM and FRA, Sub-AF 3.1 Airspace Management and Advanced Flexible Use of Airspace

Name of new major investment 5	21440701_ATM_OPS_Centre_Poznan		Total value of the asset	92 335 658,74 PLN
Description of the asset	Construction of an ATC Centre Poznań with required operational and technical infrastructure. ATC Centre Poznań will be the contingency centre for FIR Warszawa (in the future for the Campus), including for EPWW ACC and other regional APP centres. The project consists of building a backup center for air traffic control services located in Warsaw and main center for the approach control services (APP) for Poznan TMA. The project includes preparation of design documentation and construction of a new ATC Centre in Poznań together with technical infrastructure allowing further development of ATM system, development of R&D projects for further CNS/ATM improvement, support to new functionalities implementation. The following main functionalities are planned: • primary location for Poznań APP services and Poznań FIS services, • backup center for EPWW ACC and other regional APP centres (Warsaw, Kraków, Gdańsk) enabling services continuity up to 100% (current EPWW contingency abilities: up to 30% of 2019, • providing space for the development of new technology NAViHub (center for research, development and innovation in ATM), and future virtual airport control tower centre (RTC). • environment for testing/validating and developing of new iTEC ATM system enabling acceleration of iTEC implementation as PANSa main ATM system. Given the last point above, the investment needs also to be understood as a future important center supporting research and innovation activities at PANSa. The results of the testing, validation and development activities concerning the P_21/iTEC ATM system will become part and will influence further development of iTEC OneSky system which will be utilized by other iTEC members. The total value of the asset slightly increased since 2019 due to the need for additional works necessary for putting the center into operation - the need arose during the works. Small change of schedule (due to COVID).			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No			
Level of impact of the investment	Network	Yes		
	Local	Yes		
	Non-performance			
Quantitative impact per KPA	Safety	Improving safety in FIR Warszawa through elimination of “single points of failure” and ensuring the continuity of ANS provision (contingency centre).		
	Environment	Avoiding negative impact of possible Warsaw ACC center closure on flight trajectories and thereby avoiding higher emissions and related costs and increased operating (non-fuel) costs for aircraft operators.		
	Capacity	Ensuring continuity of ANS in FIR Warszawa, including preventing significant limitation of EPWW capacity in case of ACC OPS room failure (contingency). Reduced risk of irregularities (lower cost of potential delays). If Warsaw traffic control centre was closed, 70% of air traffic would be negatively affected (canceled flights, delays).		
	Cost Efficiency	Lower future iTEC implementation costs as the main PANSa ATM system in the campus. For quantitative impact of RP3 major investments (result of CBA analysis expressed in NPV) please see Annex E.		

Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	No	
Investment in ATM systems	No	Thanks to the investment, research and innovation activities could be undertaken with a view of testing, validating and developing of new iTEC ATM system in order to accelerate iTEC implementation as PANSa main ATM system.
If investment in ATM system, type?	Click to select	Not applicable.
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	Not applicable.

Name of new major investment 6	IP470701_U-Space_Program	Total value of the asset	29 110 511,63 PLN
Description of the asset	The name of the investment refers to U-space/ UAV environment for ease of internal processes in PANSa – despite this name, the scope of the investment does not cover full set of functionalities related to U-space/ UAV environment, but especially those related to ensuring efficient procedural and cooperative interface with ATC/ATM, as covered by PANSa ANS/ATM certificate. The investment aims at deployment of the ATC interfacing system in line with the SESAR U-space Blueprint and the investment predictions expected from ANSPs on basis of the document European ATM Master Plan: Roadmap for the safe integration of drones into all classes of airspace. This is reflected in the new edition of ATM Master Plan (ver 2020). The U-space programme at PANSa includes two projects: "Unmanned Traffic Management integration with ATM systems" and "Tracking of UAVs". Growing number of UAV flights in Controlled Zones (CTRs) showed the need for digitisation of the coordination process and the simplification of flight approval process. The system's primary goal is to support Air Traffic Controllers in providing safe air navigation services to manned aircraft and ensuring separation. The project constitutes a support to PANSa Tower Systems Development (TWR) plans, as well as a requirement and service to aerodrome control services. PansaUTM system along with the other interoperable systems for ATCOs like the Electronic Flight progrEss Strips (EFES) system and PANDORA aeronautical information display system, is considered to play a significant role in ensuring safe, continuous, smooth and efficient air navigation in Polish airspace for all airspace users. The PansaUTM system is currently operationally running on all 15 TWRs and 5 FIS sectors in Poland supporting operational and situational awareness of operational staff, managed by the dedicated UAS Operations Department at PANSa. The PansaUTM system might be subject of possible integration with other ATM systems in the future such as iTEC system of FIS electronic flight strips. The investment project will cover the following assets: • The system (intangible asset), which supports procedural and collaborative interface with existing ATM system to facilitate coordination of manned traffic and support ATS work providing required additional information on UAVs and its additional development to new versions due to the change of regulations concerning drone operations (including National and European regulations); • Infrastructure and systems for UAVs tracking (excluding detection). The following main functionalities are planned: • Digitisation and automation of UAV flight coordination with PANSa digitising the procedural and collaborative interface with ATC, • Visualisation of UAV operations on display supporting the provision of air navigation services for manned aircraft, • Potential conflict situation identification and emergency management function informing non-verbally on ie. loss of control of the UAV which minimizes the risk of separation minima infringement to manned aircraft. Investment is necessitated by dynamic increase of UAV operations especially in controlled zones and still current safety concerns regarding unattended drones which might interfere with safe air navigation services provision. The project does not include UAV traffic management services (understood as those outside of the scope of ATM/ANS definition in SES Regulations), as well as UAV detection and drone defence systems, which are currently out of scope ANSPs agenda and function. Since 2019 update of the value and schedule was done due to changes in the project execution.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No		
Level of impact of the investment	Network	Yes	
	Local	Yes	
	Non-performance		

Quantitative impact per KPA	Safety	Maintaining level of safety along the dynamic increase in UAV traffic through improved situational awareness of ATCOs (more accurate prediction of potential collisions through identification of UAV position and visualisation of flight trajectory). Reduced workload for ATCOs through automation and digitalisation of procedural ATC interface. The system will be a core element of U-space concept implementation, in line with the latest edition of ATM Master Plan, as a single point of truth which will provide the reliable information to ATCOs to support air navigation service provision as defined in Article 2 (4) of Regulation (EC) No 549/2004. It would help to obtain information on cooperative and help to identify non-cooperative drones, which occasionally are reported to ATC by manned aircraft air crew and might endanger the existing level of safety of manned aircraft operators (current airspace users). The system is aimed at minimisation of number of incidents related to drones and potential hazard of uncooperative drones by providing the interface to ATC from expected different U-space service providers on the market. Tracking would help preserve the airspace infringements in the airports' controlled zones, decreasing number of potential incidents, which might cause missed approaches and delays and related unnecessary costs for impacted stakeholders. The project excludes UAV detection and drone defence systems, which are currently out of scope of ANSPs agenda and function.
	Environment	UAVs tracking would bring additional information on current position of the UAV, which would be an asset in decision making process of ATCOs concerning the possibly impacted manned traffic in controlled airspace, limiting potential holdings on approach/go-arounds (missed approaches) or waiting time before departure and thereby leading to lower emissions. Limiting risk of negative operational consequences (diversions, holdings) in case of incursion of aircraft into controlled zones – reduced fuel burn and related costs in case of holdings.
	Capacity	Digitisation of the UAV flight coordination process at Controlled Zones (CTRs) would reduce time needed for granting the permission, increase the number of possible flights and lower the workload of the ATCOs due to introduction of 2-way non-verbal communication between ATCO and the UAV operator. It would eliminate the voice coordination. The tracking methods to be eventually introduced to the system would help to increase capacity and to identify the true location of the UAVs. Greater awareness of UAV traffic around airports and interface with ATM systems will preserve the airspace infringements in the controlled zones and separation minima infringements, and as a result would decrease potential incidents which might cause missed approaches and delays. Limiting risk of negative operational consequences (diversions, holdings) in case of incursion of aircraft into controlled zones – reduced delays.
	Cost Efficiency	Lower workload related to the flight coordination process – both for TWR ATCO and for PANSa staff issuing permissions for UAV operations in Controlled Zones. Avoiding potential ATCO number increase dedicated to UAV traffic services. For quantitative impact of RP3 major investments (result of CBA analysis expressed in NPV) please see Annex E.
Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	Yes	Partnership with HAWK-E/ Droneradar until the end of 2020. Currently without partnership.
Investment in ATM systems	No	Partly as the Interface with the ATC and integration with ATM systems.
If investment in ATM system, type?	Click to select	Not applicable.
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	Investment in line with investment predictions expected from ANSPs on the basis of the document European ATM Master Plan: Roadmap for the safe integration of drones into all classes of airspace as incorporated to the latest edition of the ATM Master Plan (interface with ATC service).

Name of new major investment 7	IT170202_Tower_at_the_Central_Hub_Airport	Total value of the asset	61 538 020,32 PLN
Description of the asset	New Tower for Central Hub - construction of a new Tower building with supporting facilities and systems. The scope of the project includes design works, construction works, purchase of technical equipment and operational implementation. Related assets include TWR building, power supply systems, utilities infrastructure, furniture, equipment related to administrative and social functionalities as well as basic ATCO stations equipment (without ATC-related systems). The task schedule is closely correlated with the Solidarity CTH investments.		

The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No	
Level of impact of the investment	Network	Yes
	Local	Yes
	Non-performance	
Quantitative impact per KPA	Safety	The tower will contribute to the overall safety at the airport.
	Environment	
	Capacity	TWR is necessary to provide ATS Services at the airport. The airport is planned to provide required capacity in the light of air traffic increase in the region. Therefore the TWR infrastructure needs to be considered as an integral element of providing capacity to accommodate growing traffic to/from Poland/region. It is aimed at enabling aircraft operations at the new hub airport to be built in the light of limited Warsaw Chopin Airport capacity.
	Cost Efficiency	For quantitative impact of RP3 major investments (result of CBA analysis expressed in NPV) please see Annex E.
Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	No	
Investment in ATM systems	No	
If investment in ATM system, type?	Click to select	Not applicable.
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	Not applicable.

Name of new major investment 8	IT430803_Radar_PSR/MSSR_Gdańsk					Total value of the asset		24 966 688,34 PLN	
Description of the asset	New radar PSR/MSSR (replacement of currently used radar PSR/MSSR) with associated infrastructure. The project covers design and installation of radar facility, including construction of necessary building elements as well as communication lines, construction of technical building with supporting power supply and telecommunication connections and road access and fence. New Mode-S functionality is planned to be introduced. The project includes the construction of radar facilities for the needs of approach control (with the possibility of using it also for area control). The following main functionalities are planned: • PSR/MSSR surveillance in Gdańsk TMA, • Mode-S functionality. Replacement required to ensure reliability of SUR infrastructure and service continuity. The investment falls within the ATM MP (edition 2020) i.e. the Essential Operational Change concerning CNS infrastructure and services that seeks to optimize CNS infrastructure across Europe. The optimisation process should be consistent with the CNS Roadmap (as included in the ATM Master Plan), targeting surveillance architecture, with cost and spectrum efficiency, composed of ADS-B and a Minimal Operational Network including Mode S radars and Multilateration systems. The investment is also linked and supports the ADS-B implementation plan. As a result of the COVID-19 pandemic, the decrease in air traffic and the need to reduce capital expenditure, the schedule for the task execution was extended.								
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	Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the Single European Sky							
	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)							Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky	
Benefits for airspace users and results of the consultation of airspace users' representatives	Please see Annex E.							
Joint investment / partnership	No							
Investment in ATM systems	No							
If investment in ATM system, type?	Click to select	Not applicable.						
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	Not applicable.						

Name of new major investment 9	IT430900_Modernization_of_the_ATM_system_2					Total value of the asset		101 011 895,22 PLN
Description of the asset	Continuation of maintenance and development of Pegasus_21 ATM system installed in 2013 (the existing core ATM system in PANSAs). Scope of changes foreseen for RP3 covers, i.a. implementation of third layer of vertical split, increasing number of ATCO workstations, support to full Mode-S implementation, ongoing implementation of recommendations following incident investigation, implementation of functionalities supporting coordination with TWR electronic flight strips system and implementation of changes supporting cross-border OLDI shortcuts (precondition for cross-border FRA). The following main functionalities are planned: • implementation of multilayer vertical split with increased number of ACC sectors open; • possible activation of larger number of areas and functionalities supporting tactical shortcuts; • improved activation and visualisation of alerts on ATCO display, following safety recommendations, supporting early conflict detection and resolution; • support to aircraft identification using Mode-S functionalities; • integration with TWR systems (electronic strips); • voiceless communication, communication directly with the application which will speed up ATCO work. A new contract with the system supplier was signed in Dec 2020. The contract value (higher by apr. 10 million PLN) includes new functionalities related to the improvement of the ATM system and the improvement of communication between P_21 and the implemented electronic flight strips (EFES tower system).							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes	The scope of the upgrade project includes support for, but is not limited to, the following regulations: Regulation No 1207/2011, 1028/2014 and 2017/386 - Surveillance Performance & Interoperability (SPI) Regulation No 1206/2011 and 2020/587 - Aircraft Identification (ACID)						
	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)			• AF#3 - Flexible ASM and FRA - o Sub-AF 3.2 Free Route Airspace					
Benefits for airspace users and results of the consultation of airspace users' representatives	Please see Annex E.							
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	Master Plan (non-PCP)	The investment supports digitalisation and the overall idea of the Digital European Sky. It also supports the CNS optimisation/rationalisation as highlighted in the ATM MP (edition 2020). The investment is linked with the ATM MP L3 objectives such as AOM21.2 - Free Route Airspace - improved cross-border support, ITY-ACID - Aircraft Identification (related to reg. 1206/2011); And on top of this, it is linked with CP1, i.e.: AF#3: Flexible ASM and FRA o Sub-AF 3.2 Free Route Airspace (the project's functionality that leads to implementation of changes supporting cross-border OLDI shortcuts and thus being a pre-condition for cross-border FRA implementation).						

Name of new major investment 10	<i>IT440732_MLAT_system_for_FIR_Warsaw</i>	Total value of the asset	<i>35 950 118,80 PLN</i>
Description of the asset	Implementation of MLAT system for FIR Warszawa – investment is an element of SUR modernisation and development in PANSa to ensure continuity of ANS through multiple radiolocation coverage in FIR Warszawa (in particular SUR for APP and better coverage for ACC) and to implement Mode-S functionalities. The following main functionalities are planned: • improvement of SUR coverage, especially for APP control at major airports, with required redundancy level (minimum of double coverage, supporting service continuity in case of radar failure or service/replacement activities); • Mode-S implementation; • support to ADS-B implementation in line with ADS-B implementation plan, optimising SUR infrastructure; • improved resilience interference, and improved coverage at lower altitude in hilly areas; • enabler for reduced separation in TMAs. The investment falls within the ATM MP (edition 2020) i.e. the Essential Operational Change concerning CNS infrastructure and services that seeks to optimize CNS infrastructure across Europe. The optimisation process should be consistent with the CNS Roadmap (as included in the ATM Master Plan), targeting a Surveillance architecture, with cost and spectrum efficiency, composed of ADS-B and a Minimal Operational Network including Mode S radars and Multilateration systems. The investment is also linked and supports the ADS-B implementation plan as elaborated by the SESAR Deployment Manager. As part of the RP3 PP revision, the schedule and scope of individual stages of the project were verified, taking into account, on the one hand, the need to postpone the costs incurred, and on the other hand, the experience of implementing the MLAT infrastructure in EPWA and the necessity to decommission obsolete radars operating significantly beyond the standard assumed operating life, as well as the assumption of successive achievement of operational benefits. There are some changes in the material scope and changes in the schedule of incurring expenses.		

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	Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the Single European Sky						
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
							Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky	
Benefits for airspace users and results of the consultation of airspace users' representatives	Please see Annex E.							
Joint investment / partnership	No							
Investment in ATM systems	No							
If investment in ATM system, type?	Click to select	Not applicable.						
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	Not applicable.						

Name of new major investment 11	IR470209_CWP_TWR	Total value of the asset	32 313 561,60 PLN
Description of the asset	The CWP TWR project consists in the modernisation of TWR in FIR Warszawa in the scope of unifying working positions through the use of technology that allows the necessary minimum technical equipment to be left at workstations. The scope of the project has been extended as compared to initial RP3 assumptions. The figures above reflect the currently estimated CAPEX and related cost for the project and its value estimate was updated. Implementation of the CWP TWR project will enable remote data exchange in the future, based on free access to operational data obtained from various sources (a/c, airport, other airport, ultimately Network Manager and any other interested air traffic control unit), transmitted to the right places in real time. The following main functionalities are planned: • unification of the TWR working position; • minimising the number of technical devices in the TWR operating room (transferring them to the technical room), which will limit the number of technical interventions in the operating room; • adaptation for the implementation of modern air traffic management systems in the future; • facilitation of flexible change of ATCO roles at TWR, including adding or merging positions; • the CWP will eliminate the need to add new equipment (monitors) when introducing and developing new systems (e.g. SMGCS) in the future. The project is set up to ensure full ATC provision up to and during the period of refurbishment. The project includes installation of full coverage ATC alternative facilities and contingency for all activities required to successfully complete the project.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No		
	Network		

Level of impact of the investment	Local	Yes
	Non-performance	
Quantitative impact per KPA	Safety	Improvement of ATCO situational awareness due to simplification and unification of display systems. Minimizing the number of technical devices in the TWR operating room (transferring them to the technical room) will limit the number of technical interventions in the operating room. As a consequence, the number of working hours of the TWR controller in arduous conditions caused by the repair / maintenance of technical devices in the operating room will significantly decrease and the quality of service will be maintained even in case of installing additional devices. The unification of the TWR working position will allow for the continuity of work without the effect of the employee's initial adaptation to a different arrangement of the workplace. Facilitation of contingency provision between towers.
	Environment	
	Capacity	Facilitation of installation of ATC supporting systems and data exchange aimed at capacity maintenance/improvement - operating positions will be adapted to the implementation of modern air traffic management systems in the future. Unification and standardization of work stations will enable efficient role management at the operational position and facilitates contingency plans, also between towers.
	Cost Efficiency	Elimination of future need to install additional displays for the purpose of new ATC support systems at TWRs - enabler to flexible software evolution. Support to flexible role management at TWRs and thereby efficiency in ATC personnel management, allowing avoidance of TWR ATCO increase. For quantitative impact of RP3 major investments (result of CBA analysis expressed in NPV) please see Annex E.
Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	No	
Investment in ATM systems	No	
If investment in ATM system, type?	Click to select	Not applicable.
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	The investment will support overall digitalization in ATM.

Name of new major investment 12	IT430404_Server_Business_Infrastructure	Total value of the asset	25 985 556,32 PLN
Description of the asset	The project includes server infrastructure that needs to be replaced or supplemented. Currently the project is directly related to the new ATM System in ATC centres and server business infrastructure (hard technical devices) for FIR Warszawa. The project covers purchase of the necessary server infrastructure for ATM system. In 2021 the new ATM system contractor in Platform Definition Document specified the hardware equipments necessary for its installation. As a result, there was a need to plan new specialized servers, matrices with software. The value of the project above reflect the estimated cost as detailed cost estimation is not yet available. The total value of assets increased, as a result of change currently it is as a major investment in the meaning of Regulation 2019/317. Final costs are not available yet, but to provide reliable estimation current value is based on information collected from the ATM system provider in 2021.		
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No		
Level of impact of the investment	Network		
	Local	Yes	
	Non-performance		
Quantitative impact per KPA	Safety	Benefits to be considered are the ones listed for new ATM system and modernization of ATM system above.	
	Environment	Benefits to be considered are the ones listed for new ATM system and modernization of ATM system above.	

Quantitative impact per KPA	Capacity	Benefits to be considered are the ones listed for new ATM system and modernization of ATM system above.
	Cost Efficiency	Benefits to be considered are the ones listed for new ATM system and modernization of ATM system above.
Results of the consultation of airspace users' representatives	Please see Annex E.	
Joint investment / partnership	No	
Investment in ATM systems	Yes	
If investment in ATM system, type?	New system	
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	The investment will support overall digitalization in ATM. This investment shall be understood as an enabler for future virtualisation of systems and it fits into the ATM MP (2020 edition), in particular in the context of SESAR's vision towards a digital European sky. This project falls within/is consistent with the phase B of the SESAR vision towards the digital European sky that is to consist in an efficient services and infrastructure delivery through the launch of first ATM data services.

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

PANSA defined 6 programmes containing combined and separate deployment projects/ initiatives. Existing investments are dedicated to completing projects in progress, which aim to support the 4 KPAs (capacity, cost-efficiency, environment and safety) or to keep the business operations running/service continuity. The other investments (not listed under the main investments above) complement the new/major ones in the wider context of PANSA strategic plan, which aiming at transforming PANSA so that it is ready for the challenges stemming from the Single European Sky development. Other new and existing investments are related to replacement of equipment at life-end (often also upgrading the equipment taking into account European regulatory developments and technological developments), to infrastructure optimization, IT and rolling stock required to provide continuity of air navigation services.

The other new investments (totalling 429 368 819 PLN of CAPEX over RP3) include communication ground stations necessary for airspace developments aimed at capacity improvement, Traffic Complexity Tool development, DVOR/DMEs, ILs/DMEs, voice communication systems, WAN modernization, investments related to cybersecurity, virtual airport control towers (rTWR), radars etc.

- Facilities - many projects are already ongoing or will be launched during the RP3 period. These projects aim at either maintaining existing facilities in operational conditions or at building new facilities (towers, technical buildings) to replace obsolete ones. These investments will last during the RP3 period and beyond.
- Airspace projects - these are all the projects implementing new air navigation concepts, as well as all the airspace changes needed to provide optimum/high quality service and required capacity to all airspace users. These investments are ongoing and will last during the RP3 period and beyond.
- Virtual control tower - development of a digital tower solution in order to prepare for future tower service provision model.

Large majority of these investments is related to capacity - either for ER traffic or in terminal airspace (84% of total PANSA RP3 CAPEX is related to the capacity KPA). Some investments are related to safety in the Polish airspace. The planned investment projects include implementation of functionalities foreseen by the Common Project One and ATM Plan.

With regards to existing investments, they cover the depreciation costs and cost of capital related to projects implemented before RP3.

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

Number of new other investments	6

#	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	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	

1	IT430804_Radar_PSR/MSSR_Katowice	23 077 779	22 918 006	124	564	84 858	745 837	2 276 951	The project includes construction of radar facilities for the needs of approach control (with the possibility of using it also for area control) which should be implemented in 2024.
2	IP470810_Modernization_TWR_Wroclaw	18 680 002	18 494 998	15 606	299 324	825 579	1 416 639	1 513 734	The project concerns construction of additional two technical buildings beside the current TWR in Wroclaw. One of them would be a technical building for server room and workplace for technical personnel. The other one would serve as a guardhouse, power generator room, power switchboard. The project should be implemented in 2023.
3	IT480910_Radar_PSR/MSSR_Radom	18 002 704	18 002 704	0	866	490 790	1 691 891	2 167 206	The project includes construction of new radar facilities for the needs of approach control (with the possibility of using it also for area control) which should be implemented in 2023.
4	IA480139_A-SMGCS	22 474 701	22 474 701	0	50	216 510	600 135	1 302 802	The project includes new Radar SMR-2 at Warsaw Chopin Airport with supporting infrastructure, ASMGCS system (level 2+) with working positions for ATCOs in Warsaw Tower building, integration with other systems used by PANSO. Implementation is foreseen by the end of 2024. However, due to conditions related to the construction of the STH and the currently unknown scope of activity of Chopin Airport, possible alternative implementation formulas and the method of achieving the necessary functionalities are also considered, provided that they will allow for flexible adaptation to the changing needs of users depending on the scenarios, the construction schedule of STH and the future of Warsaw Chopin Airport. Final decision on the concept is pending.
5	IR470208_Virtualization_of_ATS_airport_services	19 022 413	22 413	0	0	0	0	649	The investment aims at integration of the existing systems operating independently within a single system (integration, processing and display of data from various sources). The system will provide data exchange necessary for ATCO/FIS work with technical and operational infrastructure. The project is directly related to the ATM system and EFES. As a result of the COVID-19 pandemic, the decrease in air traffic and the need to reduce capital expenditure, the tasks carried out under the project were verified, and internal resources possible to perform the task were identified. The project should be fully implemented after RP3.
6	IT460721_Modernization_of_the_network_infrastructure	19 424 627	8 541 032	110 940	496 460	948 291	1 456 883	1 880 117	The project includes modernization of the WAN network for FIR Warszawa, a new firewall in Warsaw, continuous replacement of access network architecture to CNS facilities. It covers preparation of the network for the migration of radio communication to VoIP transmission. It is expected to simplify the connection of potential new locations to PANSO network. The project is continued in RP3. It will be implemented in stages until the end of 2023 and after RP3.

2.2 - Investments - Institute of Meteorology and Water Management - National Research Institute (IMWM)

2.2.1 - Summary of investments

Number of new major investments	0

2.2.3 - Other new and existing investments

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

The new investments will allow for the alignment of current requirements for meteorological services in Europe with applicable data transmission standards, which in turn will unify products for airspace users. The investment in AWOS backup systems at selected airports will increase the safety of air operations in difficult weather conditions. Additional investments in AWOS infrastructure (i.e spare parts) will improve system reliability and will have a positive impact on the security and continuity measures of service provided. Involvement in the development of new products dedicated to the meteorological services used by ATC services will improve the decision making process which may significantly reduce the delays that result from suddenly changing weather conditions.

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

Number of new other investments	5

#	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	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	
1	Purchase of AWOS back up systems	1 296 000	1 296 000		46 953	450 334	447 453	437 432	Currently used AWOS get old and exploit. There is a high need to secure servers stability and reliability. IMWM prepares for the purchase of back up systems one at a time. This investment is spread over the following years. Hardware modernization for 7 airports in Poland including seven sets of two servers (main and back-up, HPE DL360 Gen 10 8-SFF CTO); Additionally seven sets of Microsoft software for servers and workstations; MetConsole USB Hardlock; 45 workstations; 2 Spare servers (model HPE DL360 Gen 10)

2	Upgrading Aeronautical Meteorological Stations with lighting detectors	704 000	704 000		25 506	244 626	243 061	237 617	New investment carried out on the basis of the IMWM Management's decision to use the investment funds saved in the previous year. This investment results in AWOS hardware, software and terminal modernization. Lighting detectors provide a back up for PERUN system that is used by forecasters and observers (Polish lightning detection and location system). This investment was not included in IMWM's Business Plan for years 2021-2021 last updated in July 2021.
3	Modernization of currently used AWOS	1 000 000	1 000 000				345 257	337 525	Before purchasing back up systems some of currently used AWOS systems require necessary modernization in order to work reliably.
4	Purchase of a new AWOS for Aeronautical Meteorological Station in Cracow	1 000 000	1 000 000				345 257	337 525	Currently used AWOS system requires to be exchanged completely.
5	Purchase of AWOS back up systems	2 000 000	2 000 000					675 049	IMWM plans to purchase of AWOS back up system in EPZG/ or EPPO

2.3 - Investments - Radom Meteo sp. z o.o.

2.3.1 - Summary of investments

Number of new major investments	0

2.3.3 - Other new and existing investments

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

Radom Meteo does not plan any investments above 5M EUR in RP3. Other investments planned for RP3: Extension of the meteorological parameters measurement system AWOS to category II with the option of parameters measurement in 3 points - 3 point in the center of the runway measuring RVR. This investment will allow the operations to be carried out in accordance with Category II of ILS. After the extension, the AWOS system will measure among other things wind speed and direction, height of the cloud base and visibility along the all runway. This type of solution will significantly increase the safety of air traffic at the airport and it is necessary for the airport to receive higher security categories (CAT II). The planned extension of the AWOS system is compatible with the general plan for the development of the Radom-Sadków airport and is planned to be implemented in early 2023.

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

Number of new other investments	6

#	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	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	
1	AWOS - Software	270 000	268 380	0	0	0	58 736	62 531	For description, see 2.3.3.1.
2	AWOS - Equipments and servers	175 000	173 950	0	0	0	21 085	24 364	For description, see 2.3.3.1.
3	AWOS - Sensors	125 000	124 250	0	0	0	15 060	17 403	For description, see 2.3.3.1.
4	AWOS - Installation	120 000	119 280	0	0	0	14 458	16 707	For description, see 2.3.3.1.
5	Office equipment for Aerodrome Meteorological Office	90 000	89 460	0	0	0	10 844	12 530	For description, see 2.3.3.1.
6	Software for weathermen for preparing climatological information	135 000	134 190	0	0	0	29 368	31 266	For description, see 2.3.3.1.

2.4 - Investments - Warmia i Mazury sp. z o.o.

2.4.1 - Summary of investments

Number of new major investments	0

2.4.3 - Other new and existing investments

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

Warmia i Mazury does not plan any investments above 5M EUR in RP3.

Other investments planned for RP3:

Modernization of the existing teleinformation infrastructure - due to the technological progress and requirements concerning the installation of more modern, technologically advanced and guaranteeing security of radio communication systems for the ANS, it will be necessary to modernize the existing teleinformation infrastructure at the Olsztyn-Mazury Airport Control Tower. Replacement of the active devices (switches) will increase the level of reliability and availability of necessary network services, thus ensuring the security of the L2 layer at a higher level.

Warmia i Mazury also plans to purchase the technical vehicle - for the purpose of proper implementation of tasks related to the provision of air navigation services, together with service equipment, which is necessary for the radiocommunication measurements while in motion in the entire maneuvering area and outside the airport area, including systems distributed between TWR buildings and the Terminal.

Warmia i Mazury intends to increase the safety of AFIS provision, by purchasing the software, cameras and other remote equipment, which is planned to be funded in 75% by grants and subsidies in order to significantly limit the costs incurred by airspace users.

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

Number of new other investments	4

#	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	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	
1	Technical vehicle with equipment (COM)	290 000	290 000	0	17 753	69 345	66 676	64 006	The vehicle is essential for the radiocommunication measurements and proper provisions of ANS. Equipped with service accessories, it will enable performing quick repairs and the swift access to the server rooms which are located in two different places at EPSY airport due to safety reasons concerning data storage.

2	Extension and adaptation of Network Infrastructure (COM)	260 000	260 000	0	15 917	62 171	59 778	57 385	The investment is focused on the adaptation of the current infrastucure to the modern standards. These include changes of i.a. routers, converters, active devices (switches) and wiring. As far as cybersecurity is concerned, the NGFW (Next Generation Firewall) is planned to be installed, as well as the implementation of the systems enabling adaptation of the two independent Internet Service Providers to prevent any disruptions in network connection.
3	Extension of Surface-to-Air Radio Communication Systems (COM)	140 000	140 000	0	0	20 121	19 477	18 833	Changes of elements needed to ensure the continuity and reliability of the provision of ANS.
4	ICT Equipment to increase the safety of AFIS provision (AFIS)	6 000 000	1 500 000	0	0	0	0	401 823	Cameras, software and other remote equipment purchased in order to increase the safety of AFIS provision.

2.5 - Investments - Port Lotniczy Bydgoszcz S.A.

2.5.1 - Summary of investments

Number of new major investments	0

2.5.3 - Other new and existing investments

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

Port Lotniczy Bydgoszcz does not plan any investments above 5M EUR in RP3. Other investments planned for RP3:

Investment name: Modernization of the tower of the former Military Airport with furniture, terrestrial communication equipment, teletechnical lines, water supply connection, as well as protection and access control system. Total cost on Bydgoszcz Airport side 3 900 000 PLN (investment is partially financed by Bydgoszcz Airport and partially by PANSa).

Investment justification: Air traffic control services (and ultimately AFIS services) currently work in a place that is only temporarily adapted to this type of functions, which was reflected in non-conformities resulting from inspections carried out by Polish CAA inspectors. The new tower will fulfill the requirements of supervision and control of air operations provided by air navigation services, i.e. AFIS, MET, which will increase the level of safety of the provided above services. It will enable the introduction of new technologies and procedures as a part of the efforts to integrate the services provided. PL Bydgoszcz plans to recover the costs incurred for the construction of the tower over a time of several reference periods. In connection with the above, as well as the fact that PL Bydgoszcz as an entity is legally responsible for ensuring the smooth and safe operation of the airport plans to carry out the above investment. As this building will be also used for ATC services provided by PANSa, it was agreed that PANSa will cover part of the total costs, while PL Bydgoszcz will cover the rest which amounts to 3 900 000 PLN.

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

Number of new other investments	1

#	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	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	
1	TWR EPBY Modernization	4 317 155	4 317 155	0	0	0	176 463	668 810	For details, see 2.5.3.1. The total asset value consist of 3 900 000 PLN of TWR modernization and 417 155 PLN of other supporting infrastructure.

SECTION 3: PERFORMANCE TARGETS AND MEASURES FOR THEIR ACHIEVEMENT

3.1 - Safety targets

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

3.2 - Environment targets

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

3.3 - Capacity targets

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

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

3.4 - Cost efficiency targets

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

En Route Charging Zone #x

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

Terminal Charging Zone #x

3.4.3 - Pension assumptions

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

3.4.5 - Restructuring costs

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

3.5 - Additional KPIs / Targets

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

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

3.6.2 - Interdependencies and trade-offs between capacity and environment

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

3.6.4 - Other interdependencies and trade-offs

Annexes of relevance to this section

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

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)

ANNEX F. BASELINE VALUES (COST-EFFICIENCY)

ANNEX H. RESTRUCTURING MEASURES AND COSTS

ANNEX M. COST ALLOCATION

ANNEX J. OPTIONAL KPIs AND TARGETS

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS

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

SECTION 3.1: SAFETY KPA

3.1 - Safety targets

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

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

Annexes of relevance to this section

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

3 - PERFORMANCE TARGETS AT LOCAL LEVEL

3.1 - Safety targets

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

a) Safety performance targets

Number of Air Traffic Service Providers		3					
PANSA		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	C	C	C	C	C	C
	Safety risk management	D	C	C	C	C	D
	Safety assurance	C	C	C	C	C	C
	Safety promotion	D	C	C	C	C	C
	Safety culture	D	C	C	C	C	C
	Additional comments						
Warmia i Mazury sp. z o.o.		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	C	C	C	C	C	C
	Safety risk management	C	C	C	C	C	D
	Safety assurance	C	C	C	C	C	C
	Safety promotion	C	C	C	C	C	C
	Safety culture	C	C	C	C	C	C
	Additional comments						
Port Lotniczy Bydgoszcz S.A.		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	C	C	C	C	C	C
	Safety risk management	C	C	C	C	C	D
	Safety assurance	C	C	C	C	C	C
	Safety promotion	C	C	C	C	C	C
	Safety culture	C	C	C	C	C	C
	Additional comments						

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

There is no inconsistency between local and Union-wide safety targets.

* Refer to Annex O, if necessary.

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

Since the beginning of the RP3 PANSA consequently and continuously improves safety. This can be confirmed by the Effectiveness of Safety Management (EoSM) indicator, which is still rising. Although the RP3 EoSM levels, based on CANSO Standard of Excellence, are higher than respective levels based on RP2 EASA questionnaire, the mentioned indicator in case of PANSA has already reached the targets set for the RP3.

Over 2020 PANSA continued implementation of improvements initiated in RP2 and consequently implemented measures listed in internal "SMS development roadmap".

The measures implemented in 2020 included:

- review and mapping of processes;
- safety culture review (results of which were implemented in the above mentioned SMS development roadmap);
- update of safety training modules for managerial level and continuation of safety trainings for PANSA employees;
- safety promotion (including quarterly publication of Safe Sky bulletin, information campaign preceding implementation of eTOKAI reporting system, publication of safety reports for FIR Warszawa);
- update of safety recommendations register to include new functionalities, implementation of new system for monitoring execution of safety requirements following from implementation of changes in functional system, initiation of works aimed at implementation of new Safety Assessment Information Tool;
- continuation of best practices exchanges with national and international organisations and entities.

Further developments are focused on achieving RP3 PP requirements and ensuring compliance with EU IR 2017/373.

Bydgoszcz Airport (EPBY) and Warmia i Mazury (EPSY) were included in performance scheme in 2020. Year 2020 was the first year, in which both ANSPs were assessed in terms of reaching safety targets set for RP3. In order to achieve assumed goals – EPBY and EPSY undertook numerous measures, among others:

- implementation of SMS related requirements, documents and procedures, compliant with national and international law, including development and maintenance of Safety Policy and Just Culture Policy,
- ensuring SMS training for all staff and contractors,
- appointment of Safety Manager, Safety Committee and Safety Review Board,
- regular organisation of Local Safety Meetings,
- development of safety management indicators,
- promotion of proactive attitude of the employees regarding safety in the organisation,
- conducting internal audit of the SMS and regular safety surveys,
- development of annual business plan containing information on safety related investments,
- sharing best practices, e.g. via SMS Data Exchange Forum etc.

Above EoSM targets levels for 2020 have not yet been verified by EASA. Therefore, they are set based on PL CAA assessment.

SECTION 3.2: ENVIRONMENT KPA

3.2 - Environment targets

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

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

Annexes of relevance to this section

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

3.2 - Environment targets

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

a) National environment performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	1,67%	n/a	1,65%	1,65%	1,65%	1,65%
		2020	2021	2022	2023	2024
		Target	Target	Target	Target	Target
National targets		1,85%	1,65%	1,65%	1,65%	1,65%

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

There is no inconsistency between local and Union-wide Environment targets.
For more information see Annex P.

** Refer to Annex P, if necessary.*

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

FRA implementation within Warszawa FIR (POLFRA – implemented as of February 2019 from FL095, 24/7) is considered as a major step in facilitating improvement in the environment KPA.

Following implementation of POLFRA, over 2020 the following further changes aimed at offering the shortest possible routes to the airspace users were implemented:

- implementation of new FRA point LAJQU in POLFRA to allow shorter circumnavigation of military area D24Z (accommodating requests received from airspace users),
- implementation of new coordination FRA (Entry/Exit) point (POZUM) at PL/DE border in cooperation with DE/DFS – initially in 2020 made available for arrivals to EPWA and EPMO, over 2021 the use extended to other traffic,
- development of AFUA concept in Warsaw FIR, including implementation of reduced size of FBZ/Flight buffer zones from 5NM to 2.5 NM and reduced required tactical distance between segregated areas and GAT in en-route controlled airspace from 3.5 NM to 2.5NM.

Over 2020–2021 reorganisation of TMAs in Warsaw FIR took place, in order to allow Continuous Descent Approach (CDA) operations from more directions than available earlier. CDA techniques are also expected to reduce fuel consumption and CO2 emissions and improve cooperation with airports in order to reduce the nuisance of air transport for local communities.

Additional measures planned to be put in place over the remaining years of RP3 to further facilitate environmental improvements include the following:

- 1) Further implementation of AFUA concept in FIR Warszawa:
 - a. Improvement/automation of exchange of information about military activity in segregated areas, especially on tactical level. Update of coordination procedures and local ASM support tool/system which will reduce time required to release segregated areas back to civil traffic – 2021/2022;
 - b. Implementation of close cooperation between AMC Poland and FMP Warszawa in order to reduce as much as possible negative influence of segregated areas on civil traffic. Implementation of new coordination procedures taking into account forecasted demand of civil traffic on segregated airspace allocation in time on day of the operations – 2021/2022.
- 2) Development of FRA:
 - a. extension of POLFRA to TMAs with upper limit above FL195 (FRA to be implemented above FL195),
 - b. Implementation of cross-border FRA in FAB Baltic area – between ACC Warszawa and ACC Vilnius – 2022 (currently in validation phase and preparation for implementation),
 - c. Implementation of cross-border FRA operations between ACC Warszawa and ACC Bratislava to allow seamless FRA operations with South East, Central and North Europe – 2022,
 - d. Implementation of cross-border FRA between Baltic FAB and FAB DK-SE – 2023,
 - e. Possible implementation of cross-border FRA operations between Poland and possibly Ukraine (subject to further confirmation by BG and RO as well as analyses with respect to UA) – 2024 (Poland is also open to possible future development of cross-border FRA operations with FRACZECH – subject to outcome of further analyses and decisions on the CZ side),
- 3) Other airspace developments
 - a. Reorganisation of ACC Warsaw sector configuration following implementation of three layer division – this can reduce risk of negative impact of possible congestion in ACC sectors on the distance flown – phased implementation starting 2022/2023,
 - b. Cross-border coordination between Poland and Ukraine offering optimised trajectories between Middle East and Europe/North America. New trajectories can offer approximately 10 minutes of flight time savings. Additional savings in fuel consumption and CO2 emissions are expected.

In order to further reduce already one of the lowest values of KEA indicator among European ANSPs, the above initiatives were taken into account when establishing the revised RP3 target for Poland. However, it needs to be stressed that – despite the above initiatives – limited improvement of the horizontal en-route flight efficiency over the RP3 in Poland should be expected.

SECTION 3.3: CAPACITY KPA

3.3 - Capacity targets

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

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

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

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

Annexes of relevance to this section

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

3.3 - Capacity targets

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

a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	0,00	n/a	0,07	0,12	0,12	0,12

	2020	2021	2022	2023	2024
	Target	Target	Target	Target	Target
National targets	0,30	0,07	0,12	0,12	0,12

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

There is no inconsistency between National reference value and National targets for 2021-2024. The local PIVOT VALUES for 2023–2024 will be developed based on latest European Network Operations Plan.

* Refer to Annex Q, if necessary.

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

PANSA has established a set of measures focused on the positive impact on the capacity performance in the following areas:

- the staffing area:
- the airspace area:
- the operations area.

For more information please see Annex Q.

* Refer to Annex Q, if necessary.

d) ATCO planning

	Actual			Planning			
Warsaw (EPWW ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	7,00	6,00	1,25	5,25	10,00	6,00	5,00
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	5,50	2,00	4,00	4,00	0,00	0,00	0,00
Number of ATCOs in OPS planned to be operational at year-end (FTEs)	170,75	174,75	172	173,25	183,25	189,25	194,25

Additional comments

Data presented in the above table include SUP ATM for all years (numbers for 2018–2019 were adjusted accordingly).

COVID-19 pandemic and related traffic drop resulted in delay in the planned increase of ATCO as compared to initial 2019 draft RP3 PP (low traffic levels led to prolonged OJT training process). Moreover, over 2020 three ATCOs were moved to other duties (due to internal needs) and are now disclosed under PRU category 2 (ATCOs on other duties), although they continue to support OPS working part-time on duty (not included in the FTEs numbers in the table above).

Following the pandemic outbreak, ATCO employment plans were revised and adjusted to currently predicted traffic levels for 2022+. The required number of ACC ATCOs was estimated using EUROCONTROL NEST tool. The estimates considered planned airspace developments, including multilayer division of airspace planned to be implemented in stages starting from 2022. They also take into account the fact that over RP2 ATCO number increase did not respond adequately to significant traffic growth – assuming that traffic in EPWW would be back to 2019 levels around 2024 – increase in ATCO numbers as compared to 2019 is required. It also needs to be stressed that NM under the NOP planning process for 2022+ advises ANSPs to consider scenario 1 of STATFOR May 2021 traffic forecast as the assumption for capacity planning. As there is a close link between capacity required to be provided and the resources available in this respect, this needs to be duly considered in ATCO numbers planning process.

PANSA undertook measures aimed at increasing effectiveness of ATCO recruitment and training processes to ensure availability of required number of ATCOs. Details concerning ATCO employment plans were discussed during Consultation Meeting on 31 August 2021 and are provided in Annex C.

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

a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
	Actual	Target	Target	Target	Target	Target
National targets	0,02	0,45	0,02	0,21	0,24	0,23
Additional comments	Poland decided to establish the incentive scheme for the terminal capacity target only at the national level. The pivot value will be modulated for calculation of the capacity incentive scheme and limit the incentive 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. The forecast of terminal delays, prepared by PANSA, was based on data analysis and assumptions valid at the time of preparing the forecast, including terminal delays generated in the period from January to June 2021. The forecast of the delay rate has been prepared taking into account the baseline scenario 2 of the STATFOR forecast of May 2021.					

Airport level	EPWA-Chopina w Warszawie	0,04	0,95	0,04	0,42	0,39	0,38
	Airport contribution to national targets						
	EPKK-Kraków-Balice	0,04	0,06	0,02	0,04	0,25	0,23
	Airport contribution to national targets						
	EPGD-Gdańsk im. Lecha Wałęsy	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPKT-Katowice-Pyrzowice	0,00	0,02	0,00	0,02	0,16	0,11
	Airport contribution to national targets						
	EPWR-Wrocław-Strachowice	0,00	0,00	0,03	0,00	0,00	0,00
	Airport contribution to national targets						
	EPPO-Poznań-Ławica	0,00	0,08	0,00	0,11	0,10	0,09
	Airport contribution to national targets						
	EPRZ-Rzeszów-Jasionka	0,00	0,00	0,00	0,03	0,00	0,00
	Airport contribution to national targets						
	EPSC-Szczecin-Goleniów	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPBY-Bydgoszcz	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPMO-Warszawa/Modlin	0,01	0,24	0,00	0,37	0,34	0,31
	Airport contribution to national targets						
	EPLL-Łódź	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPLB-Lublin	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPZG-Zielona Góra-Babimost	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPRA-Radom-Sadków	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						
	EPSY-Olsztyn-Mazury	0,00	0,00	0,00	0,00	0,00	0,00
	Airport contribution to national targets						

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

Warsaw Chopin Airport has been implementing the Airport Collaborative Decision Making (A-CDM) which will be highly contributing to the airport operations efficiency and to the European ATM network performance. Currently the A-CDM for EPWA is in the finalisation phase. It is planned to implement Target Start up Approval Time – TSAT Generator dedicated to optimise the time of the starting the aircraft engines based on the calculated Target off Block Time (TOBT).

* 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

Planned change of the airspace structure in TMA Warsaw and an increased number of staff should result in a reduction of delays generated due to ATC Capacity from 2023. Together with the airspace structure changes and APP ATCO increase, PANSA plans to implement tools supporting ATCOs and allowing for capacity increase, including supporting operations in adverse weather conditions (A-SMGCS, ILS). For more information please see Annex Q.

* Refer to Annex Q, if necessary.

SECTION 3.4: COST-EFFICIENCY KPA

3.4 - Cost efficiency targets

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

En Route Charging Zone #x

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

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

Terminal Charging Zone #x

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

3.4.3 - Pension assumptions

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

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

3.4.5 - Restructuring costs

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

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

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

Annexes of relevance to this section

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

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)

ANNEX F. BASELINE VALUES (COST-EFFICIENCY)

ANNEX H. RESTRUCTURING MEASURES AND COSTS

ANNEX M. COST ALLOCATION

ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS

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

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

Point 3.3 (d) on cost-allocation;

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

Point 3.3 (f) on assumptions for pension costs and interest on debt for other entities, inflation forecast and adjustments 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 - Poland

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

En route charging zone Poland	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)	660 997 812	888 327 162	1 679 534 421	890 680 654	928 852 523	965 164 189	46,0%	8,6%
Total en route costs in real terms (in national currency at 2017 prices)	664 844 905	866 715 620	1 579 696 096	813 706 573	833 860 123	851 873 540	28,1%	-1,7%
Total en route costs in real terms (in EUR2017) ¹	156 256 514	203 701 586	371 271 260	191 243 028	195 979 657	200 213 296	28,1%	-1,7%
YoY variation			1	0	0	0		
Total en route Service Units (TSU)	3 920 861	4 959 376	4 386 811	3 496 000	4 186 000	4 802 000	22,5%	-3,2%
YoY variation			-11,5%	-20,3%	19,7%	14,7%		
Real en route unit costs (in national currency at 2017 prices)	169,57	174,76	360,10	232,75	199,20	177,40	4,6%	1,5%
Real en route unit costs (in EUR2017) ¹	39,85	41,07	84,63	54,70	46,82	41,69	4,6%	1,5%
YoY variation			106,1%	-35,4%	-14,4%	-10,9%		

National currency	PLN
¹ Average exchange rate 2017 (1 EUR=)	4,25

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

En route charging zone Poland	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)	660 997 812	888 327 162	660 997 812	836 485 578	0	51 841 584
Total en route costs in real terms (in national currency at 2017 prices)	664 844 905	866 715 620	664 844 905	814 956 767	0	51 758 853
Total en route costs in real terms (in EUR2017) ¹	156 256 514	203 701 586	156 256 514	191 536 857	0	12 164 729
Total en route Service Units (TSU)	3 920 861	4 959 376	3 930 688	4 971 806	-9 827	-12 430

c) Detailed justifications for the adjustments to the baseline values

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

Number of adjustments	0

c.2) Adjustments to the 2014 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,25%	CRCO correction factor May 2019 (on 12 months)	-9 827

Other adjustment to the 2014 service units	No

Total adjustments to the 2014 service units	-9 827

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

Number of adjustments	5

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
1	PANSA	ANSP	Cost of capital	49 059 170	49 059 170	11 530 230
Description and justification of the adjustment For details, see Annex F.						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
2	Other ANSP	MET	Staff	952 597	921 940	216 681
Description and justification of the adjustment For details, see Annex F.						

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
3	Other ANSP	MET	Other operating	1 618 129	1 566 054	368 065
Description and justification of the adjustment For details, see Annex F.						

Adjustment #4	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
4	Other ANSP	MET	Depreciation	200 643	200 643	47 157
Description and justification of the adjustment For details, see Annex F.						

Adjustment #5	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
5	Other ANSP	MET	Cost of capital	11 045	11 045	2 596
Description and justification of the adjustment For details, see Annex F.						

Total adjustments to the 2019 baseline value for the determined costs				Costs nominal NC	Costs real NC	Costs EUR2017
				51 841 584	-	-

c.4) Adjustments to the 2019 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,25%	CRCO correction factor May 2019 (on 12 months)	-12 430

Other adjustment to the 2019 service units	No

Total adjustments to the 2019 service units	-12 430

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

For details, see Annex R.

** Refer to Annex R, if necessary.*

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

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

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

For details, see Annex R.

** 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

With regard to the preparation of the PP all air navigation service providers, whose determined costs were included in the cost base for en-route charges were required to deliver necessary information with appropriate justification, confirming that determined costs are related to the provision of air navigation services as well as they are allocated in transparent way to the charging zones in respect of which they are incurred. The verification process, to the extent that it was carried out by NSA did not reveal any irregularities in terms 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.

** Refer to Annex U, if necessary.*

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

Terminal Charging Zone #1 - Poland - EPWA

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

Terminal charging zone Poland - EPWA	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)	44 978 601	84 385 091	49 497 770	50 800 186	53 304 943	18,5%
Total terminal costs in real terms (in national currency at 2017 prices)	43 749 207	78 470 308	44 664 036	44 947 408	46 348 556	5,9%
Total terminal costs in real terms (in EUR2017) ¹	10 282 246	18 442 642	10 497 255	10 563 855	10 893 163	5,9%
YoY variation		79,4%	-43,1%	0,6%	3,1%	
Total terminal Service Units (TNSU)	107 857	89 808	75 168	96 102	108 711	0,8%
YoY variation		-16,7%	-16,3%	27,8%	13,1%	
Real terminal unit costs (in national currency at 2017 prices)	405,62	873,76	594,19	467,71	426,35	5,1%
Real terminal unit costs (in EUR2017) ¹	95,33	205,36	139,65	109,92	100,20	5,1%
YoY variation		115,4%	-32,0%	-21,3%	-8,8%	

National currency	PLN
¹ Average exchange rate 2017 (1 EUR=)	4,25

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

Terminal charging zone Poland - EPWA	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	44 978 601	44 126 045	852 556
Total terminal costs in real terms (in national currency at 2017 prices)	43 749 207	42 896 651	852 556
Total terminal costs in real terms (in EUR2017) ¹	10 282 246	10 081 872	200 374
Total terminal Service Units (TNSU)	107 857	107 857	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	1

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
1.	PANSA	ANSP	Cost of capital	852 556	852 556	200 374
Description and justification of the adjustment For details, see Annex F.						

Total adjustments to the 2019 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs EUR2017
	852 556	852 556	200 374

c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units	Click to select

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

For details, see Annex R.

** Refer to Annex R, if necessary.*

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

For details, see Annex R.

** 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

With regard to the preparation of the PP all air navigation service providers, whose determined costs were included in the cost base for terminal charges were required to deliver necessary information with appropriate justification, confirming that determined costs are related to the provision of air navigation services as well as they are allocated in transparent way to the charging zones in respect of which they are incurred. The verification process, to the extent that it was carried out by NSA did not reveal any irregularities in terms 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.

** Refer to Annex U, if necessary.*

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

Terminal Charging Zone #2 - Poland - Others

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

Terminal charging zone Poland - OTHER	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)	121 096 042	269 472 102	150 924 628	151 868 423	151 377 121	25,0%
Total terminal costs in real terms (in national currency at 2017 prices)	117 995 430	251 456 705	136 550 408	134 797 006	132 028 872	11,9%
Total terminal costs in real terms (in EUR2017) ¹	27 732 114	59 099 119	32 093 035	31 680 938	31 030 352	11,9%
YoY variation		113,1%	-45,7%	-1,3%	-2,1%	
Total terminal Service Units (TNSU)	138 516	123 291	100 766	125 663	138 906	0,3%
YoY variation		-11,0%	-18,3%	24,7%	10,5%	
Real terminal unit costs (in national currency at 2017 prices)	851,85	2 039,54	1 355,13	1 072,69	950,49	11,6%
Real terminal unit costs (in EUR2017) ¹	200,21	479,35	318,49	252,11	223,39	11,6%
YoY variation		139,4%	-33,6%	-20,8%	-11,4%	

National currency	PLN
¹ Average exchange rate 2017 (1 EUR=)	4,25

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

Terminal charging zone Poland - OTHER	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	121 096 042	114 834 656	6 261 386
Total terminal costs in real terms (in national currency at 2017 prices)	117 995 430	111 822 410	6 173 020
Total terminal costs in real terms (in EUR2017) ¹	27 732 114	26 281 287	1 450 827
Total terminal Service Units (TNSU)	138 516	138 516	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	9

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
1	Other ANSP	ANSP	Staff	1 199 766	1 161 155	272 903
Description and justification of the adjustment						
For details, see Annex F.						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
1	Other ANSP	MET	Staff	548 588	530 933	124 784
Description and justification of the adjustment						
For details, see Annex F.						

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
3	Other ANSP	ANSP	Other operating	1 045 358	1 011 717	237 781
Description and justification of the adjustment						
For details, see Annex F.						

Adjustment #4	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
4	Other ANSP	MET	Other operating	-47 881	-46 340	-10 891
Description and justification of the adjustment						
For details, see Annex F.						

Adjustment #5	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
5	Other ANSP	ANSP	Depreciation	148 004	148 004	34 785
Description and justification of the adjustment						
For details, see Annex F.						

Adjustment #6	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
6	Other ANSP	MET	Depreciation	239 073	239 073	56 189
Description and justification of the adjustment						
For details, see Annex F.						

Adjustment #7	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
7	Other ANSP	ANSP	Cost of capital	32 335	32 335	7 600
Description and justification of the adjustment For details, see Annex F.						

Adjustment #8	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
8	Other ANSP	MET	Cost of capital	2 035	2 035	478
Description and justification of the adjustment For details, see Annex F.						

Adjustment #9	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
9	PANSA	ANSP	Cost of capital	3 094 108	3 094 108	727 199
Description and justification of the adjustment For details, see Annex F.						

Total adjustments to the 2019 baseline value for the determined costs				Costs nominal NC	Costs real NC	Costs EUR2017
				6 261 386	6 173 020	1 450 827

c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units	No

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

For details, see Annex R.

** Refer to Annex R, if necessary.*

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

For details, see Annex R.

** 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

With regard to the preparation of the PP all air navigation service providers, whose determined costs were included in the cost base for terminal charges were required to deliver necessary information with appropriate justification, confirming that determined costs are related to the provision of air navigation services as well as they are allocated in transparent way to the charging zones in respect of which they are incurred. The verification process, to the extent that it was carried out by NSA did not reveal any irregularities in terms 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.

** Refer to Annex U, if necessary.*

3.4.3 - Pension assumptions

Polish Air Navigation Services Agency (PANSa)

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

Pension costs	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pension costs	54 911	76 537	131 447	81 099	82 648	85 712
En-route activity	45 691	61 858	107 549	65 780	67 760	71 052
Terminal activity	8 395	13 596	21 991	14 047	13 758	13 655
Other activities	824	1 083	1 908	1 271	1 130	1 005

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?	Yes-2

All staff	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	420 964	378 244	799 208	457 116	468 018	495 988
Employer % contribution rate to this scheme	16	16		16	16	16
Total pension costs in respect of this scheme	39 971	50 521	90 492	50 319	51 109	52 320
Number of employees the employer contributes for in this scheme	1 898	2 006		1 975	2 022	2 013

Staff employed in special conditions (ATCO, "flying personnel")	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	225 743	179 994	405 737	213 042	228 448	253 919
Employer % contribution rate to this scheme	2	2		2	2	2
Total pension costs in respect of this scheme	1 287	1 893	3 180	1 634	1 713	1 790
Number of employees the employer contributes for in this scheme	613	618		636	648	660

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 State pension scheme is defined in the Act of 13 October 1998 on social security scheme. It is a general occupational scheme applicable to all entities/all employees in Poland. The scheme is a Defined Contribution Scheme. This scheme defines level of obligatory contribution of employers to State pension scheme. This pension contribution amounts to 9.76% plus additional 6.5% for disability scheme - totalling 16.26% (employer's contribution only). Additionally, for staff employed in special conditions (the list of staff categories is defined in Annexes to the Act of 19 December 2008 on bridging pension scheme), under the obligatory State scheme defined in the Act of 19 December 2008 on bridging pension scheme, employer pays 1.5% contribution to bridging pension scheme. In case of PANSa the staff employed in special conditions include personnel operating aircraft used for calibration flights (pilots and mechanics) and ATCOs.

At the moment of drafting the RP3 PP revision no drafts of proposed changes to the above national legislation on pensions are available - therefore the revised RP3 PP does not assume any changes.

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

For the State pension scheme the costs assume the annual limit of contributions to State pension insurance applicable for 2021 in the amount of PLN 157.770, which in subsequent years was increased by inflation rate per annum calculated on the basis of the amount for 2021 (the limit is verified on annual basis by the State taking into account the level of monthly average salary in the Polish economy).

The following limits were assumed in the RP3 PP:

2021 - 157.770 PLN,
2022 - 166.930 PLN,
2023 - 171.156 PLN,
2024 - 175.435 PLN.

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

As the pension costs related to the State occupational scheme directly depend on the national legislation applicable to all entities, PANSa and the NSA have no control over the evolution of these costs if any change to the national legislation is implemented within RP3.

PANSa possible cost control mechanisms can only relate to the number of employees not exceeding the numbers foreseen in the RP3 PP and assumptions on remuneration level (sticking to the assumptions underlying the RP3 PP). PANSa is committed to following these assumptions on staff numbers and remuneration level as foreseen in the revised RP3 PP.

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?	Select

All staff (access for employees on voluntary basis)	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	195 028	344 606	539 634	416 364	426 093	451 464
Employer % contribution rate to this scheme	7	7		7	7	7
Total pension costs in respect of this scheme	13 652	24 122	37 774	29 146	29 827	31 602
Number of employees the employer contributes for in this scheme	1 573	1 756		1 759	1 752	1 763

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 occupational pension scheme is based on the Act of 13 October 1998 on employee pension schemes. In case of introducing such scheme, it is necessary to sign a company contract - an agreement concluded by the employer with a representation of employees. Then it is possible for the employer to pay pension contribution to the scheme up to 7% for each employee registered to the scheme. Contribution in PANSA according to the company contract amounts to 7%. Contributions are collected and managed by AVIVA Insurance Company. In addition, employees have the right to determine the amount they want to contribute - the sum of additional contributions made by a participant to the scheme during a calendar year may not exceed the amount equivalent to four-and-a-half times the average projected monthly salary in the national economy for a given year.

In 2020, the contribution was suspended for 6 months due to the need to maintain liquidity and reduce staff costs. This is considered as one-off measure following the crisis outbreak.

No future changes are predicted.

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

Calculations are made in the same way as in the case of contributions to the State pension scheme, except that there is no limit of contributions.

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 pension costs related to this scheme are dependent on the number of employees and their salaries. Therefore, similar as in case of the State scheme described above, PANSA possible cost control mechanisms can relate to the number of employees not exceeding the numbers foreseen in the RP3 PP and assumptions on remuneration level (sticking to the assumptions underlying the RP3 PP). PANSA is committed to following these assumptions on staff numbers and remuneration level as foreseen in the revised RP3 PP. In case of unforeseen increase in the level of remuneration or number of staff, which could lead to significant increase in the costs of this pension scheme, PANSA has a possibility to limit the level of contribution or to suspend the scheme for a limited period (as exceptionally done in 2020).

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?	No
Is the occupational "Defined benefits" pension scheme funded?	Select

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

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

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

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

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

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

Polish Air Navigation Services Agency (PANSa)

Select number of loans	2

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	Operating credit facility provided by Bank Gospodarstwa Krajowego with agreed value of the arrangement amounting to 250 million PLN. Effective annual interest rate calculated taking into account: loan interest at floating rates - which is the total of the WIBOR 3M reference rate and bank's fixed margin of 0.95%, commission on the loan disbursement at 0.17% of full amount available, loan administration fee (on full amount made available) at 0.1% payable on a quarterly basis. Full amount available during the whole term of credit to be utilised and repaid according to PANSa needs. Final repayment until 31 Dec 2024.					
Remaining balance	64 501	149 432		129 432	5 432	-
Interest rate %	3,29%	3,29%		3,29%	3,29%	3,29%
Interest amount	90	2 340	2 431	5 470	3 850	1 419

Loan #2	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description	Investment credit to be provided by Bank Gospodarstwa Krajowego in planned amount amounting to 550 million PLN. Effective annual interest rate calculated taking into account: loan interest at floating rates - which is the total of the WIBOR 3M reference rate and bank's fixed margin of 1.6%, commission on every loan installment disbursement at 0.39% of the amount of installment concerned, commission on the unused expected maximum value of the arrangement at 1.0%, commission for issuing a State Treasury guarantee at 1.2% of full amount available payable immediately after arrangement conclusion. Expected maximum value of the Arrangement to be available in annual tranches within 2021-2023. The arrangement should be repaid until 31.12.2033.					
Remaining balance	0	190 000		351 000	494 000	439 000
Interest rate %	3,57%	3,57%		3,57%	3,57%	3,57%
Interest amount	0	1 707	1 707	9 144	17 206	17 465

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	64 501	339 432		480 432	499 432	439 000
Average weighted interest rate %	0,14%	1,19%		3,04%	4,22%	4,30%
Interest amount	90	4 047	4 138	14 614	21 056	18 884

3.4.5 - Restructuring costs

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

Restructuring costs from previous reference periods approved by the European Commission?	No

3.4.5.2 Restructuring costs planned for RP3

Restructuring costs foreseen for RP3?	No

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?	Select
If yes, number of en route charging zones concerned	1

Polish Air Navigation Services Agency (PANSa)

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

Information on measures planned to be implemented to support achievement of capacity targets is provided in chapter 3.3.1 and Annex Q of the revised draft RP3 PP.

These include, among others,

- reorganisation of ACC Warszawa sector configuration - three layer vertical division with improved resectorisation,
- reorganisation of TMAs for major Polish airports, including new sectors,
- continuation of training process for new ATCOs (required increase in ATCO numbers as a result of planned airspace changes),
- continued investments in infrastructure (CNS) and technology allowing for optimisation of airspace structures and optimisation of coverage in the Polish airspace as well as supporting resilience, scalability and flexibility of service provision,
- evolving ACC sector configurations to cope with updated traffic forecasts.

The above mentioned measures will generate additional costs in the areas of staff (ATCOs and ATCO students) as well as investments costs (depreciation and cost of capital on new CAPEX dedicated to capacity KPA - as indicated in Annex E, ca. 84% of CAPEX planned for RP3 is related to capacity KPA).

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	2

ATCO increase	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)	3 609	4 042	7 651	6 642	9 643	12 892

Description and justification of the additional determined costs of the measure

To be able to implement airspace resectorisation, including the three-layer vertical division, some increase in ATCO number is needed. This relates both to ACC ATCOs as well as APP ATCOs. Due to dynamic traffic increase over 2018-2019, PANSa faced insufficient number of ATCOs at the end of RP2 - this gap needs to be filled in over the RP3 perspective to support reaching the capacity targets over 2023-2024 as well as beyond. It needs to be stressed that reference values for Poland underlying the revised Union-wide capacity targets for RP3 are more ambitious than the initial ones from 2019 - this is reflected also in revised local capacity targets proposed in the revised Polish RP3 PP. This revised, very ambitious target of 0,12 min/flight cannot be met without the planned airspace resectorisation and required increase in ATCO numbers.

Increase in ATCO numbers results in increase in staff costs. For the purpose of calculating the additional costs related to this measure only costs related to employment of new ATCOs (salaries with related additional remuneration elements as well as social security payments) and their employment during the training period (during both, ab-initio training and on-the-job training) were taken into account - where as new ATCO only net increase above actual level at 31.12.2019 (end of RP2) was considered (replacements of ATCO leaving PRU1 were not considered in the calculations). The amounts presented in the table do not include other costs related to the ATCO training process like accommodation, costs related to recruitment of ATCO students, cost of trainers, cost of training materials or infrastructure used for training purposes or indirect costs - therefore the costs presented in the table need to be considered as very conservative.

Execution on investments related to capacity	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)	3 227	19 388	22 615	32 611	48 634	64 377

Description and justification of the additional determined costs of the measure

Maintaining and further increasing ER capacity of FIR Warszawa requires investments in infrastructure and systems necessary to perform ANS by PANSa. Ca. 84% of PANSa RP3 CAPEX is related to capacity KPA. These investments include, among others, upgrades/changes to ATM system (PEGASUS-21 and subsequently iTEC), infrastructure needed to accommodate the new ATM system (iTEC), construction of new OPS rooms aimed at providing contingency and/or enabling capacity increase, development of radiocommunication stations required for implementation of three-layer vertical division of airspace or replacement/development of SUR infrastructure. They cover both, replacement investments (without which maintaining the capacity provided up-to-date would not be possible) as well as development investments (aimed at further improving capacity, both for the RP3 period and beyond) or projects considered as both replacement and development project (e.g. replacement of an asset or system but with additional functionalities added). Detailed information on investments over RP3 is provided in chapter 2.1 of the draft revised RP3 PP.

Execution of those investments results in increase in related costs - depreciation and cost of capital on fixed assets. For the purpose of calculating the values presented in the table above, only costs related to CAPEX to be spent over RP3 (from Jan 2020) allocated to ER services were considered - costs related to parts of the projects that started earlier (before end of RP2) were not considered. Again, similar as in the case of staff costs above, the amounts need to be considered as very conservative as they do not include non-capitalised cost elements related to CAPEX execution or putting the assets into operation like costs of business trips, additional training etc.

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total additional costs of measures ('000 national currency)	6 836	23 430	30 266	39 252	58 276	77 269

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)

Click to select	2020D	2021D	2020/2021D	2022D	2023D	2024D
Staff	3 609	4 042	7 651	6 642	9 643	12 892
of which, pension costs	510	619	1 129	1 047	1 516	1 916
Other operating costs			-			
Depreciation	0	10 464	10 464	17 363	24 345	30 802
Cost of capital	3 227	8 923	12 150	15 248	24 289	33 575
Exceptional items			-			
Total additional costs of measures	6 836	23 430	30 266	39 252	58 276	77 269

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total additional costs of measures ('000 national currency)	13 672	46 859	60 531	78 505	116 553	154 539

Additional comments

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

SECTION 3.5: ADDITIONAL KPIS / TARGETS

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	Click to select number of additional KPIs

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

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

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

3.6.2 - Interdependencies and trade-offs between capacity and environment

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

3.6.4 - Other interdependencies and trade-offs

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

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

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

Some of the measures foreseen to be implemented to support reaching the targets in the areas of capacity and environment, including FRA development plans and multilayer vertical split of airspace, will require changes in PANSA functional system. For such changes, prior to their implementation, safety assessment is performed and submitted to the NSA. Safety is considered a priority in implementation of any such changes. Safety assessment is performed under the Safety Management System in place at PANSA for all changes in the functional system and changes that have impact on that system. In such safety assessment all potential implications of the change for the safety area, as well as risks are identified and analysed. If the assessment indicates that the change might have any safety implications, then respective mitigation measures are planned to avoid any negative impact of the change on the safety area. Such measures may include for example restrictions introduced when implementing/developing FRA, reduced capacities of elementary sectors for new sectors after airspace reorganisation, dedicated trainings/briefings to staff etc.

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

The main assumption for the interdependencies is that the level of safety required under the EU legislation shall not be compromised and impacted by the other performance areas.

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?

PL NSA analyses safety related occurrences within State Safety Programme/Plan and Safety Oversight Report. The inspection plan is developed as a risk based oversight programme.

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 trade-offs in operational decision making are sometimes unavoidable. The ambitious capacity targets may restrict the release of staff for safety training during the high season. However, these activities are not deleted but postponed and moved to low season.

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.

PL CAA inspectors review and supervise the ANSP personnel resources in accordance with regulatory requirements of the Commission IR (EU) 2017/373, ATM/ANS.OR.B.005 and ATS.OR.200.

3.6.2 - Interdependencies and trade-offs between capacity and environment

Several projects (airspace optimisation, route network straightening, DCT and FRA implementation) carried out by PANSA in the past few years allowed to improve HFE KPIs calculated for Polish (and Baltic FAB) airspace. Already Poland has one of the lowest KEA values in the SES area. Further improvement of HFE KPIs may cause reduction in capacity and/or throughput of EPWW FIR airspace. In complex airspaces with high demand, capacity is inversely proportional to flight routing efficiency. This is also confirmed by preliminary results of SESAR 2020 PJ06 project which is validating FRA concept in high and very high complexity environments. According to the mentioned results, when FRA is being implemented in complex airspaces with high demand it is necessary to introduce some "structural limitations" (which decrease flight efficiency) in order to maintain capacity, which can be affected by increased complexity (ATCO workload) and increased number of ACC sectors, which are penetrated by flights carried out on shortened routings. This situation will lead to increased regulation implemented on the day of operation. The outcome of these structural limitations is very often less penalising than the cost of ATM regulations.

Last significant implemented PANSA project (POLFRA) aimed to optimise flight efficiency was implementation of FRA in FIR EPWW on 28th of February 2019. Based on the above mentioned knowledge and performed analysis, in order not to decrease capacity of ACC Warszawa, POLFRA was implemented together with minimal set of necessary RAD restrictions. All these restrictions were implemented after precise analysis in order to minimise negative impact on users, while at the same time minimizing the risk of occurrence of ATM regulation implemented on the day of operation. Please also see the initial Poland RP3 PP dated 11.2019 (point 3.6.2) where results of PANSA analysis regarding high level estimation of potential negative results of withdrawing some of "structural limitations" of POLFRA were presented.

Another example of trade-offs between capacity and environmental targets could be the effect of previously planned but currently suspended enhanced NM Summer Measures. While at network level these measures are believed to bring positive effects for the level of delays, from the HFE perspective the led to negative effects linked to longer routes. This relationship was recognized also by EASA Management Board Task Force on Airspace Congestion.

Considering all mentioned above, PANSA is constantly trying to improve the HFE KPI values and improve capacity available for AUs. Recently three airspace projects are being developed in order to improve mentioned domains: cross-border FRA implementation projects (focused on HFE) and implementation of additional (third) sector layer in en-route airspace (focused on capacity).

Two cross-border FRA implementation projects are being developed now by PANSAs:

- Baltic FRA – the common cross-border FRA are including cross-border FRA operations between Poland and Slovakia (Baltic FRA and SEE FRA) with planned implementation dates set to FEB 2022.

- Cross border FRA operations between Poland and Sweden (Baltic FAB and DK-SE FAB), planned for FEB 2023.

Both projects are focused on allowing AUs to plan freely via common border between Poland and Lithuania/Slovakia/Sweden, which will result in shorter, more optimised routings. Although some improvement of HFE could be expected, it also must be underlined that some structural limitations must be also applied in order not to decrease the available capacity. Already in 2018 PANSAs noticed that capacity levels in south-east part of the Polish airspace is not enough to meet forecasted demand. Thus in 2019 the horizontal split of 2 ACC sectors was implemented. Although available capacity was increased and the delays were reduced that solution was foreseen as an intermediate step due to some operational constraints which increased complexity in that area. To further improve airspace configuration, minimise additional complexity and further increase available capacity forecasted for RP3 period (including the whole EPWW FIR area) the implementation of third layer of ACC sectors was initiated. The project was divided into 4 steps. The original plan was to start implementation of the first step in 2021 but due to the COVID-19 pandemic it was postponed to 2022. This project, although not directly focused on HFE improvement, also can indirectly contribute to the HFE by further minimisation of probability of delays. Thus AUs will not have to be forced to plan longer routings in order to avoid congested and regulated areas during peak summer periods. Additionally, in March 2020 PANSAs has suspended a significant number of RAD restrictions related the Polish FRA area (POLFRA) due to the low level of traffic caused by COVID-19 pandemic and lack of capacity problems. As for June 2021 these restrictions are still being suspended at least until November 2021. Depending on traffic recovery their suspension might be prolonged. Undertaken actions could benefit in HFE optimisation, however although shorter connections were available, actual decrease of HFE KPIs has not been observed, because of AUs choices which in most cases take into account the cheapest routings, which are not necessarily the shortest ones, or because of some political factors.

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

There is a direct and widely recognised trade-off between these two areas. However, this relationship is not linear – the crisis period of 2020–2021 has shown that there is a minimum cost of ensuring service continuity and maintaining required capacity. Capacity provision comes at cost. To be able to increase and even to maintain current capacity, ANSPs need financial resources allowing them to ensure availability of ATCOs and infrastructure/systems – these are the two most visible resources categories related to capacity provision. This also applies to situation, when ANSP encounters periodic traffic drop but in longer perspective traffic recovery and further traffic increase is expected – at such times, even with lower traffic, infrastructure/systems must be maintained operational and due consideration needs to be given to ensuring OPS staff availability when traffic recovers. This is the case over 2020–2021. ANSP has to be prepared to resume full operational capabilities once traffic returns. Having in mind that building operational capacity is a long lasting process (time required for ATCO training and for investments execution), operational capabilities cannot be decreased to a point where it would be impossible to return to the level of service required by the Airspace Users after the crisis. Without required financial resources ANSPs will not be able to ensure availability of ATCOs or technical staff maintaining infrastructure/systems. Similarly, lack of investments in new tools supporting ATCOs, new ATM system and CNS infrastructure would negatively impact provision of additional capacity. This concerns not only ER, but also investments at airports like ILS or A-SMGCS, which increase airport capacity in adverse weather conditions. For additional information on costs of additional capacity over RP3 please also see chapter 3.4.6 of the draft revised RP3 PP. Relationship between cost efficiency and capacity can also be measured by so called economic cost being total of financial costs invoiced to the airspace users and cost of delays. Reductions in ANSP financial costs can lead to significant increase in cost of delays, as a consequence negatively impacting the economic cost - with increasing cost for airspace users. For additional information on capacity cost over RP3 see also p. 3.4.6.

3.6.4 - Other interdependencies and trade-offs

Experience of Poland of RP2 indicates that there is also an interdependency between costefficiency and environment areas. In case of bordering charging zones with significant differences in unit rates, in times of relatively low fuel costs, aircraft operators might be willing to fly through 'cheaper' charging zones, even when this means longer routes. During RP2 these differences in the level of UR among the States were seen. The airspace users planned their most efficient route (not necessarily the shortest) and then performed flight on the shortest available routes. This practice has an impact also on ANSP overall performance in both cost-efficiency and environment areas.

Should additional space be needed for any of the items, please use Annex S.

SECTION 4: CROSS-BORDER INITIATIVES AND SESAR IMPLEMENTATION

4.1 - Cross-border initiatives and synergies

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

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

4.2 - Deployment of SESAR Common Projects

4.3 - Change management

Annexes of relevance to this section

ANNEX N. CROSS-BORDER INITIATIVES

4.1 - Cross-border initiatives and synergies

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

Number of cross-border initiatives	4

Initiative #1	
Name	Local Traffic Complexity Management
Description	<u>Objective:</u> The Local traffic complexity management project is an instrument for automated and dynamic traffic forecasting and sectorisation planning that would provide support to local ATFCM and ATS units in the execution of tasks in order to enable efficient planning of capacity and staffing at PANSO/Oro Navigacija. The project would enable to run fast-time simulations that in turn would develop optimised sectorisation scenarios in terms of capacity parameters and ATCOs resources needs. The project will enable coordination between ANSPs and different stakeholders, in particular NM, AUs and MIL, airport operators/slot coordinator through collaborative decision-making processes. <u>Status:</u> Project is in implementation stage. PANSO/Poland and Oro Navigacija/Lithuania submitted project application in 2018 Q1, with was approved in November 2018. Project Grant Agreement was signed in December 2018. PANSO is planning to finish the implementation of local Traffic Complexity Tool in Q3 2021. Oro Navigacija/Lithuania started the formal withdraw process from the project financed under Grant Agreement in 2021. <u>ATM MP links and EU legislation links:</u> In accordance with the CP1 IR (EU 2021/116) and the Deployment Programme, ATM Functionality # 4 (Network Collaborative Management), including the SDP Project Family 4.4.2 (Traffic Complexity tools), is required to be deployed in the European Air Traffic Management Network (EATMN). ATM MP L3 2020 edition: ATC12.1 AF4 - Network Collaborative Management; SESAR Deployment Programme 2018: Family 4.4.2 - Traffic Complexity tools.
Expected performance benefits	<u>Safety:</u> Medium impact The project will enable more precise traffic forecasting leading to a significant reduction of overload situations and having positive impact on improved safety. The project will reduce operational human errors. <u>Environment:</u> Medium impact Reduced flight times and delays due to improved trajectory and network complexity assessment. <u>Capacity:</u> High impact The project will enable more precise traffic forecasting and traffic predictability, which will have positive impact on capacity increase and delay reduction in both en-route and terminal operations. Improved predictability is a consequence of better capacity utilisation. This improvement is mainly related to improved trajectory and network complexity assessment. <u>Cost-efficiency:</u> Low impact Increased ATCO productivity due to better allocation of resources to traffic thanks to traffic complexity assessment and EFD messages. <u>Operational efficiency:</u> Medium impact Reduced flight times and delays due to improved trajectory and network complexity assessment.

Initiative #2	
Name	ITEC/Convergence of ATM systems in the Baltic FAB ACCs and Cross-Borders Service provision with Joint Contingency Service Provision
Description	<u>Objective:</u> Objective of this project is to achieve ATM system convergence, which will be an enabler for several solutions aiming at achieving the optimal use of technical and human resources resulting in lower provision costs and improved operational performance in the Baltic FAB. It will be then possible, for two ANSP operating the same ATM system, to provide contingency ATM services for themselves. <u>Status:</u> Project is during the implementation phase. <u>ATM MP links and EU legislation links / other links:</u> L3: ATC02.8, ATC12.1, ATC17, ITY-AGDL, ITY-AGVCS2, ITY-FMTP EC Regulations: 373/2017; 552/2004 (amended by 1139/2018); ESSIP/LSSIP: All ESSIP/LSSIP ATC & ITY-xxx objectives related to ATM and COM systems; FOC< 2019 and IOC>2017 ATM Master Plan: All ATM MP OI steps with FOC< 2019 and IOC>2017 related to VLCN Network Strategy Plan: SO4.

Expected performance benefits	<u>Safety:</u> High impact Improved safety and controllers confidence while using complete set of Safety Nets, Conflict detection and monitoring aids available for 2015+ manufactured systems be offered by manufacturers (from 2018+). <u>Environment:</u> Low impact 1) System will support cross-border FRA contributing to ENV KPIs for horizontal fuel savings and corresponding reduction of CO2 emission; 2) System will be upgradable to future XMAN and thus capable to contribute future ENV KPIs most probably related to vertical fuel savings and corresponding CO2 emission and noise reduction. <u>Capacity:</u> High impact 1) Designed to support dynamic sectorization it will allow to deliver capacity on demand thus optimizing controllers workload while avoiding either overdelivery or underdelivery of the tactical capacity; 2) Air-Ground and Ground-Ground data exchange for seamless ATC coordination, dialog and transfer of communication means will allow to accommodate significant traffic growth/fluctuations without increasing the number of controlling sectors, protecting them from tactical overloads which may cause potential delays; 3) Interoperable with the airport systems to support A-CDM. <u>Cost-efficiency:</u> High impact. It will reduce equipment maintenance costs (other operating costs) and minimise the required installation of new upgrades and functions in existing ATC system. <u>Operational efficiency:</u> Medium impact Reduction in flight time and reduction in fuel burn.

Initiative #3	
Name	Enhancement of inter-FAB cooperation and cooperation with non-EU countries (FAB project)
Description	The main objective of cooperation is to drive progress towards greater flight efficiency, cost <u>efficiency and operational consistency</u> in line with Single European Sky performance goals. <u>Status:</u> Implementation phase is closed. Baltic FAB ANSPs will continue to seek for further possibilities of common actions in international environment in accordance with Baltic FAB Development Strategy. Project is a continuous activity. <u>ATM MP links and EU legislation links:</u> L3: AOM21.2, ATC02.8, ATC07.1, ATC12.1, ATC15.1, ATC15.2, ATC17 EC Regulations: SES Legislation ATM Master plan: "Regulatory roadmap". <u>Particular activities:</u> • Joint execution of the project based on ANSPs resources (financial, technical, HR), MoT, MoD, NSAs in kind contribution. ANSP activity was focused on cooperation within interFAB Cooperation platform and GATE ONE as well as on opportunities provided by joint participation in SESAR Deployment Manager (Common implementation of AGDL, participation in definition of DLS functionality B, iTEC), B4 Consortium (Pansa, Oro Navigacija, LPS and ANS CZ) and Centralised Services (PANSA, Oro Navigacija, Uksatse) projects.c • In 2017, PANSA and Oro Navigacija, signed a memorandum of cooperation with the Ukrainian air traffic agency UKSATSE. Under the memorandum, the parties will strive for intensive cooperation on aviation infrastructure development and airspace management, particularly in the area of the preparation and development of operating systems for air traffic control and the deployment of Free Route Airspace. • In 2018 a Memorandum of Cooperation between Baltic FAB ANSPs and Belaeronavigatsia, Belarusian Air Navigation Service Provider, Belaeronavigatsia was signed. The aim of the Memorandum of Cooperation between Baltic FAB and Belaeronavigatsia was to give a framework for potential future works on operational level. • By a bilateral agreement on cooperation, Oro Navigacija and PANSA formalized their cooperation in search and rescue (SAR) area signing the appropriate agreement in 2018. The two ANSPs are also planning to cooperate in joint trainings / exercises and exchange of best practice. • Also, meetings were held with Belarusian ANSP, Ukrainian ANSP, and Kaliningrad ANSP with the aim to discuss the optimisation of CNS. Numerous common activities prove that ANSPs in Baltic FAB consider its common presence as valuable tool to achieve benefits. Two abovementioned Memorandums of Cooperation signed between Baltic FAB ANSPs and non—EU ANSPs from Ukraine and Belarus partially cover cross-border activities: 1. MoC with Ukraine covers co-operation concerning the following areas: • Cross border Free Route Airspace; • Implementation and utilisation of GBAS/SBAS; • Deployment and extension of AMHS network; • Coordinated approach to DLS implementation; • Safety and Quality; • Implementation of common requirements applicable to ANSPs at EU level; • GATE ONE; • Baltic FAB ATM System. 2. MoC with Belarus covers cooperation concerning the following areas: • cross border Free Route Airspace; • implementation and utilisation of PBN; • deployment and extension of AMHS network; • coordinated approach to DLS implementation; • surveillance Data Exchange; • safety and quality; • flight plan progress messages exchange.
Expected performance benefits	Low to medium in SAF, ENV and CAPACITY KPI. Not applicable to Cost-Efficiency.

Initiative #4	
Name	Free Route Airspace (FRA) and cross-border FRA
Description	Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan, obliged air navigation service providers to introduce an airspace based on direct routing from January 1, 2018 and Full-FRA from January 1, 2022. According to the abovementioned regulation, these solutions must be provided and come into service at and above FL310 in the ICAO EUR region (currently, in accordance with the CP1 Regulation EU 116/2021, at and above FL305). On the 28th of February, 2019, the Free Route Airspace (FRA) was officially implemented in the Polish airspace. The testing and validation phase was completed, which allowed PANSA to launch FRA in Warszawa FIR according to the schedule. Free Route Airspace in Poland is known as POLFRA. POLFRA is applied 24/7, above FL095 excluding TMAs. PANSA's future plans are to expand and improve the capability of POLFRA, working together with neighbouring ANSPs on the crossborder implementations (see chapter on Environment KPI). Current PANSA activities on FRA are aligned with currently applicable Regulation EU (116/2021) on Common Project One (CP1) which repealed the Regulation No 716/2014 – Family AF3, Sub-functionality on Free Route Airspace (3.1.2).
Expected performance benefits	POLFRA is in operation since end of February 2019 and positive impact is visible when looking at the shortest constrained route indicator, which improved from March 2019. In general, extension of FRA on cross-border basis with Lithuania and other States/FABs is expected to contribute to the objectives of the performance scheme in the Environment KPA, however, due to the fact that HFE is impacted by a number of external factors beyond control of ANSP (including military activities, weather, political issues) no significant reduction in KEA should be expected. Next steps of POLFRA development (see also the chapter on Environment KPI): • To extend POLFRA into cross-border FAB Baltic Free Route Airspace – project is under development with target implementation in 2022; • Extension of POLFRA/FAB Baltic FRA to cross-border FRA with already existing (or planned) FRA of neighboring FABs (e.g. DK-SE FAB, FABEC, FAB CE) and countries (e.g. Ukraine, Belarus). PANSA has started cross-border FRA project with Sweden (LFV) with target implementation date 2023. <u>Additional comments:</u> • FRA is included into the list of initiatives since the FRA is being extended to crossborder FRA project between PANSA and Oro Navigacija.

Additional comments
PANSA also actively participates in initiatives undertaken by the Network Manager aimed at supporting Network performance. Following support under the enhanced NM Summer 2019 Measures over 2019, these include active participation in the Operational Excellence Programme, where PANSA acts as a Champion ANSP for WST 05 – Achievement of higher sector throughput as well as in Airspace Restructuring Programme.

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
• New joint ATM system developed under the iTEC alliance, • Cooperation in project related to implementation of Local Traffic Complexity Tool, • Data sharing related to CNS infrastructure. This could include: - o DVOR/DME Suwałki (replacement of existing DVOR/DME 'SUW' after resource period; this navaid may be potentially used for instrument procedures or RNAV coverage also on the territory of Lithuania); - o DME Rudka (new DME which will be set instead of current DVOR/DME 'RUD'; planned location of new DME site is 52°55'36.1 N 023°05'16.3E (WGS-84); This navaid may be potentially used for RNAV coverage also on the territory of Lithuania); - o Radar Gdańsk (new radar site close to Gdańsk (finally replacing current one); data from this radar may be potentially shared with SE ORO NAVIGACIJA).

4.2 - Deployment of SESAR Common Projects

4.2.1 - Common Project One (CP1)

CP1 ATM Functionality (CP1-AF) / Sub functionality (CP1-s-AF)	Recent and expected progress
CP1-AF1 - Extended AMAN and Integrated AMAN/DMAN in High-Density TMAs	
CP1-s-AF1.1 AMAN extended to en-route airspace	Poland outside the geographical scope of the Regulation 2021/116 on CP1.
CP1-s-AF1.2 AMAN/DMAN Integration	Poland outside the geographical scope of the Regulation 2021/116 on CP1.
CP1-AF2 - Airport Integration and Throughput	
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	Poland outside the geographical scope of the Regulation 2021/116 on CP1.
CP1-s-AF2.2.1 Initial airport operations plan (IAOP)	Poland outside the geographical scope of the Regulation 2021/116 on CP1.
CP1-s-AF2.2.2 Airport operations plan (AOP)	Warsaw airport added to the geographical scope of the Regulation 2021/116. There is not yet data available. Monitoring activities to be launched later this year.
CP1-s-AF2.3 Airport safety nets	Poland outside the geographical scope of the Regulation 2021/116 on CP1.
CP1-AF3 - Flexible Airspace Management and Free Route Airspace	
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	Family 3.1.1: ASM Tool to support AFUA - 100% Full deployment achieved; Performance gains: the primary scope/focus of the Family is KPA Capacity and KPA Safety: • it increases airspace capacity thanks to better airspace organisation and planning, • it leads to better situational awareness of airspace users, • it enhances Civil-Military ATM performance, • it provides real-time exchange of airspace management data, • it facilitates collaborative (civil-military) decision-making and improves safety. Family 3.1.2: ASM Management of real-time airspace data - Implementation in progress (75% achieved); the deployment target date: December 2021; Performance gains: the primary scope/focus of the Family is KPA Capacity: • it provides information about status of airspace reservation in order to optimise the use of airspace and increase capacity. Family 3.1.3: Full rolling ASM/ATFCM process and ASM information sharing - Implementation in progress (35% achieved); the deployment target date: December 2022; Performance gains: the primary scope/focus of the Family is KPA Capacity: • it will contribute to Network performance improvements and will support a better utilisation of Free Route Airspace and fixed route structure through enhanced ASM processes and tools, • it will contribute to enhance performance-driven ASM-ATFCM processes and will introduce more dynamic and flexible ASM/ATFCM/ATS processes. Family 3.1.4: Management of Dynamic Airspace Configurations - Implementation in progress (90% achieved); the deployment target date: December 2021; Performance gains: the primary scope/focus of the Family is KPA Capacity: it will enable dynamic sectorisation and therefore flexible Airspace Management within Polish airspace.
CP1-s-AF3.2 Free route airspace	Family 3.2.1: Upgrade of ATM systems to support DCTs and FRA - Implementation in progress (95% achieved); the deployment target date: December 2022; Performance gains: this Family embraces all four KPAs as defined in the Performance Scheme: PANSAs projects that fall under this Project Families aim at deploying advanced operational concepts such as but not limited to extended information exchange with other systems / partners in a timely, coordinated and synchronized effort to raise capacity, improve safety and cutting costs and thus enabling a significant performance increase at PANSAs; PANSAs projects facilitate also Free Route Airspace utilization and Extended Arrival Management; while the projects support FRA utilization, they enable improved flight efficiencies in fuel and in time for the airspace users. Family 3.2.3: Implement Direct Routings (DCTs) - 100% Full deployment achieved; Performance gains: the primary scope/focus of the Family is KPA Environment; it enables improved flight efficiencies in fuel and in time for the airspace users thus, also reducing the environmental footprint of commercial aviation. Family 3.2.4: Implement Free Route Airspace (FRA) - 100 % Full deployment achieved; Performance gains: the primary scope/focus of the Family is KPA Environment; it enables improved flight efficiencies in fuel and in time for the airspace users thus, also reducing the environmental footprint of commercial aviation.
CP1-AF4 - Network Collaborative Management	

CP1-s-AF4.1 Enhanced short-term ATFCM measures	Family 4.1.1: STAM Phase 1 – 100% Full deployment achieved; Performance gains: the primary scope/focus of the Family is KPA Capacity: • it minimizes ATFCM delay by reducing the need for ATFCM regulations and its impact on operations, • it improves the balance between demand and available capacity through cooperation between ATFCM and ATS processes, through targeted measures on (an) individual flight(s), • it supports the network coordination between stakeholders and provides the network view for the elaboration, decision and execution of STAM measures, • it provides the collaborative environment to stakeholders during the elaboration, decision and execution of STAM measures; • it helps to plan optimum capacity and flight efficiency. Family 4.1.2: STAM Phase 2 - Implementation in progress (5% achieved); the deployment of the Family linked with the Family on Traffic Complexity Tool (TCT); STAM Phase 2 to be implemented via Local Tool (TCT) in B2B connection with the Network Manager; the deployment target date: December 2021; Performance gains: since this Family aims at further developing the STAM Phase 1 initiative, the primary scope/focus of the Family is KPA Capacity: it enables an optimised use of the available capacity by using realtime information about the network situation to identify and avoid 'hotspots' and reduce traffic complexity; Reduced flight time and holdings, owing to improved network predictability. The both Families (4.1.1 and 4.1.2) contribute also to cost savings and reduced fuel burn due to airspace users being able to fly their preferred trajectories, according to their priorities and operational objectives.
CP1-s-AF4.2 Collaborative NOP	Family 4.2.2: Interactive Rolling NOP - Implementation planned (0% achieved); ATFM procedures and staff training to be done when NM platform (N-Connect) is available; the deployment target date: December 2021; Performance gains: the primary scope/focus of the Family is KPA Capacity and KPA Safety; the Family will enable to improve ATCO workload predictability and prevent ATCOs overloads. the Family, once NM platform is available, will contribute to improving Network situational awareness and increasing operational CDM efficiency for all network stakeholders; it will help reduce flight time and flight holding due to improved network predictability. Family 4.2.3: Interface ATM systems to NM systems - 100% Full deployment achieved; Performance gains: this Family is of a horizontal nature and in fact embraces all four KPAs as defined in the Performance Scheme; it is focused on the collaboration improvement between NM, ANSPs, airports and airspace users in flight plan filing and processing. Family 4.2.4: AOP/NOP information sharing - Poland/no Polish stakeholder required to deploy this family in line with PCP.
CP1-s-AF4.3 Automated support for traffic complexity assessment	Family 4.3.1: Traffic Complexity Tools - Implementation in progress (20% achieved); the deployment target date: December 2021; Performance gains: the primary scope/focus of the Family is KPA Capacity: PANSA's projects falling under this Family are expected to bring the largest performance benefits in terms of capacity increase and reduction of delays both in en-route and terminal traffic; as concerns indirect impacts, the project will contribute to the following KPAs: • Safety: the project will enable more precise traffic forecasting leading to a significant reduction of overload situations and having positive impact on improved safety. • Predictability: The project will enable more precise traffic forecasting and traffic predictability that will have positive impact on capacity increase and delay reduction in both en-route and terminal operations. Improved predictability is a consequence of better capacity utilisation. This improvement is mainly related to improved trajectory and network complexity assessment. • Flight efficiency: Reduced flight times and delays due to improved trajectory and network complexity assessment. • Cost efficiency: Increased ATCO productivity due to better allocation of resources to traffic thanks to traffic complexity assessment and EFD (Electronic Flight Display) messages.
CP1-s-AF4.4 AOP/NOP integration	Warsaw airport added to the geographical scope of the Regulation 2021/116. There is not yet data available. Monitoring activities to be launched later this year
CP1-AF5 - SWIM	
CP1-s-AF5.1 Common infrastructure components	Family 5.1.1: PENS1: Pan-European Network Service version 1 - 100% Full deployment achieved; Performance gains: the primary scope/focus of the Family is KPA Cost-efficiency: a joint EUROCONTROL / ANSP led initiative to provide a common IP based network service across the European region covering voice and data communication and providing efficient support to existing services and new requirements that are emerging from future Air Traffic Management concepts, in particular in the context of SESAR (SWIM backbone). Family 5.1.2: NewPENS: New Pan-European Network Services – 100% Full deployment achieved; Performance gains: since the Family aims at replacing the PENS1, the primary scope/focus of the Family is also KPA Cost-efficiency through the multistakeholder nature of the initiative.

CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	Family 5.2.1: Stakeholder Internet Protocol Compliance - Implementation in progress (60% achieved); the implementation project (co-funded from EU funds) underway; the deployment target date: 2021; Performance gains: PANSA's project that falls under the Family is about splitting of operational and non-operational services that are based on network environment and thus contributes to improving network services for operational users by upgrading reliability and stability level (service continuity) and, ultimately, to KPA Safety. Family 5.2.2: Stakeholder SWIM Infrastructure Components - Implementation in progress (5% achieved); the implementation project (co-funded from EU funds) underway; the deployment target date: December 2024; Performance gains: PANSA's project that falls under the Family consists in improving reliability level for AMHS and upgrading AMHS functionality for Warsaw AMHS COM Center, thus contributing to service continuity and KPA Safety. Family 5.2.3: Stakeholders' SWIM PKI and cybersecurity - Implementation planned; PANSA is going to make use of solutions/best practices that will be developed in the framework of the multistakeholder project on SWIM Common PKI and policies & procedures for establishing of Trust Framework; the deployment target date: December 2024; Performance gains/description: the scope of activities under the Project families concerns cybersecurity aspects.
CP1-s-AF5.3 Aeronautical information exchange	Family 5.3.1: Upgrade/Implement Aeronautical Information - Implementation in progress (20% achieved); the deployment target date: December 2024; Performance gains/description: PANSA's activities within the Family will support the enhancement of security, data integrity and capacity, as well as promotion of ATM automation while making sure that the data quality is compatible with System Wide Information Management (SWIM) requirements; it will improve consistency, reliability and integrity of aeronautical data and information as well as the availability of quality-assured electronic terrain and obstacle data from authoritative sources.
CP1-s-AF5.4 Meteorological information exchange	Family 5.4.1: Upgrade/Implement Meteorological Information - Implementation planned (0% achieved); the implementation of the Family dependent on MET Service Provider activities in order to be able to consume services as provided by METSP; the deployment target date: December 2024.
CP1-s-AF5.5 Cooperative network information exchange	Family 5.5.1: Upgrade/Implement Cooperative Network Information Exchange System/Service - Implementation in progress (10% achieved); the deployment target date: December 2024; Project gains/description: Activities under this Family will be focused on initiating SWIM compliance and at developing/deploying new B2B services to exchange network / flight plan information between NM and operational stakeholders; the Family will contribute to KPA Capacity and KPA Safety.
CP1-s-AF5.6 Flight information exchange (yellow profile)	Family 5.6.1: Upgrade/Implement Flight Information Exchange System / Service supported by Yellow Profile - Implementation planned (0% achieved); the deployment target date: December 2024; Performance gains/description: this Family aims at upgrading or implementing Flight Information Exchange systems and services supported by the Yellow Profile in accordance with SWIM principles; the implementation of this Family requires an analysis of upgrades and new implementations of services to be performed, as well as the development of a concept on how to tackle the transition for this Family; this analysis shall include the development of a roadmap of the transition and the identification of the relevant artefacts (roadmap, services definition, Safety and Security framework, compliance framework); the transition concept is still awaited. Family 5.6.2: Upgrade/Implement Flight Information Exchange System / Service supported by Blue Profile - Implementation planned (0% achieved); please note that this area has been removed from the CP1.
CP1-AF6 - Initial Trajectory Information Sharing	
CP1-s-AF6.1 Initial air-ground trajectory information sharing	Family 6.1.1: ATN B1-based services in ATSP domain (CPDLC) - 100% Full deployment achieved; Performance gains: the primary scope/focus of the Family is KPA Capacity and KPA Safety: through the data-link communication, ATCOs' workload is substantially diminished which contributes to capacity and safety increase. Family 6.1.2: ATN B2-based services in ATSP domain - Implementation not planned yet (0% achieved); Low readiness Family; depending on ATN B2 services maturity, PANSA will later decide if it is feasible to upgrade current ATM system with ATN B2 services or if to postpone it until the future ATM system. Family 6.1.3: A/G and G/G Multi Frequency DL Network in defined European Service Areas - 100% Full deployment; Performance gains: the primary scope/focus of the Family is KPA Capacity and KPA Cost-efficiency: • it supports SDM in its activities according to the DLS Recovery Plan and defining a European DLS Common Governance. • it identifies steps towards the envisaged target solution in order to achieve the required performance needed to achieve full AF6 implementation. • it identifies the "Service Areas" and develops a design of the system architecture that will enable Data-link services provision in the most efficient way.
CP1-s-AF6.2 Network Manager trajectory information enhancement	A new theme in the CP1; The Network Manager required to deploy.
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	A new theme in the CP1; There is not yet data available; monitoring activities to be launched later this year.

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

PANSA has a dedicated change management programme. Identification, initiation, assessment of the need for change, development of the change and the implementation of the change takes place in accordance with internal regulations in force at PANSA. There is a catalogue of changes requiring notification and/or approval of the President of the Civil Aviation Authority. The major changes may be proceeded as projects with additional internal PANSA procedures basing on modified management procedures specially created for PANSA. Every change takes a formal evaluation and risk assessment. Safety assessment is carried out, training support is provided to prepare the workforce to new types of tools and working methods.

The process is continuously measured and monitored.

Managers of all the units and leaders of the changes take part in recurring meetings where the progress is monitored. Impact is assessed, reviewed and mitigated during the process.

Negative impact is minimised by close cooperation with specialists/practitioners and stakeholders during the change process and transition plans involve implementations in a limited environment that can include monitoring the operations in implementation phase and step by step introduction in lower traffic or higher workforce. For example during the introduction of POLFRA there were open days for stakeholders and the validations of flight plans involved all the major aircraft operators and CFSPS directly. To exclude the possible effect at the beginning of introduction the operational staff was increased and less workintensive system configurations were launched.

SECTION 5: TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES

5.1 - Traffic risk sharing parameters

5.1.1 Traffic risk sharing - En route charging zones

5.1.2 Traffic risk sharing - Terminal charging zones

5.2 - Capacity incentive schemes

5.2.1 - Capacity incentive scheme - Enroute

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

5.2.1.2 Rationale and justification - Enroute

5.2.2 - Capacity incentive scheme - Terminal

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

5.2.2.2 Rationale and justification - Terminal

5.3 - Optional incentives

Annexes of relevance to this section

ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING

ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES

ANNEX K. OPTIONAL INCENTIVE SCHEMES

5.1 - Traffic risk sharing

5.1.1 Traffic risk sharing - En route charging zones

Poland			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

Poland - EPWA			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%

Poland - Others			Traffic risk-sharing parameters adapted?		no	
			Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if SUs 10% > plan
Standard parameters	±2,00%	±10,0%	70,0%	5,6%	70,0%	5,6%

5.2 - Capacity incentive schemes

5.2.1 - Capacity incentive scheme - Enroute

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

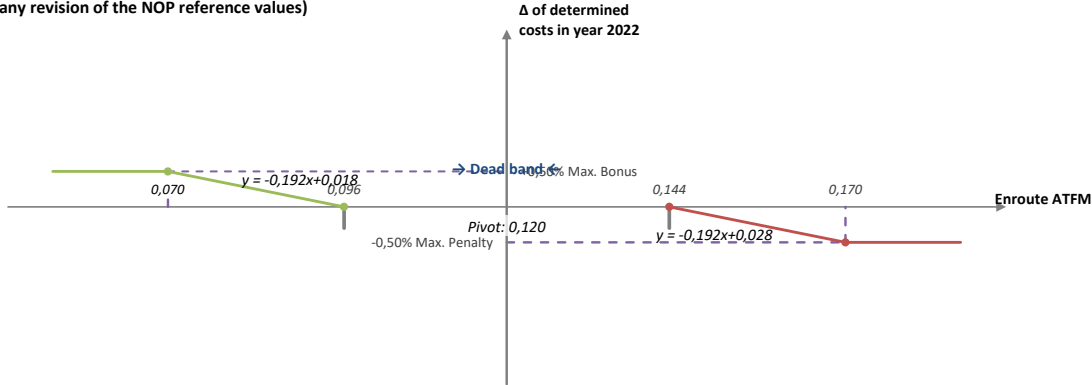
Enroute	Expressed in	Value
Dead band Δ	%	$\pm 20\%$
Max bonus ($\leq 2\%$)	% of DC	0,50%
Max penalty ($\geq$ Max bonus)	% of DC	0,50%
The pivot values for RP3 are	modulated	

Polish Air Navigation Services Agency (PANS)

	2020	2021	2022	2023	2024
NOP reference values (mins of ATFM delay per flight)			0,12	0,12	0,12
Alert threshold (Δ Ref. value in fraction of min)			$\pm 0,050$	$\pm 0,050$	$\pm 0,050$
Performance Plan targets (mins of ATFM delay per flight)			0,12	0,12	0,12
Pivot values for RP3 (mins of ATFM delay per flight)*			0,12		
Financial advantages / disadvantages	Dead band range		[0,096-0,144]	[0-0]	[0-0]
	Bonus sliding range		[0,07-0,096]	n/a	n/a
	Penalty sliding range		[0,144-0,17]	[0-0,05]	[0-0,05]

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

Application of the en route incentive scheme in year 2022 (before any revision of the NOP reference values)



5.2.1.2 Rationale and justification - Enroute

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:	
a) In order to enable significant and unforeseen changes in traffic to be taken into account:	
a.1) The pivot value for year n IS the reference value from the November release of year n-1 of the NOP.	Yes
a.2) The pivot value for year n is informed by the November release of the year n-1 of the NOP and calculated according to the following principles and formulas:**	No
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	

** Refer to Annex I, if necessary.

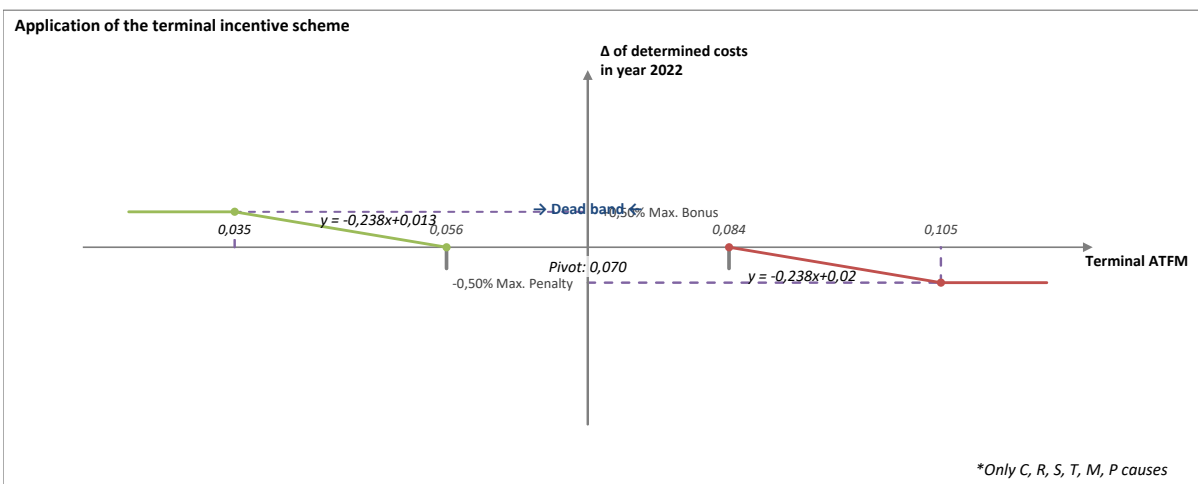
5.2.2 - Capacity incentive scheme - Terminal

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

Terminal	Expressed in	Value
Dead band Δ	%	±20,0%
Bonus/penalty range (% of pivot value)	%	±50%
Max bonus	% of DC	0,50%
Max penalty	% of DC	0,50%
The pivot values for RP3 are	modulated	

	2020	2021	2022	2023	2024
Performance Plan targets (mins of ATFM delay per flight)			0,21	0,24	0,23
Bonus/penalty range Δ (in fraction of min)			±0,035	±0,000	±0,000
Pivot values for RP3 (mins of ATFM delay per flight)*			0,07		
Financial advantages / disadvantages	Dead band range		[0,056-0,084]	[0-0]	[0-0]
	Bonus sliding range		[0,035-0,056]	n/a	n/a
	Penalty sliding range		[0,084-0,105]	[0-0]	[0-0]

* 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**

The target in terminal capacity area was set on national level. The financial advantage or disadvantage from those incentive schemes shall be calculated on as a 0,5 % of the terminal determined costs of year n of PANSA and recovered from (reimbursed to) airspace users through an increase (reduction) of unit rate respectively in year n+2.

** 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
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
Based on the experience from RP2 most of the terminal delays causes are not related to ATM/ANS, but weather or airport conditions (a similar situation should be expected in the following years of RP3, after the return of the traffic). In this case ANSPs should not bear financial consequences in the form of penalties/bonuses resulting from the factors beyond their control. For more details see Annex I.	

** Refer to Annex I, if necessary.

5.3 - Optional incentives

Total maximum bonus for all optional incentives (≤2%):	0,0%

Total maximum penalty for optional incentives (≤4%):	0,0%

Number of optional incentives	Click to select

SECTION 6: IMPLEMENTATION OF THE PERFORMANCE PLAN

[6.1 Monitoring of the implementation plan](#)

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

6 - IMPLEMENTATION OF THE PERFORMANCE PLAN

6.1 Monitoring of the implementation plan

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

Based on Article 37, Regulation (EU) 2019/317) Polish NSA is obliged to carefully monitor the implementation of the revised Polish Performance Plan for RP3.

Polish NSA has prepared the monitoring activities to cover the following areas:

- investment plan (CAPEX) execution,
- execution of planned costs,
- use of public funding, including EU funding,
- execution of employment plan,
- execution of staff training plan,
- ATCO productivity,
- implementation of major projects aimed at increasing capacity and enhancing flight efficiency,
- implementation of corrective measures in the safety area.

The scope of the selected areas was chosen taking into account airspace users' remarks, as well as CAA own assessment of the relevant elements of the performance plan.

The CAA is going to continue the preparation of the CAA's report for the airspace users. Polish CAA proposes to maintain the monitoring exercise during RP3 with the adjustment of the scope and frequency of the information received from ANSPs, taking into account that the scope of the information from smaller institutions may not necessarily be the same as from PANSAs.

Additionally, CAA is obliged to perform the process of continuous oversight of all ANSPs as it is stated in the Regulation 2017/373. These monitoring activities at the national level includes ANSP's business and annual plans and their consistency with the PP.

All the above supervision exercise will give the CAA the knowledge on the ANSPs Performance and will facilitate identification of any threat concerning reaching of alert thresholds (in accordance with Article 18, Reg. (EU) 2019/317) and other obligatory requirements determined within Annex VI, Regulation (EU) 2019/317 and other relevant legislation (especially Regulation (EU) 2017/373).

The monitoring of progress in achieving performance targets set in Regulation (EU) 2019/317 shall be performed by dedicated Polish NSA inspectors. The cooperation with neighbouring NSAs is already established and will be used accordingly if needed.

Polish CAA in cooperation with Network Manager will prepare the annual Monitoring Report for the Republic of Poland and after approval will submit it to the European Commission via PRB until 1st June of every year of RP3 at the latest.

In Polish CAA opinion the monitoring described above will give CAA the necessary information to react in advance when the risk of not reaching the targets will be identified.

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 a target is not met at national level, the NSA PL shall identify potential issues, apply corrective measures designed to correct the situation and subsequently inform the European Commission in accordance with Art. 37 of the Regulation (EU) 2019/317.

Based on all the inputs, NSA in cooperation with Network Manager will prepare annual Monitoring Report for the Republic of Poland and after its approval will submit it to the European Commission via PRB until 1st June of every year of RP3 at the latest.

The monitoring exercise described above will give CAA the necessary information to react in advance when the risk of not reaching the target will be identified. This prudent approach shall minimise the risk of the situation when targets are not reached (in case when the situation is caused by the circumstances under ANSPs' control).

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*

Polish Performance Plan
Third Reference Period (2020-2024)
Revision
Annex A.1 Enroute Charging Zone

Legend for the Check sheet									
PRAWDA	Cells highlighted in green indicate that the items checked are equal and different to 0								
PRAWDA	Cells highlighted in pale yellow indicate that the items entering the check are blank or 0								
FAlSZ	Cells highlighted in red indicate that the items checked are not equal								
FAlSZ	Cells highlighted in pale yellow indicate that one of the items entering the check is blank or 0								
#DIV/0	Cells highlighted in orange indicate formulae that resulted in error								
N/A	Cells highlighted in white with grey "N/A" indicate that the check is not applicable for the given combination of year and/or RP								
INFORMATION ON COSTS AND UNIT COSTS - TABLE 1			Rounding (dec. plcs)	Determined					
#	Item	Checks for Route TABLE 1 (consolidated)		2020	2021	2020/2021	2022	2023	2024
#001	4.2	Check that values in Table 1 Consolidated are sums of the same items across all the entities (in '000 NC) Total determined/actual costs (in '000 NC) Sum of Total determined/actual costs for all entities (in '000 NC)	3	PRAWDA 809 167,020 809 167,020	PRAWDA 870 367,401 870 367,401	PRAWDA 1 679 534,421 1 679 534,421	PRAWDA 890 680,654 890 680,654	PRAWDA 928 852,523 928 852,523	PRAWDA 965 164,189 965 164,189
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) Sum of items 1.1 to 1.5 (in '000 NC)	3	PRAWDA 812 607,700 812 607,700	PRAWDA 874 416,161 874 416,161	PRAWDA 1 687 023,861 1 687 023,861	PRAWDA 895 529,028 895 529,028	PRAWDA 933 724,559 933 724,559	PRAWDA 970 037,184 970 037,184
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) Sum of items 2.1 to 2.9 (in '000 NC)	3	PRAWDA 812 607,700 812 607,700	PRAWDA 874 416,161 874 416,161	PRAWDA 1 687 023,861 1 687 023,861	PRAWDA 895 529,028 895 529,028	PRAWDA 933 724,559 933 724,559	PRAWDA 970 037,184 970 037,184
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) Total costs by service (in '000 NC)	3	PRAWDA 812 607,700 812 607,700	PRAWDA 874 416,161 874 416,161	PRAWDA 1 687 023,861 1 687 023,861	PRAWDA 895 529,028 895 529,028	PRAWDA 933 724,559 933 724,559	PRAWDA 970 037,184 970 037,184
#063	4.2	Check total costs after deduction of costs for exempted VFR Total determined/actual costs(in '000 NC) Total costs by service deducted by Costs for exempted VFR flights (in '000 NC)	3	PRAWDA 809 167,020 809 167,020	PRAWDA 870 367,401 870 367,401	PRAWDA 1 679 534,421 1 679 534,421	PRAWDA 890 680,654 890 680,654	PRAWDA 928 852,523 928 852,523	PRAWDA 965 164,189 965 164,189
#100	5.1	Check that inflation rate is not negative Inflation rate	3	PRAWDA 3,70%	PRAWDA 3,20%		PRAWDA 2,52%	PRAWDA 2,53%	PRAWDA 2,50%
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA 359,00 359,00	PRAWDA 361,16 361,16		PRAWDA 360,10 360,10	PRAWDA 232,75 232,75	PRAWDA 199,20 199,20
#	Item	Checks for Route Table 1 PANSA		2020	2021	2020/2021	2022	2023	2024
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 45 691,204	PRAWDA 61 857,561	PRAWDA 107 548,766	PRAWDA 65 780,429	PRAWDA 67 760,430	PRAWDA 71 051,953
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 719 751,805 719 751,805	PRAWDA 777 011,020 777 011,020	PRAWDA 1 496 762,825 1 496 762,825	PRAWDA 796 878,412 796 878,412	PRAWDA 832 324,483 832 324,483	PRAWDA 866 811,019 866 811,019
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 719 751,805 719 751,805	PRAWDA 777 011,020 777 011,020	PRAWDA 1 496 762,825 1 496 762,825	PRAWDA 796 878,412 796 878,412	PRAWDA 832 324,483 832 324,483	PRAWDA 866 811,019 866 811,019
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 719 751,805 719 751,805	PRAWDA 777 011,020 777 011,020	PRAWDA 1 496 762,825 1 496 762,825	PRAWDA 796 878,412 796 878,412	PRAWDA 832 324,483 832 324,483	PRAWDA 866 811,019 866 811,019
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA 679 586,602 679 586,602	PRAWDA 715 157,652 715 157,652		PRAWDA 719 064,974 719 064,974	PRAWDA 737 490,709 737 490,709	PRAWDA 754 596,184 754 596,184
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (ANSP) - Note: (check sum for combined year 2020-2021) Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		PRAWDA 2 145,811 2 145,811	PRAWDA 2 241,000 2 241,000	PRAWDA 4 386,811 4 386,811	PRAWDA 3 496,000 3 496,000	PRAWDA 4 186,000 4 186,000	PRAWDA 4 802,000 4 802,000
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA 316,70 316,70	PRAWDA 319,12 319,12	PRAWDA 317,94 317,94	PRAWDA 205,68 205,68	PRAWDA 176,18 176,18	PRAWDA 157,14 157,14
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) Inflation rate (%) (ANSP) Inflation rate (%) (Consolidated)		PRAWDA 3,70% 3,70%	PRAWDA 3,20% 3,20%		PRAWDA 2,52% 2,52%	PRAWDA 2,53% 2,53%	PRAWDA 2,50% 2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) Price Index (ANSP) Price Index (Consolidated)		PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#019	3.5	Check calculation of cost of capital pre-tax rate Cost of capital pre tax rate (%) Cost of capital / total asset base (%)	3	PRAWDA 5,600% 5,600%	PRAWDA 5,700% 5,700%		PRAWDA 5,700% 5,700%	PRAWDA 5,800% 5,800%	PRAWDA 5,800% 5,800%
#020	3.8	Check proportion of financing through equity is coherent with components Proportion of financing through equity calculated from components is (in %): Proportion of financing through equity is (in %):	3	PRAWDA 40,00% 40,00%	PRAWDA 40,00% 40,00%		PRAWDA 40,00% 40,00%	PRAWDA 40,00% 40,00%	PRAWDA 40,00% 40,00%
#018	3.4	Check total asset base (in '000 NC) Sum of assets (in '000 NC) Total asset base (in '000 NC)	3	PRAWDA 1 195 646,665 1 195 646,665	PRAWDA 1 209 989,181 1 209 989,181		PRAWDA 1 193 781,702 1 193 781,702	PRAWDA 1 298 108,288 1 298 108,288	PRAWDA 1 394 342,907 1 394 342,907
#065	3.4	Check that no cost of capital is calculated if no asset base is reported Total asset base (in '000 NC) Cost of capital (in '000 NC)	3	PRAWDA 1 195 646,665 67 243,068	PRAWDA 1 209 989,181 68 998,336		PRAWDA 1 193 781,702 68 451,166	PRAWDA 1 298 108,288 74 871,368	PRAWDA 1 394 342,907 80 728,341
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021) Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 98 585,270 98 585,270	PRAWDA 99 866,053 99 866,053	PRAWDA 198 451,323 198 451,323	PRAWDA 104 835,566 104 835,566	PRAWDA 108 650,646 108 650,646	PRAWDA 113 203,909 113 203,909
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) Cost of capital - item 3.11 (in '000 NC) NBV of fixed assets * WACC rate (in '000 NC)	3	PRAWDA 58 333,565 58 333,565	PRAWDA 59 255,397 59 255,397	PRAWDA 62 409,466 62 409,466	PRAWDA 68 517,790 68 517,790	PRAWDA 74 079,622 74 079,622	
#	Item	Checks for Route Table 1 IMWM		2020	2021	2020/2021	2022	2023	2024
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 29 923,487 29 923,487	PRAWDA 31 768,300 31 768,300	PRAWDA 61 691,788 61 691,788	PRAWDA 31 893,201 31 893,201	PRAWDA 33 213,246 33 213,246	PRAWDA 34 696,144 34 696,144
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 29 923,487 29 923,487	PRAWDA 31 768,300 31 768,300	PRAWDA 61 691,788 61 691,788	PRAWDA 31 893,201 31 893,201	PRAWDA 33 213,246 33 213,246	PRAWDA 34 696,144 34 696,144
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 29 923,487 29 923,487	PRAWDA 31 768,300 31 768,300	PRAWDA 61 691,788 61 691,788	PRAWDA 31 893,201 31 893,201	PRAWDA 33 213,246 33 213,246	PRAWDA 34 696,144 34 696,144
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 1 046,719	PRAWDA 1 293,737	PRAWDA 2 340,456	PRAWDA 1 317,223	PRAWDA 1 317,764	PRAWDA 1 343,547
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA 28 008,311 28 008,311	PRAWDA 28 847,708 28 847,708		PRAWDA 56 856,019 56 856,019	PRAWDA 28 264,058 28 264,058	PRAWDA 28 758,056 28 758,056
#016	5.4	Check that Service Units are the same for all entities (in '000)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA

		Total Service Units (MET) - Note: (check sum for combined year 2020-2021)			2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000
		Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)			2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
		Total costs real terms / Total service units		13,05	12,87	12,96	8,08	6,87	6,12	
		Unit Cost		13,05	12,87	12,96	8,08	6,87	6,12	
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Inflation rate (%) (MET)		3,70%	3,20%		2,52%	2,53%	2,50%	
		Inflation rate (%) (Consolidated)		3,70%	3,20%		2,52%	2,53%	2,50%	
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Price Index (MET)		107,15	110,58		113,37	116,24	119,15	
		Price Index (Consolidated)		107,15	110,58		113,37	116,24	119,15	
#019	3.5	Check calculation of cost of capital pre-tax rate	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Cost of capital pre tax rate (%)		3,100%	3,200%		2,700%	3,100%	3,300%	
		Cost of capital / total asset base (%)		3,100%	3,200%		2,700%	3,100%	3,300%	
#020	3.8	Check proportion of financing through equity is coherent with components	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Proportion of financing through equity calculated from components is (in %):		64,00%	69,00%		50,00%	64,00%	72,00%	
		Proportion of financing through equity is (in %):		64,00%	69,00%		50,00%	64,00%	72,00%	
#018	3.4	Check total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Sum of assets (in '000 NC)		11 618,958	12 118,556		5 683,909	6 804,109	6 081,371	
		Total asset base (in '000 NC)		11 618,958	12 118,556		5 683,909	6 804,109	6 081,371	
#065	3.4	Check that no cost of capital is calculated if no asset base is reported	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Total asset base (in '000 NC)		11 618,958	12 118,556		5 683,909	6 804,109	6 081,371	
		Cost of capital (in '000 NC)		354,378	386,582		152,897	208,886	199,469	
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)		863,189	860,637	1 723,826	966,072	1 115,613	1 594,706	
		Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)		863,189	860,637	1 723,826	966,072	1 115,613	1 594,706	
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Cost of capital - item 3.11 (in '000 NC)		119,283	124,957		89,096	90,221	77,180	
		NBV of fixed assets * WACC rate (in '000 NC)		119,283	124,957		89,096	90,221	77,180	
#	Item	Checks for Route Table 1 Radom Meteo		2020	2021	2020/2021	2022	2023	2024	
#002	1.6	Check the sum of costs by nature (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)		299,033	320,143	619,175	323,798	1 230,652	1 188,138	
		Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)		299,033	320,143	619,175	323,798	1 230,652	1 188,138	
#003	2.10	Check the sum of costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)		299,033	320,143	619,175	323,798	1 230,652	1 188,138	
		Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)		299,033	320,143	619,175	323,798	1 230,652	1 188,138	
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)		299,033	320,143	619,175	323,798	1 230,652	1 188,138	
		Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)		299,033	320,143	619,175	323,798	1 230,652	1 188,138	
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)		9,412	12,640	22,051	12,640	82,341	82,341	
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017)	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Calculated price index		107,15	110,58		113,37	116,24	119,15	
		Price Index		107,15	110,58		113,37	116,24	119,15	
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - N		283,520	294,749	578,269	291,562	1 069,802	1 010,273	
		Total costs real terms (in '000 NC)		283,520	294,749	578,269	291,562	1 069,802	1 010,273	
#016	5.4	Check that Service Units are the same for all entities (in '000)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total Service Units (MET) - Note: (check sum for combined year 2020-2021)		2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000	
		Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000	
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs real terms / Total service units		0,13	0,13	0,13	0,08	0,26	0,21	
		Unit Cost		0,13	0,13	0,13	0,08	0,26	0,21	
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Inflation rate (%) (MET)		3,70%	3,20%		2,52%	2,53%	2,50%	
		Inflation rate (%) (Consolidated)		3,70%	3,20%		2,52%	2,53%	2,50%	
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Price Index (MET)		107,15	110,58		113,37	116,24	119,15	
		Price Index (Consolidated)		107,15	110,58		113,37	116,24	119,15	
#019	3.5	Check calculation of cost of capital pre-tax rate	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Cost of capital pre tax rate (%)		5,100%	4,700%		4,700%	4,700%	4,700%	
		Cost of capital / total asset base (%)		5,100%	4,700%		4,700%	4,700%	4,700%	
#020	3.8	Check proportion of financing through equity is coherent with components	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Proportion of financing through equity calculated from components is (in %):		100,00%	100,00%		100,00%	100,00%	100,00%	
		Proportion of financing through equity is (in %):		100,00%	100,00%		100,00%	100,00%	100,00%	
#018	3.4	Check total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Sum of assets (in '000 NC)		318,976	390,537		627,668	562,616	603,699	
		Total asset base (in '000 NC)		318,976	390,537		627,668	562,616	603,699	
#065	3.4	Check that no cost of capital is calculated if no asset base is reported	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Total asset base (in '000 NC)		318,976	390,537		627,668	562,616	603,699	
		Cost of capital (in '000 NC)		16,199	18,215		29,586	26,519	28,456	
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)		50,310	36,546	86,856	20,849	52,800	52,800	
		Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)		50,310	36,546	86,856	20,849	52,800	52,800	
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Cost of capital - item 3.11 (in '000 NC)		4,192	1,825		0,491	7,381	13,519	
		NBV of fixed assets * WACC rate (in '000 NC)		4,192	1,825		0,491	7,381	13,519	
#	Item	Checks for Route Table 1 Warmia i Mazury Meteo		2020	2021	2020/2021	2022	2023	2024	
#002	1.6	Check the sum of costs by nature (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)		1 635,603	1 671,280	3 306,883	1 760,085	1 806,786	1 812,036	
		Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)		1 635,603	1 671,280	3 306,883	1 760,085	1 806,786	1 812,036	
#003	2.10	Check the sum of costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)		1 635,603	1 671,280	3 306,883	1 760,085	1 806,786	1 812,036	
		Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)		1 635,603	1 671,280	3 306,883	1 760,085	1 806,786	1 812,036	
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)		1 635,603	1 671,280	3 306,883	1 760,085	1 806,786	1 812,036	
		Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)		1 635,603	1 671,280	3 306,883	1 760,085	1 806,786	1 812,036	
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)		79,075	80,146	159,221	83,476	88,648	89,082	
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017)	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA	
		Calculated price index		107,15	110,58		113,37	116,24	119,15	
		Price Index		107,15	110,58		113,37	116,24	119,15	
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - N		1 528,672	1 514,780	3 043,452	1 561,776	1 565,302	1 533,158	
		Total costs real terms (in '000 NC)		1 528,672	1 514,780	3 043,452	1 561,776	1 565,302	1 533,158	
#016	5.4	Check that Service Units are the same for all entities (in '000)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	
		Total Service Units (MET) - Note: (check sum for combined year 2020-2021)		2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000	
		Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000	
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA				

#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) <i>Inflation rate (%) (MET)</i> <i>Inflation rate (%) (Consolidated)</i>			PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					3,70%	3,20%		2,52%	2,53%	2,50%
					3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) <i>Price Index (MET)</i> <i>Price Index (Consolidated)</i>			PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					107,15	110,58		113,37	116,24	119,15
					107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate <i>Cost of capital pre tax rate (%)</i> <i>Cost of capital / total asset base (%)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					5,100%	4,700%		4,600%	4,600%	4,600%
					5,100%	4,700%		4,600%	4,600%	4,600%
#020	3.8	Check proportion of financing through equity is coherent with components <i>Proportion of financing through equity calculated from components is (in %):</i> <i>Proportion of financing through equity is (in %):</i>		2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					100,00%	100,00%		100,00%	100,00%	100,00%
					100,00%	100,00%		100,00%	100,00%	100,00%
#018	3.4	Check total asset base (in '000 NC) <i>Sum of assets (in '000 NC)</i> <i>Total asset base (in '000 NC)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					229,190	235,866		651,279	672,038	641,915
					229,190	235,866		651,279	672,038	641,915
#065	3.4	Check that no cost of capital is calculated if no asset base is reported <i>Total asset base (in '000 NC)</i> <i>Cost of capital (in '000 NC)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					229,190	235,866		651,279	672,038	641,915
					11,641	11,180		29,975	30,930	29,544
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) <i>Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					21,126	24,568	45,694	48,454	47,353	46,989
					21,126	24,568	45,694	48,454	47,353	46,989
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) <i>Cost of capital - item 3.11 (in '000 NC)</i> <i>NBV of fixed assets * WACC rate (in '000 NC)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					10,612	10,311		20,168	17,966	16,162
					10,612	10,311		20,168	17,966	16,162
#	Item	Checks for Route Table 1 Bydgoszcz Meteo			2020	2021	2020/2021	2022	2023	2024
#002	1.6	Check the sum of costs by nature (in '000 NC) <i>Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					1 149,551	1 349,963	2 499,515	1 479,689	1 440,905	1 467,405
					1 149,551	1 349,963	2 499,515	1 479,689	1 440,905	1 467,405
#003	2.10	Check the sum of costs by service (in '000 NC) <i>Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					1 149,551	1 349,963	2 499,515	1 479,689	1 440,905	1 467,405
					1 149,551	1 349,963	2 499,515	1 479,689	1 440,905	1 467,405
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) <i>Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					1 149,551	1 349,963	2 499,515	1 479,689	1 440,905	1 467,405
					1 149,551	1 349,963	2 499,515	1 479,689	1 440,905	1 467,405
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 <i>Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					88,968	110,191	199,159	121,639	121,627	124,712
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) <i>Calculated price index</i> <i>Price Index</i>		2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					107,15	110,58		113,37	116,24	119,15
					107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 <i>Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - N</i> <i>Total costs real terms (in '000 NC)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					1 088,172	1 242,254	2 330,427	1 330,361	1 267,769	1 262,455
					1 088,172	1 242,254	2 330,427	1 330,361	1 267,769	1 262,455
#016	5.4	Check that Service Units are the same for all entities (in '000) <i>Total Service Units (MET) - Note: (check sum for combined year 2020-2021)</i> <i>Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)</i>			PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000
					2 145,811	2 241,000	4 386,811	3 496,000	4 186,000	4 802,000
#017b	5.5	Check calculation of the unit cost for RP3 <i>Total costs real terms / Total service units</i> <i>Unit Cost</i>		2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					0,51	0,55	0,53	0,38	0,30	0,26
					0,51	0,55	0,53	0,38	0,30	0,26
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) <i>Inflation rate (%) (MET)</i> <i>Inflation rate (%) (Consolidated)</i>			PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					3,70%	3,20%		2,52%	2,53%	2,50%
					3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) <i>Price Index (MET)</i> <i>Price Index (Consolidated)</i>			PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					107,15	110,58		113,37	116,24	119,15
					107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate <i>Cost of capital pre tax rate (%)</i> <i>Cost of capital / total asset base (%)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					5,700%	5,100%		4,800%	4,700%	4,600%
					5,700%	5,100%		4,800%	4,700%	4,600%
#020	3.8	Check proportion of financing through equity is coherent with components <i>Proportion of financing through equity calculated from components is (in %):</i> <i>Proportion of financing through equity is (in %):</i>		2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					60,00%	70,00%		84,00%	96,00%	100,00%
					60,00%	70,00%		84,00%	96,00%	100,00%
#018	3.4	Check total asset base (in '000 NC) <i>Sum of assets (in '000 NC)</i> <i>Total asset base (in '000 NC)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					1 280,762	1 191,693		1 254,770	1 174,246	1 034,464
					1 280,762	1 191,693		1 254,770	1 174,246	1 034,464
#065	3.4	Check that no cost of capital is calculated if no asset base is reported <i>Total asset base (in '000 NC)</i> <i>Cost of capital (in '000 NC)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					1 280,762	1 191,693		1 254,770	1 174,246	1 034,464
					73,042	60,327		59,921	54,664	47,611
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) <i>Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					156,470	164,005	320,475	153,468	146,960	144,357
					156,470	164,005	320,475	153,468	146,960	144,357
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) <i>Cost of capital - item 3.11 (in '000 NC)</i> <i>NBV of fixed assets * WACC rate (in '000 NC)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					69,825	58,060		47,727	39,969	32,893
					69,825	58,060		47,727	39,969	32,893
#	Item	Checks for Route Table 1 CAA-NSA			2020	2021	2020/2021	2022	2023	2024
#002	1.6	Check the sum of costs by nature (in '000 NC) <i>Total costs by nature (in '000 NC)</i> <i>Sum of items 1.1 to 1.5 (in '000 NC)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
#003	2.10	Check the sum of costs by service (in '000 NC) <i>Total costs by service (in '000 NC)</i> <i>Sum of items 2.1 to 2.9 (in '000 NC)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC) <i>Total costs by nature (in '000 NC)</i> <i>Total costs by service (in '000 NC)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
#068	3.13	Check that Eurocontrol costs (in '000 Euro) are filled in and different from 0 <i>Eurocontrol costs (in '000 Euro)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					11 691,699	12 186,118		12 316,249	12 380,374	12 413,352
#068b	3.15	Check calculation of Eurocontrol costs (in '000 NC) <i>Eurocontrol costs (in '000 NC)</i> <i>Eurocontrol costs (in '000 Euro) * exchange rate - Note: (check sum for combined year 2020-2021)</i>		3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
					51 910,674	54 228,225		54 807,308	55 092,664	55 239,416
					51 910,674	54 228,225		54 807,308	55 092,664	55 239,416
#054	3.15	Check that Eurocontrol costs are = to T1 NSA (Other States costs) <i>Eurocontrol costs reported in item 3.15 (in '000 NC)</i> <i>Other State costs reported in item 2.9 (in '000 NC)</i>		3	PRAWDA	PRAWDA	FALSZ	PRAWDA	PRAWDA	PRAWDA
					51 910,674	54 228,225	0,000	54 807,308	55 092,664	55 239,416
					51 910,674	54 228,225	106 138,899	54 807,308	55 092,664	55 239,416
#055	3.15	Check that Eurocontrol costs are ≤ to T1 NSA (Other operating costs) <i>Eurocontrol costs reported in item 3.15 (in '000 NC)</i> <i>Other operating costs of NSA reported in item 1.2 (in '000 NC)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					51 910,674	54 228,225	0,000	54 807,308	55 092,664	55 239,416
					54 157,804	56 403,927	110 561,731	57 093,213	57 437,238	57 636,544
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 <i>Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC)</i> <i>Total costs real terms (in '000 NC)</i>		3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
					59 848,221	62 295,455	122 143,675	63 193,841	63 708,486	64 062,441
#016	5.4	Check that Service Units are the same for all entities (in '000) <i>Total Service Units (NSA)</i> <i>Total Service Units (Consolidated)</i>			PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					2 146	2 241	4 387	3 496	4 186	4 802
					2 146	2 241	4 387	3 496	4 186	4 802
#017b	5.5	Check calculation of the unit cost for RP3 <i>Total costs real terms / Total service units</i>		2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
					27,89	27,80	27,84	18,08	15,22	13,34

Unit Cost			27,89	27,80	27,84	18,08	15,22	13,34
#019	3.5	Check calculation of cost of capital pre-tax rate	3	N/A	N/A	N/A	N/A	N/A

Table 1 - Total Costs and Unit Costs

Poland
Currency: PLN
All Entities

Actual costs 2012-2019										Determined costs - Performance Plan - RP3				
Cost details	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)														
1.1 Staff	404 876	395 096	412 530	402 489	410 430	495 848	516 609	543 322	489 019	531 245	1 020 264	507 308	526 597	552 015
of which, pension costs	0	0	0	0	0	0	0	0	47 638	64 127	111 765	68 130	70 208	73 549
1.2 Other operating costs	125 491	116 627	199 343	123 235	137 889	148 810	150 762	191 548	156 214	172 744	328 959	213 473	221 922	221 946
1.3 Depreciation	37 765	48 770	50 009	50 127	57 387	68 554	79 989	90 552	99 676	100 952	200 628	106 024	110 013	115 043
1.4 Cost of capital	18 501	19 759	2 057	41 707	48 455	76 666	83 446	15 746	67 698	69 475	137 173	68 724	75 192	81 033
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.6 Total costs	586 633	580 253	663 940	617 557	654 162	789 877	830 805	841 168	812 608	874 416	1 687 024	895 529	933 725	970 037
Total % n/n-1		-1,1%	14,4%	-7,0%	5,9%	20,7%	5,2%	1,2%	-3,4%	7,6%		2,4%	4,3%	3,9%
2. Detail by service (in nominal terms)														
2.1 Air Traffic Management	374 394	374 118	432 644	398 344	416 891	506 494	536 108	542 810	519 079	578 361	1 097 440	597 385	625 030	652 452
2.2 Communication	15 906	15 919	18 758	19 797	19 673	21 900	25 410	24 002	24 546	33 513	58 059	34 127	36 223	37 829
2.3 Navigation	35 265	32 417	39 191	40 109	40 992	47 906	50 829	49 779	48 934	58 859	107 793	56 726	57 650	56 974
2.4 Surveillance	47 419	41 590	51 435	43 969	52 164	60 238	61 904	50 330	54 174	69 121	123 295	67 563	70 657	74 796
2.5 Search and rescue	154	185	227	667	225	8 308	14 976	15 113	13 132	5 958	19 089	5 614	5 742	5 732
2.6 Aeronautical Information	48 894	49 892	55 485	44 979	45 217	69 185	64 051	68 422	59 887	31 199	91 087	35 464	37 023	39 028
2.7 Meteorological services	17 150	17 680	17 235	20 629	23 279	25 270	25 453	29 497	33 008	35 110	68 117	35 457	37 692	39 164
2.8 Supervision costs	6 968	6 316	6 162	6 238	6 296	6 222	6 884	8 248	7 938	8 067	16 005	8 387	8 616	8 823
2.9 Other State costs	40 483	42 135	42 803	42 825	49 424	44 356	45 190	52 967	51 911	54 228	106 139	54 807	55 093	55 239
2.10 Total costs	586 633	580 253	663 940	617 557	654 162	789 877	830 805	841 168	812 608	874 416	1 687 024	895 529	933 725	970 037
Total % n/n-1		-1,1%	14,4%	-7,0%	5,9%	20,7%	5,2%	1,2%	-3,4%	7,6%		2,4%	4,3%	3,9%
3. Complementary information (in nominal terms)														
Average asset base														
3.1 Net book val. fixed assets	578 562	595 467	618 249	673 782	759 009	887 786	962 221	1 038 113	1 042 654	1 044 453		1 093 175	1 192 295	1 283 212
3.2 Adjustments total assets	0	0	0	0	0	0	0	0	0	0		0	0	0
3.3 Net current assets	-50 921	-31 245	7 153	28 128	58 427	99 008	110 767	97 166	166 441	179 473		108 824	115 026	119 493
3.4 Total asset base	527 642	564 223	625 402	701 911	817 437	986 794	1 072 988	1 135 279	1 209 095	1 223 926		1 201 999	1 307 321	1 402 704
Cost of capital %														
3.5 Cost of capital pre tax rate														
3.6 Return on equity														
3.7 Average interest on debts														
3.8 Share of financing through equity														
Costs of common projects														
3.9 Common projects	0	0	0	0	0	0	0	0	16 074	20 564	36 639	16 306	15 555	13 766
Costs of new and existing investments														
3.10 Depreciation									99 676	100 952	200 628	106 024	110 013	115 043
3.11 Cost of capital									58 537	59 451	117 988	62 567	68 673	74 219
3.12 Cost of leasing									5 990	6 315	12 306	6 650	6 943	6 952
Eurocontrol costs														
3.13 Eurocontrol costs (Euro)														
3.14 Exchange rate (if applicable)														
3.15 Eurocontrol costs (national currency)	40 483	42 135	42 803	42 825	49 424	44 356	45 190	52 967	51 911	54 228	0	54 807	55 093	55 239
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)														
4.1 Costs for exempted VFR flights	123	3 003	2 942	3 401	3 667	3 726	4 725	4 682	3 441	4 049	7 489	4 848	4 872	4 873
4.2 Total determined/actual costs	586 511	577 250	660 998	614 156	650 496	786 152	826 080	836 486	809 167	870 367	1 679 534	890 681	928 853	965 164
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)														
5.1 Inflation %	3,70%	0,80%	0,10%	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%
5.2 Inflation index (1)	98,4	99,2	99,3	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1
5.3 Total costs real terms (2)	594 206	580 876	664 845	620 766	658 318	786 152	818 840	814 957	770 343	809 353	1 579 696	813 707	833 860	851 874
Total % n/n-1		-2,2%	14,5%	-6,6%	6,0%	19,4%	4,2%	-0,5%	-5,5%	5,1%		0,5%	2,5%	2,2%
5.4 Total Service Units	3 854,5	3 983,7	3 930,7	3 880,0	4 174,7	4 290,5	4 666,1	4 971,8	2 145,8	2 241,0	4 386,8	3 496,0	4 186,0	4 802,0
Total % n/n-1		3,4%	-1,3%	-1,3%	7,6%	2,8%	8,8%	6,6%	-56,8%	4,4%		56,0%	19,7%	14,7%
5.5 Unit cost in real terms prices (3)	154,16	145,81	169,14	159,99	157,69	183,23	175,49	163,92	359,00	361,16	360,10	232,75	199,20	177,40
Total % n/n-1		-5,4%	16,0%	-5,4%	-1,4%	16,2%	-4,2%	-6,6%	119,0%	0,6%		-35,6%	-14,4%	-10,9%

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland
Currency: PLN
PANSAs

Actual costs 2012-2019																Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
Cost details		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024						
1. Detail by nature (in nominal terms)																											
1.1 Staff		395 677	385 660	403 494	392 059	399 935	485 284	505 542	530 338	474 074	514 987	989 061	490 347	508 477	533 329	474 074											
1.2 Other operating costs										45 691	61 858	107 549	65 780	67 760	71 052	45 691											
1.3 Depreciation		70 520	60 048	142 272	64 146	70 056	84 567	85 304	114 797	79 850	93 159	173 009	133 244	140 336	139 550	79 850											
1.4 Cost of capital		37 686	48 712	49 971	50 033	56 832	67 704	79 147	89 719	98 585	99 866	198 451	104 836	108 651	113 204	98 585											
1.5 Exceptional items		18 422	19 702	2 003	41 626	48 339	76 476	83 285	15 603	67 243	68 998	136 241	68 451	74 871	80 728	67 243											
1.6 Total costs										0	0	0	0	0	0	0											
Total	% n/n-1	522 304	514 121	597 740	547 865	575 162	714 030	753 279	750 456	719 752	777 011	1 496 763	796 878	832 324	866 811	719 752	-4,1%										
			-1,6%	16,3%	-8,3%	5,0%	24,1%	5,5%	-0,4%	-4,1%	8,0%		2,6%	4,4%	4,1%												
2. Detail by service (in nominal terms)																											
2.1 Air Traffic Management		374 394	374 118	432 644	398 344	416 891	506 494	536 108	542 810	519 079	578 361	1 097 440	597 385	625 030	652 452	519 079											
2.2 Communication		15 906	15 919	18 758	19 797	19 673	21 900	25 410	24 002	24 546	33 513	58 059	34 127	36 223	37 829	24 546											
2.3 Navigation		35 265	32 417	39 191	40 109	40 992	47 906	50 829	49 779	48 934	58 859	107 793	56 726	57 650	56 974	48 934											
2.4 Surveillance		47 419	41 590	51 435	43 969	52 164	60 238	61 904	50 330	54 174	69 121	123 295	67 563	70 657	74 796	54 174											
2.5 Search and rescue		154	185	227	667	225	8 308	14 976	15 113	13 132	5 958	19 089	5 614	5 742	5 732	13 132											
2.6 Aeronautical Information		48 894	49 892	55 485	44 979	45 217	69 185	64 051	68 422	59 887	31 199	91 087	35 464	37 023	39 028	59 887											
2.7 Meteorological services		272								0	0	0	0	0	0	0											
2.8 Supervision costs																											
2.9 Other State costs																											
2.10 Total costs		522 304	514 121	597 740	547 865	575 162	714 030	753 279	750 456	719 752	777 011	1 496 763	796 878	832 324	866 811	719 752	-4,1%										
Total	% n/n-1				-1,6%	16,3%	-8,3%	5,0%	24,1%	5,5%	-0,4%	-4,1%	8,0%		2,6%	4,4%	4,1%										
3. Complementary information (in nominal terms)																											
Average asset base																											
3.1 Net book val. fixed assets		578 427	595 382	618 168	672 558	755 206	881 528	957 045	1 033 739	1 037 227	1 039 132		1 088 415	1 187 951	1 279 506	1 037 227											
3.2 Adjustments total assets								0	0	0	0		0	0	0	0											
3.3 Net current assets		-52 087	-32 482	5 777	27 046	57 220	97 678	109 348	96 008	158 420	170 857		105 367	110 157	114 837	158 420											
3.4 Total asset base		526 341	562 900	623 945	699 604	812 427	979 206	1 066 393	1 129 747	1 195 647	1 209 989		1 193 782	1 298 108	1 394 343	1 195 647											
Cost of capital %																											
3.5 Cost of capital pre tax rate		3,50%	3,50%	0,32%	5,95%	5,95%	7,81%	7,81%	1,38%	5,62%	5,70%		5,73%	5,77%	5,79%	5,62%											
3.6 Return on equity		3,50%	3,50%	0,32%	5,95%	5,95%	7,81%	7,81%	1,38%	9,13%	9,13%		9,13%	9,13%	9,13%	9,13%											
3.7 Average interest on debts		0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	3,29%	3,42%		3,47%	3,53%	3,56%	3,29%											
3.8 Share of financing through equity		100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	40,00%	40,00%		40,00%	40,00%	40,00%	40,00%											
Costs of common projects																											
3.9 Common projects					0	0	0	0	0	16 074	20 564	36 639	16 306	15 555	13 766	16 074											
Costs of new and existing investments																											
3.10 Depreciation										98 585	99 866	198 451	104 836	108 651	113 204	98 585											
3.11 Cost of capital										58 334	59 255	117 589	62 409	68 518	74 080	58 334											
3.12 Cost of leasing										5 990	6 315	12 306	6 650	6 943	6 952	5 990											
Eurocontrol costs																											
3.13 Eurocontrol costs (Euro)																											
3.14 Exchange rate (if applicable)																											
3.15 Eurocontrol costs (national currency)																											
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																											
4.1 Costs for exempted VFR flights		122	3 002	2 942	3 401	3 666	3 726	4 725	4 682	3 441	4 049	7 489	4 848	4 872	4 873	3 441											
4.2 Total determined/actual costs		522 182	511 119	594 798	544 464	571 496	710 305	748 554	745 774	716 311	772 962	1 489 274	792 030	827 453	861 938	716 311											
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																											
5.1 Inflation %		3,70%	0,80%	0,10%	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%											
5.2 Inflation index (I)		98,4	99,2	99,3	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1											
5.3 Total costs real terms (2)		529 611	514 606	598 527	550 789	578 957	710 305	741 603	725 163	679 587	715 158	1 394 744	719 065	737 491	754 596	679 587											
Total % n/n-1			-2,8%	16,3%	-8,0%	5,1%	22,7%	4,4%	-2,2%	-6,3%	5,2%		0,5%	2,6%	2,3%	-6,3%											
5.4 Total Service Units		3 854,5	3 983,7	3 990,7	3 880,0	4 174,7	4 290,5	4 666,1	4 971,8	2 145,8	2 241,0	4 386,8	3 496,0	4 186,0	4 802,0	2 145,8											
Total % n/n-1			3,4%	-1,3%	-1,3%	7,6%	2,8%	8,8%	6,6%	-56,8%	4,4%		56,0%	19,7%	14,7%	-56,8%											
5.5 Unit cost in real terms prices (3)		137,40	129,18	152,27	141,96	138,68	165,55	158,93	145,86	316,70	319,12	317,94	205,68	176,18	157,14	316,70											
Total % n/n-1			-6,0%	17,9%	-6,8%	-2,3%	19,4%	-4,0%	-8,2%	117,1%	0,8%		-35,5%	-14,3%	-10,8%	117,1%											

Table 1 - Total Costs and Unit Costs

Poland
Currency: PLN
IMWMA

Actual costs 2012-2019										Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
Cost details	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024	
1. Detail by nature (in nominal terms)																					
1.1 Staff	4 750	5 225	4 910	6 208	6 118	6 145	6 251	7 305	7 860	8 831	16 690	9 213	9 581	9 964	7 860						
of which, pension costs									1 047	1 294	2 340	1 317	1 318	1 344	1 047						
1.2 Other operating costs	11 969	12 339	12 232	14 186	16 249	17 817	17 949	21 126	20 846	21 680	42 537	21 562	22 308	22 938	20 846						
1.3 Depreciation	79	58	38	89	526	821	819	810	863	861	1 724	966	1 116	1 595	863						
1.4 Cost of capital	79	57	54	81	116	190	160	144	354	387	741	153	209	199	354						
1.5 Exceptional items									0	0	0	0	0	0	0						
1.6 Total costs	16 877	17 680	17 235	20 565	23 009	24 973	25 179	29 385	29 923	31 768	61 692	31 893	33 213	34 696	29 923						
Total % n/n-1		4,8%	-2,5%	19,3%	11,9%	8,5%	0,8%	16,7%	1,8%	6,2%		0,4%	4,1%	4,5%	1,8%						
2. Detail by service (in nominal terms)																					
2.1 Air Traffic Management									0	0	0	0	0	0	0						
2.2 Communication									0	0	0	0	0	0	0						
2.3 Navigation									0	0	0	0	0	0	0						
2.4 Surveillance									0	0	0	0	0	0	0						
2.5 Search and rescue									0	0	0	0	0	0	0						
2.6 Aeronautical Information									0	0	0	0	0	0	0						
2.7 Meteorological services	16 877	17 680	17 235	20 565	23 009	24 973	25 179	29 385	29 923	31 768	61 692	31 893	33 213	34 696	29 923						
2.8 Supervision costs																					
2.9 Other State costs																					
2.10 Total costs	16 877	17 680	17 235	20 565	23 009	24 973	25 179	29 385	29 923	31 768	61 692	31 893	33 213	34 696	29 923						
Total % n/n-1		4,8%	-2,5%	19,3%	11,9%	8,5%	0,8%	16,7%	1,8%	6,2%		0,4%	4,1%	4,5%	1,8%						
3. Complementary information (in nominal terms)																					
Average asset base																					
3.1 Net book val. fixed assets	135	85	81	1 181	3 796	6 025	4 927	4 334	3 911	3 917		3 312	2 939	2 353	3 911						
3.2 Adjustments total assets	0	0	0	0	0	0	0	0	0	0		0	0	0	0						
3.3 Net current assets	1 166	1 237	1 376	1 072	1 138	1 260	1 212	1 158	7 708	8 201		2 372	3 865	3 728	7 708						
3.4 Total asset base	1 301	1 323	1 457	2 253	4 934	7 285	6 139	5 492	11 619	12 119		5 684	6 804	6 081	11 619						
Cost of capital %																					
3.5 Cost of capital pre tax rate	6,10%	4,33%	3,74%	3,58%	2,35%	2,61%	2,61%	2,62%	3,05%	3,19%		2,69%	3,07%	3,28%	3,05%						
3.6 Return on equity	6,10%	4,33%	3,74%	4,00%	4,00%	4,00%	4,00%	4,00%	4,00%	4,00%		4,00%	4,00%	4,00%	4,00%						
3.7 Average interest on debts	0,00%	0,00%	0,00%	2,37%	2,35%	2,37%	2,37%	2,35%	1,34%	1,40%		1,40%	1,40%	1,40%	1,34%						
3.8 Share of financing through equity	100,00%	100,00%	100,00%	74,00%	0,01%	14,72%	14,72%	16,36%	64,29%	68,85%		49,62%	64,23%	72,31%	64,29%						
Costs of common projects																					
3.9 Common projects									0	0	0	0	0	0	0						
Costs of new and existing investments																					
3.10 Depreciation									863	861	1 724	966	1 116	1 595	863						
3.11 Cost of capital									119	125	244	89	90	77	119						
3.12 Cost of leasing									0	0	0	0	0	0	0						
Eurocontrol costs																					
3.13 Eurocontrol costs (Euro)																					
3.14 Exchange rate (if applicable)																					
3.15 Eurocontrol costs (national currency)																					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																					
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4.2 Total determined/actual costs	16 877	17 680	17 235	20 565	23 009	24 973	25 179	29 385	29 923	31 768	61 692	31 893	33 213	34 696	29 923						
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																					
5.1 Inflation %	3,70%	0,80%	0,10%	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%						
5.2 Inflation index (1)	98,4	99,2	99,3	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1						
5.3 Total costs real terms (2)	17 143	17 818	17 353	20 850	23 367	24 973	24 892	28 470	28 008	28 848		28 264	28 758	29 409	28 008						
Total % n/n-1		3,9%	-2,6%	20,2%	12,1%	6,9%	-0,3%	14,4%	-1,6%	3,0%		-2,0%	1,7%	2,3%	-1,6%						
5.4 Total Service Units	3 854,5	3 983,7	3 990,7	3 880,0	4 174,7	4 290,5	4 666,1	4 971,8	2 145,8	2 241,0		4 386,8	3 496,0	4 186,0	4 802,0	2 145,8					
Total % n/n-1		3,4%	-1,3%	-1,3%	7,6%	2,8%	8,8%	6,6%	-56,8%	4,4%		56,0%	19,7%	14,7%	-56,8%						
5.5 Unit cost in real terms prices (3)	4,45	4,47	4,41	5,37	5,60	5,82	5,33	5,73	13,05	12,87	12,96	8,08	6,87	6,12	13,05						
Total % n/n-1		0,6%	-1,3%	21,7%	4,2%	4,0%	-8,3%	7,3%	127,9%	-1,4%		-37,2%	-15,0%	-10,9%	127,9%						

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland
Currency: PLN
Radium Mieto

Actual costs 2012-2019									Determined costs - Performance Plan - RP3							Actual costs - Reference Period 3					
Cost details	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024	
1. Detail by nature (in nominal terms)																					
1.1 Staff				26	111	160	145	55	152	158	310	158	774	774	152						
of which, pension costs									9	13	22	13	82	82	9						
1.2 Other operating costs				34	130	108	106	34	80	108	188	116	377	333	80						
1.3 Depreciation				4	29	29	23	23	50	37	87	21	53	53	50						
1.4 Cost of capital									16	18	34	30	27	28	16						
1.5 Exceptional items									0	0	0	0	0	0	0						
1.6 Total costs				64	270	297	274	112	299	320	619	324	1 231	1 188	299						
Total % n/n-1					322,0%	9,9%	-7,7%	-59,3%	168,1%	7,1%		1,1%	280,1%	-3,5%	168,1%						
2. Detail by service (in nominal terms)																					
2.1 Air Traffic Management									0	0	0	0	0	0	0						
2.2 Communication									0	0	0	0	0	0	0						
2.3 Navigation									0	0	0	0	0	0	0						
2.4 Surveillance									0	0	0	0	0	0	0						
2.5 Search and rescue									0	0	0	0	0	0	0						
2.6 Aeronautical Information									0	0	0	0	0	0	0						
2.7 Meteorological services				64	270	297	274	112	299	320	619	324	1 231	1 188	299						
2.8 Supervision costs																					
2.9 Other State costs																					
2.10 Total costs				64	270	297	274	112	299	320	619	324	1 231	1 188	299						
Total % n/n-1					322,0%	9,9%	-7,7%	-59,3%	168,1%	7,1%		1,1%	280,1%	-3,5%	168,1%						
3. Complementary information (in nominal terms)																					
Average asset base																					
3.1 Net book val. fixed assets				43	7	233	249	40	83	39		10	157	287	83						
3.2 Adjustments total assets				0	0	0	0	0	0	0		0	0	0	0						
3.3 Net current assets				11	69	70	207	0	236	351		617	406	317	236						
3.4 Total asset base				54	76	303	456	40	319	391		628	563	604	319						
Cost of capital %																					
3.5 Cost of capital pre tax rate				0,00%	0,00%	0,00%	0,00%	0,00%	5,08%	4,66%		4,71%	4,71%	4,71%	5,08%						
3.6 Return on equity									5,08%	4,66%		4,71%	4,71%	4,71%	5,08%						
3.7 Average interest on debts									0,00%	0,00%		0,00%	0,00%	0,00%	0,00%						
3.8 Share of financing through equity									100,00%	100,00%		100,00%	100,00%	100,00%	100,00%						
Costs of common projects																					
3.9 Common projects									0	0	0	0	0	0	0						
Costs of new and existing investments																					
3.10 Depreciation									50	37	87	21	53	53	50						
3.11 Cost of capital									4	2	6	0	7	14	4						
3.12 Cost of leasing									0	0	0	0	0	0	0						
Eurocontrol costs																					
3.13 Eurocontrol costs (Euro)																					
3.14 Exchange rate (if applicable)																					
3.15 Eurocontrol costs (national currency)																					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																					
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4.2 Total determined/actual costs	0	0	0	64	270	297	274	112	299	320	619	324	1 231	1 188	299						
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																					
5.1 Inflation %	3,70%	0,80%	0,10%	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%						
5.2 Inflation index (1)	98,4	99,2	99,3	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1						
5.3 Total costs real terms (2)				65	274	297	271	109	284	295		292	1 070	1 010	284						
Total % n/n-1					322,5%	8,4%	-8,7%	-59,9%	160,9%	4,0%		-1,1%	266,9%	-5,6%	160,9%						
5.4 Total Service Units	3 854,5	3 983,7	3 990,7	3 880,0	4 174,7	4 290,5	4 666,1	4 971,8	2 145,8	2 241,0		3 486,8	3 496,0	4 186,0	4 802,0	2 145,8					
Total % n/n-1		3,4%	-1,3%	-1,3%	7,6%	2,8%	8,8%	6,6%	-56,8%	4,4%		56,0%	19,7%	14,7%	-56,8%						
5.5 Unit cost in real terms prices (3)				0,02	0,07	0,07	0,06	0,02	0,13	0,13		0,13	0,08	0,26	0,21	0,13					
Total % n/n-1					292,7%	5,5%	-16,0%	-62,4%	504,4%	-0,5%		-36,6%	206,4%	-17,7%	504,4%						

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland
Currency: PLN
Warmia i Mazury Meteo

Actual costs 2012-2019										Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
Cost details	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024		2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																					
1.1 Staff									445	451	897	470	499	502		445					
1.1.1 of which, pension costs									79	80	159	83	89	89		79					
1.2 Other operating costs									1 156	1 184	2 342	1 212	1 229	1 234		1 156					
1.3 Depreciation									21	25	46	48	47	47		21					
1.4 Cost of capital									12	11	23	30	31	30		12					
1.5 Exceptional items									0	0	0	0	0	0		0					
1.6 Total costs									1 636	1 671	3 307	1 760	1 807	1 812		1 636					
Total % n/n-1									#DZIEL/01	2,2%		5,3%	2,7%	0,3%		#DZIEL/01					
2. Detail by service (in nominal terms)																					
2.1 Air Traffic Management									0	0	0	0	0	0		0					
2.2 Communication									0	0	0	0	0	0		0					
2.3 Navigation									0	0	0	0	0	0		0					
2.4 Surveillance									0	0	0	0	0	0		0					
2.5 Search and rescue									0	0	0	0	0	0		0					
2.6 Aeronautical Information									0	0	0	0	0	0		0					
2.7 Meteorological services									1 636	1 671	3 307	1 760	1 807	1 812		1 636					
2.8 Supervision costs																					
2.9 Other State costs																					
2.10 Total costs									1 636	1 671	3 307	1 760	1 807	1 812		1 636					
Total % n/n-1									#DZIEL/01	2,2%		5,3%	2,7%	0,3%		#DZIEL/01					
3. Complementary information (in nominal terms)																					
Average asset base																					
3.1 Net book val. fixed assets									209	218		438	390	351		209					
3.2 Adjustments total assets									0	0		0	0	0		0					
3.3 Net current assets									20	18		213	282	291		20					
3.4 Total asset base									229	236		651	672	642		229					
Cost of capital %																					
3.5 Cost of capital pre tax rate									5,08%	4,74%		4,60%	4,60%	4,60%		5,08%					
3.6 Return on equity									5,08%	4,74%		4,60%	4,60%	4,60%		5,08%					
3.7 Average interest on debts									0,00%	0,00%		0,00%	0,00%	0,00%		0,00%					
3.8 Share of financing through equity									100,00%	100,00%		100,00%	100,00%	100,00%		100,00%					
Costs of common projects																					
3.9 Common projects									0	0	0	0	0	0		0					
Costs of new and existing investments																					
3.10 Depreciation									21	25	46	48	47	47		21					
3.11 Cost of capital									11	10	21	20	18	16		11					
3.12 Cost of leasing									0	0	0	0	0	0		0					
Eurocontrol costs																					
3.13 Eurocontrol costs (Euro)																					
3.14 Exchange rate (if applicable)																					
3.15 Eurocontrol costs (national currency)																					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																					
4.1 Costs for exempted VFR flights									0	0	0	0	0	0		0					
4.2 Total determined/actual costs									1 636	1 671	3 307	1 760	1 807	1 812		1 636					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																					
5.1 Inflation %	3,70%	0,80%	0,10%	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%		3,70%					
5.2 Inflation index (1)	98,4	99,2	99,3	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1		107,1					
5.3 Total costs real terms (2)									1 529	1 515		1 562	1 565	1 533		1 529					
Total % n/n-1										-0,9%		3,1%	0,2%	-2,1%		#DZIEL/01					
5.4 Total Service Units	3 854,5	3 983,7	3 990,7	3 880,0	4 174,7	4 290,5	4 666,1	4 971,8	2 145,8	2 241,0	4 386,8	3 496,0	4 186,0	4 802,0		2 145,8					
Total % n/n-1	3,4%	-1,3%	-1,3%	7,6%	2,8%	8,8%	6,6%	-56,8%	4,4%	4,4%	-33,9%	56,0%	19,7%	14,7%		-56,8%					
5.5 Unit cost in real terms prices (3)									0,71	0,68	0,69	0,45	0,37	0,32		0,71					
Total % n/n-1										-5,1%		-33,9%	-16,3%	-14,6%		#DZIEL/01					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland
Currency: PLN
Bydgoszcz: Meteo

Actual costs 2012-2019										Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
Cost details	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024		2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																					
1.1 Staff									797	927	1 724	1 020	994	1 020		797					
of which, pension costs									89	110	199	122	122	125		86					
1.2 Other operating costs									123	199	322	247	245	256		123					
1.3 Depreciation									156	164	320	153	147	144		156					
1.4 Cost of capital									73	60	133	60	55	48		73					
1.5 Exceptional items									0	0	0	0	0	0		0					
1.6 Total costs									1 150	1 350	2 500	1 480	1 441	1 467		1 150					
Total % n/n-1									#DZIEL/01	17,4%		9,6%	-2,6%	1,8%		#DZIEL/01					
2. Detail by service (in nominal terms)																					
2.1 Air Traffic Management																					
2.2 Communication																					
2.3 Navigation																					
2.4 Surveillance																					
2.5 Search and rescue																					
2.6 Aeronautical Information																					
2.7 Meteorological services									1 150	1 350	2 500	1 480	1 441	1 467		1 150					
2.8 Supervision costs																					
2.9 Other State costs																					
2.10 Total costs									1 150	1 350	2 500	1 480	1 441	1 467		1 150					
Total % n/n-1									#DZIEL/01	17,4%		9,6%	-2,6%	1,8%		#DZIEL/01					
3. Complementary information (in nominal terms)																					
Average asset base																					
3.1 Net book val. fixed assets									1 224	1 147		999	859	715		1 224					
3.2 Adjustments total assets									0	0		0	0	0		0					
3.3 Net current assets									56	45		255	316	320		56					
3.4 Total asset base									1 281	1 192		1 255	1 174	1 034		1 281					
Cost of capital %																					
3.5 Cost of capital pre tax rate									5,70%	5,06%		4,78%	4,66%	4,60%		5,70%					
3.6 Return on equity									6,84%	5,73%		5,01%	4,69%	4,50%		6,84%					
3.7 Average interest on debts									4,02%	3,51%		3,56%	3,83%	0,00%		4,02%					
3.8 Share of financing through equity									59,80%	69,94%		83,91%	96,07%	100,00%		59,80%					
Costs of common projects																					
3.9 Common projects											0										
Costs of new and existing investments																					
3.10 Depreciation									156	164	320	153	147	144		156					
3.11 Cost of capital									70	58	128	48	40	33		70					
3.12 Cost of leasing									0	0	0	0	0	0		0					
Eurocontrol costs																					
3.13 Eurocontrol costs (Euro)																					
3.14 Exchange rate (if applicable)																					
3.15 Eurocontrol costs (national currency)																					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																					
4.1 Costs for exempted VFR flights									0	0	0	0	0	0		0					
4.2 Total determined/actual costs		0	0	0	0	0	0	0	0	1 150	1 350	2 500	1 480	1 441	1 467	1 150					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																					
5.1 Inflation %	3,70%	0,80%	0,10%	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%		3,70%					
5.2 Inflation index (1)	98,4	99,2	99,3	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1		107,1					
5.3 Total costs real terms (2)									1 088	1 242	2 330	1 330	1 268	1 262		1 088					
Total % n/n-1																#DZIEL/01					
5.4 Total Service Units	3 854,5	3 983,7	3 930,7	3 880,0	4 174,7	4 290,5	4 666,1	4 971,8	2 145,8	2 241,0	4 386,8	3 496,0	4 186,0	4 802,0		2 145,8					
Total % n/n-1	3,4%		-1,3%	-1,3%	7,6%	2,8%	8,8%	6,6%	-56,8%	4,4%	56,0%	19,7%	14,7%			-56,8%					
5.5 Unit cost in real terms prices (3)									0,51	0,55	0,53	0,38	0,30	0,26		0,51					
Total % n/n-1										9,3%		-31,4%	-20,4%	-13,2%		#DZIEL/01					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

[illegible]

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) *Determined costs (performance plan) and actual costs in real terms*

(3) *Determined unit costs (performance plan) and actual unit costs in real terms*

Table 2 - Unit rate calculation

Poland
Currency: PLN
All Entities

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	1 679 534,4	890 680,7	928 852,5	965 164,2
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	1 219 589,6	652 738,9	679 938,3	705 025,6
2.2 Forecast inflation index - Table 1		113,37	116,24	119,15
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	1 489 273,6	792 030,2	827 452,6	861 938,1
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	800 698,8			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	-24 781,5	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	-125,8	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	-24 907,3	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))	0,0	0,0	0,0	0,0
12 Total adjustments relating to year n	775 791,5	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	1 679 534,42	890 680,65	928 852,52	965 164,19
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	3 369,81	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	- 54 179,01	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	33 233,22	-	- 15 000,74	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	217,54	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 11 794,45	- 11 820,92	- 18 635,12	-
13.8 Other revenues (Art. 25(2)(i))	- 23 603,03	- 24 907,28	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	160 139,76	160 139,76
13.11 Grand total for the calculation of year n unit rate	1 626 778,5	853 952,5	1 055 356,4	1 125 304,0
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	370,83	244,27	252,12	234,34
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00	0,00	0,00
14 Applicable unit rate for year n	370,83	244,27	252,12	234,34

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

4) Forecast service units used for the unit rate as per Art. 25(2) applied temporary in 2020

Forecast service units used for the unit rate as per Art. 25(2) applied temporary in 2021

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland
Currency: PLN
PANSA

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	1 489 273,6	792 030,2	827 452,6	861 938,1
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	1 154 580,9	618 743,4	643 930,5	668 005,9
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	1 489 273,6	792 030,2	827 452,6	861 938,1
4.2 % deviation % referred to in Article 27(2) and 27(5)	2%	2%	2%	2%
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.5 % deviation referred to in Article 27(4)	10%	10%	10%	10%
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	696 819,8			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	-24 781,5			
10.2 National public funding (Art. 25(3)(a))	-125,8			
10.3 Commercial activities (Art. 25(3)(b))				
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	-24 907,3	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	671 912,5	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	1 489 273,61	792 030,15	827 452,56	861 938,14
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	3 042,30	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	- 54 179,01	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	26 706,98	-	- 15 000,74	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	217,54	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	371,51	- 9 289,43	- 18 002,11	-
13.8 Other revenues (Art. 25(2)(i))	- 23 458,53	- 24 907,28	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	139 363,95	139 363,95
13.11 Grand total for the calculation of year n unit rate	1 441 974,4	757 833,4	933 813,7	1 001 302,1
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	328,71	216,77	223,08	208,52
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	328,71	216,77	223,08	208,52

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland
Currency: PLN
IMWM

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	61 691,6	31 893,1	33 213,1	34 696,0
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	59 226,8	30 774,1	31 888,6	32 901,9
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	32 444,8			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))				
10.2 National public funding (Art. 25(3)(a))				
10.3 Commercial activities (Art. 25(3)(b))				
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	32 444,8	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	61 691,56	31 893,09	33 213,13	34 696,03
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	106,54	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 3 928,07	- 813,33	- 1 392,37	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	6 488,95	6 488,95
13.11 Grand total for the calculation of year n unit rate	57 870,0	31 079,8	38 309,7	41 185,0
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	13,19	8,89	9,15	8,58
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	13,19	8,89	9,15	8,58

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland
Currency: PLN
Radom Meteo

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	619,2	323,8	1 230,7	1 188,1
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	497,9	273,4	1 151,3	1 106,9
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	98,8			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))				
10.2 National public funding (Art. 25(3)(a))				
10.3 Commercial activities (Art. 25(3)(b))				
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	98,8	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	619,18	323,80	1 230,65	1 188,14
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	1,08	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 39,96	- 8,27	- 97,23	-
13.8 Other revenues (Art. 25(2)(i))	- 144,50	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	19,76	19,76
13.11 Grand total for the calculation of year n unit rate	435,8	315,5	1 153,2	1 207,9
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	0,10	0,09	0,28	0,25
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	0,10	0,09	0,28	0,25

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland
Currency: PLN
Warmia i Mazury Meteo

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	3 306,9	1 760,1	1 806,8	1 812,0
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	3 238,4	1 681,7	1 728,5	1 735,5
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	1 874,6			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))				
10.2 National public funding (Art. 25(3)(a))				
10.3 Commercial activities (Art. 25(3)(b))				
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	1 874,6	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	3 306,88	1 760,09	1 806,79	1 812,04
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	-	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	-	-	-	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	374,92	374,92
13.11 Grand total for the calculation of year n unit rate	3 306,9	1 760,1	2 181,7	2 187,0
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	0,75	0,50	0,52	0,46
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	0,75	0,50	0,52	0,46

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland
Currency: PLN
Bydgoszcz Meteo

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	2 499,5	1 479,7	1 440,9	1 467,4
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	2 045,7	1 266,3	1 239,3	1 275,4
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	1 269,9			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))				
10.2 National public funding (Art. 25(3)(a))				
10.3 Commercial activities (Art. 25(3)(b))				
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	1 269,9	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	2 499,51	1 479,69	1 440,91	1 467,40
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	-	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	-	-	-	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	253,99	253,99
13.11 Grand total for the calculation of year n unit rate	2 499,5	1 479,7	1 694,9	1 721,4
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	0,57	0,42	0,40	0,36
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	0,57	0,42	0,40	0,36

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland
Currency: PLN
CAA-NSA

Reference period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	122 143,7	63 193,8	63 708,5	64 062,4
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment				
2.2 Forecast inflation index - Table 1				
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	68 191,0			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))				
10.2 National public funding (Art. 25(3)(a))				
10.3 Commercial activities (Art. 25(3)(b))				
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))				
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	68 191,0	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	122 143,68	63 193,84	63 708,49	64 062,44
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	219,89	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	6 526,23	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 8 197,93	- 1 709,88	856,59	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	13 638,20	13 638,20
13.11 Grand total for the calculation of year n unit rate	120 691,9	61 484,0	78 203,3	77 700,6
13.12 Forecast total service units for year n (performance plan)	4 386,8	3 496,0	4 186,0	4 802,0
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	27,51	17,59	18,68	16,18
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	27,51	17,59	18,68	16,18

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland Currency: PLN All Entities							
Complementary information on adjustments	Amounts	2020	2021	2022	2023	2 024	After RP
Inflation adjustment 2018	2 733	2 733	0	0	0	0	0
Inflation adjustment 2019	637	0	637	0	0	0	0
Total inflation adjustment up to 2019	3 370	2 733	637	0	0	0	0
Inflation adjustment 2020-2021	0	0	0	0	0	0	0
Inflation adjustment 2022	0	0	0	0	0	0	0
Inflation adjustment 2023	0	0	0	0	0	0	0
Inflation adjustment 2024	0	0	0	0	0	0	0
Total inflation Adjustment (Art. 26)*	3 370	2 733	637	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	-19 115	-19 115	0	0	0	0	0
Traffic risk sharing 2019	-35 064	0	-35 064	0	0	0	0
Total traffic risk sharing adjustments up to 2019	-54 179	-19 115	-35 064	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Traffic risk sharing 2022	0	0	0	0	0	0	0
Traffic risk sharing 2023	0	0	0	0	0	0	0
Traffic risk sharing 2024	0	0	0	0	0	0	0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	-54 179	-19 115	-35 064	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in investment costs 2022	0	0	0	0	0	0	0
Difference in investment costs 2023	0	0	0	0	0	0	0
Difference in investment costs 2024	0	0	0	0	0	0	0
Total adjustment relating to investment costs (Art. 28(4))	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2022	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2023	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2024	0	0	0	0	0	0	0
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2022	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2023	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2024	0	0	0	0	0	0	0
Total adjustment relating to Eurocontrol costs (Art. 28(5))	0	0	0	0	0	0	0
Difference in pension costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in pension costs 2022	0	0	0	0	0	0	0
Difference in pension costs 2023	0	0	0	0	0	0	0
Difference in pension costs 2024	0	0	0	0	0	0	0
Total adjustment relating to pension costs (Art. 28(6))	0	0	0	0	0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in interest on loans 2022	0	0	0	0	0	0	0
Difference in interest on loans 2023	0	0	0	0	0	0	0
Difference in interest on loans 2024	0	0	0	0	0	0	0
Total adjustment relating to interest on loans (Art. 28(6))	0	0	0	0	0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Costs relating to change in law 2022	0	0	0	0	0	0	0
Costs relating to change in law 2023	0	0	0	0	0	0	0
Costs relating to change in law 2024	0	0	0	0	0	0	0
Total adjustment relating to change in law (Art. 28(6))	0	0	0	0	0	0	0
Cost exempt from cost sharing up to 2017	16 149	0	6 340	0	9 810	0	0
Cost exempt from cost sharing 2018	-2 083	0	979	0	-3 062	0	0
Cost exempt from cost sharing 2019	4 166	0	25 914	0	-21 748	0	0
Total adjustment relating to cost exempt from previous RPs	18 232	0	33 233	0	-15 001	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	0	0	0	0	0	0	0
Financial incentives year 2019	218	0	218	0	0	0	0
Total financial incentives up to 2019	218	0	218	0	0	0	0
Financial incentives year 2022	0	0	0	0	0	0	0
Financial incentives year 2023	0	0	0	0	0	0	0
Financial incentives year 2024	0	0	0	0	0	0	0
Total financial incentives (Art. 11(3) and 11(4))*	218	0	218	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	0
Modulation of charges year 2018	0	0	0	0	0	0	0
Modulation of charges year 2019	0	0	0	0	0	0	0
Total modulation of charges up to 2019	0	0	0	0	0	0	0
Modulation of charges 2020-2021	0	0	0	0	0	0	0
Modulation of charges 2022	0	0	0	0	0	0	0
Modulation of charges 2023	0	0	0	0	0	0	0

Modulation of charges 2024	0	0	0	0	0	0	0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-3 582	-3 582	0	0	0	0	0
Traffic adjustment 2019	-8 212	0	-8 212	0	0	0	0
Total traffic adjustments up to 2019	-11 794	-3 582	-8 212	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-11 821	0	0	-11 821	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-18 635	0	0	0	-18 635	0	0
Traffic adjustment on adjustments from previous RPs 2022	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2023	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2024	0	0	0	0	0	0	0
Total traffic adjustment on adjustments from previous reference periods	-30 456	0	0	-11 821	-18 635	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Traffic adjustment 2022	0	0	0	0	0	0	0
Traffic adjustment 2023	0	0	0	0	0	0	0
Traffic adjustment 2024	0	0	0	0	0	0	0
Total traffic adjustment (Art. 27(8) and 27(9))*	-42 250	-3 582	-8 212	-11 821	-18 635	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	-381	-381	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	-22 958	0	-22 958	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	-23 340	-381	-22 958	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	-24 781	0	0	-24 781	0	0	0
Revenues received from Union assistance programmes in 2022	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2023	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2024	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	-48 121	-381	-22 958	-24 781	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	7	7	0	0	0	0	0
Revenues received from national public funding in 2019	-126	0	-126	0	0	0	0
Total revenues received from national public funding up to 2019	-119	7	-126	0	0	0	0
Revenues received from national public funding in 2020-2021	-126	0	0	-126	0	0	0
Revenues received from national public funding in 2022	0	0	0	0	0	0	0
Revenues received from national public funding in 2023	0	0	0	0	0	0	0
Revenues received from national public funding in 2024	0	0	0	0	0	0	0
Total revenues received from national public funding (Art. 25(3)(a))*	-245	7	-126	-126	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	-144	0	-144	0	0	0	0
Total revenues from commercial activities up to 2019	-144	0	-144	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0	0	0
Revenues from commercial activities in 2022	0	0	0	0	0	0	0
Revenues from commercial activities in 2023	0	0	0	0	0	0	0
Revenues from commercial activities in 2024	0	0	0	0	0	0	0
Total revenues from commercial activities (Art. 25(3)(b))*	-144	0	-144	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2022	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2023	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2024	0	0	0	0	0	0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	800 699	0	0	0	160 140	160 140	480 419
Revenue difference - revision of UR 2022	0	0	0	0	0	0	0
Revenue difference - revision of UR 2023	0	0	0	0	0	0	0
Revenue difference - revision of UR 2024	0	0	0	0	0	0	0
Total revenue differences from temporary application of UR (Art. 29(5))	800 699	0	0	0	160 140	160 140	480 419
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024	0	0	0	0	0	0	0
Total cross-financing to (-) / from (+) other charging zone(s)	0	0	0	0	0	0	0
Total adjustments	677 579	-20 338	-32 418	-36 728	126 504	160 140	480 419

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 3 - Complementary information on adjustments

Poland
Currency: PLN
PANSAs

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	2 472	2 472					
Inflation adjustment 2019	570		570				
Total inflation adjustment up to 2019	3 042	2 472	570				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*)	3 042	2 472	570	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	-19 115	-19 115	0	0	0	0	0
Traffic risk sharing 2019	-35 064		-35 064	0	0	0	0
Total traffic risk sharing adjustments up to 2019	-54 179	-19 115	-35 064	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0				0	0	
Traffic risk sharing 2022	0					0	
Traffic risk sharing 2023	0						0
Traffic risk sharing 2024	0						0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*)	-54 179	-19 115	-35 064	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	11 706	0	1 897	0	9 810	0	0
Cost exempt from cost sharing 2018	0	0	3 062	0	-3 062	0	0
Cost exempt from cost sharing 2019	0		21 748	0	-21 748	0	0
Total adjustment relating to cost exempt from previous RPs	11 706	0	26 707	0	-15 001	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	0	0					
Financial incentives year 2019	218		218				
Total financial incentives up to 2019	218	0	218	0	0	0	0
Financial incentives year 2022	0					0	
Financial incentives year 2023	0						0
Financial incentives year 2024	0						0
Total financial incentives (Art. 11(3) and 11(4))*)	218	0	218	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	1 034	1 034	0	0	0	0	0
Traffic adjustment 2019	-663		-663	0	0	0	0
Total traffic adjustments up to 2019	372	1 034	-663	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-9 289			-9 289	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-18 002				-18 002	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-27 292	0	0	-9 289	-18 002	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-26 920	1 034	-663	-9 289	-18 002	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	-381	-381	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	-22 958	0	-22 958	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	-23 340	-381	-22 958	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	-24 781	0	0	-24 781	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	-48 121	-381	-22 958	-24 781	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	7	7	0	0	0	0	0
Revenues received from national public funding in 2019	-126	0	-126	0	0	0	0
Total revenues received from national public funding up to 2019	-119	7	-126	0	0	0	0
Revenues received from national public funding in 2020-2021	-126	0	0	-126	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	-245	7	-126	-126	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017							
Revenues from contracts with airport operators in 2018							
Revenues from contracts with airport operators in 2019							
Total revenues from contracts with airport operators up to 2019							
Revenues from contracts with airport operators in 2020-2021							
Revenues from contracts with airport operators in 2022							
Revenues from contracts with airport operators in 2023							
Revenues from contracts with airport operators in 2024							
Total revenues from contracts with airport operators (Art. 25(3)(c))*							
Revenue difference - revision of UR 2020-2021	696 820				139 364	139 364	418 092
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	696 820	0	0	0	139 364	139 364	418 092
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	582 321	-15 983	-31 316	-34 197	106 361	139 364	418 092
Amounts in '000 (national currency)	Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022						
* Including carry-overs relating to the previous reference period(s)							

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 3 - Complementary information on adjustments

Poland
Currency: PLN
IMWM

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	85	85					
Inflation adjustment 2019	21		21				
Total inflation adjustment up to 2019	107	85	21				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	107	85	21	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-1 485	-1 485	0	0	0	0	0
Traffic adjustment 2019	-2 444		-2 444	0	0	0	0
Total traffic adjustments up to 2019	-3 928	-1 485	-2 444	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-813			-813	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-1 392				-1 392	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-2 206	0	0	-813	-1 392	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-6 134	-1 485	-2 444	-813	-1 392	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017							
Revenues from contracts with airport operators in 2018							
Revenues from contracts with airport operators in 2019							
Total revenues from contracts with airport operators up to 2019							
Revenues from contracts with airport operators in 2020-2021							
Revenues from contracts with airport operators in 2022							
Revenues from contracts with airport operators in 2023							
Revenues from contracts with airport operators in 2024							
Total revenues from contracts with airport operators (Art. 25(3)(c))*							
Revenue difference - revision of UR 2020-2021	32 445				6 489	6 489	19 467
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	32 445	0	0	0	6 489	6 489	19 467
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	26 418	-1 399	-2 422	-813	5 097	6 489	19 467

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 3 - Complementary information on adjustments

Poland
Currency: PLN
Radom Meteo

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	1	1					
Inflation adjustment 2019	0,22		0				
Total inflation adjustment up to 2019	1	1	0				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	1	1	0	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 3 - Complementary information on adjustments

Poland
Currency: PLN
Warmia i Mazury Meteo

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	0	0					
Inflation adjustment 2019	0		0				
Total inflation adjustment up to 2019	0	0	0				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	0	0	0	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	0	0	0	0	0	0	0
Traffic adjustment 2019	0		0	0	0	0	0
Total traffic adjustments up to 2019	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	0			0	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	0				0	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	0	0	0	0	0	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	0	0	0	0	0	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017							
Revenues from contracts with airport operators in 2018							
Revenues from contracts with airport operators in 2019							
Total revenues from contracts with airport operators up to 2019							
Revenues from contracts with airport operators in 2020-2021							
Revenues from contracts with airport operators in 2022							
Revenues from contracts with airport operators in 2023							
Revenues from contracts with airport operators in 2024							
Total revenues from contracts with airport operators (Art. 25(3)(c))*							
Revenue difference - revision of UR 2020-2021	1 875				375	375	1 125
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	1 875	0	0	0	375	375	1 125
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	1 875	0	0	0	375	375	1 125

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 3 - Complementary information on adjustments

Poland
Currency: PLN
Bydgoszcz Meteo

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	0	0					
Inflation adjustment 2019	0		0				
Total inflation adjustment up to 2019	0	0	0				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	0	0	0	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	0	0	0	0	0	0	0
Traffic adjustment 2019	0		0	0	0	0	0
Total traffic adjustments up to 2019	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	0			0	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	0				0	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	0	0	0	0	0	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	0	0	0	0	0	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017							
Revenues from contracts with airport operators in 2018							
Revenues from contracts with airport operators in 2019							
Total revenues from contracts with airport operators up to 2019							
Revenues from contracts with airport operators in 2020-2021							
Revenues from contracts with airport operators in 2022							
Revenues from contracts with airport operators in 2023							
Revenues from contracts with airport operators in 2024							
Total revenues from contracts with airport operators (Art. 25(3)(c))*							
Revenue difference - revision of UR 2020-2021	1 270				254	254	762
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	1 270	0	0	0	254	254	762
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	1 270	0	0	0	254	254	762

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 3 - Complementary information on adjustments

Poland
Currency: PLN
CAA-NSA

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	175	175					
Inflation adjustment 2019	45		45				
Total inflation adjustment up to 2019	220	175	45				
Inflation adjustment 2020-2021							
Inflation adjustment 2022							
Inflation adjustment 2023							
Inflation adjustment 2024							
Total inflation Adjustment (Art. 26)*	220	175	45	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)							
Difference in investment costs 2022							
Difference in investment costs 2023							
Difference in investment costs 2024							
Total adjustment relating to investment costs (Art. 28(4))							
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)	0				0		
Difference in competent authorities and QEs costs 2022	0					0	
Difference in competent authorities and QEs costs 2023	0						0
Difference in competent authorities and QEs costs 2024	0						0
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))	0				0	0	0
Difference in Eurocontrol costs 2020-2021 (exceptional measures)	0				0		
Difference in Eurocontrol costs 2022	0					0	
Difference in Eurocontrol costs 2023	0						0
Difference in Eurocontrol costs 2024	0						0
Total adjustment relating to Eurocontrol costs (Art. 28(5))	0				0	0	0
Difference in pension costs 2020-2021 (exceptional measures)							
Difference in pension costs 2022							
Difference in pension costs 2023							
Difference in pension costs 2024							
Total adjustment relating to pension costs (Art. 28(6))							
Difference in interest on loans 2020-2021 (exceptional measures)							
Difference in interest on loans 2022							
Difference in interest on loans 2023							
Difference in interest on loans 2024							
Total adjustment relating to interest on loans (Art. 28(6))							
Costs relating to change in law 2020-2021 (exceptional measures)							
Costs relating to change in law 2022							
Costs relating to change in law 2023							
Costs relating to change in law 2024							
Total adjustment relating to change in law (Art. 28(6))							
Cost exempt from cost sharing up to 2017	4 443		4 443				0
Cost exempt from cost sharing 2018	-2 083		-2 083				0
Cost exempt from cost sharing 2019	4 166		4 166				0
Total adjustment relating to cost exempt from previous RPs	6 526	0	6 526	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	

Modulation of charges 2023	0						0
Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-3 117	-3 117	0	0	0	0	0
Traffic adjustment 2019	-5 081		-5 081	0	0	0	0
Total traffic adjustments up to 2019	-8 198	-3 117	-5 081	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-1 710			-1 710	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	857				857	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-853	0	0	-1 710	857	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-9 051	-3 117	-5 081	-1 710	857	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017							
Revenues from contracts with airport operators in 2018							
Revenues from contracts with airport operators in 2019							
Total revenues from contracts with airport operators up to 2019							
Revenues from contracts with airport operators in 2020-2021							
Revenues from contracts with airport operators in 2022							
Revenues from contracts with airport operators in 2023							
Revenues from contracts with airport operators in 2024							
Total revenues from contracts with airport operators (Art. 25(3)(c))*							
Revenue difference - revision of UR 2020-2021	68 191				13 638	13 638	40 915
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	68 191	0	0	0	13 638	13 638	40 915
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	65 886	-2 942	1 490	-1 710	14 495	13 638	40 915

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Table 4 - Complementary information on common projects and on revenues from Union assistance programmes allocated to the charging zone

Poland

Amounts received

Project reference (as per Grant Agreement)	Project title	Value of funded project in '000 Euro		Amounts granted (as per GA) in '000 Euro		Common project y/n	Actual amounts received (charging zone) in '000 Euro										
		Total	For the charging zone	Total	For the charging zone		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
POIS.06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment	141 449	124 320	70 958	62 365	N	32 101	13 678	13 468	3 118	0	0	0				
MOVE/E2-2014-717/SESAR FPA	Cost of PANSA's employees working for SESAR Deployment Alliance	326	280	326	280	N	0	72	4	25	59	62	57				
RPLB.01.01.00-08-001/14-00	ILS Zielona Góra development	1 068	637	732	437	N	0	0	437	0	0	0	0				
PAZp/15-614/AG	Cost of PANSA's employees working for SESAR Deployment Alliance	13	11	13	11	N	0	0	20	24	-34	0	0				
GA 731781	Increased Runway and Airport Throughput – PJ02 ERTH	745	637	521	446	N	0	0	81	45	39	118	36				
GA 733121	Total Airport Management – PJ04 TAM	101	86	71	60	N	0	0	13	4	8	16	0				
GA 731796	Advanced Airspace Management – PJ08 AAM	327	281	255	219	N	0	0	30	31	42	65	42				
GA 734143	Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management – PJ10 PROSA	405	346	283	242	N	0	0	16	14	24	121	0				
GA 734161	4D Trajectory Management – PJ18 4DTM	41	35	29	25	N	0	0	2	0	6	8	0				
GA INEA/CEF/TRAN/M2014/1037259	Call 2014 ITEC	6 600	5 635	3 300	2 817	Y	0	0	0	1 054	0	1 122	0				
GA INEA/CEF/TRAN/M2015/1131871	Call 2015 - ECG I LAN	3 570	3 009	3 040	2 563	Y	0	0	0	615	0	569	0				
GA INEA/CEF/TRAN/M2016/1349619	Call 2016	13 339	11 512	5 760	4 971	Y	0	0	0	1 667	0	0	1 532				
GA 734139	Airport Safety Nets PJ03b SAFE	523	451	366	316	N	0	0	0	19	18	107	90				
GA 734129	Trajectory based Free Routing - PJ06 ToBeFREE	897	769	628	539	N	0	0	0	103	50	223	85				
POIS.06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment II	44 391	38 298	37 732	32 553	N	0	0	0	0	10 385	10 630	4 239				
GA INEA/CEF/TRAN/M2017/1349619	Call 2017	456	389	228	195	Y						195	0				
GA 874477	WAVE 2 - PJ02	148	127	104	89	N						89	0				
GA 874472	WAVE 2 - PJ04	56	48	39	33	N						33	0				
GA 874470	WAVE 2 - PJ05	118	103	83	72	N						0	72				
GA 874465	WAVE 2 - PJ07	125	107	87	75	N						75	0				
GA 874463	WAVE 2 - PJ09	36	30	25	21	N						21	0				
GA 874464	WAVE 2 - PJ10	108	92	75	65	N						65	0				
GA 874474	WAVE 2 - PJ13	61	53	42	37	N						0	37				
GA 872320	WAVE 2 - PJ18	128	109	90	77	N						77	0				
GA 874473	WAVE 2 - PJ19	29	25	20	17	N						17	0				
GA 874475	WAVE 2 - PJ20	29	25	20	17	N						17	0				
GA 874476	WAVE 2 - VLD2	8	7	5	5	N						0	5				
Total in '000 Euro		215 095	187 422	124 834	108 545	0	32 101	13 750	14 071	6 719	10 599	13 630	6 196	0	0	0	0
Total in '000 national currency		891 329	776 406	518 454	450 655	0	130 842	56 045	57 517	28 533	44 561	57 716	26 376				

Amounts reimbursed to airspace users through other revenues

Project reference (as per Grant Agreement)	Project title	Amounts retained in respect of administrative costs for the	Total to be reimbursed for the charging zone in '000 Euro	Amounts reimbursed to users (charging zone) in '000 national currency												2023	2024	After RP
				2014	2015	2016	2017	2018	2019	2020	2021	2022						
POIS.06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment			46 758	0	5 608	14 008	21 211	1 237	-2 411	14 962	14 342						
MOVE/E2-2014-717/SESAR FPA	Cost of PANSA's employees working for SESAR Deployment Alliance			0	0	0	0	0	416	242	254	234						
RPLB.01.01.00-08-001/14-00	ILS Zielona Góra development			0	0	132	79	126	-1	0	126	126						
PAZP/15-614/AG	Cost of PANSA's employees working for SESAR Deployment Alliance			0	0	0	0	0	42	0	0	0						
GA 731781	Increased Runway and Airport Throughput – PJ02 ERTH			0	0	0	0	0	268	470	524	173						
GA 733121	Total Airport Management – PJ04 TAM			0	0	0	0	0	46	64	58	0						
GA 731796	Advanced Airspace Management – PJ08 AAM			0	0	0	0	0	256	200	288	177						
GA 734143	Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management – PJ10 PROSA			0	0	0	0	0	98	144	533	0						
GA 734161	4D Trajectory Management – PJ18 4DTM			0	0	0	0	0	9	29	36	0						
GA INEA/CEF/TRAN/M2014/1037259	Call 2014 ITEC			0	0	0	0	0	673	270	415	658						
GA INEA/CEF/TRAN/M2015/1131871	Call 2015 - ECG I LAN			0	0	0	0	0	62	83	355	696						
GA INEA/CEF/TRAN/M2016/1349619	Call 2016			0	0	0	0	0	1 377	861	856	1 519						
GA 734139	Airport Safety Nets PJ03b SAFE			0	0	0	0	0	81	80	469	397						
GA 734129	Trajectory based Free Routing - PJ06 ToBeFREE			0	0	0	0	0	226	446	982	373						
POIS.06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment II			0	0	0	0	0	0	1 088	3 356	5 524						
GA INEA/CEF/TRAN/M2017/1349619	Call 2017										342	53						
GA 874477	WAVE 2 - PJ02										2	170						
GA 874472	WAVE 2 - PJ04										0	83						
GA 874470	WAVE 2 - PJ05										0	28						
GA 874465	WAVE 2 - PJ07										2	133						
GA 874463	WAVE 2 - PJ09										1	91						
GA 874464	WAVE 2 - PJ10										0	26						
GA 874474	WAVE 2 - PJ13										0	26						
GA 872320	WAVE 2 - PJ18										0	38						
GA 874473	WAVE 2 - PJ19										0	14						
GA 874475	WAVE 2 - PJ20										0	19						
GA 874476	WAVE 2 - VLD2										0	7						
Traffic adjustment	Traffic adjustment			0	0	0	0	0	498	-1 193	-477							
Total in '000 Euro				11 267	0	1 383	3 394	5 141	1 274	90	5 562	6 002		0		0		
Total in '000 national currency				46 758	0	5 740	14 087	21 337	5 286	374	23 084	24 907						

RP3 Cost-efficiency targets

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

En route charging zone Poland	Baseline 2014	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D	2024 D
	2014 B	2019 B	2020/2021 D	2022 D	2023 D	2024 D	vs. 2014 B	vs. 2019 B
Total en route costs in nominal terms (in national currency)	660 997 812	888 327 162	1 679 534 421	890 680 654	928 852 523	965 164 189	46,0%	8,6%
Total en route costs in real terms (in national currency at 2017 prices)	664 844 905	866 715 620	1 579 696 096	813 706 573	833 860 123	851 873 540	28,1%	-1,7%
Total en route costs in real terms (in EUR2017) ¹	156 256 514	203 701 586	371 271 260	191 243 028	195 979 657	200 213 296	28,1%	-1,7%
YoY variation			82,3%	-48,5%	2,5%	2,2%		
Total en route Service Units (TSU)	3 920 861	4 959 376	4 386 811	3 496 000	4 186 000	4 802 000	22,5%	-3,2%
YoY variation			-11,5%	-20,3%	19,7%	14,7%		
Real en route unit costs (in national currency at 2017 prices)	169,57	174,76	360,10	232,75	199,20	177,40	4,6%	1,5%
Real en route unit costs (in EUR2017) ¹	39,85	41,07	84,63	54,70	46,82	41,69	4,6%	1,5%
YoY variation			106,1%	-35,4%	-14,4%	-10,9%		

National currency	PLN
¹ Average exchange rate 2017 (1 EUR=)	4,25

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

En route charging zone Poland	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)	660 997 812	888 327 162	660 997 812	836 485 578	0	51 841 584
Total en route costs in real terms (in national currency at 2017 prices)	664 844 905	866 715 620	664 844 905	814 956 767	0	51 758 853
Total en route costs in real terms (in EUR2017) ¹	156 256 514	203 701 586	156 256 514	191 536 857	0	12 164 729
Total en route Service Units (TSU)	3 920 861	4 959 376	3 930 688	4 971 806	-9 827	-12 430

Polish Performance Plan
Third Reference Period (2020-2024)
Revision

Annex A.2 En-route Charging Zone
Additional Information

En-route Charging Zone Poland
Reference Period 3 (2020-2024)

ADDITIONAL INFORMATION TO REPORTING TABLES 1 – TOTAL COSTS AND UNIT COSTS

1. Determined costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services, based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc 7754) as last amended, and a description of the methodology used for allocating those costs between different charging zones;

For the Polish Performance Plan for RP3 (PL RP3 PP) the cost base for en-route charges in Poland consists of cost incurred by the following six organizations:

- **Polish Air Navigation Services Agency (PANSa)** – provider of air traffic services, CNS services and AIS, as well as SAR coordination,
- **Institute of Meteorology and Water Management – National Research Institute (IMWM)** – MET services provider,
- **Radom Meteo sp. z o.o. (Radom Meteo)** – MET services provider for EPRA approach and tower services,
- **Warmia i Mazury sp. z o.o. (Warmia i Mazury)** – MET services provider for EPSY approach and tower services,
- **Port Lotniczy Bydgoszcz S.A. (PL Bydgoszcz)** – MET services provider for EPBY approach and tower services,
- **Civil Aviation Authority of the Republic of Poland (CAA)** – national supervisory authority.

The en-route cost base includes also EUROCONTROL costs – although the contribution is paid by PANSa, for presentation purpose in the reporting tables the EUROCONTROL costs are included under the CAA costs.

There is one en-route charging zone in Poland (FIR Warszawa).

		RP1	RP2	RP3
ER	ATSP	PANSa (ATS, CNS, AIS, SAR coordination)	PANSa (ATS, CNS, AIS, SAR coordination)	PANSa (ATS, CNS, AIS, SAR coordination)
	MET	IMWM (MET)	IMWM (MET) Radom Meteo (MET – EPRA) Warmia i Mazury (MET – EPSY) ¹	IMWM (MET) Radom Meteo (MET – EPRA) Warmia i Mazury (MET – EPSY) PL Bydgoszcz (MET – EPBY)
	NSA	CAA (CAA+MS) + EUROCONTROL costs	CAA (CAA+MS) + EUROCONTROL costs	CAA (CAA+MS) + EUROCONTROL costs

¹ Although Warmia i Mazury was providing MET services in RP2, the whole costs were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2.

En-route Charging Zone Poland Reference Period 3 (2020-2024)

I. PANSA

For the purpose of calculating the cost base for the en-route charges, PANSA has taken into consideration costs of facilities listed in the ICAO Regional Navigation Plan (Doc. 7754) reflecting all equipment used for the provision of air navigation services.

For methodology used for allocating costs between charging zones (en-route and terminal, and within terminal between two charging zones (based on allocation of costs to each individual airport)) – see point c) below.

II. IMWM

See point c), d) and e) below.

III. Radom Meteo

Not applicable to Radom Meteo as this ANSP only provides MET services. For details, see point c).

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VI. CAA (including EUROCONTROL)

The allocation of CAA's costs between ER and TNC is based on the number of personnel (FTEs) executing the tasks of national supervisory authority and part of member state responsibilities which are in the competence of CAA as stated in the Polish Aviation Law Act. The methodology, developed during Poland's technical integration with EUROCONTROL CRCO, remains unchanged since 2008. For more information, see point c).

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights in accordance with Article 31(3), 31(4) and 31(5);

I. PANSA

Cost of air navigation services provided for VFR flights is calculated through a marginal cost methodology. Being covered by the State budget, costs of VFR flights are deducted from the en-route determined costs. The methodology applied for RP3 has not changed compared to previous reference period.

II. IMWM

IMWM calculates costs of VFR flights which are exempted from navigation charges using the marginal cost methodology. This methodology is based on the number of visits users make to two most frequently visited IMWM websites which are: www.imgw.pl and www.pogodynka.pl which further direct the user to the tab concerning aviation information (awiacja.imgw.pl). This cost is calculated as follows:

- The analysis of the Internet connection load through the www.imgw.pl website shows that it occupies 11% of the rented capacity.
- 11% of the annual cost of Internet bandwidth equal to the cost of maintaining the website www.imgw.pl and www.pogodynka.pl.
- The average number of entrances to the awiacja.imgw.pl tab is 1,76% of all the visits to the IMWM websites, what after following calculation: 1,76% multiplied by annual cost of maintaining the websites gives an annual cost of maintaining awiacja.imgw.pl tab.
- We assume that 50% of flights from these entries are subjects to exemptions from navigation charges (50% of the annual cost of maintaining the awiacja.imgw.pl tab equal to annual marginal cost of flights exempted from navigation charges).

All products dedicated to VFRs are loaded with marginal costs at the same rate.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VI. CAA (including EUROCONTROL)

Not applicable.

c) Criteria used to allocate costs between terminal and en route services, in accordance with Article 22(5);

I. PANSA

Criteria for allocation of PANSA's costs between ER and TNC remain unchanged as compared with the RP2 and initial draft RP3 performance plan dated Nov 2019. In the initial draft PL RP3 PP, as compared to RP2, some modifications were introduced to allocation keys of two major investments (Tower Warsaw and new Campus) following consultation of draft PL RP3 PP and comments provided by airspace users. During works on revised PL RP3 PP PANSA has also updated the variable part of the allocation keys (timesheet, cost center structure, movements, SU, FTE, etc).

PANSA, for cost allocation purposes, uses the Services Cost Calculation and Profitability Analysis System built on the basis of Activity Based Costing methodology. The Cost Calculation system is based on a multi-step allocation principle.

Some costs, by their origin may be allocated directly to the ER or TNC services (e.g. ACC ATCOs). Other costs, which are not directly linked with the provision of specific services (e.g. human resources or financial staff) are allocated using the allocation keys catalogue which is included in the model. Those keys were constructed in a very precise manner in order to reflect, in the best possible way, the distribution of costs borne in operational activity (e.g. number of operations, number of service units, staff complement, power utilization etc.).

For ATS:

- The costs of services provided in the controlled area (CTA) and TMA are allocated to ER.
- Costs related to services provided in CTR (controlled zone) are allocated to TNC.

With regards to ATC units:

- Costs of APP and ACC units are allocated to ER in total.
- For TWR units distinction has to be made between airports where a separate APP unit has been established and airports where in fact the TWR unit provides procedural approach services:
 - In Poland, following operational requirements, 4 approach control units have been created for the major airports:
 - Gdańsk im. Lecha Wałęsy (EPGD),
 - Poznań-Ławica (EPPO) and Wrocław-Strachowice (EPWR) together,
 - Kraków-Balice (EPKK) and Katowice-Pyrzowice (EPKT) together,
 - Chopina w Warszawie (EPWA) and Warszawa/Modlin (EPMO) together.

For those airports, where a separate APP unit operates, cost of TWR service is allocated to ER only in the part, which covers services provided outside CTR boundaries and is limited to services provided to approaching (landing) operations.

- At remaining airports, TWR unit provides also APP services. When both APP and TWR services are provided by TWR unit, the cost of the unit is divided between ER and TNC in accordance with the airspace volume ratio (CTR and TMA). For that purpose the following formula is used: $V(CTR) / V(CTR + TMA)$. This formula should be understood as volume of airport controlled area to the total volume of the airport controlled zone and the airport controlled area.

Costs of FIS services, as well as SAR coordination, are in total allocated to ER.

For CNS:

- NAV: The basis for costs allocation of Nav aids is the degree of their use by individual air traffic control units (APP vs. TWR) and reflects use of those Nav aids in different airspace

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structures (TMA vs. CTR). Allocation of VOR/DVORs, DMEs and ILSs takes into account range of these Navaids, and as a consequence, their possible use in TMA and CTR. Usage of the airport Navaids for certain flights in different types of airspace is strictly connected with the dimension of the given airspace. Therefore, their cost is split between TWR and APP, and consequently between TNC and ER.

- SUR: Costs of en-route and approach radars are in total allocated to ER service. Costs of airport movements radars, ASMGCS system and airport MLAT are allocated in total to TNC services (in line with their location).
- COM: The cost allocation is based on the number of radio-stations and voice communication consoles used by each service.

The cost of ATM operational system Pegasus 21 is allocated between ER and TNC on the basis of revenues from navigation services provided. New ATM system (iTEC) is fully allocated to ER as it will be dedicated to ACC and APP units.

II. IMWM

In order to properly allocate the costs of MET services between ER and TNC, the “product methodology” was applied, in accordance with Commission Regulation (EU) No. 1191/2010 and WMO publication No. 904, taking into account the need for cost transparency and the fact that individual users are charged only for the costs services of their use.

The allocation of costs between the ER-TNC of individual aviation products is based on the assessment of the percentage of one-time work per day. The starting point of this procedure is the assessment of the involvement of individual organizational units directly providing aviation products, such as: Central Aeronautical Forecasting Office - Meteorological Watch Office in Warsaw and Meteorological Forecasting Office in Cracow; and Aeronautical Meteorological Stations (LSM) and units indirectly involved in MET services providing (i.e. Meteorological Services for Civil Aviation Centre, Quality and Safety Management (SMS), Administration with Law Office and Finance Office, Central Laboratory of Measurement Equipment or IT Services). This commitment is measured by the amount of time needed to produce a given type of product.

The detailed description of the cost allocation used to determine the costs of products is as follows:

- 1) A catalog of basic classes of meteorological products was defined. This catalogue is based on the guidelines contained in ICAO Annex 3, WMO Publication No. 904 and on the provisions of the contract for meteorological services for civil aviation, concluded between IMWM and PANSA. The catalogue preparation has been agreed with the customer and includes the following classes of products:
 - Local regular and special messages (MET REPORT) / open text with the use of abbreviations / - participation in the development of this product is taken by all Aeronautical Meteorological Stations: LSM Gdańsk, LSM Katowice-Pyrzowice, LSM Kraków-Balice, LSM Łódź, LSM Poznań-Ławica, LSM Rzeszów-Jasionka, LSM Szczecin-Goleniów, LSM Warszawa, LSM Warszawa-Modlin, LSM Lublin, LSM Wrocław-Strachowice, LSM Zielona Góra-Babimost. This is information provided to air traffic services in accordance with the criteria contained in the relevant operational cooperation agreements and requires constant monitoring of weather conditions;
 - TREND forecast, developed and added to METAR messages for the EPWA airport in the METAR TREND program. It is a landing forecast, developed for 2 hours and added to each METAR message for the EPWA airport by weather forecasters from Meteorological Watch Office. Requires tracking weather conditions at the airport and weather analysis for fast appending to METAR. This is a forecast of meteorological conditions developed in accordance with the criteria agreed with the user;
 - TREND forecast for ATIS. This is a forecast prepared for 2 hours to the ATIS message. The forecast is prepared by the forecasters in Meteorological Watch Office. This is a forecast of meteorological conditions and it is developed in accordance with the criteria agreed with the user. It is developed every half hour and in the case of a new message, when the weather conditions at the airport have changed according to the criteria contained in the agreement with the user. Regular messages in the form of METAR code - these are observations and measurements recorded in a consistent code, transmitted every half an hour. All Aeronautical Meteorological Stations mentioned above take part in the preparation of this product;

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- TAF FC and FT forecasts / along with changes to them / - TAF FC forecasts are prepared every 3 hours, valid for 9 hours, TAF FT for EPWA, EPKK, EPWR airports every 3 hours, valid for 24 hours, and for others airports every 6 hours with validity for 24 hours. They are developed in TAF code consistent with aeronautical-meteorological codes. The TAF forecasts being developed are supervised on a continuous basis and in accordance with the applicable criteria. It is possible to develop changes to them, then the TAF AMD forecast is issued. Two forecasting offices are involved in the development of the product from the beginning of 2019;
 - Central Aeronautical Forecasting Office - Meteorological Watch Office - develops: TAF FT for EPWA, EPGD, EPLL, EPSC, EPMO and TAF FC for EPLB;
 - Meteorological Forecasting Office in Cracow - develops TAF FT for EPKK, EPRZ, EPKT, EPPO, EPWR and TAF FC for EPZG;
- Information SIGMET (WS, WV) and AIRMET WA / open text using the abbreviations applicable / for FIR Warszawa - EPWW is information about meteorological conditions observed and forecasted, written with an open text with applicable abbreviations. This forecast is a warning. This product is developed by Meteorological Watch Office, in accordance with the applicable criteria requiring continuous monitoring and analysis of weather conditions at FIR Warszawa;
- Airport warnings according to established criteria /open text / - are developed for 12 airports. Criteria for warnings are agreed with users. Forecasting offices have been taking part in the development of this product since 2019. Airport warnings cover 12 airports in the following division of responsibilities;
 - Central Aeronautical Forecasting Office - Meteorological Watch Office - airports: EPGD, EPSC, EPWA, EPLL, EPMO, EPLB;
 - Meteorological Forecasting Office in Cracow - airports: EPKK, EPRZ, EPKT, EPWR, EPZG, EPPO;
- Preparation and update of en-route forecasts: METAR, TAF, SIGMET, AIRMET and maps (above and below FL 100/150): SIGNIFICANT, wind and temperature forecasts at various levels (i.e. aerial maps at various levels) - preparation of flight documentation and service flight crews. The documentation includes TAF, METAR, SIGMET and AIRMET message sets, mainly from Europe, aerial maps above and below FL100 / 150 and SIGWX - a map of significant weather phenomena, including SWC for the area of Poland from the ground surface up to FL100 / 150. This product is available in the Meteorological Watch Office, 24 hours a day;
- Regional minimum QNH pressure with a one-hour step - it is a product developed for PANSAs order for 14 regions and transmitted in the form of a message. The message after processing is automatically delivered to PANSAs;
- Pressure for the determination of the transient level / 995 hPa / - when the pressure of QNH in the METAR message set exceeds 995 hPa, forecasters are required to inform the air traffic services about this fact. Implementation of this service consists in tracking the national sets of METARs issued every half an hour and providing information;
- GAMET - area forecast - forecast developed in accordance with the requirements of ICAO Annex 3 for 5 FIS sectors, 4 times a day, valid for 6 hours. The forecasting departments that cover the following sectors take part in the development of this product: Meteorological Watch Office - sectors A1, A3, A4; Meteorological Forecasting Office in Cracow – sectors A5, A2;
- Data for VOLMET broadcast - it is a set of 9 METAR messages, including 3 national (for EPWA, EPGD and EPPO), transmitted, every 1 hour to PANSAs. This task is carried out by Meteorological Watch Office;
- Information on the release of radioactive and toxic materials into the atmosphere and volcanic ash - the transfer of this information is part of responsibilities of Meteorological Watch Office;
- Information from weather radars in a currently available form (radar images) - providing images from 8 meteorological radars;
- Information from atmospheric lightning detection system (in the form of text and image) - providing data from the PERUN system;
- SAT images - providing satellite images. PANSAs is an external customer, therefore it is necessary for IMWM to purchase an appropriate license for the use of satellite images;

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- Reports from aircrafts - development and transmission of messages based on information from aircraft transferred by PANSA to IMWM. This product is developed by Meteorological Watch Office;
 - Climatological data / information - developed for airports from METAR measurement data in accordance with the tables in ICAO Annex 3. All Aeronautical Meteorological Stations participate in preparation of the product;
 - Providing information on the possibility of dangerous weather phenomena (below FL100 / 150), in particular turbulence, icing and strong wind zones. This information is made available in graphic form;
 - Providing information on wind speed and direction, turbulence (including CAT), icing at FIR Warszawa on flight levels available for controlled traffic. This information is available in graphic form;
 - Providing a new graphic form of wind and temperature forecasts (below FL 100/150) for FIR Warszawa and wind forecasts for individual TMAS;
 - Information on current and possible meteorological conditions in the area of search for the Aeronautical Rescue Coordination Centre. Information on current and possible meteorological conditions on the flight route of ARCC search aircraft. Information on previous meteorological conditions in the area of search for ARCC. Information on meteorological conditions that prevailed during the last known position of the missing aircraft and along the planned flight route for the ARCC. These forecasts and information are prepared by Meteorological Watch Office, ordered by the Head of the ARCC Center (PANSA);
 - MeteoFlight - a system for calculating and visualizing meteorological threats for air traffic services.
- 2) Daily work charts for Meteorological Watch Office, Meteorological Forecasting Office in Cracow and Aeronautical Meteorological Stations were prepared. They present the average time needed to produce particular classes of meteorological products, during a day by individual organizational units.
 - 3) The cost of manufacturing the product was calculated based on the labour intensity. This consists of: number of full-time jobs; labour consumption for a products; annual amount of remuneration for full-time job.
 - 4) The share of other cost groups (service, AWOS, materials, external services, business trips, telecommunications, SADIS, training, lease, infrastructure, depreciation, capital cost) has been divided taking into account labour intensity in a given organisational unit in a given year.

Products		Percentage breakdown		
		ER	TNC	Total
1	Local regular and special messages (MET REPORT) (MET REPORT, SPECIAL)	-	100%	100%
2	Trend forecast for messages specified in item 1 (for EPWA)	50%	50%	100%
3	Regular messages in the form of METAR code	75%	25%	100%
4	Trend forecast for messages specified in item 3 (for EPWA)	50%	50%	100%
5	TAF FC and FT forecasts along with changes to them	75%	25%	100%
6	SIGMET (WS, WV) and AIRMET WA information	100%	-	100%
7	Airport warnings according to established criteria	-	100%	100%
8	Preparation and update of ensembles: METAR, TAF, SIGMET, AIRMET and maps (above and below FL 100/150): SIGNIFICANT, wind and temperature forecasts at various levels	75%	25%	100%
9	Regional minimum QNH pressure with an one-hour step	50%	50%	100%
10	Pressure for the determination of the transient level	50%	50%	100%
11	GAMET - area forecast	100%	-	100%
12	SIGNIFICANT for Poland	100%	-	100%
13	Data for VOLMET broadcast	100%	-	100%
14	Information on the release of radioactive and toxic materials into the atmosphere and volcanic ash	100%	-	100%
15	Information for the needs of search and rescue services	100%	-	100%

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16	Currently available information from the weather radars (radar images)	50%	50%	100%
17	Information from the lightning detection system (text and image form)	50%	50%	100%
18	SAT images - providing satellite images	75%	25%	100%
19	Reports from aircrafts	100%		100%
20	Climatological data / information	-	100%	100%
21	Providing information on the possibility of dangerous weather events (below FL100 / 150), in particular turbulence, icing and strong wind zones.	75%	25%	100%
22	Providing graphic information on wind speed and direction, turbulences (including CAT), icing at FIR Warszawa on flight levels available for controlled traffic.	75%	25%	100%
23	Providing a new graphic form of wind and bottom temperature forecasts (below FL 100/150) for FIR Warszawa and wind forecasts for individual TMAs.	75%	25%	100%
24	VENTO - meteorological tool supporting the work of PANSA controllers	50%	50%	100%
25	MeteoFlight - meteorological tool supporting the work of PANSA controllers	50%	50%	100%

III. Radom Meteo

Radom Meteo has been designated on 14th May 2019 by the Minister responsible for transport for the provision of MET services in CTR/TMA at Radom-Sadków airport (EPRA) for the period from 1st January 2020 to 31st December 2024. Radom Meteo has been also provided with the renewal of ANSP certificate on 18th March 2020 r. by the President of Civil Aviation Authority of Poland.

Since 2019, the EPRA airport remains under reconstruction – despite that fact, Radom Meteo is constantly providing MET services in order to fulfil its obligations stemming from the designation, ANSP certificate and in order to maintain the Radom Meteo's potential to deliver the high-quality MET services once the EPRA will be opened once again, what is currently expected at the turn of 2022/2023.

Methodology used for allocating costs between en-route and terminal ANS

Radom Meteo's only efforts are dedicated to prepare MET products and services, which final clients are to a large extent Airspace Users.

The methodology for determining the cost of various aviation products is based on an expert internal assessment of the percentage division of the working time devoted to preparation of the MET products. The indicators of this commitment are the amounts of time required to prepare a particular product.

The next step of cost-allocation is based on guidelines included in the 'Guide to Aeronautical Meteorological Services Cost Recovery' by WMO - No 904 second edition from 2007 which are in line with ICAO Doc 9161, and was performed in order to divide the costs incurred between en-route and terminal ANS.

The table below presents the results of the product division prepared by Radom Meteo for the meteorological service according to the methodology presented above. The final allocation proportions are equal to 40.00% ER / 59.40% TNC / 0.60% Other, what was presented in the table below.

Product/service	Labour intensity	Allocated to ANS	Allocated to other activities	WMO 904 attachment II		Cost		
				ER	TNC	ER	TNC	Other
Providing local meteorological reports for ATC/ATIS	0,32	100%	0,00%	0%	100%	0,00	0,32	0,00
Providing METAR reports	0,22	100%	0,00%	75%	25%	0,17	0,06	0,00
Providing and supervising over forecasts TAF FC (TAF AMD)	0,23	100%	0,00%	75%	25%	0,17	0,06	0,00
Providing meteorological warnings	0,10	95%	5,00%	0%	100%	0,00	0,10	0,01
Wind shear warnings	0,02	100%	0,00%	0%	100%	0,00	0,02	0,00
Providing meteorological flight documentation	0,03	100%	0,00%	75%	25%	0,02	0,01	0,00
Forwarding reports from the air to MBN	0,04	100%	0,00%	100%	0%	0,04	0,00	0,00

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Conduction on briefings and meteorological consultations	0,02	95%	5,00%	0%	100%	0,00	0,02	0,00
Providing climatological information	0,02	100%	0,00%	0%	100%	0,00	0,02	0,00
Total	1,00	-	-	-	-	40,00%	59,40%	0,60%

Due to the EPRA airport closure, some of the (mainly terminal) activities (such as providing local meteorological reports for ATC/ATIS, wind shear warnings or forwarding reports from the air to MBN) are not realized, while the final clients of some other are not Airspace Users. Therefore, it was essential to provide additional cost allocation methodology for the period of EPRA closure, based on the same proportion of labour intensity, with regard only to products provided. In that time, the final allocation of Radom Meteo's costs is equal to 54.44% ER / 18.15% TNC / 27.42% Other, what was presented in the table below and is planned to be applied in 2020-2022.

Product/service	Labour intensity	Allocated to ANS	Allocated to other activities	WMO 904 attachment II		Cost		
				ER	TNC	ER	TNC	Other
Providing local meteorological reports for ATC/ATIS	0,00	0%	0%	0%	100%	0,00	0,00	0,00
Providing METAR reports	0,22	100%	0%	75%	25%	0,17	0,06	0,00
Providing and supervising over forecasts TAF FC (TAF AMD)	0,23	100%	0%	75%	25%	0,17	0,06	0,00
Providing meteorological warnings	0,10	0%	100%	0%	100%	0,00	0,00	0,10
Wind shear warnings	0,00	0%	0%	0%	100%	0,00	0,00	0,00
Providing meteorological flight documentation	0,03	0%	100%	75%	25%	0,00	0,00	0,03
Forwarding reports from the air to MBN	0,00	0%	0%	100%	0%	0,00	0,00	0,00
Conduction on briefings and meteorological consultations	0,02	0%	100%	0%	100%	0,00	0,00	0,02
Providing climatological information	0,02	0%	100%	0%	100%	0,00	0,00	0,02
Total	0,62	-	-	-	-	54,44%	18,15%	27,42%

IV. Warmia i Mazury

Warmia i Mazury scope of provided services generates the necessity of a costs' breakdown between en-route and terminal charging zones only for MET service. Warmia i Mazury methodology is in line with doc. WMO 904 (Annex II) – 'Guide to Meteorological Services Cost Recovery', coherent with ICAO Doc 9161. The division of labour intensity between each product and service delivered is based on internal estimations. The table below presents product allocation to the en-route and TNC.

Warmia i Mazury does not exclude the 'Other' segment as it is utterly marginal. Any additional exercise done by MET staff is paid in bonuses which are excluded from the cost-bases.

Product/service	Labour intensity	WMO 904 attachment II		Cost	
		ER	TNC	ER	TNC
Wind shear warnings	1,25%	0%	100%	0,00%	1,25%
Providing local meteorological reports for ATC/ATIS	18,50%	-	100%	0,00%	18,50%
Providing METAR reports	30,00%	75%	25%	22,50%	7,50%
Providing and supervising over forecasts TAF FC (TAF AMD)	35,00%	75%	25%	26,25%	8,75%
Providing meteorological warnings	5,00%	-	100%	0,00%	5,00%
Providing meteorological flight documentation	2,00%	75%	25%	1,50%	0,50%
Forwarding reports from the air to MBN	7,25%	100%		7,25%	0,00%
Conduction on briefings and meteorological consultations	0,50%	0%	100%	0,00%	0,50%
Providing climatological information	0,50%	0%	100%	0,00%	0,50%
Total	100,00%	-	-	57,50%	42,50%

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Warmia i Mazury accounting policy bases on synthetic accounts in accordance with the applicable accounting regulations and analytical accounts based on the organizational structure of Warmia i Mazury. Separate analytical records are kept for MET services, which include the following costs:

- Direct costs – which are allocated in 100% based on the financial and accounting documents (e.g. invoices, payroll),
- Indirect costs – which division is calculated based on the proportion of the costs of Warmia i Mazury by using appropriate and specific keys, such as inter alia: space occupied, number of staff, assigned fixed assets, labour intensity, or utilities consumption.

Due to COVID-19 pandemic which had a large impact on the structure of Warmia i Mazury activity as a whole entity, since 1st January 2021 Warmia i Mazury is in testing phase of the new accounting policy concerning especially the improvement of management accounting, which will be fully implemented by 1st January 2022. Therefore, the planning exercise for years 2022-2024 and future reporting methodology will include these changes in order to provide full consistency between methodologies of calculating the determined and actual costs to provide comparable data. One of the aims of these decision was to provide more accurate allocation of assets and identification of cost centres.

V. PL Bydgoszcz

In general, PL Bydgoszcz is dividing all the costs incurred by company on ANS-directly related, ANS-directly unrelated and indirect costs that are furtherly allocated using the average company's departments involvement in providing ANS.

In case of MET costs, PL Bydgoszcz has identified various MET products and services provided and has estimated the labour intensity proportions for their provision, basing on employees' experiences. Then, the products and services are allocated to ANS (for Airspace Users) and to other activities (for other recipients – which are marginal).

The allocation between en-route and TNC is fully based on International Civil Aviation Organization's Doc 9161 and World Meteorological Organization's Doc 904, which are coherent with each other. The final allocation was presented in the table below, in proportions: 41.00% ER / 58.89% TNC / 0.11% Other.

Product/service	Labour intensity	Allocated to ANS	Allocated to other activities	WMO 904 annex II		Cost		
				ER	TNC	ER	TNC	Other
Wind shear warnings	5,00%	100,00%	0,00%	0%	100%	0,00%	5,00%	0,00%
Providing local meteorological reports for ATC/ATIS	35,00%	100,00%	0,00%	0%	100%	0,00%	35,00%	0,00%
Providing METAR reports	25,00%	100,00%	0,00%	75%	25%	18,75%	6,25%	0,00%
Providing and supervising over forecasts TAF FC (TAF AMD)	25,00%	100,00%	0,00%	75%	25%	18,75%	6,25%	0,00%
Providing meteorological warnings	5,00%	97,92%	2,08%	0%	100%	0,00%	4,90%	0,10%
Providing meteorological flight documentation	2,00%	100,00%	0,00%	75%	25%	1,50%	0,50%	0,00%
Forwarding reports from the air to MBN	2,00%	100,00%	0,00%	100%	0%	2,00%	0,00%	0,00%
Conduction on briefings and meteorological consultations	0,50%	97,92%	2,08%	0%	100%	0,00%	0,49%	0,01%
Providing climatological information	0,50%	100,00%	0,00%	0%	100%	0,00%	0,50%	0,00%
Total	100,00%	-	-	-	-	41,00%	58,89%	0,11%

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I. CAA (including EUROCONTROL)

The allocation between en-route and terminal ANS based on the involvement of each of the CAA's organizational units into activities linked within the en-route and terminal supervision, measured in FTEs.

d) Breakdown of the meteorological costs between direct costs and the costs of supporting meteorological facilities and services that also serve meteorological requirements in general ('MET core costs'). MET core costs include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

I. PANSA

Not applicable.

II. IMWM

Methodology of separating the costs of meteorological services for civil aviation in IMWM

Determination of the share of costs of meteorological services for civil aviation provided by IMWM in total MET costs is based on separation of direct costs of such services and on separation of MET core costs.

Methodology of direct costs of meteorological services determination.

The separation of direct costs of meteorological services for aviation from the total MET costs consists in defining the costs of services, facilities and systems used only to provide meteorological services for civil aviation. IMWM defines these costs in accordance with ICAO Doc. 9161 'Manual on air navigation services economics' and WMO Publication No 904 'Guide to aeronautical meteorological services cost recovery. Principles and guidance', Annex 1, as the costs of: Meteorological Watch Office, Meteorological Forecasting Office in Cracow - only the part of the costs related to services for aviation, Aeronautical Meteorological Stations, telecommunication system which serve aviation, automated weather observing systems, and costs of administrative support (including training) directly serving the aviation. Such defined direct costs include:

- 1) gross payments including: personal and impersonal wages, company's award fund contribution, social insurance contribution, company's social benefit fund contribution, and others; this cost is proportional to the number of staff working in meteorological services for civil aviation.

These group of costs are qualified as staff costs.

The other groups of the direct costs of meteorological service for civil aviation are:

- 2) indirect costs proportional to remuneration fund and remuneration-related expenditures;
- 3) materials and equipment: office tools, printers ink, equipment purchase including purchase of equipment at airports, electricity, heating, computers;
- 4) third party services: specialized software service (LEADS, AMHS, METAR2010, DEDAL, PROMET), renovation, check-ups, maintenance (computers, copiers, plotters, etc.), data communication network service (servers, routers) used by Meteorological Offices, and Aeronautical Meteorological Stations;
- 5) telecommunication: costs of maintaining communication between headquarters and Meteorological Watch Office, between Meteorological Offices and PANSA (AFTN network) and Aeronautical Meteorological Stations; SADIS communication system; fees for fixed-line telephones and mobile phones;
- 6) business trips inside and outside the country;
- 7) trainings and conferences: periodical meteorological training in respect of international European standards; enhancing qualifications trainings, inner audit costs connected with Quality and Safety Management Systems; other trainings connected with the service provision;
- 8) lease of premises and meteorological ground on the premises of airports - leasing according to signed agreements;
- 9) usage of automated weather observation systems (AWOS) for the needs of meteorological services for civil aviation, including: trainings for the service workers, relevant business trips, the costs directly connected with AWOS maintenance and the cost of measuring equipment modernization.

En-route Charging Zone Poland Reference Period 3 (2020-2024)

The above costs, points 2 to 9 constitute other operating costs of meteorological services for aviation.

Methodology of determining the share of meteorological services for aviation costs in core MET costs.

According to ICAO Doc. 9161 'Manual on air navigation services economics' and WMO no 904 'Guide on aeronautical meteorological services cost recovery. Principles and guidance', MET core systems are defined as systems, facilities and services not only used for meteorological services for civil aviation but also for the public. These are as follows:

- General forecasting system;
- Numerical weather forecast system;
- Telecommunication infrastructure;
- Hydrological-meteorological stations network;
- Aerology observations system;
- Meteorological radars and discharging detection systems;
- Satellite data receiving system;
- Historical database;
- Systems supervision.

Core MET costs are costs of maintenance of the above listed systems in this part which was included within total MET costs and on the basis of the methodology presented above.

The share of costs of most MET core systems in aviation costs was calculated in accordance with procedures defined in ICAO Doc. 9161 'Manual on air navigation services economics' and WMO no 904 'Guide on aeronautical meteorological services cost recovery. Principles and guidance', point 3.10 (d), namely: in proportion of all employees working for aeronautical meteorology to employees working for National Hydrological-Meteorological Service. The number of employees working for aeronautical meteorology was determined on the basis of dividing National Hydrological-Meteorological Service into HYDRO Service and MET Service. This methodology was applied in order to determine the share of costs of the following core systems:

- Generally forecasting system;
- Numerical weather forecast system;
- Hydrological-meteorological stations network;
- Aerology observation system;
- Satellite data receiving system;
- Historical database;
- Systems supervision.

The share of costs of telecommunication systems in aviation costs was determined analogously to the methodology which determines the share of MET costs (total MET costs) in National Hydrological-Meteorological Service. The methodology is defined in ICAO Doc. 9161 and WMO no 904 point 3.10 (c), namely it is based on the analysis of the size of computer network flow in IMWM.

III. Radom Meteo

For details on cost allocation see point c).

IV. Warmia i Mazury

For details on cost allocation see point c).

V. PL Bydgoszcz

For details on cost allocation see point c).

VI. CAA (including EUROCONTROL)

Not applicable.

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e) Description of the methodology used for allocating total meteorological costs and MET core costs referred to in point (d) to civil aviation and between charging zones;

I. PANSA

Not applicable.

II. IMWM

Methodology for division of costs of MET services to civil aviation into costs of particular products

The methodology for determining the cost of various aviation products is based on an assessment of the percentage contribution of the working time of one post per day in the manufacture of products for meteorological service to civil aviation. The basis of the methodology is the assessment of involvement of different organizational units, directly producing aeronautical products such as the Meteorological Watch Office (MBN), Meteorological Forecasting Office in Cracow (BPM) and the Aeronautical Meteorological Stations (LSM) and indirectly involved in the protection of civil aviation. The measure of this commitment is the amount of time required to manufacture a particular product. The share of work of the units indirectly involved is assigned to each product, and contribution of the Central Measuring Equipment Laboratory, was assigned only to products that are based on measuring instruments.

A detailed description of the methodology used to determine the costs of products is as follows:

- 1) A catalogue of basic classes of meteorological products has been defined. It was prepared by IMWM in order to provide meteorological services to civil aviation in 2020-2024. This catalogue is based on ICAO Annex 3, WMO Publication No. 904.
- 2) Daily work tables were constructed for the Meteorological Watch Office and Meteorological Forecasting Office in Cracow, and for Aeronautical Meteorological Stations. These tables describe the average time it takes to produce various aeronautical meteorological products in specific classes in the consecutive hours of the day, in different organizational units.
- 3) On the base of obtaining percentage of product workload, partial product cost has been calculated which is a product of the following elements:
 - Number of posts;
 - Labour consumption of the products;
 - Annual amount of salaries per post.

The term workload is understood as the amount of work needed or used for the implementation and monitoring of a single product that is expressed as a percentage of working time to the entire time.

- 4) Cost share of other groups (service, AWOS, materials, external services, delegations, telecommunications, SADIS, trainings, rentals, infrastructure, depreciation, cost of capital) has been established - on the basis of dedicated work at each cost group to manufacture the product. This share has been added to the cost of each product. In this way, an annual cost of developing each of the products ordered by PANSA has been achieved. The sum of the individual products gives us an annual cost of MET services to civil aviation.

III. Radom Meteo

For details on cost allocation see point c).

IV. Warmia i Mazury

For details on cost allocation see point c).

V. PL Bydgoszcz

For details on cost allocation see point c).

VI. CAA (including EUROCONTROL)

Not applicable.

En-route Charging Zone Poland
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f) For each entity, description of the composition of each item of the determined costs by nature and by service (points 1 and 2 of Table 1), including a description of the main factors explaining the planned variations over the reference period;

The costs allocated to each item of the determined costs by nature and by service for each of the entities are allocated in line with the Regulation 2019/317. Below more detailed information is presented for each of the entities. Please note that macroeconomic situation in Poland has changed what has an impact on the level of planned costs by entities (for more information please see PP RP3 point 1.1.4.).

I. PANSA

Determined costs by nature and by service

Entity: PANSA	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Staff costs cover gross remuneration, overtime payments and other ancillary benefits including jubilee awards and bonuses, PANSA contributions to social security scheme, including pension contributions, as well as provisions related to staff costs. Staff costs do not include the costs of training, which are disclosed under other operating costs. The main drivers for 2020-2021 cost evolution are: – implementation of cost containment measures in the area of base salaries due to the lack of the main source of income (ANS charges) – applicable to 2021; – reduction of all other remuneration components (overtime, bonuses, awards, allowances etc.) related to the extraordinary financial circumstances, reduced workload and use of furloughs/downtime – applicable to 2020-2021, – use of COVID-related state care allowance for small kids by some employees during lockdown and related school closure – applicable to 2020-2021, – temporary suspension/reduction of some contribution to social insurance scheme – applicable to 2020. The 2021 staff costs are also impacted by measures implemented by PANSA in terms of staff costs following the COVID-19 crisis outbreak as well as one-off costs that are necessary to allow for limiting cost increases for 2022+. The 2021 cost increase is related to additional obligations of the Agency towards its employees following from measures undertaken and planned to be undertaken, including those resulting from reduction of basic salaries and use of furloughs/downtime, employment optimisation, implementation of new rules of remuneration. To enable meeting the cost trend aligned with Union-wide trend for RP3 and to avoid significant increase in staff costs after RP3, changes to staff remunerations are necessary – limiting the 2022+ costs to values enabling meeting the required cost profile results in the need to incur one-off costs in 2021. Those one-off costs consider, among others, the main elements: – costs related to compensations for employees who will not accept the new salary levels and related costs stemming from the need to employ new employees to replace those leaving, – costs related to potential court cases initiated by some employees following contract termination by the employer, – one-off costs related to changes in remuneration of some employees resulting from Labour Law provisions (under which during the transitional period employees can benefit from both, old and new provisions of rules of remuneration to the extent that these are more favourable to them). The main assumptions for 2022-2024 planned cost evolution include: partly restoration of basic salaries following the 2021 cuts indicated above , restoration of other remuneration components where needed/justified, increase in employment (especially in the CNS and IT areas, implementation of projects as well as ATCOs) due to i.a. infrastructure and systems development as well as planned operational developments.
of which, pension costs	These include PANSA contributions to national pension scheme (applicable to all entities in Poland) as well as additional PANSA occupational pension scheme applicable to PANSA employees (Defined Contribution Scheme). Pension contributions were assumed at the current level. In percentage: 1) for the state scheme: 9.76% - pension contribution rate; 6.5% - disability pension contribution rate and 1.5% - bridging pension contribution rate for employees employed in special conditions, 2) for PANSA occupational scheme: 7%.

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	For the state scheme the costs assume the annual limit of basis for the contributions to state pension insurance applicable for 2021 in the amount of 157 770 PLN, which in subsequent years was increased by forecasted inflation (the limit is verified on annual basis by the state taking into account the level of monthly average salary in the Polish economy). 2020 pension costs are impacted by the temporary suspension of contribution to PANSAs occupational scheme.
1.2 Other operating costs	The other operating costs were estimated according to the best knowledge regarding signed agreements with subcontractors, short term needs related to ensuring services continuity as well as savings and optimization of costs necessitated by COVID-19 situation. The level of costs also takes into account cost of training. The main drivers for 2020-2021 cost evolution are: – restrictions connected with COVID-19 pandemic, which have temporary impact on the level of such costs as travel, trainings, energy and utilities (remote work), events etc., – measures aimed at maintaining liquidity, consisting in temporary reduction of some expenditures or postponement of these – where possible, including also CAPEX optimization (impacting costs related to new investments – incl. preparatory works, implementation and maintenance of infrastructure and systems, as well as costs related to repair services and other – incl. security, cleaning and maintenance services – needed to maintain PANSAs Property Plant and Equipment at the level ensuring undistorted operations). The main assumptions for 2022-2024 planned cost evolution include: – execution of projects aimed at ensuring services continuity and improving provision of ATM/ANS in FIR Warszawa and cross-border cooperation, considering also the need to improve resilience and digitalization of services. These include both investment tasks as foreseen in the verified CAPEX plan (where planned investments have impact on costs related to preparatory works, implementation and maintenance of infrastructure and systems) and projects planned to be executed as OPEX, – restoration to normal operations where it is no longer possible to reduce or postpone activities and related costs, and where due account must be taken of increase in prices of energy, minimum wage (impacting costs of external services) and tax liabilities (also resulting from execution of investment tasks mentioned above). Following talks between NSA and the European Commission on the treatment of costs related to non-contractual use of land, costs related to accounting provisions on these claims are not included in the revised RP3 determined costs. In accordance with the outcome of the discussions with the EC, these will be reported as cost-exempt once the final amounts to be paid by PANSAs are established and subject to payment and will be recovered accordingly.
1.3 Depreciation	The depreciation cost covers both, continued depreciation of assets existing before RP3 as well as depreciation on new assets, which were/will be put into operation over 2020-2024. It includes depreciation of fixed assets and intangible assets. Historic cost accounting is applied. The level of depreciation cost is impacted by investments executed before the COVID pandemic (up to 1Q 2020), limited investments carried out during 2020-2021, which are necessary to ensure service continuity, are required by regulatory framework or are subject to agreements signed with contractors and investments planned for the following years of RP3. Following the outbreak of the pandemic, in 2020 PANSAs has undertaken a complete review of CAPEX plan for the whole RP3 and beyond. The aim was on the one hand to look for possible savings in the level of expenditures, especially for the period 2020-2021, including possible postponement of projects (financial dimension of the review), and on the other to again validate the projects from the perspective of current operational needs and expected benefits, also in the light of expected changes to traffic levels (operational perspective of the review). As a result of that review, some investments were cancelled/suspended, and many were postponed. Further review was undertaken in 2021 and led to some additional refinements in RP3 CAPEX plan, taking also into account actual execution of CAPEX over 2020 and early 2021. The reviewed investment plan includes both, replacement and development needs. New investments shall enable modernization and development of the Air Traffic Management infrastructure and systems (including implementation of new ATM system – iTEC and infrastructure needed for that), aimed at improving resilience of the ATM/ANS, to support cross-border cooperation and support digitalization of services.

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1.4 Cost of capital	The evolution of the level of cost of capital over RP3 is related to increasing value of asset base, especially fixed assets, what is the consequence of implementation of the revised RP3 investment plan. For further details on the cost of capital calculation – see point i) below.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	The evolution of ATM costs is related to personnel costs (see section 1.1), both operational, supporting and back office staff. In addition, PANSa has updated the valuation of activities resulting from structural changes to improve the functioning of PANSa areas. Moreover, ATM costs evolution results from cost of investments. For the investment costs – these are mostly investments in modernisation/development of the ATM systems, including upgrade of the currently used Pegasus_21 system, which is needed to accommodate changes in the Polish airspace and enable cross-border FRA operations and data exchange until the time when the new, modern iTEC system will be installed. With regard to staff costs the increase corresponds to planned slight increase in ATCO numbers needed to support development of PL airspace and meet capacity targets (both, during RP3 and beyond RP3) as well as to non-ATCO staff maintaining and developing the ATM systems.
2.2 Communication	Evolution of the costs is impacted by development of communication ground stations dedicated to ACC required for airspace development, including three layer vertical split. These entail increase in the related other operating costs – including energy, rental of land, security etc. Moreover, these costs are subject to slight fluctuations reflecting changes in employee costs.
2.3 Navigation	Plan assumes replacements of a number of ER Nav aids and development of Nav aids network in line with RNP navigation. Similarly as for COM above, changes in navigation costs are caused by changes in staff costs.
2.4 Surveillance	The increase in costs is due to investments in radars/MLAT. These investments entail increase in related other operating costs.
2.5 Search and rescue	The evolution of SAR costs is related to operational and supporting staff personnel costs (see section 1.1). In addition, in 2021 PANSa implemented structural changes to improve internal processes and functioning of all areas, what resulted in updated valuation of some activities and had an impact on division of some costs by service.
2.6 Aeronautical Information	In recent years due to implementation of POLFRA (free route airspace), the design of airways (which affect the costs of en-route navigation) has been abandoned. At the same time increase in workload dedicated to terminal area is visible due to development and deployment of new or modified procedures, such as: departure procedures (SID), arrival procedures (STAR), RNAV, RNP procedures. It is caused by developments of PL airports and also by putting in place or replacing old navigation aids. Another important issue is the increasing number of obstacles around airports (e.g. cranes, buildings), which makes it necessary to check the procedures in terms of safety. Due to the development of airports in Poland as well as changes in the airspace in the vicinity of airports, publications and procedures created for airports have an increasing share in these activities. This causes changes (decrease) in the amount of costs for en-route navigation.
2.7 Meteorological services	Not applicable.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Not applicable.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: PANSa
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
Information on pension costs assumptions is provided above in point f) and in the revised RP3 performance plan (item 3.4.3).

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II. IMWM

Determined costs by nature and by service

Entity: IMWM	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	The increase in personnel costs is related to the increase in wages in IMWM and the increase in the average wage in the country. In March 2020 we introduced IMWN Collective Labor Agreement that regulates wages in IMWM.
of which, pension costs	The methodology of calculating pension and pension contributions paid by the employer for employees at IMWM is based on suitable articles of the Act on the social insurance system of 13th October 1998. The sum total of the pension and pension contribution paid by the employer is 9.76% plus 6.5% equal to 16.26% of the contribution basis.
1.2 Other operating costs	The increase in operating costs is dictated by the increase in the amount related to the lease of AWOS systems not owned by IMWM (EPWA, EPPO, EPLB, EPZG, EPMO). Assumptions that were adopted for the RP2 period did not provide for real costs incurred by the Institute in this respect. In addition, the assumptions related to the service of systems owned by IMWM were verified, which also resulted in increased operating costs. Operating expenses were also increased due to the need to adapt the IMWM infrastructure to the standards imposed by Eurocontrol and EASA in the field of data exchange, including adaptation to SWIM information exchange standards. Another element is the introduction of new products and tools supporting the work of forecasters and tools supporting the work of PANSA ATC / Vento, MeteoFlight . Also a number of IT activities for the meteorological services were also carried out: consolidation of the IT environment (mainly in relation to servers), construction of a backup node for transmission and processing environments and data storage, replacement and supplementation of network equipment, development of monitoring tools and tools for measuring parameters of applications, servers and ICT network, maintenance of the incident management system, expansion of configuration management systems, development and maintenance of the business continuity management system, replacement (reconstruction) of computers functioning as workstations, development and migration from the tools used so far as well as operational implementation of the acquisition and distribution system with operational and historical databases, analysis of the use and analysis of the functionality of the software used by meteorological services- process from aeronautical meteorological stations level to the level of forecasting offices, purchase of infrastructure elements dedicated to the needs of projects and tasks carried out as part of the meteorological services, modernization of AWOS and ICEALERT systems in order to increase reliability and reduce the number of single points of failure, changes in the connections of the AWOS system with the infrastructure of airports and the Polish Air Navigation Services Agency (PANSA) in order to increase reliability.
1.3 Depreciation	Subsequent years of operation of the AWOS systems purchased in 2016 and other fixed assets purchased.
1.4 Cost of capital	Subsequent years of operation of the AWOS systems purchased in 2016 and other fixed assets purchased.
1.5 Exceptional items	n/a
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	n/a
2.2 Communication	n/a
2.3 Navigation	n/a
2.4 Surveillance	n/a
2.5 Search and rescue	n/a
2.6 Aeronautical Information	n/a
2.7 Meteorological services	Please see explanation above (1.1-1.5)
2.8 Supervision costs	n/a
2.9 Other State costs	n/a
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
n/a	

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Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: IMWM
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
See point 1.1 of the chart.

III. Radom Meteo

Determined costs by nature and by service

Entity: Radom Meteo	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Radom Meteo in 2019 and 2020 has minimized the staff costs by largely reducing the working time of employees, to the levels necessary to fulfil the obligations of ANSP certificate, designation and employees' requirements to maintain their authorities to perform MET services. From 2023, the staff costs are expected to significantly rise, also comparing to RP2, as the MET services are planned to be delivered 24 hours a day as EPRA is planned to become an important airport devoted to handling the Warsaw's traffic.
of which, pension costs	Pension costs are planned to rise in the later years of RP3 as a consequence of the increase in employment and changes in legal form of cooperation with employees to the form of contracts that include social security expenses.
1.2 Other operating costs	Radom Meteo has reached agreements for the years 2020-2022 with lots of contractors which have resulted in minimalization of the costs incurred for the time of EPRA closure. From 2023, due to the plans of EPRA modernization and its significant growth in terms of level of handled traffic, lots of MET investments are planned to be performed, which will eventually result in higher level of costs due to its maintenance and utilities. Also, the values of contracts with the external counterparties are planned to rise to the levels from before the EPRA closure as the temporary agreements, mentioned above, will reach their end.
1.3 Depreciation	Depreciation of the old equipment, which is constantly in use, will end in 2022. At the beginning of 2023, new important investments, such as AWOS modernization equipment and climatological software are planned to be purchased, which will generate the significant depreciation costs for further years. The investments are necessary to bring the EPRA airport category to a higher level.
1.4 Cost of capital	The COVID-19 pandemic and changes in navigation charges distribution system at national level have made the level of cost of capital incurred not neglectable anymore. The determined WACC values are based on the recommendation of PRB (for details see point j))
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	All costs are related to this activity. Please see explanation above (1.1-1.5).
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Radom Meteo follows the rules of Polish Accounting Act. Full compliance with the IFR Standards is not possible at this stage, nevertheless Radom Meteo is aware its obligation to achieve such compliance to the maximum possible extent.	

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Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: Radom Meteo
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
As stated in point 1.1. of the table above. No changes are expected.

IV. Warmia i Mazury

Determined costs by nature and by service

Entity: <Warmia i Mazury>	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	The MET costs YoY evolution is marginal and depend mainly on forecasted inflation rates. The costs have risen comparing to RP2 due to AWOS upgrade to category II in last years of RP2 which resulted in higher maintenance, data and personnel costs. The pension costs are proportionate to staff costs.
of which, pension costs	
1.2 Other operating costs	
1.3 Depreciation	
1.4 Cost of capital	
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	The MET costs YoY evolution is marginal and depend mainly on forecasted inflation rates.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Warmia i Mazury follows the rules of Polish Accounting Act. It is not possible to provide full compliance with the IFRS, though the compliance with IFRS is currently at the maximum possible extent.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: <Warmia i Mazury>
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
Warmia i Mazury does not foresee any changes in law which may have an impact on pension costs in RP3.

V. PL Bydgoszcz

Determined costs by nature and by service

Entity: PL Bydgoszcz	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Costs in 2020 are lower than in years 2021-2024 due to the airport's closure for several weeks due to COVID-19 pandemic and ability to lower staff costs, stemming from the so called 'Shield' programme. The wages in next years are rising as a compensation for current and forecasted in near future high inflation rates and due to the increase of experience of employees in order to prevent the key personnel from leaving the company.
of which, pension costs	The pension costs consist of social security expenses and are strictly connected with staff costs growth.

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1.2 Other operating costs	Majority of other operating costs is planned for maintenance of the AWOS system, insurance, consulting services, training, business trips, utilities, external services such as IT support and maintenance. What is more, some of PL Bydgoszcz's personnel has been contracted as external counterparties what also has a significant impact on the final cost values.
1.3 Depreciation	Depreciation of assets is maintaining the similar level over RP3. The main cost-driver is depreciation of AWOS system and MET software.
1.4 Cost of capital	Costs of capital is falling YoY as the net book value of assets is declining due to its depreciation.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	All costs are related to this activity. For details see points 1.1-1.5 above.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
PL Bydgoszcz accounting policy is basing on the rules of Polish Accounting Act. It is not possible to provide full compliance with the IFR Standards, though PL Bydgoszcz is struggling to achieve coherence with IFRS at the maximum possible extent.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: PL Bydgoszcz
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
No changes in law having an impact on pension costs in RP3 are expected. For details, see point 1.1. in table above.

VI. CAA (including EUROCONTROL)

Determined costs by nature and by service

Entity: CAA (including EUROCONTROL)	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Among others – costs of: remuneration, pension contributions, bonuses.
of which, pension costs	Pension contributions covering the 9.76% and 6.5% parts of wages (national pension scheme).
1.2 Other operating costs	Among others – costs of: materials, energy, utilities, business travels, furniture, renovation, trainings, rent + EUROCONTROL costs.
1.3 Depreciation	Not applicable.
1.4 Cost of capital	Not applicable.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	Not applicable.
2.8 Supervision costs	The growth of CAA costs in RP3 comparing to RP2 results from the planned rise of wages stemming from the government budget and the increase of obligations and task performed by the CAA in the field of air navigation service.
2.9 Other State costs	Includes EUROCONTROL costs, which are out of control for PL.

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Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008
The CAA, as a national budgetary unit financed from state budget, is obliged to follow accounting regulations applicable to national administration bodies. As a consequence, the CAA does not apply IAS but follows national regulations regarding budgetary units which are based on cash accounting rules.

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: CAA (including EUROCONTROL)
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
The assumptions were based on the currently functioning national pension scheme. It is not expected to face any major changes over RP3.

g) For each entity, a description and justification of the method adopted for the calculation of depreciation costs (point 1.3 of Table 1): historical costs or current costs referred to in the fourth subparagraph of Article 22(4), and, where current cost accounting is used, provision of comparable historical cost data;

I. PANSA

In compliance with the Accounting Policy, historical cost accounting method is applied for the calculation of the depreciation costs. Depreciation is provided using the straight-line method over the estimated economic useful lives of the assets. The depreciation periods applied by PANSA remain unchanged as compared to previous reference periods. The economic useful life is periodically reviewed to ensure that depreciation periods are consistent with the expected pattern of economic benefits from items property, plant and equipment.

With regard to investments co-financed by the public funds, including EU Cohesion Fund and the Connecting Europe Facility fund, the full amount of depreciation costs is included in the determined costs. At the same time the subsidies are taken into account as other revenue – the calculation of other revenues fully follows provisions of article 25.3 of Regulation 2019/317 – see also point f) in the Additional Information to Table 2 below.

II. IMWM

Depreciation of appliances is always calculated from the next month after the takeover is completed. This calculation is done in accordance with expected operating life – in line with the operating life for the specific type of fixed assets as described in the 'Principles for establishing the cost-base for en-route charges and the calculation of the unit rates' - using the straight-line method and refers to historic cost of fixed assets depreciated and intangible and legal assets.

To calculate cost of capital the following pattern is used in the IMWM:

Cost of capital = (Average net value of fixed assets and possible adjustments of all assets determined by national regulatory body, currently operationally exploited or built, used by an institution serving air navigation + average net value of current assets, excluding interests, necessary for air navigation service) x weighted average of debt interest rate and of return on equity.

IMWM follows EUROCONTROL Principles according to which only these assets can be calculated within the equity which operating period is expected to begin before the end of the year for which the cost calculation is made.

IMWM					
Equivalent in historic cost accounting					
	2020	2021	2022	2023	2024
Investment costs (in nominal terms in '000 national currency)					
1.3 Depreciation	863	861	966	1 116	1 595
1.4 Cost of capital	354	387	153	209	199
Average asset base					
3.1 Net book val. fixed assets	3 911	3 917	3 312	2 939	2 353

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3.2 Adjustments total assets	0	0	0	0	0
3.3 Net current assets	7 708	8 201	2 372	3 865	3 728
3.4 Total asset base	11 619	12 119	5 684	6 804	6 081
Cost of capital %					
3.5 Cost of capital pre tax rate	3,05%	3,19%	2,69%	3,07%	3,28%
3.6 Return on equity	4,00%	4,00%	4,00%	4,00%	4,00%
3.7 Average interest on debts	1,34%	1,40%	1,40%	1,40%	1,40%
3.8 Share of financing through equity	64,29%	68,85%	49,62%	64,23%	72,31%

III. Radom Meteo

Radom Meteo uses the historical costs methodology for the calculation of depreciation costs. No assets revaluation has been included or is planned to be performed in the scope of RP3.

IV. Warmia I Mazury

Warmia i Mazury uses the historical costs methodology, therefore there is no need for additional information concerning comparable data on depreciation costs.

V. PL Bydgoszcz

PL Bydgoszcz uses the historical costs methodology for the calculation of depreciation costs. No assets revaluation has been included or is planned to be performed in the scope of RP3.

VI. CAA (including EUROCONTROL)

Not applicable.

h) For each entity, description and underlying assumptions of each item of complementary information (point 3 of Table 1), including a description of the main factors explaining the variations over the reference period;

I. PANSA

PANSA	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	Cost of capital is calculated taking into account average value of the intangible assets and the tangibles assets as well as WACC rate (see item i) below).
3.12 Cost of leasing	For the purpose of establishing cost bases for RP3 PANSA follows EC recommendations and presents lease payments under other operating costs. It should be emphasized that depreciation charge for the leased assets, interest expenses on a lease liability (as a consequence of IFRS 16 implementation) as well as right-of-use of leased assets are not included in determined costs (neither as depreciation nor as cost of capital).

II. IMWM

IMWM	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) and g) above
3.11 Cost of capital	Covered in item f), g) and i) above
3.12 Cost of leasing	n/a

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III. Radom Meteo

<Radom Meteo>	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above.
3.11 Cost of capital	Radom Meteo has not included in cost bases in RP2 the incurred cost of capital as its level were neglectable. Details of its evolution in RP3 are covered in item f) above.
3.12 Cost of leasing	The cost of leasing is not planned in RP3 and were not incurred in RP2.

IV. Warmia i Mazury

<Warmia i Mazury>	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	Cost of capital related to new and existing investments is a product of the forecasted values of NBV fixed assets and WACC.
3.12 Cost of leasing	Not applicable.

V. PL Bydgoszcz

<PL Bydgoszcz>	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above.
3.11 Cost of capital	The values of cost of capital stemming from new and existing investments are the product of the forecasted WACC and net book value of fixed assets.
3.12 Cost of leasing	Not applicable to PL Bydgoszcz.

VI. CAA (including EUROCONTROL)

CAA (including EUROCONTROL)	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Not applicable.
3.11 Cost of capital	Not applicable.
3.12 Cost of leasing	Not applicable.

Eurocontrol costs	
3.13 Eurocontrol costs (Euro)	The attributable part to PL of EUROCONTROL costs has been implemented into Poland's cost base together with costs of CAA. The amounts are consistent with the document EUROCONTROL 2022-2026 forecast revised cost-base sent on 21 st May 2021.
3.14 Exchange rate (if applicable)	The exchange rates for RP3 are consistent with the Polish Government recommendations for macroeconomic assumptions (document updated in April 2020) and is equal to 4.45 PLN/EUR for 2021-2024

i) For each entity, description of the assumptions used to compute the cost of capital (point 1.4 of Table 1), including the composition of the asset base, the return on equity, the average interest on debts and the shares of financing of the asset base through debt and equity;

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I. PANSA

PANSA	
Average asset base	
3.1 NBV fixed assets	The average net book value of fixed assets for en-route services provision is calculated taking into account the intangible assets and the tangible assets (in operation and under construction). It should be emphasized that leased assets are excluded from average asset base calculation. The average considers level of fixed assets at the beginning and at the end of each year.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	The value of net current assets is calculated taking into account approach recommended by CRCO when auditing PANSA's cost base in 2010 and applied since then, which is also consistent with EUROCONTROL Principles. It assumes that only assets that are necessary to provide ANS are taken into account. Planned current assets required to provide air navigation services are calculated taking into consideration latest available (for the year preceding the calculation) credit period associated to the payment of invoices (credit from customers and credit suppliers and staff). It needs to be emphasized that as a result of the consultation process, the net current assets base for years 2022-2024 has been reduced due to application of shorter credit period associated to payments of en-route invoices (60 days). Methodology applied guarantees exclusion of interest bearing items.
Cost of capital %	
3.6 Return on equity	In order to properly reflect financial risk incurred when providing air navigation services PANSA applies CAPM methodology for establishing return on equity. Assumptions taken into account to determine RoE rate for RP3 under the current submission: Capital structure – hypothetical efficient capital structure assuming 60% debt financing over whole RP3. Corporate tax rate – 19%, Risk free rate % (nominal) - an average of the latest available yield of 10 years Polish government bonds rate reported by Eurostat is used (August 2021 publication for the period Feb-Jul 2021). After the consultation process PANSA took a good note of airspace users expectations and has decreased the risk free rate for years 2020-2024. Equity risk premium % (after tax) – 6.54% - an average of equity risk premium estimated for Poland by Damodaran (6.48% as per Jul 2020 submission) and Fernandez IESE Business School study (6.60% as per Mar 2020 submission). ERP estimated in such way applies for the whole RP3. Asset beta is 0.4. The asset beta is assumed taking into consideration estimates made by SDG for efficient cost of capital for RP2 (a range of 0.3 to 0.5). It is consistent with assumptions used for RP2 and initial RP3 PP dated Nov 2019 and reflects financial risk of running ANSP business. Equity beta for every single year of RP3 amounts to 0.89 and is a product of estimated asset beta, corporate tax rate and assumed hypothetical efficient capital structure described above.
3.7 Average interest on debts	Average interest on debts is calculated taking into account effective annual interest rates calculated based on the agreed operating credit facility and investment credit, both received from Bank Gospodarstwa Krajowego (BGK); average interest on debts calculation was performed taking into account costs already incurred till Jun 2021 and these forecasted to the end of repayment periods. It should be noted that PANSA as a public legal entity is obliged to use financial products offered by this state-owned bank (BGK) only.
3.8 Share of financing through equity	As recommended by SDG and expected by EC (exchanges during discussions on the initial RP3 PP dated Nov 2019) hypothetical efficient capital structure 60% through debt and 40% through equity was assumed for the whole RP3

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WACC calculation	2020	2021	2022	2023	2024
Capital structure (% equity)	40%	40%	40%	40%	40%
Capital structure (% debt)	60%	60%	60%	60%	60%
Corporate tax rate %	19%	19%	19%	19%	19%
Risk free rate % (nominal)	1,60%	1,60%	1,60%	1,60%	1,60%
Market rate (after tax)	8,14%	8,14%	8,14%	8,14%	8,14%
Market (equity) risk premium % (after tax)	6,54%	6,54%	6,54%	6,54%	6,54%
Asset beta	0,4	0,4	0,4	0,4	0,4
Debt beta	0	0	0	0	0
Equity beta	0,89	0,89	0,89	0,89	0,89
Return on Equity % (after tax)	7,39%	7,39%	7,39%	7,39%	7,39%
Return on Equity % (pre tax)	9,13%	9,13%	9,13%	9,13%	9,13%
Debt risk premium %	1,69%	1,82%	1,87%	1,93%	1,96%
Interest on debt % (pre tax)	3,29%	3,42%	3,47%	3,53%	3,56%
Interest on debt % (after tax)	2,66%	2,77%	2,81%	2,86%	2,89%
WACC % vanilla	4,93%	5,01%	5,04%	5,07%	5,10%
WACC % after tax	4,56%	4,62%	4,64%	4,67%	4,69%
WACC % (pre tax)	5,62%	5,70%	5,73%	5,77%	5,79%

II. IMWM

IMWM	
Average asset base	
3.1 NBV fixed assets	Average accounting net value of fixed assets was calculated on the basis of actually involved fixed assets, which serve meteorological services for civil aviation and on the basis of all planned purchases of fixed assets for above mentioned purposes.
3.2 Adjustments total assets	Not applicable.
	Average net value of working assets – <u>net working assets</u> - working assets excluding short-term liabilities; – <u>average net value of working assets</u> was calculated in the following way: – (net working assets at the beginning of the year + net working assets at the end of the year): 2; – Working assets are all amounts due on account of the agreement for meteorological services for ANS calculated at the end of financial year. Taking into account the fact that there is a monthly settlement cycle, at the end of the year stays only a December instalment, namely 1/12 part of the amount written in the agreement. Short-term liabilities - accepted at an average index level resulting from the division of short term liabilities by working assets.
3.3 Net current assets	
Cost of capital %	
3.6 Return on equity	Interest on equity for the years 2020-2024 - adopted at the level of 4% acc. interest rate presented in the performance plan for the reference period.
3.7 Average interest on debts	Interest on the loan to finance the purchase of AWOS systems in 2020 -1,34% and in the years 2021-2024 - 1,40%.
3.8 Share of financing through equity	Calculated as the ratio of equity to total capital employed.

III. Radom Meteo

<Radom Meteo>	
Average asset base	
3.1 NBV fixed assets	NBV of fixed assets was calculated as a average value of fixed assets between subsequent years, with respect of its depreciation.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	Net current assets were calculated as a difference between forecasted levels of current assets and liabilities.
Cost of capital %	
3.6 Return on equity	RoE was calculated basing on CAPM and PRB recommendations, including the risk-free rate based on the Poland's government bonds yields (Eurostat data),

**En-route Charging Zone Poland
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	capped beta factor at level 0.4 and county risk premium based on average of available A. Damodaran, Fernandez-IESE and Dimson-Marsh-Staunton values.
3.7 Average interest on debts	Not applicable as Radom Meteo does not foresee any financial liabilities in RP3.
3.8 Share of financing through equity	Equal to 100% as Radom Meteo does not foresee any financial liabilities in RP3.

IV. Warmia i Mazury

<Warmia i Mazury>	
Average asset base	
3.1 NBV fixed assets	The NBV of fixed assets was calculated basing on the sum of values of fixed assets less depreciation.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	Warmia i Mazury has taken into account the difference between the receivables and liabilities and their turnover ratios.
Cost of capital %	
3.6 Return on equity	Warmia i Mazury has taken into account the PRB recommendations. The RoE was calculate by using Capital Asset Pricing Model. Risk-free rate was based on the Poland's domestic long-term bonds' yield, while beta factor was capped and equal to 0.4, in line with PRB suggestions. There was no need for Hamada's equation application as forecasted debt is equal to 0. Risk premium values were based on the average of A. Damodaran and Fernandez-IESE calculations.
3.7 Average interest on debts	Not applicable as Warmia i Mazury has no external financing concerning MET services.
3.8 Share of financing through equity	The value is constant through RP3 and equal to 100%, see point 3.7 above.

V. PL Bydgoszcz

PL Bydgoszcz	
Average asset base	
3.1 NBV fixed assets	The net book value of fixed assets was calculated basing on monthly averages of fixed assets reduced by appropriate levels of depreciation.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	PL Bydgoszcz has calculated net current assets by diminishing the product of receivables and receivables turnover ratios by the product of non-financial liabilities and liabilities turnover ratios.
Cost of capital %	
3.6 Return on equity	PL Bydgoszcz's calculated RoE by following the PRB recommendations. The CAPM model was used to determine the proper values. The domestic long-term bonds' yield was used as a risk-free rate, together with capped beta equal to 0.4, which was further levered using Hamada's equation. As for risk premium, PL Bydgoszcz has used the average of calculations performed only by A. Damodaran and Fernandez-IESE as Dimson-Marsh-Staunton values were not publicly available.
3.7 Average interest on debts	PL Bydgoszcz has used the average interest on debts basing on relation of actual and planned interests and external capital used for funding the MET services.
3.8 Share of financing through equity	The share of financing through equity was based on the real proportions of debt and equity used to finance the provision of ANS.

VI. CAA (including EUROCONTROL)

Not applicable

**En-route Charging Zone Poland
Reference Period 3 (2020-2024)**

j) Description of the determined costs of common projects (point 3.9 of Table 1).

I. PANSA

The costs of common projects will include:

- cost of depreciation of existing and new planned assets,
- operating costs (travel costs, training, wages etc.) as presented in grant agreement,
- cost of capital.

Cost of capital is not eligible under grant agreements. However, it is part of determined costs under Regulation 2019/317.

PANSA					
Determined costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020	2021	2022	2023	2024
Local traffic complexity management AF4_	1 298	921	1 016	978	945
SWIM Common PKI and policies & procedures for establishing a Trust framework AF5	16	63	-	-	-
DLS European Target Solution assessment AF6	2	-	-	-	-
LAN network upgrade AF5	1 028	1 236	2 064	1 973	1 645
The ECG Communication System upgrade AF5	423	643	625	605	585
ATM System Upgrade Towards Free Route Airspace AF3	6 769	7 498	7 144	6 787	5 828
ITEC Tests, Validations and Planning (ITEC- TVP) AF3	609	4 531	13	-	-
NewPENS Stakeholders contribution for the procurement and deployment of NewPENS AF5	315	-	-	-	-
Deploy SWIM governance AF5	5	3	1	-	-
Implementation of data link services for the ATM in FIR Warsaw AF6	3 284	3 140	2 992	2 843	2 479
1 st part of the upgrade of the P_21 Pegasus system to SESAR functionalities – test and validation platform AF3	2 325	2 529	2 451	2 370	2 284
Total (Table 1 item 3.9)	16 074	20 564	16 306	15 555	13 766

II. IMWM

Not applicable.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VI. CAA (including EUROCONTROL)

Not applicable.

En-route Charging Zone Poland Reference Period 3 (2020-2024)

2. Actual costs and unit costs

a) For each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period;

As the local cost-efficiency performance targets for RP3 are currently subject to revision as part of the draft performance plans to be submitted by Member States to the Commission by 1 October 2021, in line with the exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627 of 3 November 2020), the monitoring of the 2020 actual performance is carried out against the 2019 actual performance. The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

I. PANSA

In the cost-efficiency area, the revised draft PL RP3 PP establishes also 2020 determined costs. Revised 2020 determined costs are equal to 2020 actual costs incurred by PANSA.

It should be noted that actual costs for the year 2020 included in the draft revised PL RP3 PP have been recalculated as compared to costs presented for the purpose of June 2021 submission. It led to slight increase in 2020 actual costs mainly due to exclusion of costs related to non-contractual use of land and revision of assumptions applied to cost of capital calculation (to ensure that cost of capital assumptions remain coherent over the whole RP3).

The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

RP3 Monitoring – Year 2020 vs. 2019	
PANSA	
1.1 Staff costs	The actual staff costs for 2020 are lower by 10.6% than 2019 costs mainly due to implementation of one-off cost containment measures taken in order to respond to traffic decrease and liquidity issues. Such decrease in staff costs is a result of temporary suspension of hiring new employees (including courses for ATCO), temporary suspension of contributions to the occupational pension scheme and group insurance, limited number of working hours on weekends and night hours, reduction of bonuses and rewards and overtimes as well as use of furloughs/downtime. All these drivers led to reduction of basic as well as non-obligatory remuneration components comparing to pre-pandemic period. Reduced 2020 costs are also linked to use of COVID-related state care allowance for small kids by some employees during lockdown and related school closure.
1.2 Other operating costs	The actual 2020 other operating cost are lower by 30.4% than in 2019 due to work reorganization (remote work), temporary business travelling restrictions as well as temporary training suspension and lower cost of accommodation (cancellation of new recruitments for ATCO courses, use of furloughs/downtime for current students) as well as cancellation of conferences, events etc. Extraordinary measures undertaken following COVID-19 crisis, including revision of investment plan, had impact on temporary change in the level of energy and materials consumption, level of taxes and charges as well as temporary reduction in use of external services and limitations in the provision of some air navigation services. Optimisation (including cancellation/postponement) of repair schedules where possible, using own staff for some repairs instead of external contractors led to temporary reductions in repair services costs. It should be noted that some unexpected costs related to purchase of additional materials and external services needed to minimise possible spreading of COVID among employees have been incurred in 2020.
1.3 Depreciation	A 9.9% increase in the level of depreciation costs in 2020 is mainly impacted by investments executed before the COVID pandemic especially in previous years and in 1Q 2020 and put into operation. Starting from the outbreak of the pandemic PANSA has

En-route Charging Zone Poland Reference Period 3 (2020-2024)

	undertaken a complete review of CAPEX plan looking for possible savings in the level of expenditures, especially for the rest of 2020. It should be noted that 2020 actual depreciation presented in the charges' reporting tables does not include effects of implementation of IFRS16 – costs related to leasing are still disclosed under other operating costs.
1.4 Cost of capital	A material increase in cost of capital comparing to 2019 is a result of different WACC rates applied in RP3 (including 2020) and 2019. It should be emphasized that the WACC for 2019 adopted in the revised RP2 PP was established artificially at the level not reflecting financial risk of running an ANSP business – the rate of 1.38% was much below the risk-free rate for Poland in 2019 (the justified level of WACC over RP2, as used in 2017-2018, was equal to 7.81%). The artificial lowering of the rate for 2019 was done solely in order to achieve negative ER DUC trend over RP2. Therefore the 2019 WACC rate and related cost of capital level cannot be considered as a reference point for any comparisons/analyses. 2020 actual WACC rate has been calculated taking into account updated CAPM assumptions reflecting financial risk of PANSA (as described above in point i). The increase in net current assets base is mainly the result of longer than in 2019 average credit period associated to the payment of en-route invoices.
1.5 Exceptional items	Not applicable.

II. IMWM

RP3 Monitoring – Year 2020 vs. 2019			
ANSP: IMWM	2019A	2020A	Difference 2020-2019
1.1 Staff costs	7 305	7 860	555
1.2 Other operating costs	21 126	20 846	-280
1.3 Depreciation	810	863	53
1.4 Cost of capital	144	354	210
1.5 Exceptional items	0	0	0

Analysis of the actual costs for 2020 compared to the actual costs of 2019. The increase in costs in 2020 compared to 2019 was influenced, among others, by:

- an increase in the inflation rate from 2.10% in 2019 to 3.70% in 2020, this translated into an increase in the costs of materials and services despite the introduced COVID-1 savings
- in March 2020, an agreement was signed to amend the IMWM Collective Labor Agreement, as a result of which wages at the IMWM-PIB were regulated and equalized
- continuation of the implementation of new products for PANSA in 2020 - development of a manual for the VENTO application
- in December 2019, investment purchases were made - sensors for AWOS systems and a truck were purchased for the AWOS system service team, which resulted in an increase in depreciation costs in 2020.
- the increase in the cost of capital resulted from the increase in receivables at the end of 2020. This was the result of an annex to the contract concluded with the Polish Air Navigation Services Agency, under which, due to the aviation situation related to COVID-19, the partial payment for 2020 was postponed in the amount of PLN 35.4 million until April 2021.

III. Radom Meteo

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: Radom Meteo	
1.1 Staff costs	Years 2019 and 2020 were dedicated to restructuring process due to EPRA airport closure. Because of that and because of the changes in cost allocation (for details see point 1. c)) and EPRA airport closure adjustments stemming from 2019 (for details see part 2 point k) and historical sets of RP2 reporting tables and additional information), it is impossible to reliably compare the 2019 and 2020 actuals.
1.2 Other operating costs	
1.3 Depreciation	
1.4 Cost of capital	In 2019, the cost of capital, due its neglectable values, was not presented in cost bases (for details see point 1. f))
1.5 Exceptional items	Not applicable.

**En-route Charging Zone Poland
Reference Period 3 (2020-2024)**

IV. Warmia i Mazury

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: Warmia i Mazury	
1.1 Staff costs	Not applicable to Warmia i Mazury. Although Warmia i Mazury was providing MET services in RP2, the whole costs were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2. For details on cost-evolution, please see TNC-OTHER Additional Information to Reporting Tables.

V. PL Bydgoszcz

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: PL Bydgoszcz	
1.1 Staff costs	Not applicable to PL Bydgoszcz as this ANSP has started providing services in SES in 2020.
1.2 Other operating costs	
1.3 Depreciation	
1.4 Cost of capital	
1.5 Exceptional items	

VI. CAA (including EUROCONTROL)

RP3 Monitoring – Year 2020 vs. 2019	
STATE/NSA: CAA PL	
1.1 Staff costs	The actual staff costs for 2020 are slightly higher than 2019 costs; it was mainly the result of the growth of CAA costs in RP3 comparing to RP2 results from the planned rise of wages stemming from the government budget and the increase of obligations and task performed by the CAA in the field of air navigation service. As far as other operating costs are concerned the actual 2020 are lower by 14.0% than in 2019 mainly due to reorganisation of work (remote work), temporary business travelling restrictions as well as temporary training suspension.
1.2 Other operating costs	
1.3 Depreciation	Not applicable
1.4 Cost of capital	Not applicable
1.5 Exceptional items	Not applicable

b) Description of the reported actual service units and a description of any differences between those units and the figures provided by the entity that is billing and collecting charges as well as any differences between those units and the forecast set in the performance plan, for each year of the reference period;

In 2020, air traffic and generated service units for ER were lower than planned in the initial PL RP3 PP dated Nov 2019 by 58% and lower by 57% than actual SU in 2019. This was the result of the SARS Cov2 pandemic, which caused significant restrictions on both business and leisure travel. Until the beginning of March 2020, traffic was increasing as compared to 2019A, but the pandemic led to extraordinary traffic drop since March 2020, which persisted over all the following months of 2020.

ER SU	2019	2020	Difference	Difference (%)
Draft PL RP3 PP Nov 2019 forecast		5 123 850		
Actual	4 971 806	2 145 811	-2 825 995	-56.8%
Difference		-2 978 039		
Difference (%)		-58.1%		

**En-route Charging Zone Poland
Reference Period 3 (2020-2024)**

c) Breakdown of the actual costs of common projects per individual project;

I. PANSA

PANSA					
Actual costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020				
Local traffic complexity management AF4	1 298				
SWIM Common PKI and policies & procedures for establishing a Trust framework AF5	16				
DLS European Target Solution assessment AF6	2				
LAN network upgrade AF5	1 028				
The ECG Communication System upgrade AF5	423				
ATM System Upgrade Towards Free Route Airspace AF3	6 769				
iTEC Tests, Validations and Planning (iTEC- TVP) AF3	609				
NewPENS Stakeholders contribution for the procurement and deployment of NewPENS AF5	315				
Deploy SWIM governance AF5	5				
Implementation of data link services for the ATM in FIR Warsaw AF6	3 284				
1 st part of the upgrade of the P_21 Pegasus system to SESAR functionalities – test and validation platform AF3	2 325				
Total	16 074				

II. IMWM

Not applicable.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VI. CAA (including EUROCONTROL)

Not applicable.

**En-route Charging Zone Poland
Reference Period 3 (2020-2024)**

d) Justification of the difference between the determined and the actual costs of new and existing investments of the air navigation service providers, as well as the difference between the planned and the actual date of entry into operation of the fixed assets financed by those investments for each year of the reference period;

In respect of calendar year 2020, this information was provided in the annual monitoring report (see section 4 of the Monitoring Report 2020 Poland RP3 (2020-2024)).

e) Description of the investment projects added, cancelled or replaced during the reference period with respect to the major investment projects identified in the performance plan, and approved by the national supervisory authority in accordance with Article 28(4).

In respect of calendar year 2020, this information was provided in the annual monitoring report (see section 4 of the Monitoring Report 2020 Poland RP3 (2020-2024)).

**En-route Charging Zone Poland
Reference Period 3 (2020-2024)**

ADDITIONAL INFORMATION TO REPORTING TABLES 2 – UNIT RATE CALCULATION

a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones;

There is only one en-route charging zone in Poland (FIR Warszawa).

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

According to national law (Article 130 (6) of Aviation Act of 3 July 2002) the following flights are exempted from air navigation charges (both en-route and terminal) in Poland:

- performed under Visual Flight Rules (VFR);
- mixed – where a part of the flight is performed under Visual Flight Rules (VFR) and the remaining part is performed under Instrument Flight Rules (IFR) – for the part of the flight performed in the Polish airspace exclusively under VFR rules;
- performed by aircraft of which the maximum take-off weight is less than 2 tons;
- performed exclusively for the transport, on an official mission, of the reigning monarch and his/her immediate family, head of state, head of government and government ministers; in all cases the flight purpose must be confirmed by the appropriate flight status indicator or remark on the flight plan;
- search and rescue, authorized by a competent SAR coordination body;
- military performed by Polish military aircraft or military aircraft of a country where flights performed by Polish military aircraft are exempted from the air navigation charges;
- performed for military purposes and exempted from charges, under international agreements ratified by Poland in statutory way;
- military performed by military aircraft under multinational NATO programmes, to which Poland is a contracting party, other than those mentioned above;
- flights performed by ANSP for the purpose of checking or testing equipment.

Costs of providing air navigation services to exempted flights are covered by the State budget – they are financed by the means of budgetary subsidy granted by the minister responsible for transport on the application of designated service provider.

I. PANSA

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2020.

	2020
Costs for exempted VFR flights	3 441
Costs for exempted IFR flights	7 837
Total costs for exempted flights	11 278

Costs items presented in '000 PLN

Costs planned in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2021.

	2021
Costs for exempted VFR flights	4 049

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Costs for exempted IFR flights	3 838 ²
Total costs for exempted flights	7 886

Costs items presented in '000 PLN

II. IMWM

Not applicable to Radom Meteo.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz

VI. CAA (including EUROCONTROL)

Not applicable.

c) Description of adjustments resulting from the traffic risk sharing mechanism in accordance with Article 27;

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(1) and (2))).

d) Description of the differences between determined costs and actual costs of year n as a result of the changes in costs referred to in Article 28(3) including description of the changes referred to in that Article;

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(3))).

e) Description of adjustments resulting from unforeseen changes in costs in accordance with Article 28(3) to (6);

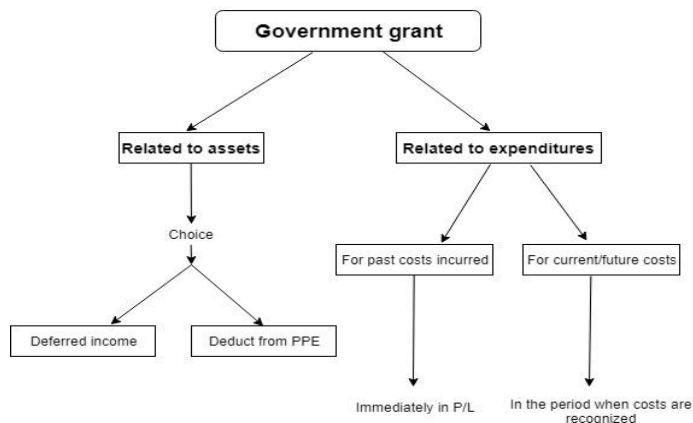
Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(3))).

f) Description of the other revenues, if any, broken down between the different categories indicated in Article 25(3);

² The number of exempted SU is based on historical share of exempted flights in total number of flights. However, considering 2020 annual actual figures, 2021 actual figures for the past months as well as the fact that COVID pandemic has a different impact on exempted flights (including State, MIL, etc.), actual cost of serving exempted flights in 2021 might be higher than presented here.

I. PANSA

As regards public funds obtained from public authorities including financial support from Union assistance programmes PANSA fully follows provisions of article 25.3 of Regulation 2019/317 and passes on to airspace users **revenues recognised** under IAS 20 framework. It assumes that **public funds obtained are recognised in profit or loss on a systematic basis over the period in which PANSA recognises as expenses the related costs for which public funds are intended to compensate.**



Under this submission PANSA:

- assumes that revenue obtained by PANSA from commercial activities are not deducted from determined costs,
- does not assume revenue from contracts/agreements concluded with airport operators.

II. IMWM

IMWM does not plan for the RP3 any additional income covering the costs of meteorological services for civil aviation, except for expected agreement between PANSA and IMWM, covering these costs. Also, IMWM does not provide the meteorological services for the military aviation and does not plan obtaining any income for such services in years 2020-2024. IMWM exchanges with the military services the results of aviation observations and forecasts, on the no-cost base. In this way the IMWM obtains (in no-cost way) the results of military aviation observations and forecasts, which are used by Institute to perform its services for the civil aviation.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VII. CAA (including EUROCONTROL)

Not applicable.

g) Description of the application of the financial incentive schemes referred to in Article 11(3) and 11(4) in year n and the resulting financial advantages and disadvantages; description and explanation of the modulation of air navigation charges applied in year n under Article 32 where applicable, and resulting adjustments;

En-route Charging Zone Poland Reference Period 3 (2020-2024)

Financial incentive schemes

The description and justification of the parameters of the incentive scheme defined in accordance with Article 11(3) and 11 (4) are provided in the body of the performance plan under item 5.2.

Modulation of charges

It is not planned to implement any modulation of charges in RP3.

The actual application and relating financial advantages and disadvantages for 2020 is not applicable (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 3 (3)).

h) Description of adjustments relating to the temporary application of a unit rate under Article 29(5);

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(4))).

It is assumed that the difference in revenues referred to in Article 29(5) of Regulation 2019/317 will be recovered over 5 years period.

i) Description of the cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of Regulation 550/2004;

The eligible costs were allocated between en-route and terminal charging zones by using appropriate allocation keys. The topic of the cost allocation was elaborated in the Part I of Additional information.

j) Information on the application of a lower unit rate under Article 29(6) than the unit rate calculated in accordance with Article 25(2) and the means to finance the difference in revenue;

Not applicable for this submission.

k) Information and breakdown of the adjustments relating to previous reference periods impacting the unit rate calculation;

I. PANSA

The process of the discussion between NSA and EC on the treatment of non-contractual use of land (Branicki case) as unforeseeable new cost items not covered in the performance plan but required by law has been ongoing since 2nd half of 2020. Lately, the subject was raised in bilateral discussions with EC held in course of May and June 2021. Consequently, the approach to be followed seems to be defined. The solution discussed would be applied through a one-off correction of the unit rate of calendar year 2023 leading to effective settlement with AUs of eligible (justified) amount of non-contractual use of land. This approach is reflected in the revised draft RP3 performance plan for Poland as -15 001 kPLN adjustment related to RP2 impacting 2023 unit rate.

It has been agreed with the EC that over RP3 future payments related to future rulings on compensation for non-contractual use of land will continue to be recognized as cost exempt once the final amounts to be paid by PANSA are established and subject to payment.

II. IMWM

En-route Charging Zone Poland Reference Period 3 (2020-2024)

III. Radom Meteo

The application of the inflation carry-overs from 2018 and 2019 resulted in 1.1 kPLN adjustment on 2020/2021 applicable unit rate.

The application of the traffic adjustment carry-overs from 2018 and 2019 resulted in -40.0 kPLN adjustment on 2020/2021 applicable unit rate.

The application of the other revenues carry-over stemming from the closure of EPRA airport in 2019 resulted in -144.5 kPLN adjustment on 2020/2021 applicable unit rate.

There are no other carry-overs from previous reference periods that have an impact on the unit rates neither in RP3 nor in later RPs.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury. Although Warmia i Mazury was providing MET services in RP2, the whole costs were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2. Therefore, all adjustments relating to previous reference periods impacting the unit rate calculation are included in TNC.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz, as this ANSP is providing services in SES since 2020 and has no carry-overs stemming from RP2.

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Reference Period 3 (2020-2024)**

**ADDITIONAL INFORMATION TO REPORTING TABLE 3 – COMPLEMENTARY INFORMATION
ON COMMON PROJECTS AND ON UNION ASSISTANCE PROGRAMME**

l) Information on the costs of common projects and other funded projects broken down per individual project, as well as of public funds obtained from public authorities for these projects.

Details of the cost of common projects can be found per individual project in Table 1 point 1j above and in table 4 of the reporting tables.

Table 4 includes complementary information on common projects and on revenues from both Union assistance programmes and national public funding allocated to the charging zone.

Polish Performance Plan
Third Reference Period (2020-2024)
Revision

Annex B.1.1 TNC EPWA Reporting Tables

Legend for the Check sheet									
PRAWDA	Cells highlighted in green indicate that the items checked are equal and different to 0								
PRAWDA	Cells highlighted in pale yellow indicate that the items entering the check are blank or 0								
FALSZ	Cells highlighted in red indicate that the items checked are not equal								
FALSZ	Cells highlighted in pale yellow indicate that one of the items entering the check is blank or 0								
#DIV/0	Cells highlighted in orange indicate formulae that resulted in error								
N/A	Cells highlighted in white with grey "N/A" indicate that the check is not applicable for the given combination of year and/or RP								
				Determined					
INFORMATION ON COSTS AND UNIT COSTS - TABLE 1			Rounding (dec. plcs)	2020	2021	2020/2021	2022	2023	2024
#	Item	Checks for Route TABLE 1 (consolidated)							
#001	4.2	Check that values in Table 1 Consolidated are sums of the same items across all the entities (in '000 NC) Total determined/actual costs (in '000 NC) Sum of Total determined/actual costs for all entities (in '000 NC)	3	PRAWDA 34 404,700 34 404,700	PRAWDA 49 980,391 49 980,391	PRAWDA 84 385,091 84 385,091	PRAWDA 49 497,770 49 497,770	PRAWDA 50 800,186 50 800,186	PRAWDA 53 304,943 53 304,943
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) Sum of items 1.1 to 1.5 (in '000 NC)	3	PRAWDA 34 404,700 34 404,700	PRAWDA 49 980,391 49 980,391	PRAWDA 84 385,091 84 385,091	PRAWDA 49 497,770 49 497,770	PRAWDA 50 800,186 50 800,186	PRAWDA 53 304,943 53 304,943
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) Sum of items 2.1 to 2.9 (in '000 NC)	3	PRAWDA 34 404,700 34 404,700	PRAWDA 49 980,391 49 980,391	PRAWDA 84 385,091 84 385,091	PRAWDA 49 497,770 49 497,770	PRAWDA 50 800,186 50 800,186	PRAWDA 53 304,943 53 304,943
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) Total costs by service (in '000 NC)	3	PRAWDA 34 404,700 34 404,700	PRAWDA 49 980,391 49 980,391	PRAWDA 84 385,091 84 385,091	PRAWDA 49 497,770 49 497,770	PRAWDA 50 800,186 50 800,186	PRAWDA 53 304,943 53 304,943
#100	5.1	Check that inflation rate is not negative Inflation rate	3	PRAWDA 3,70%	PRAWDA 3,20%		PRAWDA 2,52%	PRAWDA 2,53%	PRAWDA 2,50%
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA 745,38 745,38	PRAWDA 995,09 995,09	PRAWDA 873,76 873,76	PRAWDA 594,19 594,19	PRAWDA 467,71 467,71	PRAWDA 426,35 426,35
#063	4.2	Check total costs after deduction of costs for exempted VFR Total determined/actual costs(in '000 NC) Total costs by service deducted by Costs for exempted VFR flights (in '000 NC)	3	PRAWDA 34 404,700 34 404,700	PRAWDA 49 980,391 49 980,391	PRAWDA 84 385,091 84 385,091	PRAWDA 49 497,770 49 497,770	PRAWDA 50 800,186 50 800,186	PRAWDA 53 304,943 53 304,943
#067	4.2	Check the sum of costs by airports (in '000 NC) Total determined/actual costs in T1 Consolidated (in '000 NC) Sum of items 4.2 for all airports (in '000 NC)	3	PRAWDA 34 404,700 34 404,700	PRAWDA 49 980,391 49 980,391	PRAWDA 84 385,091 84 385,091	PRAWDA 49 497,770 49 497,770	PRAWDA 50 800,186 50 800,186	PRAWDA 53 304,943 53 304,943
#067_1.1	1.1	Check the sum of Staff costs by airports (in '000 NC) Staff costs in T1 Consolidated (in '000 NC) Sum of items 1.1 for all airports (in '000 NC)	3	PRAWDA 25 503,533 25 503,533	PRAWDA 35 007,075 35 007,075	PRAWDA 60 510,609 60 510,609	PRAWDA 32 587,583 32 587,583	PRAWDA 33 391,229 33 391,229	PRAWDA 34 675,562 34 675,562
#067_1.2	1.2	Check the sum of Other operating costs by airports (in '000 NC) Other operating costs in T1 Consolidated (in '000 NC) Sum of items 1.2 for all airports (in '000 NC)	3	PRAWDA 3 655,977 3 655,977	PRAWDA 8 213,977 8 213,977	PRAWDA 11 869,954 11 869,954	PRAWDA 9 476,094 9 476,094	PRAWDA 9 606,644 9 606,644	PRAWDA 9 751,843 9 751,843
#067_1.3	1.3	Check the sum of Depreciation by airports (in '000 NC) Depreciation in T1 Consolidated (in '000 NC) Sum of items 1.3 for all airports (in '000 NC)	3	PRAWDA 3 227,643 3 227,643	PRAWDA 4 171,057 4 171,057	PRAWDA 7 398,700 7 398,700	PRAWDA 4 540,734 4 540,734	PRAWDA 4 637,845 4 637,845	PRAWDA 5 173,621 5 173,621
#067_1.4	1.4	Check the sum of Cost of capital by airports (in '000 NC) Cost of capital in T1 Consolidated (in '000 NC) Sum of items 1.4 for all airports (in '000 NC)	3	PRAWDA 2 017,546 2 017,546	PRAWDA 2 588,282 2 588,282	PRAWDA 4 605,828 4 605,828	PRAWDA 2 893,359 2 893,359	PRAWDA 3 164,469 3 164,469	PRAWDA 3 703,917 3 703,917
#067_1.5	1.5	Check the sum of Exceptional Items by airports (in '000 NC) Exceptional items in T1 Consolidated (in '000 NC) Sum of items 1.5 for all airports (in '000 NC)	3	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000
#067_2.1	2.1	Check the sum of Air Traffic Management by airports (in '000 NC) Air Traffic Management in T1 Consolidated (in '000 NC) Sum of items 2.1 for all airports (in '000 NC)	3	PRAWDA 25 892,474 25 892,474	PRAWDA 36 119,982 36 119,982	PRAWDA 62 012,456 62 012,456	PRAWDA 34 348,778 34 348,778	PRAWDA 35 843,556 35 843,556	PRAWDA 37 098,700 37 098,700
#067_2.2	2.2	Check the sum of Communication by airports (in '000 NC) Communication in T1 Consolidated (in '000 NC) Sum of items 2.2 for all airports (in '000 NC)	3	PRAWDA 592,757 592,757	PRAWDA 853,350 853,350	PRAWDA 1 446,107 1 446,107	PRAWDA 841,590 841,590	PRAWDA 858,659 858,659	PRAWDA 880,683 880,683
#067_2.3	2.3	Check the sum of Navigation by airports (in '000 NC) Navigation in T1 Consolidated (in '000 NC) Sum of items 2.3 for all airports (in '000 NC)	3	PRAWDA 1 271,981 1 271,981	PRAWDA 1 686,860 1 686,860	PRAWDA 2 958,841 2 958,841	PRAWDA 1 588,813 1 588,813	PRAWDA 1 623,550 1 623,550	PRAWDA 1 612,787 1 612,787
#067_2.4	2.4	Check the sum of Surveillance by airports (in '000 NC) Surveillance in T1 Consolidated (in '000 NC) Sum of items 2.4 for all airports (in '000 NC)	3	PRAWDA 2 628,971 2 628,971	PRAWDA 4 126,750 4 126,750	PRAWDA 6 755,720 6 755,720	PRAWDA 5 144,394 5 144,394	PRAWDA 4 488,032 4 488,032	PRAWDA 5 421,483 5 421,483
#067_2.5	2.5	Check the sum of Search and Rescue by airports (in '000 NC) Search and Rescue in T1 Consolidated (in '000 NC) Sum of items 2.5 for all airports (in '000 NC)	3	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000
#067_2.6	2.6	Check the sum of Aeronautical Information by airports (in '000 NC) Aeronautical Information in T1 Consolidated (in '000 NC) Sum of items 2.6 for all airports (in '000 NC)	3	PRAWDA 1 330,183 1 330,183	PRAWDA 4 416,565 4 416,565	PRAWDA 5 746,748 5 746,748	PRAWDA 4 773,144 4 773,144	PRAWDA 5 134,742 5 134,742	PRAWDA 5 363,419 5 363,419
#067_2.7	2.7	Check the sum of Meteorological services by airports (in '000 NC) Meteorological services in T1 Consolidated (in '000 NC) Sum of items 2.7 for all airports (in '000 NC)	3	PRAWDA 1 682,215 1 682,215	PRAWDA 1 740,715 1 740,715	PRAWDA 3 422,930 3 422,930	PRAWDA 1 727,355 1 727,355	PRAWDA 1 746,894 1 746,894	PRAWDA 1 791,160 1 791,160
#067_2.8	2.8	Check the sum of Supervision costs by airports (in '000 NC) Supervision costs in T1 Consolidated (in '000 NC) Sum of items 2.8 for all airports (in '000 NC)	3	PRAWDA 1 006,119 1 006,119	PRAWDA 1 036,169 1 036,169	PRAWDA 2 042,288 2 042,288	PRAWDA 1 073,696 1 073,696	PRAWDA 1 104,754 1 104,754	PRAWDA 1 136,710 1 136,710
#067_2.9	2.9	Check the sum of Other State costs by airports (in '000 NC) Other State costs in T1 Consolidated (in '000 NC) Sum of items 2.9 for all airports (in '000 NC)	3	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000
#067b	5.3	Check the sum of costs by airports (in '000 NC) Total costs in real terms in T1 Consolidated (in '000 NC) Sum of items 5.3 for all airports (in '000 NC)	3	PRAWDA 32 526,489 32 526,489	PRAWDA 45 943,819 45 943,819	PRAWDA 78 470,308 78 470,308	PRAWDA 44 664,036 44 664,036	PRAWDA 44 947,408 44 947,408	PRAWDA 46 348,556 46 348,556
#	Item	Checks for Route Table 1 ANSP							
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 31 716,367 31 716,367	PRAWDA 47 203,507 47 203,507	PRAWDA 78 919,873 78 919,873	PRAWDA 46 696,720 46 696,720	PRAWDA 47 948,539 47 948,539	PRAWDA 50 377,072 50 377,072
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 31 716,367 31 716,367	PRAWDA 47 203,507 47 203,507	PRAWDA 78 919,873 78 919,873	PRAWDA 46 696,720 46 696,720	PRAWDA 47 948,539 47 948,539	PRAWDA 50 377,072 50 377,072
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 31 716,367 31 716,367	PRAWDA 47 203,507 47 203,507	PRAWDA 78 919,873 78 919,873	PRAWDA 46 696,720 46 696,720	PRAWDA 47 948,539 47 948,539	PRAWDA 50 377,072 50 377,072
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA 1 966,593	PRAWDA 4 122,868	PRAWDA 6 089,460	PRAWDA 4 209,357	PRAWDA 4 289,100	PRAWDA 4 439,420
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA 29 950,382 29 950,382	PRAWDA 43 333,499 43 333,499	PRAWDA 73 283,881 73 283,881	PRAWDA 42 066,683 42 066,683	PRAWDA 42 339,815 42 339,815	PRAWDA 43 708,507 43 708,507
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (ANSP) - Note: (check sum for combined year 2020-2021) Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		PRAWDA 43,637 43,637	PRAWDA 46,170 46,170	PRAWDA 89,808 89,808	PRAWDA 75,168 75,168	PRAWDA 96,102 96,102	PRAWDA 108,711 108,711
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA 686,35 686,35	PRAWDA 938,56 938,56	PRAWDA 816,01 816,01	PRAWDA 559,63 559,63	PRAWDA 440,57 440,57	PRAWDA 402,06 402,06
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) Inflation rate (%) (ANSP) Inflation rate (%) (Consolidated)		PRAWDA 3,70%	PRAWDA 3,20%		PRAWDA 2,52%	PRAWDA 2,53%	PRAWDA 2,50%
#006b	5.2								

#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 682,215	1 740,715	3 422,930	1 727,355	1 746,894	1 791,160
				1 682,215	1 740,715	3 422,930	1 727,355	1 746,894	1 791,160
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				56,007	55,138	111,145	56,505	57,062	58,594
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 569,989	1 574,150	3 144,139	1 523,657	1 502,840	1 503,339
				1 569,989	1 574,150	3 144,139	1 523,657	1 502,840	1 503,339
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (MET) - Note: (check sum for combined year 2020-2021) Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				43,637	46,170	89,808	75,168	96,102	108,711
				43,637	46,170	89,808	75,168	96,102	108,711
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				35,98	34,09	35,01	20,27	15,64	13,83
				35,98	34,09	35,01	20,27	15,64	13,83
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) Inflation rate (%) (MET) Inflation rate (%) (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				3,70%	3,20%		2,52%	2,53%	2,50%
				3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) Price Index (MET) Price Index (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate Cost of capital pre tax rate (%) Cost of capital / total asset base (%)	3	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#020	3.8	Check proportion of financing through equity is coherent with components Proportion of financing through equity calculated from components is (in %): Proportion of financing through equity is (in %):	2	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#018	3.4	Check total asset base (in '000 NC) Sum of assets (in '000 NC) Total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				0,000	0,000		0,000	0,000	0,000
				0,000	0,000		0,000	0,000	0,000
#065	3.4	Check that no cost of capital is calculated if no asset base is reported Total asset base (in '000 NC) Cost of capital (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				0,000	0,000		0,000	0,000	0,000
				0,000	0,000		0,000	0,000	0,000
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021) Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	N/A	N/A	N/A	N/A	N/A	N/A
				N/A	N/A	N/A	N/A	N/A	N/A
				N/A	N/A	N/A	N/A	N/A	N/A
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) Cost of capital - item 3.11 (in '000 NC) NBV of fixed assets * WACC rate (in '000 NC)	3	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#	Item	Checks for Route Table 1 NSA							
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) Sum of items 1.1 to 1.5 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) Sum of items 2.1 to 2.9 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) Total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) Total costs real terms (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
				1 006,119	1 036,169	2 042,288	1 073,696	1 104,754	1 136,710
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (NSA) Total Service Units (Consolidated)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				44	46	90	75	96	109
				44	46	90	75	96	109
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				23,06	22,44	22,74	14,28	11,50	10,46
				23,06	22,44	22,74	14,28	11,50	10,46
#019	3.5	Check calculation of cost of capital pre-tax rate Cost of capital pre tax rate (%) Cost of capital / total asset base (%)	3	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#020	3.8	Check proportion of financing through equity is coherent with components Proportion of financing through equity calculated from components is (in %): Proportion of financing through equity is (in %):	2	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#018	3.4	Check total asset base (in '000 NC) Sum of assets (in '000 NC) Total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				0,000	0,000		0,000	0,000	0,000
				0,000	0,000		0,000	0,000	0,000
#065	3.4	Check that no cost of capital is calculated if no asset base is reported Total asset base (in '000 NC) Cost of capital (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				0,000	0,000		0,000	0,000	0,000
				0,000	0,000		0,000	0,000	0,000

Scope of the Terminal Charging Zone

Charging zone: Poland - EPWA

Reference Period 2					Reference Period 3				
2015	2016	2017	2018	2019	2020	2021	2022	2023	2024

[illegible]

Table 1 - Total Costs and Unit Costs

Poland - EPWA
Currency: PLN
All Entities

Actual costs 2015-2019						Determined costs - Performance Plan - RP3					
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)											
1.1 Staff	27 022	28 349	28 623	32 912	33 029	25 504	35 007	60 511	32 588	33 391	34 676
of which, pension costs						2 114	4 277	6 391	4 370	4 453	4 608
1.2 Other operating costs	8 063	7 185	6 076	5 396	6 402	3 656	8 214	11 870	9 476	9 607	9 752
1.3 Depreciation	3 026	3 178	2 422	2 842	3 329	3 228	4 171	7 399	4 541	4 638	5 174
1.4 Cost of capital	2 177	2 771	1 935	1 471	1 367	2 018	2 588	4 606	2 893	3 164	3 704
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	0
1.6 Total costs	40 289	41 483	39 055	42 620	44 126	34 405	49 980	84 385	49 498	50 800	53 305
Total % n/n-1		3,0%	-5,9%	9,1%	3,5%	-22,0%	45,3%		-1,0%	2,6%	4,9%
2. Detail by service (in nominal terms)											
2.1 Air Traffic Management	30 605	30 958	29 540	32 279	34 702	25 892	36 120	62 012	34 349	35 844	37 099
2.2 Communication	1 392	1 451	854	908	914	593	853	1 446	842	859	881
2.3 Navigation	2 080	2 054	1 492	1 554	1 348	1 272	1 687	2 959	1 589	1 624	1 613
2.4 Surveillance	2 859	2 864	1 942	3 601	2 717	2 629	4 127	6 756	5 144	4 488	5 421
2.5 Search and rescue	0	0	0	0	0	0	0	0	0	0	0
2.6 Aeronautical Information	268	223	1 708	1 769	1 739	1 330	4 417	5 747	4 773	5 135	5 363
2.7 Meteorological services	2 211	2 948	2 542	1 476	1 476	1 682	1 741	3 423	1 727	1 747	1 791
2.8 Supervision costs	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137
2.9 Other State costs	0	0	0	0	0	0	0	0	0	0	0
2.10 Total costs	40 289	41 483	39 055	42 620	44 126	34 405	49 980	84 385	49 498	50 800	53 305
Total % n/n-1		3,0%	-5,9%	9,1%	3,5%	-22,0%	45,3%		-1,0%	2,6%	4,9%
3. Complementary information (in nominal terms)											
Average asset base											
3.1 Net book val. fixed assets	34 119	42 050	30 424	36 125	32 942	31 491	38 904		44 013	48 239	56 984
3.2 Adjustments total assets	0	0	0	0	0	0	0		0	0	0
3.3 Net current assets	2 477	4 529	5 233	6 202	5 830	4 383	6 485		6 446	6 626	6 990
3.4 Total asset base	36 596	46 579	35 657	42 327	38 772	35 874	45 389		50 460	54 865	63 974
Cost of capital %											
3.5 Cost of capital pre tax rate											
3.6 Return on equity											
3.7 Average interest on debts											
3.8 Share of financing through equity											
Costs of common projects											
3.9 Common projects	0	0	0	0	0	534	691	1 225	587	577	521
Costs of new and existing investments											
3.10 Depreciation						3 228	4 171	7 399	4 541	4 638	5 174
3.11 Cost of capital						1 771	2 218	3 990	2 524	2 782	3 299
3.12 Cost of leasing						229	384	613	403	416	423
Eurocontrol costs											
3.13 Eurocontrol costs (Euro)											
3.14 Exchange rate (if applicable)											
3.15 Eurocontrol costs (national currency)											
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)											
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0
4.2 Total determined/actual costs	40 289	41 483	39 055	42 620	44 126	34 405	49 980	84 385	49 498	50 800	53 305
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)											
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1
5.3 Total costs real terms (2)	40 767	42 036	39 055	42 178	42 897	32 526	45 944	78 470	44 664	44 947	46 349
Total % n/n-1		3,1%	-7,1%	8,0%	1,7%	-24,2%	41,3%		-2,8%	0,6%	3,1%
5.4 Total Service Units	70,7	78,8	90,7	101,9	107,9	43,6	46,2	89,8	75,2	96,1	108,7
Total % n/n-1		11,4%	15,2%	12,3%	5,9%	-59,5%	5,8%		62,8%	27,8%	13,1%
5.5 Unit cost in real terms prices (3)	576,47	533,53	430,46	413,96	397,72	745,38	995,09	873,76	594,19	467,71	426,35
Total % n/n-1		-7,4%	-19,3%	-3,8%	-3,9%	87,4%	33,5%		-40,3%	-21,3%	-8,8%

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - EPWA
Currency: PLN
PANSA

Actual costs 2015-2019												Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3				
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024				
1. Detail by nature (in nominal terms)																					
1.1 Staff	26 157	27 439	27 684	31 920	31 897	24 375	33 801	58 176	31 339	32 101	33 342	24 375									
of which, pension costs					0	1 967	4 123	6 089	4 209	4 289	4 439	1 967									
1.2 Other operating costs	5 845	4 162	3 495	3 878	4 828	2 096	6 643	8 739	7 923	8 045	8 157	2 096									
1.3 Depreciation	3 026	3 178	2 422	2 842	3 329	3 228	4 171	7 399	4 541	4 638	5 174	3 228									
1.4 Cost of capital	2 177	2 771	1 935	1 471	1 367	2 018	2 588	4 606	2 893	3 164	3 704	2 018									
1.5 Exceptional items						0	0	0	0	0	0	0									
1.6 Total costs	37 205	37 550	35 536	40 111	41 421	31 716	47 204	78 920	46 697	47 949	50 377	31 716									
Total % n/n-1		0,9%	-5,4%	12,9%	3,3%	-23,4%	48,8%		-1,1%	2,7%	5,1%	-23,4%									
2. Detail by service (in nominal terms)																					
2.1 Air Traffic Management	30 605	30 958	29 540	32 279	34 702	25 892	36 120	62 012	34 349	35 844	37 099	25 892									
2.2 Communication	1 392	1 451	854	908	914	593	853	1 446	842	859	881	593									
2.3 Navigation	2 080	2 054	1 492	1 554	1 348	1 272	1 687	2 959	1 589	1 624	1 613	1 272									
2.4 Surveillance	2 859	2 864	1 942	3 601	2 717	2 629	4 127	6 756	5 144	4 488	5 421	2 629									
2.5 Search and rescue					0	0	0	0	0	0	0	0									
2.6 Aeronautical information	268	223	1 708	1 769	1 739	1 330	4 417	5 747	4 773	5 135	5 363	1 330									
2.7 Meteorological services						0	0	0	0	0	0	0									
2.8 Supervision costs																					
2.9 Other State costs																					
2.10 Total costs	37 205	37 550	35 536	40 111	41 421	31 716	47 204	78 920	46 697	47 949	50 377	31 716									
Total % n/n-1		0,9%	-5,4%	12,9%	3,3%	-23,4%	48,8%		-1,1%	2,7%	5,1%	-23,4%									
3. Complementary information (in nominal terms)																					
Average asset base																					
3.1 Net book val. fixed assets	34 119	42 050	30 424	36 125	32 942	31 491	38 904		44 013	48 239	56 984	31 491									
3.2 Adjustments total assets					0	0	0		0	0	0	0									
3.3 Net current assets	2 477	4 529	5 233	6 202	5 830	4 383	6 485		6 446	6 626	6 990	4 383									
3.4 Total asset base	36 596	46 579	35 657	42 327	38 772	35 874	45 389		50 460	54 865	63 974	35 874									
Cost of capital %																					
3.5 Cost of capital pre tax rate	5,95%	5,95%	5,43%	3,47%	3,52%	5,62%	5,70%		5,73%	5,77%	5,79%	5,62%									
3.6 Return on equity	5,95%	5,95%	5,43%	3,47%	3,52%	9,13%	9,13%		9,13%	9,13%	9,13%	9,13%									
3.7 Average interest on debts	0,00%	0,00%	0,00%	0,00%	0,00%	3,29%	3,42%		3,47%	3,53%	3,56%	3,29%									
3.8 Share of financing through equity	100,00%	100,00%	100,00%	100,00%	100,00%	40,00%	40,00%		40,00%	40,00%	40,00%	40,00%									
Costs of common projects																					
3.9 Common projects	0	0	0	0	0	534	691	1 225	587	577	521	534									
Costs of new and existing investments																					
3.10 Depreciation						3 228	4 171	7 399	4 541	4 638	5 174	3 228									
3.11 Cost of capital						1 771	2 218	3 990	2 524	2 782	3 299	1 771									
3.12 Cost of leasing						229	384	613	403	416	423	229									
Eurocontrol costs																					
3.13 Eurocontrol costs (Euro)																					
3.14 Exchange rate (if applicable)																					
3.15 Eurocontrol costs (national currency)																					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																					
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0	0									
4.2 Total determined/actual costs	37 205	37 550	35 536	40 111	41 421	31 716	47 204	78 920	46 697	47 949	50 377	31 716									
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																					
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%									
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1									
5.3 Total costs real terms (2)	37 652	38 055	35 536	39 686	40 239	29 950	43 333	73 284	42 067	42 340	43 709	29 950									
Total % n/n-1		1,1%	-6,6%	11,7%	1,4%	-25,6%	44,7%		-2,9%	0,6%	3,2%	-25,6%									
5.4 Total Service Units	70,7	78,8	90,7	101,9	107,9	43,6	46,2	89,8	75,2	96,1	108,7	43,6									
Total % n/n-1		11,4%	15,2%	12,3%	5,9%	-59,5%	5,8%		62,8%	27,8%	13,1%	-59,5%									
5.5 Unit cost in real terms prices (3)	532,42	483,00	391,67	389,51	373,08	686,35	938,56	816,01	559,63	440,57	402,06	686,35									
Total % n/n-1		-9,3%	-18,9%	-0,6%	-4,2%	84,0%	36,7%		-40,4%	-21,3%	-8,7%	84,0%									

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - EPWA
Currency: PLN
MET IMWM

Actual costs 2015-2019						Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																	
1.1 Staff	278	243	270	291	293	407	449	856	467	486	505	407					
of which, pension costs						56	55	111	57	57	59	56					
1.2 Other operating costs	1 933	2 706	2 272	1 185	1 182	1 275	1 291	2 567	1 260	1 261	1 286	1 275					
1.3 Depreciation						0	0	0	0	0	0	0					
1.4 Cost of capital						0	0	0	0	0	0	0					
1.5 Exceptional Items						0	0	0	0	0	0	0					
1.6 Total costs	2 211	2 948	2 542	1 476	1 476	1 682	1 741	3 423	1 727	1 747	1 791	1 682					
Total % n/n-1		33,3%	-13,8%	-41,9%	0,0%	14,0%	3,5%		-0,8%	1,1%	2,5%	14,0%					
2. Detail by service (in nominal terms)																	
2.1 Air Traffic Management																	
2.2 Communication																	
2.3 Navigation																	
2.4 Surveillance																	
2.5 Search and rescue																	
2.6 Aeronautical Information																	
2.7 Meteorological services	2 211	2 948	2 542	1 476	1 476	1 682	1 741	3 423	1 727	1 747	1 791	1 682					
2.8 Supervision costs																	
2.9 Other State costs																	
2.10 Total costs	2 211	2 948	2 542	1 476	1 476	1 682	1 741	3 423	1 727	1 747	1 791	1 682					
Total % n/n-1		33,3%	-13,8%	-41,9%	0,0%	14,0%	3,5%		-0,8%	1,1%	2,5%	14,0%					
3. Complementary information (in nominal terms)																	
Average asset base																	
3.1 Net book val. fixed assets						0	0		0	0	0	0					
3.2 Adjustments total assets						0	0		0	0	0	0					
3.3 Net current assets						0	0		0	0	0	0					
3.4 Total asset base	0	0	0	0	0	0	0		0	0	0	0					
Cost of capital %																	
3.5 Cost of capital pre tax rate						#DZIEL/01	#DZIEL/01		#DZIEL/01	#DZIEL/01	#DZIEL/01	#DZIEL/01					
3.6 Return on equity						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.7 Average interest on debts						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.8 Share of financing through equity						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
Costs of common projects																	
3.9 Common projects	0	0	0	0	0	0	0	0	0	0	0	0					
Costs of new and existing investments																	
3.10 Depreciation						0	0	0	0	0	0	0					
3.11 Cost of capital						0	0	0	0	0	0	0					
3.12 Cost of leasing						0	0	0	0	0	0	0					
Eurocontrol costs																	
3.13 Eurocontrol costs (Euro)																	
3.14 Exchange rate (if applicable)																	
3.15 Eurocontrol costs (national currency)																	
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																	
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0	0					
4.2 Total determined/actual costs	2 211	2 948	2 542	1 476	1 476	1 682	1 741	3 423	1 727	1 747	1 791	1 682					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																	
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)	2 242	2 996	2 542	1 459	1 428	1 570	1 574	3 144	1 524	1 503	1 503	1 570					
Total % n/n-1		33,6%	-15,1%	-42,6%	-2,1%	9,9%	0,3%		-3,2%	-1,4%	0,0%	9,9%					
5.4 Total Service Units	70,7	78,8	90,7	101,9	107,9	43,6	46,2	89,8	75,2	96,1	108,7	43,6					
Total % n/n-1		11,4%	15,2%	12,3%	5,9%	-59,5%	5,8%		62,8%	27,8%	13,1%	-59,5%					
5.5 Unit cost in real terms prices (3)	31,71	38,02	28,02	14,32	13,24	35,98	34,09	35,01	20,27	15,64	13,83	35,98					
Total % n/n-1		19,9%	-26,3%	-48,9%	-7,5%	171,7%	-5,2%		-40,5%	-22,9%	-11,6%	171,7%					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - EPWA
Currency: PLN
NSA

Actual costs 2015-2019												Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3				
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024				
1. Detail by nature (in nominal terms)																					
1.1 Staff	587	667	669	701	838	721	757	1 478	781	804	828	721									
of which, pension costs						92	99	191	104	107	110	92									
1.2 Other operating costs	286	318	308	332	391	285	279	564	293	301	309	285									
1.3 Depreciation						0	0	0	0	0	0	0									
1.4 Cost of capital						0	0	0	0	0	0	0									
1.5 Exceptional items						0	0	0	0	0	0	0									
1.6 Total costs	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137	1 006									
Total % n/n-1		12,9%	-0,8%	5,7%	19,0%	-18,1%	3,0%		3,6%	2,9%	2,9%	-18,1%									
2. Detail by service (in nominal terms)																					
2.1 Air Traffic Management																					
2.2 Communication																					
2.3 Navigation																					
2.4 Surveillance																					
2.5 Search and rescue						0	0	0	0	0	0										
2.6 Aeronautical information																					
2.7 Meteorological services																					
2.8 Supervision costs	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137	1 006									
2.9 Other State costs						0	0	0	0	0	0	0									
2.10 Total costs	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137	1 006									
Total % n/n-1		12,9%	-0,8%	5,7%	19,0%	-18,1%	3,0%		3,6%	2,9%	2,9%	-18,1%									
3. Complementary information (in nominal terms)																					
Average asset base																					
3.1 Net book val. fixed assets						0	0		0	0	0	0									
3.2 Adjustments total assets						0	0		0	0	0	0									
3.3 Net current assets						0	0		0	0	0	0									
3.4 Total asset base	0	0	0	0	0	0	0		0	0	0	0									
Cost of capital %																					
3.5 Cost of capital pre tax rate						#DZIEL/01	#DZIEL/01		#DZIEL/01	#DZIEL/01	#DZIEL/01	#DZIEL/01									
3.6 Return on equity						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%									
3.7 Average interest on debts						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%									
3.8 Share of financing through equity						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%									
Costs of common projects																					
3.9 Common projects	0	0	0	0	0	0	0	0	0	0	0	0									
Costs of new and existing investments																					
3.10 Depreciation																					
3.11 Cost of capital																					
3.12 Cost of leasing																					
Eurocontrol costs																					
3.13 Eurocontrol costs (Euro)																					
3.14 Exchange rate (if applicable)																					
3.15 Eurocontrol costs (national currency)																					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																					
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0	0									
4.2 Total determined/actual costs	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137	1 006									
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																					
5.1 Inflation %																					
5.2 Inflation index (1)																					
5.3 Total costs real terms (2)	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137	1 006									
Total % n/n-1		12,9%	-0,8%	5,7%	19,0%	-18,1%	3,0%		3,6%	2,9%	2,9%	-18,1%									
5.4 Total Service Units	70,7	78,8	90,7	101,9	107,9	43,6	46,2	89,8	75,2	96,1	108,7	43,6									
Total % n/n-1		11,4%	15,2%	12,3%	5,9%	-59,5%	5,8%		62,8%	27,8%	13,1%	-59,5%									
5.5 Unit cost in real terms prices (3)	12,34	12,50	10,77	10,14	11,40	23,06	22,44	22,74	14,28	11,50	10,46	23,06									
Total % n/n-1		1,3%	-13,8%	-5,9%	12,4%	102,3%	-2,7%		-36,4%	-19,5%	-9,0%	102,3%									

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - EPWA
Currency: PLN
CHOPINA W WARSZAWIE

Actual costs 2015-2019						Determined costs - Performance Plan - RP3					
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)											
1.1 Staff	27 022	28 349	28 623	32 912	33 029	25 504	35 007	60 511	32 588	33 391	34 676
of which, pension costs						2 114	4 277	6 391	4 370	4 453	4 608
1.2 Other operating costs	8 063	7 185	6 076	5 396	6 402	3 656	8 214	11 870	9 476	9 607	9 752
1.3 Depreciation	3 026	3 178	2 422	2 842	3 329	3 228	4 171	7 399	4 541	4 638	5 174
1.4 Cost of capital	2 177	2 771	1 935	1 471	1 367	2 018	2 588	4 606	2 893	3 164	3 704
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	0
1.6 Total costs	40 289	41 483	39 055	42 620	44 126	34 405	49 980	84 385	49 498	50 800	53 305
Total % n/n-1		3,0%	-5,9%	9,1%	3,5%	-22,0%	45,3%		-1,0%	2,6%	4,9%
2. Detail by service (in nominal terms)											
2.1 Air Traffic Management	30 605	30 958	29 540	32 279	34 702	25 892	36 120	62 012	34 349	35 844	37 099
2.2 Communication	1 392	1 451	854	908	914	593	853	1 446	842	859	881
2.3 Navigation	2 080	2 054	1 492	1 554	1 348	1 272	1 687	2 959	1 589	1 624	1 613
2.4 Surveillance	2 859	2 864	1 942	3 601	2 717	2 629	4 127	6 756	5 144	4 488	5 421
2.5 Search and rescue	0	0	0	0	0	0	0	0	0	0	0
2.6 Aeronautical Information	268	223	1 708	1 769	1 739	1 330	4 417	5 747	4 773	5 135	5 363
2.7 Meteorological services	2 211	2 948	2 542	1 476	1 476	1 682	1 741	3 423	1 727	1 747	1 791
2.8 Supervision costs	873	985	977	1 033	1 229	1 006	1 036	2 042	1 074	1 105	1 137
2.9 Other State costs	0	0	0	0	0	0	0	0	0	0	0
2.10 Total costs	40 289	41 483	39 055	42 620	44 126	34 405	49 980	84 385	49 498	50 800	53 305
Total % n/n-1		3,0%	-5,9%	9,1%	3,5%	-22,0%	45,3%		-1,0%	2,6%	4,9%
3. Complementary information (in nominal terms)											
Average asset base											
3.1 Net book val. fixed assets	34 119	42 050	30 424	36 125	32 942	31 491	38 904		44 013	48 239	56 984
3.2 Adjustments total assets	0	0	0	0	0	0	0		0	0	0
3.3 Net current assets	2 477	4 529	5 233	6 202	5 830	4 383	6 485		6 446	6 626	6 990
3.4 Total asset base	36 596	46 579	35 657	42 327	38 772	35 874	45 389		50 460	54 865	63 974
Cost of capital %											
3.5 Cost of capital pre tax rate	5,95%	5,95%	5,43%	3,47%	3,52%	5,62%	5,70%		5,73%	5,77%	5,79%
3.6 Return on equity											
3.7 Average interest on debts											
3.8 Share of financing through equity											
Costs of common projects											
3.9 Common projects	0	0	0	0	0	534	691	1 225	587	577	521
Costs of new and existing investments											
3.10 Depreciation						3 228	4 171	7 399	4 541	4 638	5 174
3.11 Cost of capital						1 771	2 218	3 990	2 524	2 782	3 299
3.12 Cost of leasing						229	384	613	403	416	423
Eurocontrol costs											
3.13 Eurocontrol costs (Euro)											
3.14 Exchange rate (if applicable)											
3.15 Eurocontrol costs (national currency)											
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)											
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0
4.2 Total determined/actual costs	40 289	41 483	39 055	42 620	44 126	34 405	49 980	84 385	49 498	50 800	53 305
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)											
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1
5.3 Total costs real terms (2)	40 767	42 036	39 055	42 178	42 897	32 526	45 944	78 470	44 664	44 947	46 349
Total % n/n-1		3,1%	-7,1%	8,0%	1,7%	-24,2%	41,3%		-2,8%	0,6%	3,1%
5.4 Total Service Units	70,7	78,8	90,7	101,9	107,9	43,6	46,2	89,8	75,2	96,1	108,7
Total % n/n-1		11,4%	15,2%	12,3%	5,9%	-59,5%	5,8%		62,8%	27,8%	13,1%
5.5 Unit cost in real terms prices (3)	576,47	533,53	430,46	413,96	397,72	745,38	995,09	873,76	594,19	467,71	426,35
Total % n/n-1		-7,4%	-19,3%	-3,8%	-3,9%	87,4%	33,5%		-40,3%	-21,3%	-8,8%

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 2 - Unit rate calculation

Poland - EPWA
Currency: PLN
All Entities

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	84 385,1	49 497,8	50 800,2	53 304,9
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	70 338,3	40 990,0	41 893,1	43 290,7
2.2 Forecast inflation index - Table 1		113,37	116,24	119,15
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	78 919,9	46 696,7	47 948,5	50 377,1
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	89,8	75,2	96,1	108,7
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	43 891,1			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	-671,8	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	-671,8	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))	0,0	0,0	0,0	0,0
12 Total adjustments relating to year n	43 219,4	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	84 385,09	49 497,77	50 800,19	53 304,94
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 7 917,18	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	1 611,60	-	- 905,20	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	- 87,73	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 21 502,46	- 9 449,75	- 8 743,44	-
13.8 Other revenues (Art. 25(2)(i))	- 983,07	- 671,77	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	8 778,22	8 778,22
13.11 Grand total for the calculation of year n unit rate	55 506,3	39 376,2	49 929,8	62 083,2
13.12 Forecast total service units for year n (performance plan)	89,8	75,2	96,1	108,7
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	618,06	523,84	519,55	571,08
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00	0,00	0,00
14 Applicable unit rate for year n	618,06	523,84	519,55	571,08

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

4) Forecast service units used for the unit rate as per Art. 25(2) applied temporary in 2020

Forecast service units used for the unit rate as per Art. 25(2) applied temporary in 2021

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - EPWA
Currency: PLN
PANSA

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	78 919,9	46 696,7	47 948,5	50 377,1
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	66 915,3	39 262,6	40 146,2	41 499,5
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	78 919,9	46 696,7	47 948,5	50 377,1
4.2 % deviation % referred to in Article 27(2) and 27(5)	2%	2%	2%	2%
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.5 % deviation referred to in Article 27(4)	10%	10%	10%	10%
4.6 Forecast total service units (performance plan)	89,8	75,2	96,1	108,7
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	40 910,6			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	-671,8	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	-671,8	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	40 238,8	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	78 919,87	46 696,72	47 948,54	50 377,07
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 7 395,68	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	1 611,60	-	- 905,20	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	- 87,73	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 20 167,09	- 8 884,65	- 8 139,68	-
13.8 Other revenues (Art. 25(2)(i))	- 983,07	- 671,77	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	8 182,11	8 182,11
13.11 Grand total for the calculation of year n unit rate	51 897,9	37 140,3	47 085,8	58 559,2
13.12 Forecast total service units for year n (performance plan)	89,8	75,2	96,1	108,7
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	577,88	494,10	489,96	538,67
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	577,88	494,10	489,96	538,67

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - EPWA
Currency: PLN
MET IMWM

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	3 422,9	1 727,4	1 746,9	1 791,2
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	3 422,9	1 727,4	1 746,9	1 791,2
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	89,8	75,2	96,1	108,7
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	2 115,0			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	2 115,0	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	3 422,93	1 727,35	1 746,89	1 791,16
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 271,94	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 660,97	- 265,60	- 321,24	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	422,99	422,99
13.11 Grand total for the calculation of year n unit rate	2 490,0	1 461,8	1 848,6	2 214,2
13.12 Forecast total service units for year n (performance plan)	89,8	75,2	96,1	108,7
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	27,73	19,45	19,24	20,37
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	27,73	19,45	19,24	20,37

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - EPWA
Currency: PLN
NSA

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	2 042,3	1 073,7	1 104,8	1 136,7
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment				
2.2 Forecast inflation index - Table 1				
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	89,8	75,2	96,1	108,7
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	865,6			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	865,6	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	2 042,29	1 073,70	1 104,75	1 136,71
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 249,56	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 674,40	- 299,50	- 282,52	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	173,12	173,12
13.11 Grand total for the calculation of year n unit rate	1 118,3	774,2	995,4	1 309,8
13.12 Forecast total service units for year n (performance plan)	89,8	75,2	96,1	108,7
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	12,45	10,30	10,36	12,05
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	12,45	10,30	10,36	12,05

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - EPWA
Currency: PLN
All Entities

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2 024	After RP
Inflation adjustment 2018	-3 898	-3 898	0	0	0	0	0
Inflation adjustment 2019	-4 019	0	-4 019	0	0	0	0
Total inflation adjustment up to 2019	-7 917	-3 898	-4 019	0	0	0	0
Inflation adjustment 2020-2021	0	0	0	0	0	0	0
Inflation adjustment 2022	0	0	0	0	0	0	0
Inflation adjustment 2023	0	0	0	0	0	0	0
Inflation adjustment 2024	0	0	0	0	0	0	0
Total inflation Adjustment (Art. 26)*	-7 917	-3 898	-4 019	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0	0	0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Traffic risk sharing 2022	0	0	0	0	0	0	0
Traffic risk sharing 2023	0	0	0	0	0	0	0
Traffic risk sharing 2024	0	0	0	0	0	0	0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in investment costs 2022	0	0	0	0	0	0	0
Difference in investment costs 2023	0	0	0	0	0	0	0
Difference in investment costs 2024	0	0	0	0	0	0	0
Total adjustment relating to investment costs (Art. 28(4))	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2022	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2023	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2024	0	0	0	0	0	0	0
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2022	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2023	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2024	0	0	0	0	0	0	0
Total adjustment relating to Eurocontrol costs (Art. 28(5))	0	0	0	0	0	0	0
Difference in pension costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in pension costs 2022	0	0	0	0	0	0	0
Difference in pension costs 2023	0	0	0	0	0	0	0
Difference in pension costs 2024	0	0	0	0	0	0	0
Total adjustment relating to pension costs (Art. 28(6))	0	0	0	0	0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in interest on loans 2022	0	0	0	0	0	0	0
Difference in interest on loans 2023	0	0	0	0	0	0	0
Difference in interest on loans 2024	0	0	0	0	0	0	0
Total adjustment relating to interest on loans (Art. 28(6))	0	0	0	0	0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Costs relating to change in law 2022	0	0	0	0	0	0	0
Costs relating to change in law 2023	0	0	0	0	0	0	0
Costs relating to change in law 2024	0	0	0	0	0	0	0
Total adjustment relating to change in law (Art. 28(6))	0	0	0	0	0	0	0
Cost exempt from cost sharing up to 2017	706	0	215	0	492	0	0
Cost exempt from cost sharing 2018	0	0	177	0	-177	0	0
Cost exempt from cost sharing 2019	0	0	1 219	0	-1 219	0	0
Total adjustment relating to cost exempt from previous RPs	706	0	1 612	0	-905	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	-45	-45	0	0	0	0	0
Financial incentives year 2019	-43	0	-43	0	0	0	0
Total financial incentives up to 2019	-88	-45	-43	0	0	0	0
Financial incentives year 2022	0	0	0	0	0	0	0
Financial incentives year 2023	0	0	0	0	0	0	0
Financial incentives year 2024	0	0	0	0	0	0	0
Total financial incentives (Art. 11(3) and 11(4))*	-88	-45	-43	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	0
Modulation of charges year 2018	0	0	0	0	0	0	0
Modulation of charges year 2019	0	0	0	0	0	0	0
Total modulation of charges up to 2019	0	0	0	0	0	0	0
Modulation of charges 2020-2021	0	0	0	0	0	0	0
Modulation of charges 2022	0	0	0	0	0	0	0
Modulation of charges 2023	0	0	0	0	0	0	0

Modulation of charges 2024	0	0	0	0	0	0	0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-11 218	-11 218	0	0	0	0	0
Traffic adjustment 2019	-10 284	0	-10 284	0	0	0	0
Total traffic adjustments up to 2019	-21 502	-11 218	-10 284	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-9 450	0	0	-9 450	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-8 743	0	0	0	-8 743	0	0
Traffic adjustment on adjustments from previous RPs 2022	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2023	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2024	0	0	0	0	0	0	0
Total traffic adjustment on adjustments from previous reference periods	-18 193	0	0	-9 450	-8 743	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Traffic adjustment 2022	0	0	0	0	0	0	0
Traffic adjustment 2023	0	0	0	0	0	0	0
Traffic adjustment 2024	0	0	0	0	0	0	0
Total traffic adjustment (Art. 27(8) and 27(9))*	-39 696	-11 218	-10 284	-9 450	-8 743	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	321	321	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	-1 304	0	-1 304	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	-983	321	-1 304	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	-672	0	0	-672	0	0	0
Revenues received from Union assistance programmes in 2022	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2023	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2024	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	-1 655	321	-1 304	-672	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0	0	0	0	0	0	0
Revenues received from national public funding in 2023	0	0	0	0	0	0	0
Revenues received from national public funding in 2024	0	0	0	0	0	0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0	0	0
Revenues from commercial activities in 2022	0	0	0	0	0	0	0
Revenues from commercial activities in 2023	0	0	0	0	0	0	0
Revenues from commercial activities in 2024	0	0	0	0	0	0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2022	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2023	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2024	0	0	0	0	0	0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	43 891	0	0	0	8 778	8 778	26 335
Revenue difference - revision of UR 2022	0	0	0	0	0	0	0
Revenue difference - revision of UR 2023	0	0	0	0	0	0	0
Revenue difference - revision of UR 2024	0	0	0	0	0	0	0
Total revenue differences from temporary application of UR (Art. 29(5))	43 891	0	0	0	8 778	8 778	26 335
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024	0	0	0	0	0	0	0
Total cross-financing to (-) / from (+) other charging zone(s)	0	0	0	0	0	0	0
Total adjustments	-4 758	-14 840	-14 039	-10 122	-870	8 778	26 335

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - EPWA
Currency: PLN
PANSAs

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-3 645	-3 645					
Inflation adjustment 2019	-3 751		-3 751				
Total inflation adjustment up to 2019	-7 396	-3 645	-3 751				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-7 396	-3 645	-3 751	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0		0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0				0	0	
Traffic risk sharing 2022	0					0	
Traffic risk sharing 2023	0						0
Traffic risk sharing 2024	0						0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	706		215	0	492	0	0
Cost exempt from cost sharing 2018	0		177	0	-177	0	0
Cost exempt from cost sharing 2019	0		1 219	0	-1 219	0	0
Total adjustment relating to cost exempt from previous RPs	706	0	1 612	0	-905	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	-45	-45					
Financial incentives year 2019	-43		-43				
Total financial incentives up to 2019	-88	-45	-43	0	0	0	0
Financial incentives year 2022	0					0	
Financial incentives year 2023	0						0
Financial incentives year 2024	0						0
Total financial incentives (Art. 11(3) and 11(4))*	-88	-45	-43	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-10 584	-10 584	0	0	0	0	0
Traffic adjustment 2019	-9 583		-9 583	0	0	0	0
Total traffic adjustments up to 2019	-20 167	-10 584	-9 583	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-8 885			-8 885	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-8 140				-8 140	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-17 024	0	0	-8 885	-8 140	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-37 191	-10 584	-9 583	-8 885	-8 140	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	321	321	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	-1 304	0	-1 304	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	-983	321	-1 304	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	-672	0	0	-672	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	-1 655	321	-1 304	-672	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	40 911				8 182	8 182	24 546
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	40 911	0	0	0	8 182	8 182	24 546
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	-4 713	-13 953	-13 069	-9 556	-863	8 182	24 546

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - EPWA
Currency: PLN
MET IMWM

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-132	-132					
Inflation adjustment 2019	-140		-140				
Total inflation adjustment up to 2019	-272	-132	-140				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-272	-132	-140	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-285	-285	0	0	0	0	0
Traffic adjustment 2019	-376		-376	0	0	0	0
Total traffic adjustments up to 2019	-661	-285	-376	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-266			-266	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-321				-321	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-587	0	0	-266	-321	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-1 248	-285	-376	-266	-321	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	2 115				423	423	1 269
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	2 115	0	0	0	423	423	1 269
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	595	-417	-516	-266	102	423	1 269

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - EPWA
Currency: PLN
NSA

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-122	-122					
Inflation adjustment 2019	-128		-128				
Total inflation adjustment up to 2019	-250	-122	-128				
Inflation adjustment 2020-2021							
Inflation adjustment 2022							
Inflation adjustment 2023							
Inflation adjustment 2024							
Total inflation Adjustment (Art. 26)*	-250	-122	-128	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)							
Difference in investment costs 2022							
Difference in investment costs 2023							
Difference in investment costs 2024							
Total adjustment relating to investment costs (Art. 28(4))							
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)	0				0		
Difference in competent authorities and QEs costs 2022	0					0	
Difference in competent authorities and QEs costs 2023	0						0
Difference in competent authorities and QEs costs 2024	0						0
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))	0				0	0	0
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)							
Difference in pension costs 2022							
Difference in pension costs 2023							
Difference in pension costs 2024							
Total adjustment relating to pension costs (Art. 28(6))							
Difference in interest on loans 2020-2021 (exceptional measures)							
Difference in interest on loans 2022							
Difference in interest on loans 2023							
Difference in interest on loans 2024							
Total adjustment relating to interest on loans (Art. 28(6))							
Costs relating to change in law 2020-2021 (exceptional measures)							
Costs relating to change in law 2022							
Costs relating to change in law 2023							
Costs relating to change in law 2024							
Total adjustment relating to change in law (Art. 28(6))							
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-349	-349	0	0	0	0	0
Traffic adjustment 2019	-326		-326	0	0	0	0
Total traffic adjustments up to 2019	-674	-349	-326	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-299			-299	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-283				-283	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-582	0	0	-299	-283	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-1 256	-349	-326	-299	-283	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	866				173	173	519
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	866	0	0	0	173	173	519
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	-640	-470	-454	-299	-109	173	519

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 4 - Complementary information on common projects and on revenues from Union assistance programmes allocated to the charging zone

Amounts allocated		Value of funded project		Amounts granted (in per GA)		Cumulative project g/y	Actual amounts received (charging zone) in '000 Euro											
Project reference (as per Grant Agreement)	Project title	Total	For the charging zone	Total	For the charging zone		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
PO1-06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment	141 469	5 574	70 958	2 086	N	1 387	155	162	125	0	0	0					
MOV4/E2-014-71/73/SCAR FPA	Cost of PANSA's employees working for SCAR	326	34	326	34	N	0	4	0	1	3	3	2					
PR4-01.01.00-00-001/14-00	Deployment Alliance	1 068	0	732	0	N	0	0	0	0	0	0	0	0				
PA2N/15-614/AG	Cost of PANSA's employees working for SCAR	13	1	13	1	N	0	0	1	1	-2	0	0					
GA 731761	Increased Runway and Airport Throughput – PIS2 4470	745	34	521	20	N	0	0	1	3	2	6	1					
GA 733221	Total Aircraft Maintenance – PISA TAM	101	1	71	3	N	0	0	1	0	0	1	0					
GA 731796	Advanced Airspace Management – PISB AAM	327	14	205	11	N	0	0	0	2	2	4	1					
GA 734543	Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management – PIS2 PRCSA	405	10	281	11	N	0	0	1	1	1	6	0					
GA 734301	4D Trajectory Management – PIS2 4D7M	61	2	29	2	N	0	0	0	0	0	0	0					
GA INEA/C27/77NAN/N2016/1037239	Call 2014 (EC)	6 600	312	3 900	136	Y	0	0	0	60	0	80	0					
GA INEA/C27/77NAN/N2016/1110171	Call 2015 – ECG 1 LAN	1 570	179	1 040	147	Y	0	0	0	36	0	32	0					
GA INEA/C27/77NAN/N2016/1149519	Call 2016	13 385	364	5 750	221	Y	0	0	0	81	0	0	101					
GA 734219	Aircraft Safety Nets PIS2B SAFE	523	21	366	15	N	0	0	0	1	1	6	3					
GA 734219	Trajectory based Free Routing – PIS2 TuberFR2	807	30	628	28	N	0	0	0	6	3	12	3					
PO1-06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment 6	46 081	1 861	27 732	1 581	N	0	0	0	0	510	557	136					
GA INEA/C27/77NAN/N2017/1149610	Call 2017	606	11	236	20	Y					20	0						
GA 074477	Wave 2 - PIS2	148	7	104	1	N					5	0						
GA 074472	Wave 2 - PIS4	16	0	30	2	N					2	0						
GA 074470	Wave 2 - PIS5	114	3	81	2	N					0	2						
GA 074462	Wave 2 - PIS7	125	6	67	4	N					4	0						
GA 074463	Wave 2 - PIS9	36	2	21	1	N					1	0						
GA 074464	Wave 2 - PIS10	368	6	75	3	N					3	0						
GA 074469	Wave 2 - PIS11	61	2	42	1	N					0	1						
GA 072320	Wave 2 - PIS13	128	6	80	4	N					4	0						
GA 074473	Wave 2 - PIS19	29	1	20	1	N					1	0						
GA 074475	Wave 2 - PIS20	29	1	20	1	N					1	0						
GA 074476	Wave 2 - L102	8	0	0	0	N					0	0						
Total in '000 national currency		231 081	8 460	124 634	4 180	N	1 387	155	162	125	0	0	0	0	0	0	0	

Amounts reimbursed to airspace users through other systems		Amounts retained in respect of		Total to be reimbursed for the		Amounts reimbursed to users (charging zone) in '000 national currency											
Project reference (as per Grant Agreement)	Project title	administrative costs for the	charging zone in '000 Euro	charging zone in '000 Euro	charging zone in '000 Euro	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	After 24
PO1-06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment					168	761	891	1 052	929	-940	-245	649	310			
MOV4/E2-014-71/73/SCAR FPA	Cost of PANSA's employees working for SCAR					0	0	0	0	0	21	14	14	0			
PR4-01.01.00-00-001/14-00	Deployment Alliance					0	0	0	0	0	0	0	0	0			
PA2N/15-614/AG	Cost of PANSA's employees working for SCAR					0	0	0	0	0	2	0	0	0			
GA 731761	Increased Runway and Airport Throughput – PIS2 4470					0	0	0	0	0	15	27	28	0			
GA 733221	Total Aircraft Maintenance – PISA TAM					0	0	0	0	0	3	4	3	0			
GA 731796	Advanced Airspace Management – PISB AAM					0	0	0	0	0	15	11	16	0			
GA 734543	Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management – PIS2 PRCSA					0	0	0	0	0	6	8	29	0			
GA 734301	4D Trajectory Management – PIS2 4D7M					0	0	0	0	0	0	2	2	0			
GA INEA/C27/77NAN/N2016/1037239	Call 2014 (EC)					0	0	0	0	0	38	16	22	21			
GA INEA/C27/77NAN/N2016/1110171	Call 2015 - ECG 1 LAN					0	0	0	0	0	4	5	20	24			
GA INEA/C27/77NAN/N2016/1149519	Call 2016					0	0	0	0	0	78	46	45	51			
GA 734219	Aircraft Safety Nets PIS2B SAFE					0	0	0	0	0	5	5	21	11			
GA 734219	Trajectory based Free Routing – PIS2 TuberFR2					0	0	0	0	0	13	26	53	12			
PO1-06.03.00-00-009/11-00	Operational Programme Infrastructure and Environment 6					0	0	0	0	0	0	56	176	177			
GA INEA/C27/77NAN/N2017/1149610	Call 2017											18	2				
GA 074477	Wave 2 - PIS2											0	0				
GA 074472	Wave 2 - PIS4											0	1				
GA 074470	Wave 2 - PIS5											0	1				
GA 074460	Wave 2 - PIS7											0	4				
GA 074462	Wave 2 - PIS9											0	0				
GA 074464	Wave 2 - PIS10											0	1				
GA 074469	Wave 2 - PIS11											0	1				
GA 072320	Wave 2 - PIS13											0	1				
GA 074473	Wave 2 - PIS19											0	0				
GA 074475	Wave 2 - PIS20											0	1				
GA 074476	Wave 2 - L102											0	0				
PO1-06.03.00-00-009/11-00						0	0	0	0	0	-801	-295	204				
Total in '000 national currency						168	761	891	1 052	929	-940	-245	649	310	0	0	0

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

Terminal charging zone Poland - EPWA	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)	44 978 601	84 385 091	49 497 770	50 800 186	53 304 943	18,5%
Total terminal costs in real terms (in national currency at 2017 prices)	43 749 207	78 470 308	44 664 036	44 947 408	46 348 556	5,9%
Total terminal costs in real terms (in EUR2017) ¹	10 282 246	18 442 642	10 497 255	10 563 855	10 893 163	5,9%
YoY variation		79,4%	-43,1%	0,6%	3,1%	
Total terminal Service Units (TNSU)	107 857	89 808	75 168	96 102	108 711	0,8%
YoY variation		-16,7%	-16,3%	27,8%	13,1%	
Real terminal unit costs (in national currency at 2017 prices)	405,62	873,76	594,19	467,71	426,35	5,1%
Real terminal unit costs (in EUR2017) ¹	95,33	205,36	139,65	109,92	100,20	5,1%
YoY variation		115,4%	-32,0%	-21,3%	-8,8%	

National currency	PLN
¹ Average exchange rate 2017 (1 EUR=)	4,25

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

Terminal charging zone Poland - EPWA	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	44 978 601	44 126 045	852 556
Total terminal costs in real terms (in national currency at 2017 prices)	43 749 207	42 896 651	852 556
Total terminal costs in real terms (in EUR2017) ¹	10 282 246	10 081 872	200 374
Total terminal Service Units (TNSU)	107 857	107 857	0

Polish Performance Plan
Third Reference Period (2020-2024)
Revision

Annex B.1.2 TNC OTHER Reporting Tables

			Legend for the Check sheet									
PRAWDA	Cells highlighted in green indicate that the items checked are equal and different to 0											
PRAWDA	Cells highlighted in pale yellow indicate that the items entering the check are blank or 0											
FALSZ	Cells highlighted in red indicate that the items checked are not equal											
FALSZ	Cells highlighted in pale yellow indicate that one of the items entering the check is blank or 0											
#DIV/0	Cells highlighted in orange indicate formulae that resulted in error											
N/A	Cells highlighted in white with grey "N/A" indicate that the check is not applicable for the given combination of year and/or RP											
INFORMATION ON COSTS AND UNIT COSTS - TABLE 1						Rounding (dec. pls)	Determined					
#	Item	Checks for T1 (consolidated)		2020	2021	2020/2021	2022	2023	2024			
#001	4.2	Check that values in Table 1 Consolidated are sums of the same items across all the entities (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total determined/actual costs (in '000 NC)		111 408,787	158 063,314	269 472,102	150 924,628	151 868,423	151 377,121			
		Sum of Total determined/actual costs for all entities (in '000 NC)		111 408,787	158 063,314	269 472,102	150 924,628	151 868,423	151 377,121			
#002	1.6	Check the sum of costs by nature (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs by nature (in '000 NC)		111 778,831	158 659,580	270 438,411	151 329,975	152 227,925	151 812,838			
		Sum of items 1.1 to 1.5 (in '000 NC)		111 778,831	158 659,580	270 438,411	151 329,975	152 227,925	151 812,838			
#003	2.10	Check the sum of costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs by service (in '000 NC)		111 778,831	158 659,580	270 438,411	151 329,975	152 227,925	151 812,838			
		Sum of items 2.1 to 2.9 (in '000 NC)		111 778,831	158 659,580	270 438,411	151 329,975	152 227,925	151 812,838			
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs by nature (in '000 NC)		111 778,831	158 659,580	270 438,411	151 329,975	152 227,925	151 812,838			
		Total costs by service (in '000 NC)		111 778,831	158 659,580	270 438,411	151 329,975	152 227,925	151 812,838			
#100	5.1	Check that inflation rate is not negative	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Inflation rate		3,70%	3,20%		2,52%	2,53%	2,50%			
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017)	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Calculated price index		107,15	110,58		113,37	116,24	119,15			
		Price Index		107,15	110,58		113,37	116,24	119,15			
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs real terms / Total service units		1695,87	2391,19	2039,54	1355,13	1072,69	950,49			
		Unit Cost		1695,87	2391,19	2039,54	1355,13	1072,69	950,49			
#063	4.2	Check total costs after deduction of costs for exempted VFR	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total determined/actual costs(in '000 NC)		111 408,787	158 063,314	269 472,102	150 924,628	151 868,423	151 377,121			
		Total costs by service deducted by Costs for exempted VFR flights (in '000 NC)		111 408,787	158 063,314	269 472,102	150 924,628	151 868,423	151 377,121			
#067	4.2	Check the sum of costs by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total determined/actual costs in T1 Consolidated (in '000 NC)		111 408,787	158 063,314	269 472,102	150 924,628	151 868,423	151 377,121			
		Sum of items 4.2 for all airports (in '000 NC)		111 408,787	158 063,314	269 472,102	150 924,628	151 868,423	151 377,121			
#067_1.1	1.1	Check the sum of Staff costs by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Staff costs in T1 Consolidated (in '000 NC)		67 079,130	97 483,841	164 562,971	88 557,522	87 916,424	86 774,448			
		Sum of items 1.1 for all airports (in '000 NC)		67 079,130	97 483,841	164 562,971	88 557,522	87 916,424	86 774,448			
#067_1.2	1.2	Check the sum of Other operating costs by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Other operating costs in T1 Consolidated (in '000 NC)		22 564,527	36 584,392	59 148,918	38 338,569	39 367,776	38 935,916			
		Sum of items 1.2 for all airports (in '000 NC)		22 564,527	36 584,392	59 148,918	38 338,569	39 367,776	38 935,916			
#067_1.3	1.3	Check the sum of Depreciation by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Depreciation in T1 Consolidated (in '000 NC)		13 740,071	15 338,494	29 078,565	15 405,098	15 852,229	17 195,856			
		Sum of items 1.3 for all airports (in '000 NC)		13 740,071	15 338,494	29 078,565	15 405,098	15 852,229	17 195,856			
#067_1.4	1.4	Check the sum of Cost of capital by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Cost of capital in T1 Consolidated (in '000 NC)		8 395,103	9 252,854	17 647,957	9 028,785	9 091,495	8 906,619			
		Sum of items 1.4 for all airports (in '000 NC)		8 395,103	9 252,854	17 647,957	9 028,785	9 091,495	8 906,619			
#067_1.5	1.5	Check the sum of Exceptional items by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Exceptional items in T1 Consolidated (in '000 NC)		0,000	0,000	0,000	0,000	0,000	0,000			
		Sum of items 1.5 for all airports (in '000 NC)		0,000	0,000	0,000	0,000	0,000	0,000			
#067_2.1	2.1	Check the sum of Air Traffic Management by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Air Traffic Management in T1 Consolidated (in '000 NC)		66 982,162	96 989,154	163 971,316	93 272,807	92 448,969	91 729,853			
		Sum of items 2.1 for all airports (in '000 NC)		66 982,162	96 989,154	163 971,316	93 272,807	92 448,969	91 729,853			
#067_2.2	2.2	Check the sum of Communication by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Communication in T1 Consolidated (in '000 NC)		2 564,013	3 562,177	6 126,190	3 349,622	3 260,599	3 269,766			
		Sum of items 2.2 for all airports (in '000 NC)		2 564,013	3 562,177	6 126,190	3 349,622	3 260,599	3 269,766			
#067_2.3	2.3	Check the sum of Navigation by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Navigation in T1 Consolidated (in '000 NC)		8 683,494	11 066,087	19 749,581	9 618,700	9 808,697	9 204,547			
		Sum of items 2.3 for all airports (in '000 NC)		8 683,494	11 066,087	19 749,581	9 618,700	9 808,697	9 204,547			
#067_2.4	2.4	Check the sum of Surveillance by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Surveillance in T1 Consolidated (in '000 NC)		3 645,286	4 160,751	7 806,037	4 191,143	4 099,732	3 831,814			
		Sum of items 2.4 for all airports (in '000 NC)		3 645,286	4 160,751	7 806,037	4 191,143	4 099,732	3 831,814			
#067_2.5	2.5	Check the sum of Search and Rescue by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Search and Rescue in T1 Consolidated (in '000 NC)		0,000	0,000	0,000	0,000	0,000	0,000			
		Sum of items 2.5 for all airports (in '000 NC)		0,000	0,000	0,000	0,000	0,000	0,000			
#067_2.6	2.6	Check the sum of Aeronautical Information by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Aeronautical Information in T1 Consolidated (in '000 NC)		5 648,086	17 317,568	22 965,655	14 823,855	14 210,104	13 845,759			
		Sum of items 2.6 for all airports (in '000 NC)		5 648,086	17 317,568	22 965,655	14 823,855	14 210,104	13 845,759			
#067_2.7	2.7	Check the sum of Meteorological services by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Meteorological services in T1 Consolidated (in '000 NC)		19 947,546	21 126,919	41 074,465	21 476,236	23 669,219	25 063,656			
		Sum of items 2.7 for all airports (in '000 NC)		19 947,546	21 126,919	41 074,465	21 476,236	23 669,219	25 063,656			
#067_2.8	2.8	Check the sum of Supervision costs by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Supervision costs in T1 Consolidated (in '000 NC)		4 308,244	4 436,923	8 745,167	4 597,612	4 730,605	4 867,443			
		Sum of items 2.8 for all airports (in '000 NC)		4 308,244	4 436,923	8 745,167	4 597,612	4 730,605	4 867,443			
#067_4.1	4.1	Check the sum of costs for exempted VFR flights by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Costs for exempted VFR flights in T1 Consolidated (in '000 NC)		370,044	596,266	966,310	405,346	359,502	435,717			
		Sum of items 4.1 for all airports (in '000 NC)		370,044	596,266	966,310	405,346	359,502	435,717			
#067_2.9	2.9	Check the sum of Other State costs by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Other State costs in T1 Consolidated (in '000 NC)		0,000	0,000	0,000	0,000	0,000	0,000			
		Sum of items 2.9 for all airports (in '000 NC)		0,000	0,000	0,000	0,000	0,000	0,000			
#067b	5.3	Check the sum of costs by airports (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs in real terms in T1 Consolidated (in '000 NC)		105 740,451	145 716,253	251 456,705	136 550,408	134 797,006	132 028,872			
		Sum of items 5.3 for all airports (in '000 NC)		105 740,451	145 716,253	251 456,705	136 550,408	134 797,006	132 028,872			
#	Item	Checks for T1 ANSP PANSA										
#002	1.6	Check the sum of costs by nature (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)		85 510,856	130 587,505	216 098,361	122 400,362	120 687,747	117 381,727			
		Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)		85 510,856	130 587,505	216 098,361	122 400,362	120 687,747	117 381,727			
#003	2.10	Check the sum of costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)		85 510,856	130 587,505	216 098,361	122 400,362	120 687,747	117 381,727			
		Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)		85 510,856	130 587,505	216 098,361	122 400,362	120 687,747	117 381,727			
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)		85 510,856	130 587,505	216 098,361	122 400,362	120 687,747	117 381,727			
		Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)		85 510,856	130 587,505	216 098,361	122 400,362	120 687,747	117 381,727			
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)		6 428,360	9 472,702	15 901,061	9 837,894	9 468,533	9 216,059			
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017)	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Calculated price index		107,15	110,58		113,37	116,24	119,15			
		Price Index		107,15	110,58		113,37	116,24	119,15			
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021)		81 143,866	120 242,564	201 386,430	110 592,073	106 967,458	102 057,297			
		Total costs real terms (in '000 NC)		81 143,866	120 242,564	201 386,430	110 592,073	106 967,458	102 057,297			
#016	5.4	Check that Service Units are the same for all entities (in '000)	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total Service Units (ANSP PANSA) - Note: (check sum for combined year 2020-2021)		62,352	60,939	123,291	100,766	125,663	138,906			
		Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		62,352	60,939	123,291	100,766	125,663	138,906			
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Total costs real terms / Total service units		1301,39	1973,17	1633,43	1097,52	851,23	734,72			
		Unit Cost		1301,39	1973,17	1633,43	1097,52	851,23	734,72			
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Inflation rate (%) (ANSP PANSA)		3,70%	3,20%		2,52%	2,53%	2,50%			
		Inflation rate (%) (Consolidated)		3,70%	3,20%		2,52%	2,53%	2,50%			
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Price Index (ANSP PANSA)		107,15	110,58		113,37	116,24	119,15			
		Price Index (Consolidated)		107,15	110,58		113,37	116,24	119,15			
#019	3.5	Check calculation of cost of capital pre-tax rate	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Cost of capital pre tax rate (%)		5,600%	5,700%		5,700%	5,800%	5,800%			
		Cost of capital / total asset base (%)		5,600%	5,700%		5,700%	5,800%	5,800%			
#020	3.8	Check proportion of financing through equity is coherent with components	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Proportion of financing through equity calculated from components is (in %):		40,00%	40,00%		40,00%	40,00%	40,00%			
		Proportion of financing through equity is (in %):		40,00%	40,00%		40,00%	40,00%	40,00%			
#018	3.4	Check total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Sum of assets (in '000 NC)		137 407,717	151 115,791		150 543,913	148 660,887	141 373,271			
		Total asset base (in '000 NC)		137 407,717	151 115,791		150 543,913	148 660,887	141 373,271			
#065	3.4	Check that no cost of capital is calculated if no asset base is reported	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA			
		Total asset base (in '000 NC)		137 407,717	151 115,791		150 543,913	148 660,887	141 373,271			
		Cost of capital (in '000 NC)		7 727,798	8 617,216		8 632,153	8 574,357	8 185,095			
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA			
		Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)		12 324,1								

#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				0,000	0,000	0,000	0,000	0,000	0,000
				0,000	0,000	0,000	0,000	0,000	0,000
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				0,000	0,000	0,000	0,000	0,000	0,000
				0,000	0,000	0,000	0,000	0,000	0,000
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	FALSZ	FALSZ	FALSZ	FALSZ	FALSZ	FALSZ
				0,000	0,000	0,000	0,000	0,000	0,000
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				0,000	0,000	0,000	0,000	0,000	0,000
				0,000	0,000	0,000	0,000	0,000	0,000
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (ANSP Modlin) - Note: (check sum for combined year 2020-2021) Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				62,352	60,939	123,291	100,766	125,663	138,906
				62,352	60,939	123,291	100,766	125,663	138,906
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				0,00	0,00	0,00	0,00	0,00	0,00
				0,00	0,00	0,00	0,00	0,00	0,00
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) Inflation rate (%) (ANSP Modlin) Inflation rate (%) (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				3,70%	3,20%		2,52%	2,53%	2,50%
				3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) Price Index (ANSP Modlin) Price Index (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate Cost of capital pre tax rate (%) Cost of capital / total asset base (%)	3	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#020	3.8	Check proportion of financing through equity is coherent with components Proportion of financing through equity calculated from components is (in %): Proportion of financing through equity is (in %):	3	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#018	3.4	Check total asset base (in '000 NC) Sum of assets (in '000 NC) Total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				0,000	0,000		0,000	0,000	0,000
				0,000	0,000		0,000	0,000	0,000
#065	3.4	Check that no cost of capital is calculated if no asset base is reported Total asset base (in '000 NC) Cost of capital (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				0,000	0,000		0,000	0,000	0,000
				0,000	0,000		0,000	0,000	0,000
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021) Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	N/A	N/A	N/A	N/A	N/A	N/A
				N/A	N/A	N/A	N/A	N/A	N/A
				N/A	N/A	N/A	N/A	N/A	N/A
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) Cost of capital - item 3.11 (in '000 NC) NBV of fixed assets * WACC rate (in '000 NC)	3	N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
				N/A	N/A		N/A	N/A	N/A
#	Item Checks for T1 ANSP Bydgoszcz								
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				453,275	500,595	953,870	731,468	975,894	1 769,695
				453,275	500,595	953,870	731,468	975,894	1 769,695
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				453,275	500,595	953,870	731,468	975,894	1 769,695
				453,275	500,595	953,870	731,468	975,894	1 769,695
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				453,275	500,595	953,870	731,468	975,894	1 769,695
				453,275	500,595	953,870	731,468	975,894	1 769,695
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				25,695	29,552	55,248	32,752	39,150	58,061
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				306,945	288,124	595,069	557,592	795,052	1 469,171
				306,945	288,124	595,069	557,592	795,052	1 469,171
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (ANSP Bydgoszcz) - Note: (check sum for combined year 2020-2021) Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				62,352	60,939	123,291	100,766	125,663	138,906
				62,352	60,939	123,291	100,766	125,663	138,906
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				4,92	4,73	4,83	5,53	6,33	10,58
				4,92	4,73	4,83	5,53	6,33	10,58
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) Inflation rate (%) (ANSP Bydgoszcz) Inflation rate (%) (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				3,70%	3,20%		2,52%	2,53%	2,50%
				3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) Price Index (ANSP Bydgoszcz) Price Index (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate Cost of capital pre tax rate (%) Cost of capital / total asset base (%)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				5,100%	4,800%		4,600%	4,600%	4,900%
				5,100%	4,800%		4,600%	4,600%	4,900%
#020	3.8	Check proportion of financing through equity is coherent with components Proportion of financing through equity calculated from components is (in %): Proportion of financing through equity is (in %):	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				99,00%	99,90%		100,00%	46,00%	36,90%
				99,00%	99,90%		100,00%	46,00%	36,90%
#018	3.4	Check total asset base (in '000 NC) Sum of assets (in '000 NC) Total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				177,418	176,775		296,943	1 604,820	4 445,060
				177,418	176,775		296,943	1 604,820	4 445,060
#065	3.4	Check that no cost of capital is calculated if no asset base is reported Total asset base (in '000 NC) Cost of capital (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				177,418	176,775		296,943	1 604,820	4 445,060
				9,082	8,400		13,667	74,485	219,187
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021) Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				18,042	15,089	33,131	16,983	133,996	488,173
				18,042	15,089	33,131	16,983	133,996	488,173
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) Cost of capital - item 3.11 (in '000 NC) NBV of fixed assets * WACC rate (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				9,838	9,165		8,868	66,084	203,488
				9,838	9,165		8,868	66,084	203,488
#	Item Checks for T1 ANSP Warmia i Mazury								
#002	1.6	Check the sum of costs by nature (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 558,911	2 007,637	3 566,548	2 124,296	2 164,460	2 730,317
				1 558,911	2 007,637	3 566,548	2 124,296	2 164,460	2 730,317
#003	2.10	Check the sum of costs by service (in '000 NC) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021) Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 558,911	2 007,637	3 566,548	2 124,296	2 164,460	2 730,317
				1 558,911	2 007,637	3 566,548	2 124,296	2 164,460	2 730,317
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 558,911	2 007,637	3 566,548	2 124,296	2 164,460	2 730,317
				1 558,911	2 007,637	3 566,548	2 124,296	2 164,460	2 730,317
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				135,112	178,869	313,980	191,996	196,591	208,109
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) Calculated price index Price Index	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021) Total costs real terms (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				1 348,778	1 635,498	2 984,276	1 700,227	1 691,026	2 190,022
				1 348,778	1 635,498	2 984,276	1 700,227	1 691,026	2 190,022
#016	5.4	Check that Service Units are the same for all entities (in '000) Total Service Units (ANSP Warmia i Mazury) - Note: (check sum for combined year 2020-2021) Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				62,352	60,939	123,291	100,766	125,663	138,906
				62,352	60,939	123,291	100,766	125,663	138,906
#017b	5.5	Check calculation of the unit cost for RP3 Total costs real terms / Total service units Unit Cost	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
				21,63	26,84	24,21	16,87	13,46	15,77
				21,63	26,84	24,21	16,87	13,46	15,77
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) Inflation rate (%) (ANSP Warmia i Mazury) Inflation rate (%) (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				3,70%	3,20%		2,52%	2,53%	2,50%
				3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) Price Index (ANSP Warmia i Mazury) Price Index (Consolidated)		PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				107,15	110,58		113,37	116,24	119,15
				107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate Cost of capital pre tax rate (%) Cost of capital / total asset base (%)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA	PRAWDA
				5,100%	4,700%		4,600%	4,600%	4,600%
				5,100%	4,700%		4,6		

Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)			114,627	125,738	240,365	118,486	115,377	464,606
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Cost of capital - item 3.11 (in '000 NC)			44,708	41,012		36,646	31,825	90,884
NBV of fixed assets * WACC rate (in '000 NC)			44,708	41,012		36,646	31,825	90,884
#	Item	Checks for T1 MET IMWM						
#002	1.6	Check the sum of costs by nature (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)			16 987,796	17 845,903	34 833,699	17 942,032	18 436,618	19 852,245
Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)			16 987,796	17 845,903	34 833,699	17 942,032	18 436,618	19 852,245
#003	2.10	Check the sum of costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)			16 987,796	17 845,903	34 833,699	17 942,032	18 436,618	19 852,245
Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)			16 987,796	17 845,903	34 833,699	17 942,032	18 436,618	19 852,245
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)			16 987,796	17 845,903	34 833,699	17 942,032	18 436,618	19 852,245
Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)			16 987,796	17 845,903	34 833,699	17 942,032	18 436,618	19 852,245
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)			610,903	759,841	1 370,744	779,187	768,000	792,878
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017)	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Calculated price index			107,15	110,58		113,37	116,24	119,15
Price Index			107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021)			15 955,838	16 287,065	32 242,903	16 013,663	16 088,505	17 040,452
Total costs real terms (in '000 NC)			15 955,838	16 287,065	32 242,903	16 013,663	16 088,505	17 040,452
#016	5.4	Check that Service Units are the same for all entities (in '000)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total Service Units (MET IMWM) - Note: (check sum for combined year 2020-2021)			62,352	60,939	123,291	100,766	125,663	138,906
Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)			62,352	60,939	123,291	100,766	125,663	138,906
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs real terms / Total service units			255,90	267,27	261,52	158,92	128,03	122,68
Unit Cost			255,90	267,27	261,52	158,92	128,03	122,68
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA
Inflation rate (%) (MET IMWM)			3,70%	3,20%		2,52%	2,53%	2,50%
Inflation rate (%) (Consolidated)			3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA
Price Index (MET IMWM)			107,15	110,58		113,37	116,24	119,15
Price Index (Consolidated)			107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Cost of capital pre tax rate (%)			3,000%	3,200%		2,700%	3,100%	3,300%
Cost of capital / total asset base (%)			3,000%	3,200%		2,700%	3,100%	3,300%
#020	3.8	Check proportion of financing through equity is coherent with components	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Proportion of financing through equity calculated from components is (in %):			64,00%	69,00%		50,00%	64,00%	72,00%
Proportion of financing through equity is (in %):			64,00%	69,00%		50,00%	64,00%	72,00%
#018	3.4	Check total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Sum of assets (in '000 NC)			16 170,707	15 109,138		8 074,002	8 369,681	7 978,953
Total asset base (in '000 NC)			16 170,707	15 109,138		8 074,002	8 369,681	7 978,953
#065	3.4	Check that no cost of capital is calculated if no asset base is reported	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Total asset base (in '000 NC)			16 170,707	15 109,138		8 074,002	8 369,681	7 978,953
Cost of capital (in '000 NC)			493,206	481,982		217,191	256,949	261,710
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)			1 026,078	1 073,022	2 099,101	1 372,306	1 372,306	2 092,306
Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)			1 026,078	1 073,022	2 099,101	1 372,306	1 372,306	2 092,306
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Cost of capital - item 3.11 (in '000 NC)			166,012	155,794		126,561	110,981	101,263
NBV of fixed assets * WACC rate (in '000 NC)			166,012	155,794		126,561	110,981	101,263
#	Item	Checks for T1 MET Radom						
#002	1.6	Check the sum of costs by nature (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)			99,678	106,714	206,392	107,933	1 827,519	1 764,386
Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)			99,678	106,714	206,392	107,933	1 827,519	1 764,386
#003	2.10	Check the sum of costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)			99,678	106,714	206,392	107,933	1 827,519	1 764,386
Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)			99,678	106,714	206,392	107,933	1 827,519	1 764,386
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)			99,678	106,714	206,392	107,933	1 827,519	1 764,386
Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)			99,678	106,714	206,392	107,933	1 827,519	1 764,386
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)			3,137	4,213	7,350	4,213	122,276	122,276
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017)	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Calculated price index			107,15	110,58		113,37	116,24	119,15
Price Index			107,15	110,58		113,37	116,24	119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021)			94,507	98,250	192,756	97,187	1 588,657	1 500,256
Total costs real terms (in '000 NC)			94,507	98,250	192,756	97,187	1 588,657	1 500,256
#016	5.4	Check that Service Units are the same for all entities (in '000)		PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total Service Units (MET Radom) - Note: (check sum for combined year 2020-2021)			62,352	60,939	123,291	100,766	125,663	138,906
Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)			62,352	60,939	123,291	100,766	125,663	138,906
#017b	5.5	Check calculation of the unit cost for RP3	2	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Total costs real terms / Total service units			1,52	1,61	1,56	0,96	12,64	10,80
Unit Cost			1,52	1,61	1,56	0,96	12,64	10,80
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA
Inflation rate (%) (MET Radom)			3,70%	3,20%		2,52%	2,53%	2,50%
Inflation rate (%) (Consolidated)			3,70%	3,20%		2,52%	2,53%	2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %)		PRAWDA	PRAWDA		PRAWDA	PRAWDA
Price Index (MET Radom)			107,15	110,58		113,37	116,24	119,15
Price Index (Consolidated)			107,15	110,58		113,37	116,24	119,15
#019	3.5	Check calculation of cost of capital pre-tax rate	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Cost of capital pre tax rate (%)			5,100%	4,700%		4,700%	4,700%	4,700%
Cost of capital / total asset base (%)			5,100%	4,700%		4,700%	4,700%	4,700%
#020	3.8	Check proportion of financing through equity is coherent with components	2	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Proportion of financing through equity calculated from components is (in %):			100,00%	100,00%		100,00%	100,00%	100,00%
Proportion of financing through equity is (in %):			100,00%	100,00%		100,00%	100,00%	100,00%
#018	3.4	Check total asset base (in '000 NC)	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Sum of assets (in '000 NC)			106,325	130,179		209,223	835,485	896,493
Total asset base (in '000 NC)			106,325	130,179		209,223	835,485	896,493
#065	3.4	Check that no cost of capital is calculated if no asset base is reported	3	PRAWDA	PRAWDA		PRAWDA	PRAWDA
Total asset base (in '000 NC)			106,325	130,179		209,223	835,485	896,493
Cost of capital (in '000 NC)			5,400	6,072		9,862	39,381	42,257
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC)	3	PRAWDA	PRAWDA	PRAWDA	PRAWDA	PRAWDA
Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)			16,770	12,182	28,952	6,950	78,408	78,408
Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)			16,770	12,182	28,952	6,950	78,408	78,408
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of						

#018	3.4	Check total asset base (in '000 NC) <i>Sum of assets (in '000 NC)</i> <i>Total asset base (in '000 NC)</i>	3	PRAWDA 1 839,611 1 839,611	PRAWDA 1 711,678 1 711,678		PRAWDA 1 802,278 1 802,278	PRAWDA 1 686,619 1 686,619	PRAWDA 1 485,844 1 485,844
#065	3.4	Check that no cost of capital is calculated if no asset base is reported <i>Total asset base (in '000 NC)</i> <i>Cost of capital (in '000 NC)</i>	3	PRAWDA 1 839,611 104,913	PRAWDA 1 711,678 1 711,678 86,650		PRAWDA 1 802,278 1 802,278 86,068	PRAWDA 1 686,619 1 686,619 78,516	PRAWDA 1 485,844 1 485,844 68,386
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) <i>Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>	3	PRAWDA 224,744 224,744	PRAWDA 235,567 235,567	PRAWDA 460,311 460,311	PRAWDA 220,432 220,432	PRAWDA 211,085 211,085	PRAWDA 207,346 207,346
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) <i>Cost of capital - item 3.11 (in '000 NC)</i> <i>NBV of fixed assets * WACC rate (in '000 NC)</i>	3	PRAWDA 100,293 100,293	PRAWDA 83,394 83,394		PRAWDA 68,553 68,553	PRAWDA 57,410 57,410	PRAWDA 47,246 47,246
#	Item Checks for T1 MET Warmia i Mazury								
#002	1.6	Check the sum of costs by nature (in '000 NC) <i>Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Sum of items 1.1 to 1.5 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>	3	PRAWDA 1 208,924 1 208,924	PRAWDA 1 235,294 1 235,294	PRAWDA 2 444,218 2 444,218	PRAWDA 1 300,933 1 300,933	PRAWDA 1 335,451 1 335,451	PRAWDA 1 339,331 1 339,331
#003	2.10	Check the sum of costs by service (in '000 NC) <i>Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Sum of items 2.1 to 2.9 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>	3	PRAWDA 1 208,924 1 208,924	PRAWDA 1 235,294 1 235,294	PRAWDA 2 444,218 2 444,218	PRAWDA 1 300,933 1 300,933	PRAWDA 1 335,451 1 335,451	PRAWDA 1 339,331 1 339,331
#004	2.1	Check that total costs by nature equals total costs by service (in '000 NC) <i>Total costs by nature (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Total costs by service (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>	3	PRAWDA 1 208,924 1 208,924	PRAWDA 1 235,294 1 235,294	PRAWDA 2 444,218 2 444,218	PRAWDA 1 300,933 1 300,933	PRAWDA 1 335,451 1 335,451	PRAWDA 1 339,331 1 339,331
#091	1.1	Check that pension costs (in '000 NC) are filled in and different from 0 <i>Pension costs (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>	3	PRAWDA 58,447	PRAWDA 59,238	PRAWDA 117,685	PRAWDA 61,700	PRAWDA 65,523	PRAWDA 65,843
#009	5.2	Check calculation of Determined/Actual inflation index (base 100 in 2017) <i>Calculated price index</i> <i>Price Index</i>	2	PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 <i>Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Total costs real terms (in '000 NC)</i>	3	PRAWDA 1 126,870 1 126,870	PRAWDA 1 113,015 1 113,015	PRAWDA 2 239,884 2 239,884	PRAWDA 1 145,272 1 145,272	PRAWDA 1 147,281 1 147,281	PRAWDA 1 123,120 1 123,120
#016	5.4	Check that Service Units are the same for all entities (in '000) <i>Total Service Units (MET Warmia i Mazury) - Note: (check sum for combined year 2020-2021)</i> <i>Total Service Units (Consolidated) - Note: (check sum for combined year 2020-2021)</i>		PRAWDA 62,352 62,352	PRAWDA 60,939 60,939	PRAWDA 123,291 123,291	PRAWDA 100,766 100,766	PRAWDA 125,663 125,663	PRAWDA 138,906 138,906
#017b	5.5	Check calculation of the unit cost for RP3 <i>Total costs real terms / Total service units</i> <i>Unit Cost</i>	2	PRAWDA 18,07 18,07	PRAWDA 18,26 18,26	PRAWDA 18,17 18,17	PRAWDA 11,37 11,37	PRAWDA 9,13 9,13	PRAWDA 8,09 8,09
#006	5.1	Check that inflation rate for the entity is the same as at Charging Zone level (in %) <i>Inflation rate (%) (MET Warmia i Mazury)</i> <i>Inflation rate (%) (Consolidated)</i>		PRAWDA 3,70% 3,70%	PRAWDA 3,20% 3,20%		PRAWDA 2,52% 2,52%	PRAWDA 2,53% 2,53%	PRAWDA 2,50% 2,50%
#006b	5.2	Check that inflation index for the entity is the same as at Charging Zone level (in %) <i>Price Index (MET Warmia i Mazury)</i> <i>Price Index (Consolidated)</i>		PRAWDA 107,15 107,15	PRAWDA 110,58 110,58		PRAWDA 113,37 113,37	PRAWDA 116,24 116,24	PRAWDA 119,15 119,15
#019	3.5	Check calculation of cost of capital pre-tax rate <i>Cost of capital pre tax rate (%)</i> <i>Cost of capital / total asset base (%)</i>	3	PRAWDA 5,100% 5,100%	PRAWDA 4,700% 4,700%		PRAWDA 4,600% 4,600%	PRAWDA 4,600% 4,600%	PRAWDA 4,600% 4,600%
#020	3.8	Check proportion of financing through equity is coherent with components <i>Proportion of financing through equity calculated from components is (in %):</i> <i>Proportion of financing through equity is (in %):</i>	2	PRAWDA 100,00% 100,00%	PRAWDA 100,00% 100,00%		PRAWDA 100,00% 100,00%	PRAWDA 100,00% 100,00%	PRAWDA 100,00% 100,00%
#018	3.4	Check total asset base (in '000 NC) <i>Sum of assets (in '000 NC)</i> <i>Total asset base (in '000 NC)</i>	3	PRAWDA 169,401 169,401	PRAWDA 174,336 174,336		PRAWDA 481,380 481,380	PRAWDA 496,724 496,724	PRAWDA 474,459 474,459
#065	3.4	Check that no cost of capital is calculated if no asset base is reported <i>Total asset base (in '000 NC)</i> <i>Cost of capital (in '000 NC)</i>	3	PRAWDA 169,401 8,604	PRAWDA 174,336 8,263		PRAWDA 481,380 22,155	PRAWDA 496,724 22,862	PRAWDA 474,459 21,837
#087	3.10	Check that depreciation in item 3.10 is the same as in item 1.3 (in '000 NC) <i>Depreciation - item 3.10 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i> <i>Depreciation - item 1.3 (in '000 NC) - Note: (check sum for combined year 2020-2021)</i>	3	PRAWDA 15,615 15,615	PRAWDA 18,159 18,159	PRAWDA 33,774 33,774	PRAWDA 35,814 35,814	PRAWDA 35,000 35,000	PRAWDA 34,731 34,731
#088	3.11	Check that cost of capital in item 3.11 is calculated based on NBV of fixed assets (in '000 NC) <i>Cost of capital - item 3.11 (in '000 NC)</i> <i>NBV of fixed assets * WACC rate (in '000 NC)</i>	3	PRAWDA 7,844 7,844	PRAWDA 7,621 7,621		PRAWDA 14,907 14,907	PRAWDA 13,279 13,279	PRAWDA 11,946 11,946
#	Item Checks for T1 NSA								
#002	1.6	Check the sum of costs by nature (in '000 NC) <i>Total costs by nature (in '000 NC)</i> <i>Sum of items 1.1 to 1.5 (in '000 NC)</i>	3	PRAWDA 4 308,244 4 308,244	PRAWDA 4 436,923 4 436,923	PRAWDA 8 745,167 8 745,167	PRAWDA 4 597,612 4 597,612	PRAWDA 4 730,605 4 730,605	PRAWDA 4 867,443 4 867,443
#003	2.10	Check the sum of costs by service (in '000 NC) <i>Total costs by service (in '000 NC)</i> <i>Sum of items 2.1 to 2.9 (in '000 NC)</i>	3	PRAWDA 4 308,244 4 308,244	PRAWDA 4 436,923 4 436,923	PRAWDA 8 745,167 8 745,167	PRAWDA 4 597,612 4 597,612	PRAWDA 4 730,605 4 730,605	PRAWDA 4 867,443 4 867,443
#004	2.10	Check that total costs by nature equals total costs by service (in '000 NC) <i>Total costs by nature (in '000 NC)</i> <i>Total costs by service (in '000 NC)</i>	3	PRAWDA 4 308,244 4 308,244	PRAWDA 4 436,923 4 436,923	PRAWDA 8 745,167 8 745,167	PRAWDA 4 597,612 4 597,612	PRAWDA 4 730,605 4 730,605	PRAWDA 4 867,443 4 867,443
#014 RP3	5.3	Check total costs into real terms (in '000 NC) RP3 <i>Total determined/actual costs after deduction of costs for exempted VFR flights / price index (in '000 NC)</i> <i>Total costs real terms (in '000 NC)</i>	3	PRAWDA 4 308,244 4 308,244	PRAWDA 4 436,923 4 436,923	PRAWDA 8 745,167 8 745,167	PRAWDA 4 597,612 4 597,612	PRAWDA 4 730,605 4 730,605	PRAWDA 4 867,443 4 867,443
#016	5.4	Check that Service Units are the same for all entities (in '000) <i>Total Service Units (NSA)</i> <i>Total Service Units (Consolidated)</i>		PRAWDA 62 62	PRAWDA 61 61	PRAWDA 123 123	PRAWDA 101 101	PRAWDA 126 126	PRAWDA 139 139
#017b	5.5	Check calculation of the unit cost for RP3 <i>Total costs real terms / Total service units</i> <i>Unit Cost</i>	2	PRAWDA 69,10 69,10	PRAWDA 72,81 72,81	PRAWDA 70,93 70,93	PRAWDA 45,63 45,63	PRAWDA 37,65 37,65	PRAWDA 35,04 35,04
#019	3.5	Check calculation of cost of capital pre-tax rate <i>Cost of capital pre tax rate (%)</i> <i>Cost of capital / total asset base (%)</i>	3	N/A N/A N/A	N/A N/A N/A		N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
#020	3.8	Check proportion of financing through equity is coherent with components <i>Proportion of financing through equity calculated from components is (in %):</i> <i>Proportion of financing through equity is (in %):</i>	2	N/A N/A N/A	N/A N/A N/A		N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
#018	3.4	Check total asset base (in '000 NC) <i>Sum of assets (in '000 NC)</i> <i>Total asset base (in '000 NC)</i>	3	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000		PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000
#065	3.4	Check that no cost of capital is calculated if no asset base is reported <i>Total asset base (in '000 NC)</i> <i>Cost of capital (in '000 NC)</i>	3	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000		PRAWDA 0,000 0,000	PRAWDA 0,000 0,000	PRAWDA 0,000 0,000

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
All Entities

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)												
1.1 Staff of which, pension costs		54 280	57 360	53 630	63 828	68 230	67 079	97 484	164 563	88 558	87 916	86 774
							7 782	11 088	18 869	11 529	11 294	11 115
1.2 Other operating costs		19 432	19 164	19 477	22 150	28 567	22 565	36 584	59 149	38 339	39 368	38 936
1.3 Depreciation		6 213	7 665	8 345	10 071	12 976	13 740	15 338	29 079	15 405	15 852	17 196
1.4 Cost of capital		5 193	5 978	5 845	4 888	5 182	8 395	9 253	17 648	9 029	9 091	8 907
1.5 Exceptional items		0	0	0	0	0	0	0	0	0	0	0
1.6 Total costs		85 119	90 167	87 297	100 938	114 955	111 779	158 660	270 438	151 330	152 228	151 813
Total	% n/n-1		5,9%	-3,2%	15,6%	13,9%	-2,8%	41,9%		-4,6%	0,6%	-0,3%
2. Detail by service (in nominal terms)												
2.1 Air Traffic Management		58 878	62 392	53 459	63 854	72 640	66 982	96 989	163 971	93 273	92 449	91 730
2.2 Communication		2 157	2 205	2 102	2 283	2 694	2 564	3 562	6 126	3 350	3 261	3 270
2.3 Navigation		8 321	7 486	8 036	7 498	9 323	8 683	11 066	19 750	9 619	9 809	9 205
2.4 Surveillance		2 093	2 094	2 026	4 504	4 211	3 645	4 161	7 806	4 191	4 100	3 832
2.5 Search and rescue		0	0	0	0	0	0	0	0	0	0	0
2.6 Aeronautical Information		901	999	4 362	4 551	4 626	5 648	17 318	22 966	14 824	14 210	13 846
2.7 Meteorological services		10 287	12 529	14 961	15 660	18 385	19 948	21 127	41 074	21 476	23 669	25 064
2.8 Supervision costs		2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867
2.9 Other State costs		0	0	0	0	0	0	0	0	0	0	0
2.10 Total costs		85 119	90 167	87 297	100 938	114 955	111 779	158 660	270 438	151 330	152 228	151 813
Total	% n/n-1		5,9%	-3,2%	15,6%	13,9%	-2,8%	41,9%		-4,6%	0,6%	-0,3%
3. Complementary information (in nominal terms)												
Average asset base												
3.1 Net book val. fixed assets		81 032	93 408	101 132	128 830	134 222	133 803	140 782		140 989	139 350	135 933
3.2 Adjustments total assets		0	0	0	0	0	0	0		0	0	0
3.3 Net current assets		8 073	11 129	12 074	14 580	15 062	22 972	28 570		21 455	23 280	23 071
3.4 Total asset base		89 105	104 538	113 206	143 410	149 284	156 776	169 352		162 444	162 631	159 004
Cost of capital %												
3.5 Cost of capital pre tax rate												
3.6 Return on equity												
3.7 Average interest on debts												
3.8 Share of financing through equity												
Costs of common projects												
3.9 Common projects		0	0	0	0	0	1 790	2 142	3 933	1 679	1 537	1 299
Costs of new and existing investments												
3.10 Depreciation							13 740	15 338	29 079	15 405	15 852	17 196
3.11 Cost of capital							7 380	7 883	15 263	7 912	7 896	7 714
3.12 Cost of leasing							861	1 238	2 099	1 231	1 213	1 195
Eurocontrol costs												
3.13 Eurocontrol costs (Euro)												
3.14 Exchange rate (if applicable)												
3.15 Eurocontrol costs (national currency)												
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)												
4.1 Costs for exempted VFR flights		610	323	214	203	120	370	596	966	405	360	436
4.2 Total determined/actual costs		84 509	89 844	87 083	100 735	114 835	111 409	158 063	269 472	150 925	151 868	151 377
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)												
5.1 Inflation %		-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%
5.2 Inflation index (1)		98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1
5.3 Total costs real terms (2)		85 495	91 024	87 083	99 749	111 822	105 740	145 716	251 457	136 550	134 797	132 029
Total	% n/n-1		6,5%	-4,3%	14,5%	12,1%	-5,4%	37,8%		-6,3%	-1,3%	-2,1%
5.4 Total Service Units		95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%
5.5 Unit cost in real terms prices (3)		895,83	879,87	765,93	752,58	807,29	1 695,87	2 391,19	2 039,54	1 355,13	1 072,69	950,49
Total	% n/n-1		-1,8%	-13,0%	-1,7%	7,3%	110,1%	41,0%		-43,3%	-20,8%	-11,4%

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
ANSP PANSA

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff		48 560	51 459	47 513	57 569	61 267	56 735	86 007	142 742	76 387	74 249	72 543	56 735					
of which, pension costs						0	6 428	9 473	15 901	9 838	9 469	9 216	6 428					
1.2 Other operating costs		12 051	10 474	9 105	11 005	14 856	8 724	22 104	30 828	23 747	23 958	22 824	8 724					
1.3 Depreciation		6 076	6 932	7 319	9 068	11 972	12 324	13 859	26 183	13 634	13 906	13 830	12 324					
1.4 Cost of capital		5 044	5 817	5 588	4 638	4 960	7 728	8 617	16 345	8 632	8 574	8 185	7 728					
1.5 Exceptional items							0	0	0	0	0	0	0					
1.6 Total costs		71 732	74 682	69 525	82 280	93 054	85 511	130 588	216 098	122 400	120 688	117 382	85 511					
Total	% n/n-1		4,1%	-6,9%	18,3%	13,1%	-8,1%	52,7%		-6,3%	-1,4%	-2,7%	-8,1%					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management		58 322	61 946	53 045	63 484	72 244	65 496	95 095	160 591	91 050	89 932	87 919	65 496					
2.2 Communication		2 095	2 156	2 056	2 242	2 650	2 038	2 948	4 986	2 717	2 637	2 581	2 038					
2.3 Navigation		8 321	7 486	8 036	7 498	9 323	8 683	11 066	19 750	9 619	9 809	9 205	8 683					
2.4 Surveillance		2 093	2 094	2 026	4 504	4 211	3 645	4 161	7 806	4 191	4 100	3 832	3 645					
2.5 Search and rescue						0	0	0	0	0	0	0	0					
2.6 Aeronautical Information		901	999	4 362	4 551	4 626	5 648	17 318	22 966	14 824	14 210	13 846	5 648					
2.7 Meteorological services							0	0	0	0	0	0	0					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		71 732	74 682	69 525	82 280	93 054	85 511	130 588	216 098	122 400	120 688	117 382	85 511					
Total	% n/n-1		4,1%	-6,9%	18,3%	13,1%	-8,1%	52,7%		-6,3%	-1,4%	-2,7%	-8,1%					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets		78 269	88 157	92 675	120 913	127 376	125 350	133 019		133 532	131 866	125 032	125 350					
3.2 Adjustments total assets						0	0	0		0	0	0	0					
3.3 Net current assets		6 507	9 610	10 317	12 579	13 335	12 057	18 097		17 012	16 795	16 341	12 057					
3.4 Total asset base		84 777	97 767	102 992	133 492	140 712	137 408	151 116		150 544	148 661	141 373	137 408					
Cost of capital %																		
3.5 Cost of capital pre tax rate		5,95%	5,95%	5,43%	3,47%	3,52%	5,62%	5,70%		5,73%	5,77%	5,79%	5,62%					
3.6 Return on equity		5,95%	5,95%	5,43%	3,47%	3,52%	9,13%	9,13%		9,13%	9,13%	9,13%	9,13%					
3.7 Average interest on debts		0,00%	0,00%	0,00%	0,00%	0,00%	3,29%	3,42%		3,47%	3,53%	3,56%	3,29%					
3.8 Share of financing through equity		100,00%	100,00%	100,00%	100,00%	100,00%	40,00%	40,00%		40,00%	40,00%	40,00%	40,00%					
Costs of common projects																		
3.9 Common projects		0	0	0	0	0	1 790	2 142	3 933	1 679	1 537	1 299	1 790					
Costs of new and existing investments																		
3.10 Depreciation							12 324	13 859	26 183	13 634	13 906	13 830	12 324					
3.11 Cost of capital							7 050	7 585	14 635	7 657	7 606	7 239	7 050					
3.12 Cost of leasing							861	1 238	2 099	1 231	1 213	1 195	861					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights		0	0	0	0	0	0	0	0	0	0	0	0					
4.2 Total determined/actual costs		71 732	74 682	69 525	82 280	93 054	85 511	130 588	216 098	122 400	120 688	117 382	85 511					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %		-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)		98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)		72 579	75 673	69 525	81 467	90 604	81 144	120 243	201 386	110 592	106 967	102 057	81 144					
Total	% n/n-1		4,3%	-8,1%	17,2%	11,2%	-10,4%	48,2%		-8,0%	-3,3%	-4,6%	-10,4%					
5.4 Total Service Units		95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9	62,4					
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)		760,48	731,48	611,50	614,65	654,11	1 301,39	1 973,17	1 633,43	1 097,52	851,23	734,72	1 301,39					
Total	% n/n-1		-3,8%	-16,4%	0,5%	6,4%	99,0%	51,6%		-44,4%	-22,4%	-13,7%	99,0%					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
AFIS Modlin

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff		495	391	358	324	311	0	0	0	0	0	0	0					
of which, pension costs							0	0	0	0	0	0	0					
1.2 Other operating costs		100	103	100	95	156	0	0	0	0	0	0	0					
1.3 Depreciation		27	24	23	11		0	0	0	0	0	0	0					
1.4 Cost of capital		33	8	7	6		0	0	0	0	0	0	0					
1.5 Exceptional items							0	0	0	0	0	0	0					
1.6 Total costs		654	524	488	436	466	0	0	0	0	0	0	0					
Total	% n/n-1		-19.9%	-7.0%	-10.7%	7.1%	-100.0%	#DZIEL/0!		#DZIEL/0!	#DZIEL/0!	#DZIEL/0!	-100.0%					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management		556	446	414	370	396	0	0	0	0	0	0	0					
2.2 Communication		62	50	46	41	44	0	0	0	0	0	0	0					
2.3 Navigation							0	0	0	0	0	0	0					
2.4 Surveillance							0	0	0	0	0	0	0					
2.5 Search and rescue							0	0	0	0	0	0	0					
2.6 Aeronautical Information							0	0	0	0	0	0	0					
2.7 Meteorological services		37	29	27	24	26	0	0	0	0	0	0	0					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		654	524	488	436	466	0	0	0	0	0	0	0					
Total	% n/n-1		-19.9%	-7.0%	-10.7%	7.1%	-100.0%	#DZIEL/0!		#DZIEL/0!	#DZIEL/0!	#DZIEL/0!	-100.0%					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets		992	229	205	176	0	0	0		0	0	0	0					
3.2 Adjustments total assets							0	0		0	0	0	0					
3.3 Net current assets							0	0		0	0	0	0					
3.4 Total asset base		992	229	205	176	0	0	0		0	0	0	0					
Cost of capital %																		
3.5 Cost of capital pre tax rate		3,29%	3,32%	3,33%	3,37%													
3.6 Return on equity		3,50%	3,50%	3,50%	3,50%		0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.7 Average interest on debts		3,12%	3,19%	3,20%	3,26%		0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.8 Share of financing through equity		45,45%	42,76%	44,72%	44,70%		0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
Costs of common projects																		
3.9 Common projects		0	0	0	0	0	0	0	0	0	0	0	0					
Costs of new and existing investments																		
3.10 Depreciation							0	0	0	0	0	0	0					
3.11 Cost of capital							0	0	0	0	0	0	0					
3.12 Cost of leasing							0	0	0	0	0	0	0					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights		610	323	214	203	120	0	0	0	0	0	0	0					
4.2 Total determined/actual costs		44	202	274	233	346	0	0	0	0	0	0	0					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %		-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)		98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)		44	205	274	230	335	0	0		0	0	0	0					
Total	% n/n-1		363,5%	33,9%	-16,0%	45,5%	-100,0%	#DZIEL/0!		#DZIEL/0!	#DZIEL/0!	#DZIEL/0!	-100,0%					
5.4 Total Service Units		95,4	103,5	113,7	132,5	138,5	62,4	60,9		123,3	100,8	125,7	138,9					
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)		0,46	1,98	2,41	1,74	2,42	0,00	0,00		0,00	0,00	0,00	0,00					
Total	% n/n-1		327,6%	21,8%	-27,9%	39,2%	-100,0%	#DZIEL/0!		#DZIEL/0!	#DZIEL/0!	#DZIEL/0!	-100,0%					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
AFIS Bydgoszcz

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff							252	339	590	482	556	691	252					
of which, pension costs							26	30	55	33	39	58	25					
1.2 Other operating costs							174	139	313	218	212	372	174					
1.3 Depreciation							18	15	33	17	134	488	18					
1.4 Cost of capital							9	8	17	14	74	219	9					
1.5 Exceptional items							0	0	0	0	0	0	0					
1.6 Total costs		0	0	0	0	0	453	501	954	731	976	1 770	453					
Total	% n/n-1							10,4%		46,1%	33,4%	81,3%	#DZIEL/D!					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management							453	501	954	731	976	1 770	453					
2.2 Communication							0	0	0	0	0	0	0					
2.3 Navigation							0	0	0	0	0	0	0					
2.4 Surveillance							0	0	0	0	0	0	0					
2.5 Search and rescue							0	0	0	0	0	0	0					
2.6 Aeronautical Information							0	0	0	0	0	0	0					
2.7 Meteorological services							0	0	0	0	0	0	0					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		0	0	0	0	0	453	501	954	731	976	1 770	453					
Total	% n/n-1							10,4%		46,1%	33,4%	81,3%	#DZIEL/D!					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets							192	193		193	1 424	4 127	192					
3.2 Adjustments total assets							0	0		0	0	0	0					
3.3 Net current assets							-15	-16		104	181	318	-15					
3.4 Total asset base		0	0	0	0	0	177	177		297	1 605	4 445	177					
Cost of capital %																		
3.5 Cost of capital pre tax rate							5,12%	4,75%		4,60%	4,64%	4,93%	5,12%					
3.6 Return on equity							5,10%	4,75%		4,60%	7,09%	8,22%	5,10%					
3.7 Average interest on debts							6,69%	8,07%		0,00%	2,56%	3,01%	6,69%					
3.8 Share of financing through equity							99,04%	99,90%		100,00%	45,98%	36,91%	99,04%					
Costs of common projects																		
3.9 Common projects							0	0	0	0	0	0	0					
Costs of new and existing investments																		
3.10 Depreciation							18	15	33	17	134	488	18					
3.11 Cost of capital							10	9	19	9	66	203	10					
3.12 Cost of leasing							0	0	0	0	0	0	0					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights		0	0	0	0	0	126	184	311	103	86	155	126					
4.2 Total determined/actual costs							327	316	643	628	890	1 615	327					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%			2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6			113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)	0	0	0	0	0	307	288	595		558	795	1 469	307					
Total	% n/n-1						-6,1%			93,5%	42,6%	84,8%	#DZIEL/D!					
5.4 Total Service Units	95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3		100,8	125,7	138,9	62,4					
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)	0,00	0,00	0,00	0,00	0,00	4,92	4,73	4,83		5,53	6,33	10,58	4,92					
Total	% n/n-1						-4,0%			17,0%	14,3%	67,2%	#DZIEL/D!					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
AFIS-COM Warmia i Mazury

Actual costs 2015-2019					Determined costs - Performance Plan - RP3							Actual costs - Reference Period 3					
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																	
1.1 Staff						761	1 007	1 768	1 081	1 107	1 172	761					
of which, pension costs						135	179	314	192	197	208	135					
1.2 Other operating costs						637	830	1 468	877	897	986	637					
1.3 Depreciation						115	126	240	118	115	465	115					
1.4 Cost of capital						46	44	90	48	45	108	46					
1.5 Exceptional items						0	0	0	0	0	0	0					
1.6 Total costs	0	0	0	0	0	1 559	2 008	3 567	2 124	2 164	2 730	1 559					
Total % n/n-1							28,8%		5,8%	1,9%	26,1%	#DZIEL/D!					
2. Detail by service (in nominal terms)																	
2.1 Air Traffic Management						1 033	1 393	2 427	1 491	1 541	2 042	1 033					
2.2 Communication						526	614	1 140	633	624	689	526					
2.3 Navigation						0	0	0	0	0	0	0					
2.4 Surveillance						0	0	0	0	0	0	0					
2.5 Search and rescue						0	0	0	0	0	0	0					
2.6 Aeronautical Information						0	0	0	0	0	0	0					
2.7 Meteorological services						0	0	0	0	0	0	0					
2.8 Supervision costs																	
2.9 Other State costs																	
2.10 Total costs	0	0	0	0	0	1 559	2 008	3 567	2 124	2 164	2 730	1 559					
Total % n/n-1							28,8%		5,8%	1,9%	26,1%	#DZIEL/D!					
3. Complementary information (in nominal terms)																	
Average asset base																	
3.1 Net book val. fixed assets						877	865		796	691	1 975	877					
3.2 Adjustments total assets						0	0		0	0	0	0					
3.3 Net current assets						27	69		240	285	375	27					
3.4 Total asset base	0	0	0	0	0	905	934		1 036	977	2 350	905					
Cost of capital %																	
3.5 Cost of capital pre tax rate						5,10%	4,74%		4,60%	4,60%	4,60%	5,10%					
3.6 Return on equity						5,10%	4,74%		4,60%	4,60%	4,60%	5,10%					
3.7 Average interest on debts						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.8 Share of financing through equity						100,00%	100,00%		100,00%	100,00%	100,00%	100,00%					
Costs of common projects																	
3.9 Common projects						0	0	0	0	0	0	0					
Costs of new and existing investments																	
3.10 Depreciation						115	126	240	118	115	465	115					
3.11 Cost of capital						45	41	86	37	32	91	45					
3.12 Cost of leasing						0	0	0	0	0	0	0					
Eurocontrol costs																	
3.13 Eurocontrol costs (Euro)																	
3.14 Exchange rate (if applicable)																	
3.15 Eurocontrol costs (national currency)																	
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																	
4.1 Costs for exempted VFR flights						125	217	342	219	225	231	125					
4.2 Total determined/actual costs	0	0	0	0	0	1 434	1 791	3 224	1 905	1 940	2 500	1 434					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																	
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)	0	0	0	0	0	1 349	1 635	2 984	1 700	1 691	2 190	1 349					
Total % n/n-1							21,3%		4,0%	-0,5%	29,5%	#DZIEL/D!					
5.4 Total Service Units	95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9	62,4					
Total % n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)	0,00	0,00	0,00	0,00	0,00	21,63	26,84	24,21	16,87	13,46	15,77	21,63					
Total % n/n-1							24,1%		-37,1%	-20,2%	17,2%	#DZIEL/D!					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
MET IMWM

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff		3 517	3 441	3 524	3 585	4 030	4 718	5 173	9 892	5 398	5 614	5 839	4 718					
of which, pension costs							611	760	1 371	779	768	793	611					
1.2 Other operating costs		6 417	7 399	9 038	9 423	11 285	10 750	11 118	21 868	10 954	11 193	11 659	10 750					
1.3 Depreciation		103	661	941	941	940	1 026	1 073	2 099	1 372	1 372	2 092	1 026					
1.4 Cost of capital		117	153	249	237	215	493	482	975	217	257	262	493					
1.5 Exceptional items							0	0	0	0	0	0	0					
1.6 Total costs		10 154	11 654	13 753	14 186	16 469	16 988	17 846	34 834	17 942	18 437	19 852	16 988					
Total	% n/n-1		14,8%	18,0%	3,1%	16,1%	3,1%	5,1%		0,5%	2,8%	7,7%	3,1%					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management																		
2.2 Communication																		
2.3 Navigation																		
2.4 Surveillance																		
2.5 Search and rescue																		
2.6 Aeronautical information																		
2.7 Meteorological services		10 154	11 654	13 753	14 186	16 469	16 988	17 846	34 834	17 942	18 437	19 852	16 988					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		10 154	11 654	13 753	14 186	16 469	16 988	17 846	34 834	17 942	18 437	19 852	16 988					
Total	% n/n-1		14,8%	18,0%	3,1%	16,1%	3,1%	5,1%		0,5%	2,8%	7,7%	3,1%					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets		1 707	5 011	7 901	7 291	6 466	5 443	4 884		4 705	3 615	3 087	5 443					
3.2 Adjustments total assets							0	0		0	0	0	0					
3.3 Net current assets		1 548	1 503	1 652	1 794	1 727	10 728	10 225		3 369	4 755	4 892	10 728					
3.4 Total asset base		3 255	6 514	9 553	9 086	8 193	16 171	15 109		8 074	8 370	7 979	16 171					
Cost of capital %																		
3.5 Cost of capital pre tax rate		3,58%	2,35%	2,61%	2,61%	2,62%	3,05%	3,19%		2,69%	3,07%	3,28%	3,05%					
3.6 Return on equity		4,00%	4,00%	4,00%	4,00%	4,00%	4,00%	4,00%		4,00%	4,00%	4,00%	4,00%					
3.7 Average interest on debts		2,37%	2,35%	2,37%	2,37%	2,35%	1,34%	1,40%		1,40%	1,40%	1,40%	1,34%					
3.8 Share of financing through equity		74,23%	-0,01%	14,72%	14,72%	16,36%	64,29%	68,85%		49,62%	64,23%	72,31%	64,29%					
Costs of common projects																		
3.9 Common projects							0	0	0	0	0	0	0					
Costs of new and existing investments																		
3.10 Depreciation							1 026	1 073	2 099	1 372	1 372	2 092	1 026					
3.11 Cost of capital							166	156	322	127	111	101	166					
3.12 Cost of leasing							0	0	0	0	0	0	0					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights							0	0	0	0	0	0	0					
4.2 Total determined/actual costs		10 154	11 654	13 753	14 186	16 469	16 988	17 846	34 834	17 942	18 437	19 852	16 988					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %		-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)		98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)		10 293	11 827	13 753	14 032	15 977	15 956	16 287	32 243	16 014	16 089	17 040	15 956					
Total	% n/n-1		14,9%	16,3%	2,0%	13,9%	-0,1%	2,1%		-1,7%	0,5%	5,9%	-0,1%					
5.4 Total Service Units		95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9	62,4					
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)		107,85	114,33	120,96	105,87	115,34	255,90	267,27	261,52	158,92	128,03	122,68	255,90					
Total	% n/n-1		6,0%	5,8%	-12,5%	9,0%	121,9%	4,4%		-40,5%	-19,4%	-4,2%	121,9%					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
MET Radom

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff		39	403	284	218	83	51	53	103	53	1 150	1 150	51					
of which, pension costs							3	4	7	4	122	122	3					
1.2 Other operating costs		51	395	177	159	51	27	36	63	39	560	494	27					
1.3 Depreciation		6	48	51	35	34	17	12	29	7	78	78	17					
1.4 Cost of capital							5	6	11	10	39	42	5					
1.5 Exceptional items							0	0	0	0	0	0	0					
1.6 Total costs		96	846	513	411	167	100	107	206	108	1 828	1 764	100					
Total	% n/n-1		780,6%	-39,4%	-19,7%	-59,3%	-40,4%	7,1%		1,1%	1593,2%	-3,5%	-40,4%					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management																		
2.2 Communication																		
2.3 Navigation																		
2.4 Surveillance																		
2.5 Search and rescue																		
2.6 Aeronautical information																		
2.7 Meteorological services		96	846	513	411	167	100	107	206	108	1 828	1 764	100					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		96	846	513	411	167	100	107	206	108	1 828	1 764	100					
Total	% n/n-1		780,6%	-39,4%	-19,7%	-59,3%	-40,4%	7,1%		1,1%	1593,2%	-3,5%	-40,4%					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets		65	11	350	249	59	28	13		3	233	426	28					
3.2 Adjustments total assets							0	0		0	0	0	0					
3.3 Net current assets		17	17	105	207	0	79	117		206	603	471	79					
3.4 Total asset base		82	28	456	456	59	106	130		209	835	896	106					
Cost of capital %																		
3.5 Cost of capital pre tax rate		0,00%	0,00%	0,00%	0,00%	0,00%	5,08%	4,66%		4,71%	4,71%	4,71%	5,08%					
3.6 Return on equity							5,08%	4,66%		4,71%	4,71%	4,71%	5,08%					
3.7 Average interest on debts							0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.8 Share of financing through equity							100,00%	100,00%		100,00%	100,00%	100,00%	100,00%					
Costs of common projects																		
3.9 Common projects							0	0	0	0	0	0	0					
Costs of new and existing investments																		
3.10 Depreciation							17	12	29	7	78	78	17					
3.11 Cost of capital							1	1	2	0	11	20	1					
3.12 Cost of leasing							0	0	0	0	0	0	0					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights							0	0	0	0	0	0	0					
4.2 Total determined/actual costs		96	846	513	411	167	100	107	206	108	1 828	1 764	100					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %		-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)		98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)		97	859	513	407	163	95	98	193	97	1 589	1 500	95					
Total	% n/n-1		782,4%	-40,3%	-20,6%	-59,9%	-42,0%	4,0%		-1,1%	1534,6%	-5,6%	-42,0%					
5.4 Total Service Units		95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9	62,4					
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)		1,02	8,30	4,51	3,07	1,18	1,52	1,61	1,56	0,96	12,64	10,80	1,52					
Total	% n/n-1		714,0%	-45,7%	-31,9%	-61,7%	28,8%	6,4%		-40,2%	1210,8%	-14,6%	28,8%					

Costs and asset base items in '000 - Service units in '000

(1) Inflation Index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
MET Bydgoszcz

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff							1 145	1 331	2 476	1 464	1 428	1 465	1 145					
of which, pension costs							128	158	286	175	175	179	124					
1.2 Other operating costs							176	286	462	354	352	367	176					
1.3 Depreciation							225	236	460	220	211	207	225					
1.4 Cost of capital							105	87	192	86	79	68	105					
1.5 Exceptional items							0	0	0	0	0	0	0					
1.6 Total costs		0	0	0	0	0	1 651	1 939	3 590	2 125	2 070	2 108	1 651					
Total	% n/n-1							17,4%		9,6%	-2,6%	1,8%	#DZIEL/D!					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management																		
2.2 Communication																		
2.3 Navigation																		
2.4 Surveillance																		
2.5 Search and rescue																		
2.6 Aeronautical information																		
2.7 Meteorological services							1 651	1 939	3 590	2 125	2 070	2 108	1 651					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		0	0	0	0	0	1 651	1 939	3 590	2 125	2 070	2 108	1 651					
Total	% n/n-1							17,4%		9,6%	-2,6%	1,8%	#DZIEL/D!					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets							1 759	1 647		1 436	1 233	1 027	1 759					
3.2 Adjustments total assets							0	0		0	0	0	0					
3.3 Net current assets							81	64		367	453	459	81					
3.4 Total asset base		0	0	0	0	0	1 840	1 712		1 802	1 687	1 486	1 840					
Cost of capital %																		
3.5 Cost of capital pre tax rate							5,70%	5,06%		4,78%	4,66%	4,60%	5,70%					
3.6 Return on equity							6,84%	5,73%		5,01%	4,69%	4,60%	6,84%					
3.7 Average interest on debts							4,02%	3,51%		3,56%	3,83%	0,00%	4,02%					
3.8 Share of financing through equity							59,80%	69,94%		83,91%	96,07%	100,00%	59,80%					
Costs of common projects																		
3.9 Common projects							0	0	0	0	0	0	0					
Costs of new and existing investments																		
3.10 Depreciation							225	236	460	220	211	207	225					
3.11 Cost of capital							100	83	184	69	57	47	100					
3.12 Cost of leasing							0	0	0	0	0	0	0					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights							115	187	303	73	38	38	115					
4.2 Total determined/actual costs		0	0	0	0	0	1 536	1 752	3 287	2 053	2 032	2 069	1 536					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %		-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)		98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)		0	0	0	0	0	1 455	1 615		1 847	1 788	1 781	1 455					
Total	% n/n-1							11,0%		14,4%	-3,2%	-0,4%	#DZIEL/D!					
5.4 Total Service Units		95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9	62,4					
Total	% n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)		0,00	0,00	0,00	0,00	0,00	23,34	26,50	24,90	18,33	14,23	12,82	23,34					
Total	% n/n-1							13,5%		-30,8%	-22,3%	-9,9%	#DZIEL/D!					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
MET Warmia i Mazury

		Actual costs 2015-2019					Determined costs - Performance Plan - RP3					Actual costs - Reference Period 3						
Cost details		2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)																		
1.1 Staff				341	377	443	329	334	663	347	369	371	329					
of which, pension costs							58	59	118	62	66	66	58					
1.2 Other operating costs				316	637	1 242	856	875	1 731	896	909	912	856					
1.3 Depreciation				12	18	30	16	18	34	36	35	35	16					
1.4 Cost of capital				7	7	7	9	8	17	22	23	22	9					
1.5 Exceptional Items					0	0	0	0	0	0	0	0	0					
1.6 Total costs		0	0	669	1 038	1 722	1 209	1 235	2 444	1 301	1 335	1 339	1 209					
Total	% n/n-1				55,2%	65,9%	-29,8%	2,2%		5,3%	2,7%	0,3%	-29,8%					
2. Detail by service (in nominal terms)																		
2.1 Air Traffic Management																		
2.2 Communication																		
2.3 Navigation																		
2.4 Surveillance																		
2.5 Search and rescue																		
2.6 Aeronautical Information																		
2.7 Meteorological services				669	1 038	1 722	1 209	1 235	2 444	1 301	1 335	1 339	1 209					
2.8 Supervision costs																		
2.9 Other State costs																		
2.10 Total costs		0	0	669	1 038	1 722	1 209	1 235	2 444	1 301	1 335	1 339	1 209					
Total	% n/n-1				55,2%	65,9%	-29,8%	2,2%		5,3%	2,7%	0,3%	-29,8%					
3. Complementary information (in nominal terms)																		
Average asset base																		
3.1 Net book val. fixed assets					201	320	154	161		324	289	260	154					
3.2 Adjustments total assets							0	0		0	0	0	0					
3.3 Net current assets							15	14		157	208	215	15					
3.4 Total asset base		0	0	0	201	320	169	174		481	497	474	169					
Cost of capital %																		
3.5 Cost of capital pre tax rate					3,27%	2,33%	5,08%	4,74%		4,60%	4,60%	4,60%	5,08%					
3.6 Return on equity					3,27%	2,33%	5,08%	4,74%		4,60%	4,60%	4,60%	5,08%					
3.7 Average interest on debts					0,00%	0,00%	0,00%	0,00%		0,00%	0,00%	0,00%	0,00%					
3.8 Share of financing through equity					100,00%	99,99%	100,00%	100,00%		100,00%	100,00%	100,00%	100,00%					
Costs of common projects																		
3.9 Common projects							0	0	0	0	0	0	0					
Costs of new and existing investments																		
3.10 Depreciation							16	18	34	36	35	35	16					
3.11 Cost of capital							8	8	15	15	13	12	8					
3.12 Cost of leasing							0	0	0	0	0	0	0					
Eurocontrol costs																		
3.13 Eurocontrol costs (Euro)																		
3.14 Exchange rate (if applicable)																		
3.15 Eurocontrol costs (national currency)																		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																		
4.1 Costs for exempted VFR flights					0	0	3	7	11	10	11	12	3					
4.2 Total determined/actual costs		0	0	669	1 038	1 722	1 206	1 228	2 434	1 291	1 324	1 327	1 206					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																		
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%			2,52%	2,53%	2,50%	3,70%					
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6			113,4	116,2	119,1	107,1					
5.3 Total costs real terms (2)	0	0	669	1 026	1 668	1 127	1 113	2 240		1 145	1 147	1 123	1 127					
Total	% n/n-1				53,4%	62,6%	-32,4%	-1,2%		2,9%	0,2%	-2,1%	-32,4%					
5.4 Total Service Units	95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3		100,8	125,7	138,9	62,4					
Total	% n/n-1				16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%					
5.5 Unit cost in real terms prices (3)	0,00	0,00	5,88	7,74	12,04	18,07	18,26	18,17		11,37	9,13	8,09	18,07					
Total	% n/n-1				31,6%	55,5%	50,1%	1,1%		-37,8%	-19,7%	-11,4%	50,1%					

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
NSA

Actual costs 2015-2019																	Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024											
1. Detail by nature (in nominal terms)																												
1.1 Staff	1 669	1 667	1 608	1 756	2 097	3 089	3 240	6 329	3 344	3 443	3 545	3 089																
of which, pension costs						392	425	817	446	460	473	392																
1.2 Other operating costs	813	793	741	832	979	1 220	1 197	2 416	1 253	1 287	1 324	1 220																
1.3 Depreciation						0	0	0	0	0	0	0																
1.4 Cost of capital						0	0	0	0	0	0	0																
1.5 Exceptional items						0	0	0	0	0	0	0																
1.6 Total costs	2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867	4 308																
Total % n/n-1		-0,9%	-4,5%	10,1%	18,9%	40,1%	3,0%		3,6%	2,9%	2,9%	40,1%																
2. Detail by service (in nominal terms)																												
2.1 Air Traffic Management																												
2.2 Communication																												
2.3 Navigation																												
2.4 Surveillance																												
2.5 Search and rescue						0	0	0	0	0	0	0																
2.6 Aeronautical Information																												
2.7 Meteorological services																												
2.8 Supervision costs	2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867	4 308																
2.9 Other State costs						0	0	0	0	0	0	0																
2.10 Total costs	2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867	4 308																
Total % n/n-1		-0,9%	-4,5%	10,1%	18,9%	40,1%	3,0%		3,6%	2,9%	2,9%	40,1%																
3. Complementary information (in nominal terms)																												
Average asset base																												
3.1 Net book val. fixed assets						0	0		0	0	0	0																
3.2 Adjustments total assets						0	0		0	0	0	0																
3.3 Net current assets						0	0		0	0	0	0																
3.4 Total asset base	0	0	0	0	0	0	0		0	0	0	0																
Cost of capital %																												
3.5 Cost of capital pre tax rate						#DZIEL/01	#DZIEL/01		#DZIEL/01	#DZIEL/01	#DZIEL/01	#DZIEL/01																
3.6 Return on equity						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%																
3.7 Average interest on debts						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%																
3.8 Share of financing through equity						0,00%	0,00%		0,00%	0,00%	0,00%	0,00%																
Costs of common projects																												
3.9 Common projects						0	0	0	0	0	0	0																
Costs of new and existing investments																												
3.10 Depreciation																												
3.11 Cost of capital																												
3.12 Cost of leasing																												
Eurocontrol costs																												
3.13 Eurocontrol costs (Euro)																												
3.14 Exchange rate (if applicable)																												
3.15 Eurocontrol costs (national currency)																												
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																												
4.1 Costs for exempted VFR flights						0	0	0	0	0	0	0																
4.2 Total determined/actual costs	2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867	4 308																
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																												
5.1 Inflation %																												
5.2 Inflation index (1)																												
5.3 Total costs real terms (2)	2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867	4 308																
Total % n/n-1		-0,9%	-4,5%	10,1%	18,9%	40,1%	3,0%		3,6%	2,9%	2,9%	40,1%																
5.4 Total Service Units	95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9	62,4																
Total % n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%	-55,0%																
5.5 Unit cost in real terms prices (3)	26,01	23,78	20,66	19,52	22,21	69,10	72,81	70,93	45,63	37,65	35,04	69,10																
Total % n/n-1		-8,6%	-13,1%	-5,5%	13,8%	211,1%	5,4%		-37,3%	-17,5%	-6,9%	211,1%																

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs and Unit Costs

Poland - Others
Currency: PLN
Other airports

Actual costs 2015-2019						Determined costs - Performance Plan - RP3					
Cost details	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024
1. Detail by nature (in nominal terms)											
1.1 Staff	54 280	57 360	53 630	63 828	68 230	67 079	97 484	164 563	88 558	87 916	86 774
of which, pension costs						7 782	11 088	18 869	11 529	11 294	11 115
1.2 Other operating costs	19 432	19 164	19 477	22 150	28 567	22 565	36 584	59 149	38 339	39 368	38 936
1.3 Depreciation	6 213	7 665	8 345	10 071	12 976	13 740	15 338	29 079	15 405	15 852	17 196
1.4 Cost of capital	5 193	5 978	5 845	4 888	5 182	8 395	9 253	17 648	9 029	9 091	8 907
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	0
1.6 Total costs	85 119	90 167	87 297	100 938	114 955	111 779	158 660	270 438	151 330	152 228	151 813
Total % n/n-1		5,9%	-3,2%	15,6%	13,9%	-2,8%	41,9%		-4,6%	0,6%	-0,3%
2. Detail by service (in nominal terms)											
2.1 Air Traffic Management	58 878	62 392	53 459	63 854	72 640	66 982	96 989	163 971	93 273	92 449	91 730
2.2 Communication	2 157	2 205	2 102	2 283	2 694	2 564	3 562	6 126	3 350	3 261	3 270
2.3 Navigation	8 321	7 486	8 036	7 498	9 323	8 683	11 066	19 750	9 619	9 809	9 205
2.4 Surveillance	2 093	2 094	2 026	4 504	4 211	3 645	4 161	7 806	4 191	4 100	3 832
2.5 Search and rescue	0	0	0	0	0	0	0	0	0	0	0
2.6 Aeronautical Information	901	999	4 362	4 551	4 626	5 648	17 318	22 966	14 824	14 210	13 846
2.7 Meteorological services	10 287	12 529	14 961	15 660	18 385	19 948	21 127	41 074	21 476	23 669	25 064
2.8 Supervision costs	2 482	2 460	2 349	2 588	3 076	4 308	4 437	8 745	4 598	4 731	4 867
2.9 Other State costs	0	0	0	0	0	0	0	0	0	0	0
2.10 Total costs	85 119	90 167	87 297	100 938	114 955	111 779	158 660	270 438	151 330	152 228	151 813
Total % n/n-1		5,9%	-3,2%	15,6%	13,9%	-2,8%	41,9%		-4,6%	0,6%	-0,3%
3. Complementary information (in nominal terms)											
Average asset base											
3.1 Net book val. fixed assets	81 032	93 408	101 132	128 830	134 222	133 803	140 782		140 989	139 350	135 933
3.2 Adjustments total assets	0	0	0	0	0	0	0		0	0	0
3.3 Net current assets	8 073	11 129	12 074	14 580	15 062	22 972	28 570		21 455	23 280	23 071
3.4 Total asset base	89 105	104 538	113 206	143 410	149 284	156 776	169 352		162 444	162 631	159 004
Cost of capital %											
3.5 Cost of capital pre tax rate	5,83%	5,72%	5,16%	3,41%	3,47%	5,35%	5,46%		5,56%	5,59%	5,60%
3.6 Return on equity											
3.7 Average interest on debts											
3.8 Share of financing through equity											
Costs of common projects											
3.9 Common projects	0	0	0	0	0	1 790	2 142	3 933	1 679	1 537	1 299
Costs of new and existing investments											
3.10 Depreciation						13 740	15 338	29 079	15 405	15 852	17 196
3.11 Cost of capital						7 380	7 883	15 263	7 912	7 896	7 714
3.12 Cost of leasing						861	1 238	2 099	1 231	1 213	1 195
Eurocontrol costs											
3.13 Eurocontrol costs (Euro)											
3.14 Exchange rate (if applicable)											
3.15 Eurocontrol costs (national currency)											
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)											
4.1 Costs for exempted VFR flights	610	323	214	203	120	370	596	966	405	360	436
4.2 Total determined/actual costs	84 509	89 844	87 083	100 735	114 835	111 409	158 063	269 472	150 925	151 868	151 377
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)											
5.1 Inflation %	-0,70%	-0,20%	1,60%	1,20%	2,10%	3,70%	3,20%		2,52%	2,53%	2,50%
5.2 Inflation index (1)	98,6	98,4	100,0	101,2	103,3	107,1	110,6		113,4	116,2	119,1
5.3 Total costs real terms (2)	85 495	91 024	87 083	99 749	111 822	105 740	145 716	251 457	136 550	134 797	132 029
Total % n/n-1		6,5%	-4,3%	14,5%	12,1%	-5,4%	37,8%		-6,3%	-1,3%	-2,1%
5.4 Total Service Units	95,4	103,5	113,7	132,5	138,5	62,4	60,9	123,3	100,8	125,7	138,9
Total % n/n-1		8,4%	9,9%	16,6%	4,5%	-55,0%	-2,3%		65,4%	24,7%	10,5%
5.5 Unit cost in real terms prices (3)	895,83	879,87	765,93	752,58	807,29	1 695,87	2 391,19	2 039,54	1 355,13	1 072,69	950,49
Total % n/n-1		-1,8%	-13,0%	-1,7%	7,3%	110,1%	41,0%		-43,3%	-20,8%	-11,4%

Costs and asset base items in '000 - Service units in '000

(1) Inflation index - Base 100 in 2017

(2) Determined costs (performance plan) and actual costs in real terms

(3) Determined unit costs (performance plan) and actual unit costs in real terms

Table 1 - Total Costs

Poland - Others
Currency: PLN
Other airports

Actual costs 2015-2019						Determined costs - Performance Plan - RP3						Actual costs - Reference Period 3					
4.2 Total determined/actual costs	2015	2016	2017	2018	2019	2020	2021	2020/2021	2022	2023	2024	2020	2021	2020/2021	2022	2023	2024
BYDGOSZCZ	2 139	2 337	3 192	3 376	4 460	4 137	7 280	11 417	7 107	7 043	7 580	4 137					
GDĄSK IM. LECHA WAŁĘSY	13 163	13 488	13 204	16 451	17 644	16 482	20 729	37 211	20 366	19 964	19 571	16 482					
KRAKÓW-BALICE	17 105	18 346	16 949	17 020	19 299	17 487	24 571	42 059	23 917	23 390	23 090	17 487					
KATOWICE-PYRZOWICE	13 613	14 242	11 488	13 715	16 164	15 676	20 710	36 386	19 468	19 233	19 136	15 676					
LUBLIN	1 627	1 867	2 281	2 509	3 076	3 338	3 371	6 709	4 797	4 657	4 658	3 338					
ŁÓDŹ	2 692	2 423	2 724	2 382	3 317	3 804	7 818	11 622	6 465	6 056	5 874	3 804					
WARSZAWA/MODLIN	5 581	7 478	8 272	8 155	10 717	10 359	18 929	29 288	16 360	15 736	15 426	10 359					
POZNAŃ-LAWICA	10 474	10 854	11 426	13 778	15 092	14 361	20 530	34 890	19 560	19 584	19 382	14 361					
RADOM-SADKÓW	298	663	719	678	312	257	374	631	806	3 508	3 472	257					
RZESZÓW-JASIONKA	2 722	2 404	3 131	4 956	5 061	5 457	7 238	12 695	6 242	5 995	5 862	5 457					
SZCZECIN-GOLENIÓW	2 505	2 562	2 704	2 566	2 675	2 885	3 810	6 695	3 637	3 647	3 644	2 885					
WROCŁAW-STRACHOWICE	10 789	10 804	9 013	12 029	12 597	11 418	16 007	27 425	15 535	16 230	16 193	11 418					
ZIELONA GÓRA-BABIMOST	1 801	1 760	948	1 711	2 394	2 612	2 820	5 431	2 729	2 808	2 925	2 612					
OLSZTYN-MAZURY	0	617	1 030	1 412	2 027	3 136	3 877	7 013	3 936	4 018	4 564	3 136					
4.2 Total determined/actual costs (1)	84 509	89 844	87 083	100 735	114 835	111 409	158 063	269 472	150 925	151 868	151 377	111 409					
Total % n/n-1		6,3%	-3,1%	15,7%	14,0%	-3,0%	41,9%		-4,5%	0,6%	-0,3%	-3,0%					

(1) Total costs after deduction of costs for services to exempted flights (in nominal terms)

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
All Entities

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	269 472,1	150 924,6	151 868,4	151 377,1
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	214 000,4	121 893,1	122 194,1	120 407,2
2.2 Forecast inflation index - Table 1		113,37	116,24	119,15
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	219 965,7	124 933,7	123 517,7	121 496,4
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	155 078,9			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	-2 809,6	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	-84,6	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	-2 894,2	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))	0,0	0,0	0,0	0,0
12 Total adjustments relating to year n	152 184,7	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	269 472,10	150 924,63	151 868,42	151 377,12
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 18 927,59	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	2 799,88	-	- 1 572,63	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	- 24,51	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 23 712,84	- 12 357,14	- 12 438,18	-
13.8 Other revenues (Art. 25(2)(i))	- 2 361,34	- 2 894,24	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	31 015,78	31 015,78
13.11 Grand total for the calculation of year n unit rate	227 245,7	135 673,2	168 873,4	182 392,9
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	1 843,17	1 346,42	1 343,86	1 313,07
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00	0,00	0,00
14 Applicable unit rate for year n	1 843,17	1 346,42	1 343,86	1 313,07

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

4) Forecast service units used for the unit rate as per Art. 25(2) applied temporary in 2020

Forecast service units used for the unit rate as per Art. 25(2) applied temporary in 2021

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

781,89

791,12

-

-

146,86

152,10

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
ANSP PANSN

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	216 098,4	122 400,4	120 687,7	117 381,7
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	173 570,4	100 134,1	98 207,3	95 366,3
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	216 098,4	122 400,4	120 687,7	117 381,7
4.2 % deviation % referred to in Article 27(2) and 27(5)	2%	2%	2%	2%
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.5 % deviation referred to in Article 27(4)	10%	10%	10%	10%
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	124 883,5			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	-2 809,6	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	-84,6	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	-2 894,2	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	121 989,3	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	216 098,36	122 400,36	120 687,75	117 381,73
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 15 521,31	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	2 799,88	-	- 1 572,63	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	- 24,51	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 19 514,12	- 10 109,68	- 10 107,63	-
13.8 Other revenues (Art. 25(2)(i))	- 2 172,35	- 2 894,24	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	24 976,70	24 976,70
13.11 Grand total for the calculation of year n unit rate	181 665,9	109 396,4	133 984,2	142 358,4
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	1 473,48	1 085,65	1 066,22	1 024,86
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	1 473,48	1 085,65	1 066,22	1 024,86

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
AFIS Modlin

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	-	-	-	-
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	0,0	0,0	0,0	0,0
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	0,0	0,0	0,0	0,0
4.2 % deviation % referred to in Article 27(2) and 27(5)	2%	2%	2%	2%
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.5 % deviation referred to in Article 27(4)	10%	10%	10%	10%
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	0,0			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	0,0	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	-	-	-	-
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 9,15	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 11,01	- 5,94	- 5,89	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	- 0,00	- 0,00
13.11 Grand total for the calculation of year n unit rate	-20,2	-5,9	-5,9	0,0
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	-0,16	-0,06	-0,05	0,00
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	-0,16	-0,06	-0,05	0,00

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
AFIS Bydgoszcz

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	643,1	628,0	890,3	1 615,0
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	592,5	597,4	681,8	907,7
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	643,1	628,0	890,3	1 615,0
4.2 % deviation % referred to in Article 27(2) and 27(5)	2%	2%	2%	2%
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.5 % deviation referred to in Article 27(4)	10%	10%	10%	10%
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	601,4			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	601,4	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	643,07	628,04	890,31	1 615,02
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	-	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	-	-	-	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	120,28	120,28
13.11 Grand total for the calculation of year n unit rate	643,1	628,0	1 010,6	1 735,3
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	5,22	6,23	8,04	12,49
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	5,22	6,23	8,04	12,49

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
AFIS-COM Warmia i Mazury

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	3 224,3	1 905,3	1 939,6	2 499,7
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	2 893,5	1 739,1	1 779,3	1 926,9
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing	3 224,3	1 905,3	1 939,6	2 499,7
4.2 % deviation % referred to in Article 27(2) and 27(5)	2%	2%	2%	2%
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)	70%	70%	70%	70%
4.5 % deviation referred to in Article 27(4)	10%	10%	10%	10%
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	1 527,2			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	1 527,2	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	3 224,27	1 905,31	1 939,60	2 499,66
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	-	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	-	-	-	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	305,44	305,44
13.11 Grand total for the calculation of year n unit rate	3 224,3	1 905,3	2 245,0	2 805,1
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	26,15	18,91	17,87	20,19
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	26,15	18,91	17,87	20,19

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
MET IMWM

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	34 833,7	17 942,0	18 436,6	19 852,2
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	31 759,4	16 352,5	16 807,4	17 498,2
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	19 183,6			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	19 183,6	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	34 833,70	17 942,03	18 436,62	19 852,25
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 2 654,22	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 3 265,66	- 1 746,50	- 1 729,07	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	3 836,72	3 836,72
13.11 Grand total for the calculation of year n unit rate	28 913,8	16 195,5	20 544,3	23 689,0
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	234,52	160,72	163,49	170,54
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	234,52	160,72	163,49	170,54

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
MET Radom

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	206,4	107,9	1 827,5	1 764,4
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	166,0	91,1	1 709,7	1 643,7
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	-540,5			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	-540,5	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	206,39	107,93	1 827,52	1 764,39
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 72,65	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 79,07	- 42,39	- 160,06	-
13.8 Other revenues (Art. 25(2)(i))	- 188,99	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	- 108,10	- 108,10
13.11 Grand total for the calculation of year n unit rate	-134,3	65,5	1 559,4	1 656,3
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	-1,09	0,65	12,41	11,92
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	-1,09	0,65	12,41	11,92

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
MET Bydgoszcz

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	3 287,5	2 052,7	2 031,8	2 069,3
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	2 635,6	1 746,2	1 742,2	1 793,6
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	2 556,2			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	2 556,2	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	3 287,46	2 052,70	2 031,82	2 069,32
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	-	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	-	-	-	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	511,25	511,25
13.11 Grand total for the calculation of year n unit rate	3 287,5	2 052,7	2 543,1	2 580,6
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	26,66	20,37	20,24	18,58
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	26,66	20,37	20,24	18,58

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

6,18

5,68

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Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
MET Warmia i Mazury

Reference Period 3

Table 2 A - Adjustments relating to year n	2020/2021	2022	2023	2024

A. Cost-sharing

Determined costs				
1.1 Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	2 433,7	1 290,6	1 324,2	1 327,3
Inflation adjustment calculation				
2.1 Determined costs subject to inflation adjustment	2 383,0	1 232,7	1 266,3	1 270,7
2.2 Forecast inflation index - Table 1		113,4	116,2	119,1
2.3 Actual inflation index - Table 1				
2.4 Actual / forecast total inflation index (in %)				
2.5 Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)				
3.1 New and existing investments (Art. 28(4))				
3.3 Competent authorities and qualified entities costs (Art. 28(5))				
3.4 Eurocontrol costs (Art. 28(5))				
3.5 Pension costs (Art. 28(6))				
3.6 Interest on loans (Art. 28(6))				
3.7 Changes in law (Art. 28(6))				
3.8 Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				

B. Traffic risk sharing

Traffic risk sharing adjustment				
4.1 Determined costs subject to traffic risk sharing				
4.2 % deviation % referred to in Article 27(2) and 27(5)				
4.3 % additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4 % loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5 % deviation referred to in Article 27(4)				
4.6 Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7 Actual total service units				
4.8 Actual / forecast total service units (in %)				
4.9 Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments				
5.1 For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2 Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3 Traffic adjustments relating to year n (Art. 27(8) and 27(9))				

C. Financial incentive schemes on capacity and environment

Adjustments relating to financial incentives				
6.1 Financial incentives relating to capacity (Art. 11(3))				
6.2 Financial incentives relating to environment (Art. 11(4))				
6.3 Additional financial incentives relating to capacity (Art. 11(4))				
6.4 Financial incentives relating to year n (Art. 11(3) and 11(4))				

D. Other adjustments

Modulation of charges				
7.1 Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate				
8.1 Temporary unit rate applied in year n	Footnote 2			
8.2 Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	1 403,2			
Cross-financing between charging zones				
9.1 Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues				
10.1 Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2 National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3 Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4 Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5 Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate	Footnote 3			
11.1 Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12 Total adjustments relating to year n	1 403,2	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)	2020/2021	2022	2023	2024
13.1 Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	2 433,68	1 290,63	1 324,20	1 327,32
13.2 Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 143,84	-	-	-
13.3 Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4 Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5 Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6 Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7 Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 188,21	- 101,70	- 93,09	-
13.8 Other revenues (Art. 25(2)(i))	-	-	-	-
13.9 Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10 Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	280,65	280,65
13.11 Grand total for the calculation of year n unit rate	2 101,6	1 188,9	1 511,8	1 608,0
13.12 Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13 Unit rate for year n as per Art. 25(2) (in national currency)	17,05	11,80	12,03	11,58
13.14 Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14 Applicable unit rate for year n	17,05	11,80	12,03	11,58

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

Table 2 - Unit rate calculation

Poland - Others
Currency: PLN
NSA

Reference Period 3

Table 2 A - Adjustments relating to year n		2020/2021	2022	2023	2024
A. Cost-sharing					
Determined costs					
1.1	Determined costs in nominal terms - VFR excl. - Table 1 (Art. 22)	8 745,2	4 597,6	4 730,6	4 867,4
Inflation adjustment calculation					
2.1	Determined costs subject to inflation adjustment				
2.2	Forecast inflation index - Table 1				
2.3	Actual inflation index - Table 1				
2.4	Actual / forecast total inflation index (in %)				
2.5	Inflation adjustment relating to year n (Art. 26)				
Differences between determined and actual costs referred to in Article 28(4) to 28(6)					
3.1	New and existing investments (Art. 28(4))				
3.3	Competent authorities and qualified entities costs (Art. 28(5))				
3.4	Eurocontrol costs (Art. 28(5))				
3.5	Pension costs (Art. 28(6))				
3.6	Interest on loans (Art. 28(6))				
3.7	Changes in law (Art. 28(6))				
3.8	Differences between determined and actual costs relating to year n (Art. 28(4) to 28(6))				
B. Traffic risk sharing					
Traffic risk sharing adjustment					
4.1	Determined costs subject to traffic risk sharing				
4.2	% deviation % referred to in Article 27(2) and 27(5)				
4.3	% additional revenue returned to users referred to in Article 27(3) and 27(5)				
4.4	% loss of revenue borne by airspace users referred to in Article 27(3) and 27(5)				
4.5	% deviation referred to in Article 27(4)				
4.6	Forecast total service units (performance plan)	123,3	100,8	125,7	138,9
4.7	Actual total service units				
4.8	Actual / forecast total service units (in %)				
4.9	Traffic risk sharing adjustment relating to year n (Art. 27(2) to 27(5))				
Traffic adjustments					
5.1	For determined costs not subject to traffic risk-sharing (Art. 27(8))				
5.2	Adjustments to year n unit rate not subject to traffic risk-sharing (Art. 27(9))				
5.3	Traffic adjustments relating to year n (Art. 27(8) and 27(9))				
C. Financial incentive schemes on capacity and environment					
Adjustments relating to financial incentives					
6.1	Financial incentives relating to capacity (Art. 11(3))				
6.2	Financial incentives relating to environment (Art. 11(4))				
6.3	Additional financial incentives relating to capacity (Art. 11(4))				
6.4	Financial incentives relating to year n (Art. 11(3) and 11(4))				
D. Other adjustments					
Modulation of charges					
7.1	Adjustment to ensure revenue neutrality for modulation of charges in year n (Art. 32(1))				
Revision of the unit rate					
8.1	Temporary unit rate applied in year n	Footnote 2			
8.2	Difference in revenue due to the temporary application of unit rate in year n (Art. 29(5))	5 464,3			
Cross-financing between charging zones					
9.1	Cross-financing to (-) / from (+) other charging zone(s) relating to year n				
Other revenues					
10.1	Union assistance programmes (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.2	National public funding (Art. 25(3)(a))	0,0	0,0	0,0	0,0
10.3	Commercial activities (Art. 25(3)(b))	0,0	0,0	0,0	0,0
10.4	Revenues from contracts with airport operators (Art. 25(3)(c))	0,0	0,0	0,0	0,0
10.5	Total other revenues relating to year n (Art. 25(3))	0,0	0,0	0,0	0,0
Application of a lower unit rate		Footnote 3			
11.1	Loss of revenue relating to the application of a lower unit rate in n (Art. 29(6))				
12	Total adjustments relating to year n	5 464,3	0,0	0,0	0,0

Table 2 B - Calculation of the unit rate for year n (1)		2020/2021	2022	2023	2024
13.1	Determined costs in nominal terms - VFR excl. (Art. 25(2)(a))	8 745,17	4 597,61	4 730,60	4 867,44
13.2	Inflation adjustment : amount carried over to year n (Art. 25(2)(b))	- 526,41	-	-	-
13.3	Traffic risk sharing adjustment : amounts carried over to year n (Art. 25(2)(c))	-	-	-	-
13.4	Differences in costs as per Art. 28(4) to (6) : amounts carried over to year n (Art. 25(2)(d))	-	-	-	-
13.5	Financial incentives : amounts carried over to year n (Art. 25(2)(e))	-	-	-	-
13.6	Modulation of charges : amounts carried over to year n (Art. 25(2)(f))	-	-	-	-
13.7	Traffic adjustments : amounts carried over to year n (Art. 25(2)(g) and (h))	- 654,77	- 350,93	- 342,44	-
13.8	Other revenues (Art. 25(2)(i))	-	-	-	-
13.9	Cross-financing between charging zones (Art. 25(2)(j))	-	-	-	-
13.10	Difference in revenue from temporary application of unit rate (Art. 25(2)(k))	-	-	1 092,85	1 092,85
13.11	Grand total for the calculation of year n unit rate	7 564,0	4 246,7	5 481,0	5 960,3
13.12	Forecast total service units for year n (performance plan)	123,3	100,8	125,7	138,9
13.13	Unit rate for year n as per Art. 25(2) (in national currency)	61,35	42,14	43,62	42,91
13.14	Reduction as per Art. 29(6), where applicable (in national currency)	0,00	0,00		
14	Applicable unit rate for year n	61,35	42,14	43,62	42,91

Costs, revenues and other amounts in '000 - Service units in '000

(1) Including adjustments relating to previous reference periods (Art. 25(2)(l))

(2) Unit rate as per Art. 25(2) applied temporary in 2020 (in national currency)

Unit rate as per Art. 25(2) applied temporary in 2021 (in national currency)

3) Reduction as per Art. 29(6) applied in 2020 (in national currency)

Reduction as per Art. 29(6) applied in 2021 (in national currency)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption
that actual TSUs 2021 are equal to
forecast and that the
revised plan is adopted in 2022

22,23

23,08

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Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
All Entities

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2 024	After RP
Inflation adjustment 2018	-9 078	-9 078	0	0	0	0	0
Inflation adjustment 2019	-9 850	0	-9 850	0	0	0	0
Total inflation adjustment up to 2019	-18 928	-9 078	-9 850	0	0	0	0
Inflation adjustment 2020-2021	0	0	0	0	0	0	0
Inflation adjustment 2022	0	0	0	0	0	0	0
Inflation adjustment 2023	0	0	0	0	0	0	0
Inflation adjustment 2024	0	0	0	0	0	0	0
Total inflation Adjustment (Art. 26)*	-18 928	-9 078	-9 850	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0	0	0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Traffic risk sharing 2022	0	0	0	0	0	0	0
Traffic risk sharing 2023	0	0	0	0	0	0	0
Traffic risk sharing 2024	0	0	0	0	0	0	0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in investment costs 2022	0	0	0	0	0	0	0
Difference in investment costs 2023	0	0	0	0	0	0	0
Difference in investment costs 2024	0	0	0	0	0	0	0
Total adjustment relating to investment costs (Art. 28(4))	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2022	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2023	0	0	0	0	0	0	0
Difference in competent authorities and QEs costs 2024	0	0	0	0	0	0	0
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2022	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2023	0	0	0	0	0	0	0
Difference in Eurocontrol costs 2024	0	0	0	0	0	0	0
Total adjustment relating to Eurocontrol costs (Art. 28(5))	0	0	0	0	0	0	0
Difference in pension costs 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in pension costs 2022	0	0	0	0	0	0	0
Difference in pension costs 2023	0	0	0	0	0	0	0
Difference in pension costs 2024	0	0	0	0	0	0	0
Total adjustment relating to pension costs (Art. 28(6))	0	0	0	0	0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Difference in interest on loans 2022	0	0	0	0	0	0	0
Difference in interest on loans 2023	0	0	0	0	0	0	0
Difference in interest on loans 2024	0	0	0	0	0	0	0
Total adjustment relating to interest on loans (Art. 28(6))	0	0	0	0	0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Costs relating to change in law 2022	0	0	0	0	0	0	0
Costs relating to change in law 2023	0	0	0	0	0	0	0
Costs relating to change in law 2024	0	0	0	0	0	0	0
Total adjustment relating to change in law (Art. 28(6))	0	0	0	0	0	0	0
Cost exempt from cost sharing up to 2017	1 227	0	277	0	951	0	0
Cost exempt from cost sharing 2018	0	0	291	0	-291	0	0
Cost exempt from cost sharing 2019	0	0	2 232	0	-2 232	0	0
Total adjustment relating to cost exempt from previous RPs	1 227	0	2 800	0	-1 573	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	-25	-25	0	0	0	0	0
Financial incentives year 2019	0	0	0	0	0	0	0
Total financial incentives up to 2019	-25	-25	0	0	0	0	0
Financial incentives year 2022	0	0	0	0	0	0	0
Financial incentives year 2023	0	0	0	0	0	0	0
Financial incentives year 2024	0	0	0	0	0	0	0
Total financial incentives (Art. 11(3) and 11(4))*	-25	-25	0	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	0
Modulation of charges year 2018	0	0	0	0	0	0	0
Modulation of charges year 2019	0	0	0	0	0	0	0
Total modulation of charges up to 2019	0	0	0	0	0	0	0
Modulation of charges 2020-2021	0	0	0	0	0	0	0
Modulation of charges 2022	0	0	0	0	0	0	0
Modulation of charges 2023	0	0	0	0	0	0	0

Modulation of charges 2024	0	0	0	0	0	0	0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-12 706	-12 706	0	0	0	0	0
Traffic adjustment 2019	-11 007	0	-11 007	0	0	0	0
Total traffic adjustments up to 2019	-23 713	-12 706	-11 007	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-12 357	0	0	-12 357	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-12 438	0	0	0	-12 438	0	0
Traffic adjustment on adjustments from previous RPs 2022	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2023	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2024	0	0	0	0	0	0	0
Total traffic adjustment on adjustments from previous reference periods	-24 795	0	0	-12 357	-12 438	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0	0	0	0	0	0	0
Traffic adjustment 2022	0	0	0	0	0	0	0
Traffic adjustment 2023	0	0	0	0	0	0	0
Traffic adjustment 2024	0	0	0	0	0	0	0
Total traffic adjustment (Art. 27(8) and 27(9))*	-48 508	-12 706	-11 007	-12 357	-12 438	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	323	323	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	-2 422	0	-2 422	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	-2 099	323	-2 422	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	-2 810	0	0	-2 810	0	0	0
Revenues received from Union assistance programmes in 2022	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2023	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2024	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	-4 909	323	-2 422	-2 810	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	11	11	0	0	0	0	0
Revenues received from national public funding in 2019	-84	0	-84	0	0	0	0
Total revenues received from national public funding up to 2019	-73	11	-84	0	0	0	0
Revenues received from national public funding in 2020-2021	-85	0	0	-85	0	0	0
Revenues received from national public funding in 2022	0	0	0	0	0	0	0
Revenues received from national public funding in 2023	0	0	0	0	0	0	0
Revenues received from national public funding in 2024	0	0	0	0	0	0	0
Total revenues received from national public funding (Art. 25(3)(a))*	-158	11	-84	-85	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	-189	0	-189	0	0	0	0
Total revenues from commercial activities up to 2019	-189	0	-189	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0	0	0
Revenues from commercial activities in 2022	0	0	0	0	0	0	0
Revenues from commercial activities in 2023	0	0	0	0	0	0	0
Revenues from commercial activities in 2024	0	0	0	0	0	0	0
Total revenues from commercial activities (Art. 25(3)(b))*	-189	0	-189	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2022	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2023	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2024	0	0	0	0	0	0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	155 079	0	0	0	31 016	31 016	93 047
Revenue difference - revision of UR 2022	0	0	0	0	0	0	0
Revenue difference - revision of UR 2023	0	0	0	0	0	0	0
Revenue difference - revision of UR 2024	0	0	0	0	0	0	0
Total revenue differences from temporary application of UR (Art. 29(5))	155 079	0	0	0	31 016	31 016	93 047
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024	0	0	0	0	0	0	0
Total cross-financing to (-) / from (+) other charging zone(s)	0	0	0	0	0	0	0
Total adjustments	83 590	-21 474	-20 752	-15 251	17 005	31 016	93 047

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
ANSP PANSA

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-7 424	-7 424					
Inflation adjustment 2019	-8 097		-8 097				
Total inflation adjustment up to 2019	-15 521	-7 424	-8 097				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-15 521	-7 424	-8 097	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0		0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0				0	0	
Traffic risk sharing 2022	0					0	
Traffic risk sharing 2023	0						0
Traffic risk sharing 2024	0						0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	1 227	0	277	0	951	0	0
Cost exempt from cost sharing 2018	0	0	291	0	-291	0	0
Cost exempt from cost sharing 2019	0		2 232	0	-2 232	0	0
Total adjustment relating to cost exempt from previous RPs	1 227	0	2 800	0	-1 573	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	-25	-25					
Financial incentives year 2019	0		0				
Total financial incentives up to 2019	-25	-25	0	0	0	0	0
Financial incentives year 2022	0					0	
Financial incentives year 2023	0						0
Financial incentives year 2024	0						0
Total financial incentives (Art. 11(3) and 11(4))*	-25	-25	0	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-10 454	-10 454	0	0	0	0	0
Traffic adjustment 2019	-9 060		-9 060	0	0	0	0
Total traffic adjustments up to 2019	-19 514	-10 454	-9 060	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-10 110			-10 110	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-10 108				-10 108	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-20 217	0	0	-10 110	-10 108	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-39 731	-10 454	-9 060	-10 110	-10 108	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	323	323	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	-2 422	0	-2 422	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	-2 099	323	-2 422	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	-2 810	0	0	-2 810	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	-4 909	323	-2 422	-2 810	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	11	11	0	0	0	0	0
Revenues received from national public funding in 2019	-84	0	-84	0	0	0	0
Total revenues received from national public funding up to 2019	-73	11	-84	0	0	0	0
Revenues received from national public funding in 2020-2021	-85	0	0	-85	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	-158	11	-84	-85	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	124 884				24 977	24 977	74 930
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	124 884	0	0	0	24 977	24 977	74 930
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	65 767	-17 568	-16 864	-13 004	13 296	24 977	74 930

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
AFIS Modlin

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-4	-4					
Inflation adjustment 2019	-5		-5				
Total inflation adjustment up to 2019	-9	-4	-5				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-9	-4	-5	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0		0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0				0	0	
Traffic risk sharing 2022	0					0	
Traffic risk sharing 2023	0						0
Traffic risk sharing 2024	0						0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	0	0					
Financial incentives year 2019	0		0				
Total financial incentives up to 2019	0	0	0	0	0	0	0
Financial incentives year 2022	0					0	
Financial incentives year 2023	0						0
Financial incentives year 2024	0						0
Total financial incentives (Art. 11(3) and 11(4))*	0	0	0	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-6	-6	0	0	0	0	0
Traffic adjustment 2019	-5		-5	0	0	0	0
Total traffic adjustments up to 2019	-11	-6	-5	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-6			-6	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-6				-6	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-12	0	0	-6	-6	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-23	-6	-5	-6	-6	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	0				0	0	0
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	0	0	0	0	0	0	0
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	-32	-10	-10	-6	-6	0	0

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
AFIS Bydgoszcz

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	0	0					
Inflation adjustment 2019	0		0				
Total inflation adjustment up to 2019	0	0	0				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	0	0	0	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0		0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0				0	0	
Traffic risk sharing 2022	0					0	
Traffic risk sharing 2023	0						0
Traffic risk sharing 2024	0						0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	0	0					
Financial incentives year 2019	0		0				
Total financial incentives up to 2019	0	0	0	0	0	0	0
Financial incentives year 2022	0					0	
Financial incentives year 2023	0						0
Financial incentives year 2024	0						0
Total financial incentives (Art. 11(3) and 11(4))*	0	0	0	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	0	0	0	0	0	0	0
Traffic adjustment 2019	0		0	0	0	0	0
Total traffic adjustments up to 2019	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	0			0	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	0				0	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	0	0	0	0	0	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	0	0	0	0	0	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	601				120	120	361
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	601	0	0	0	120	120	361
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	601	0	0	0	120	120	361

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
AFIS-COM Warmia i Mazury

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	0	0					
Inflation adjustment 2019	0		0				
Total inflation adjustment up to 2019	0	0	0				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	0	0	0	0	0	0	0
Traffic risk sharing up to 2017	0	0	0	0	0	0	0
Traffic risk sharing 2018	0	0	0	0	0	0	0
Traffic risk sharing 2019	0		0	0	0	0	0
Total traffic risk sharing adjustments up to 2019	0	0	0	0	0	0	0
Traffic risk sharing 2020-2021 (exceptional measures)	0				0	0	
Traffic risk sharing 2022	0					0	
Traffic risk sharing 2023	0						0
Traffic risk sharing 2024	0						0
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*	0	0	0	0	0	0	0
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017	0	0	0	0	0	0	0
Financial incentives year 2018	0	0					
Financial incentives year 2019	0		0				
Total financial incentives up to 2019	0	0	0	0	0	0	0
Financial incentives year 2022	0					0	
Financial incentives year 2023	0						0
Financial incentives year 2024	0						0
Total financial incentives (Art. 11(3) and 11(4))*	0	0	0	0	0	0	0
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	0	0	0	0	0	0	0
Traffic adjustment 2019	0		0	0	0	0	0
Total traffic adjustments up to 2019	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	0			0	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	0				0	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	0	0	0	0	0	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	0	0	0	0	0	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	1 527				305	305	916
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	1 527	0	0	0	305	305	916
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	1 527	0	0	0	305	305	916

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
MET IMWM

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-1 287	-1 287					
Inflation adjustment 2019	-1 367		-1 367				
Total inflation adjustment up to 2019	-2 654	-1 287	-1 367				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-2 654	-1 287	-1 367	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-1 748	-1 748	0	0	0	0	0
Traffic adjustment 2019	-1 518		-1 518	0	0	0	0
Total traffic adjustments up to 2019	-3 266	-1 748	-1 518	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-1 746			-1 746	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-1 729				-1 729	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-3 476	0	0	-1 746	-1 729	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-6 741	-1 748	-1 518	-1 746	-1 729	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	19 184				3 837	3 837	11 510
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	19 184	0	0	0	3 837	3 837	11 510
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	9 788	-3 035	-2 885	-1 746	2 108	3 837	11 510

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
MET Radom

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-35	-35					
Inflation adjustment 2019	-37		-37				
Total inflation adjustment up to 2019	-73	-35	-37				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-73	-35	-37	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-38	-38	0	0	0	0	0
Traffic adjustment 2019	-41		-41	0	0	0	0
Total traffic adjustments up to 2019	-79	-38	-41	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-42			-42	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-160				-160	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-202	0	0	-42	-160	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-282	-38	-41	-42	-160	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	-189	0	-189	0	0	0	0
Total revenues from commercial activities up to 2019	-189	0	-189	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	-189	0	-189	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	-540				-108	-108	-324
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	-540	0	0	0	-108	-108	-324
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	-1 084	-74	-267	-42	-268	-108	-324

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
MET Bydgoszcz

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	0	0					
Inflation adjustment 2019	0		0				
Total inflation adjustment up to 2019	0	0	0				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	0	0	0	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	0	0	0	0	0	0	0
Traffic adjustment 2019	0		0	0	0	0	0
Total traffic adjustments up to 2019	0	0	0	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	0			0	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	0				0	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	0	0	0	0	0	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	0	0	0	0	0	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	2 556				511	511	1 534
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	2 556	0	0	0	511	511	1 534
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	2 556	0	0	0	511	511	1 534

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
MET Warmia i Mazury

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-70	-70					
Inflation adjustment 2019	-73		-73				
Total inflation adjustment up to 2019	-144	-70	-73				
Inflation adjustment 2020-2021	0				0		
Inflation adjustment 2022	0					0	
Inflation adjustment 2023	0						0
Inflation adjustment 2024	0						0
Total inflation Adjustment (Art. 26)*	-144	-70	-73	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)	0				0		0
Difference in investment costs 2022	0					0	0
Difference in investment costs 2023	0						0
Difference in investment costs 2024	0						0
Total adjustment relating to investment costs (Art. 28(4))	0				0	0	0
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)							
Difference in competent authorities and QEs costs 2022							
Difference in competent authorities and QEs costs 2023							
Difference in competent authorities and QEs costs 2024							
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))							
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)	0				0		0
Difference in pension costs 2022	0					0	0
Difference in pension costs 2023	0						0
Difference in pension costs 2024	0						0
Total adjustment relating to pension costs (Art. 28(6))	0				0	0	0
Difference in interest on loans 2020-2021 (exceptional measures)	0				0		0
Difference in interest on loans 2022	0					0	0
Difference in interest on loans 2023	0						0
Difference in interest on loans 2024	0						0
Total adjustment relating to interest on loans (Art. 28(6))	0				0	0	0
Costs relating to change in law 2020-2021 (exceptional measures)	0				0		0
Costs relating to change in law 2022	0					0	0
Costs relating to change in law 2023	0						0
Costs relating to change in law 2024	0						0
Total adjustment relating to change in law (Art. 28(6))	0				0	0	0
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-106	-106	0	0	0	0	0
Traffic adjustment 2019	-82		-82	0	0	0	0
Total traffic adjustments up to 2019	-188	-106	-82	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-102			-102	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-93				-93	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-195	0	0	-102	-93	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-383	-106	-82	-102	-93	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	1 403				281	281	842
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	1 403	0	0	0	281	281	842
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	876	-177	-155	-102	188	281	842

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 3 - Complementary information on adjustments

Poland - Others
Currency: PLN
NSA

Complementary information on adjustments	Amounts	2020	2021	2022	2023	2024	After RP
Inflation adjustment 2018	-256	-256					
Inflation adjustment 2019	-271		-271				
Total inflation adjustment up to 2019	-526	-256	-271				
Inflation adjustment 2020-2021							
Inflation adjustment 2022							
Inflation adjustment 2023							
Inflation adjustment 2024							
Total inflation Adjustment (Art. 26)*	-526	-256	-271	0	0	0	0
Traffic risk sharing up to 2017							
Traffic risk sharing 2018							
Traffic risk sharing 2019							
Total traffic risk sharing adjustments up to 2019							
Traffic risk sharing 2020-2021 (exceptional measures)							
Traffic risk sharing 2022							
Traffic risk sharing 2023							
Traffic risk sharing 2024							
Total traffic risk sharing adjustment (Art. 27(2) to 27(5))*							
Difference in investment costs 2020-2021 (exceptional measures)							
Difference in investment costs 2022							
Difference in investment costs 2023							
Difference in investment costs 2024							
Total adjustment relating to investment costs (Art. 28(4))							
Difference in competent authorities and QEs costs 2020-2021 (exc.meas.)	0				0		
Difference in competent authorities and QEs costs 2022	0					0	
Difference in competent authorities and QEs costs 2023	0						0
Difference in competent authorities and QEs costs 2024	0						0
Total adjustment relating to competent authorities and QEs costs (Art. 28(5))	0				0	0	0
Difference in Eurocontrol costs 2020-2021 (exceptional measures)							
Difference in Eurocontrol costs 2022							
Difference in Eurocontrol costs 2023							
Difference in Eurocontrol costs 2024							
Total adjustment relating to Eurocontrol costs (Art. 28(5))							
Difference in pension costs 2020-2021 (exceptional measures)							
Difference in pension costs 2022							
Difference in pension costs 2023							
Difference in pension costs 2024							
Total adjustment relating to pension costs (Art. 28(6))							
Difference in interest on loans 2020-2021 (exceptional measures)							
Difference in interest on loans 2022							
Difference in interest on loans 2023							
Difference in interest on loans 2024							
Total adjustment relating to interest on loans (Art. 28(6))							
Costs relating to change in law 2020-2021 (exceptional measures)							
Costs relating to change in law 2022							
Costs relating to change in law 2023							
Costs relating to change in law 2024							
Total adjustment relating to change in law (Art. 28(6))							
Cost exempt from cost sharing up to 2017	0	0	0	0	0	0	0
Cost exempt from cost sharing 2018	0	0	0	0	0	0	0
Cost exempt from cost sharing 2019	0		0	0	0	0	0
Total adjustment relating to cost exempt from previous RPs	0	0	0	0	0	0	0
Financial incentives year up to 2017							
Financial incentives year 2018							
Financial incentives year 2019							
Total financial incentives up to 2019							
Financial incentives year 2022							
Financial incentives year 2023							
Financial incentives year 2024							
Total financial incentives (Art. 11(3) and 11(4))*							
Modulation of charges up to 2017	0	0	0	0	0	0	
Modulation of charges year 2018	0	0	0	0	0	0	
Modulation of charges year 2019	0		0	0	0	0	
Total modulation of charges up to 2019	0	0	0	0	0	0	
Modulation of charges 2020-2021	0				0		
Modulation of charges 2022	0					0	
Modulation of charges 2023	0						0

Modulation of charges 2024	0						0
Total adjustment relating to modulation of charges (Art. 32(1))*	0	0	0	0	0	0	0
Traffic adjustment up to 2017	0	0	0	0	0	0	0
Traffic adjustment 2018	-354	-354	0	0	0	0	0
Traffic adjustment 2019	-301		-301	0	0	0	0
Total traffic adjustments up to 2019	-655	-354	-301	0	0	0	0
Traffic adjustment on adjustments from previous RPs 2020	-351			-351	0	0	0
Traffic adjustment on adjustments from previous RPs 2021	-342				-342	0	0
Traffic adjustment on adjustments from previous RPs 2022	0					0	0
Traffic adjustment on adjustments from previous RPs 2023	0						0
Traffic adjustment on adjustments from previous RPs 2024	0						0
Total traffic adjustment on adjustments from previous reference periods	-693	0	0	-351	-342	0	0
Traffic adjustment 2020-2021 (exceptional measures)	0				0	0	
Traffic adjustment 2022	0					0	
Traffic adjustment 2023	0						0
Traffic adjustment 2024	0						0
Total traffic adjustment (Art. 27(8) and 27(9))*	-1 348	-354	-301	-351	-342	0	0
Revenues received from Union assistance programmes up to 2017	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2018	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2019	0	0	0	0	0	0	0
Total revenues received from Union assistance programmes up to 2019	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2020-2021	0	0	0	0	0	0	0
Revenues received from Union assistance programmes in 2022	0			0	0	0	0
Revenues received from Union assistance programmes in 2023	0				0	0	0
Revenues received from Union assistance programmes in 2024	0					0	0
Total revenues received from Union assistance programmes (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues received from national public funding up to 2017	0	0	0	0	0	0	0
Revenues received from national public funding in 2018	0	0	0	0	0	0	0
Revenues received from national public funding in 2019	0	0	0	0	0	0	0
Total revenues received from national public funding up to 2019	0	0	0	0	0	0	0
Revenues received from national public funding in 2020-2021	0	0	0	0	0	0	0
Revenues received from national public funding in 2022	0			0	0	0	0
Revenues received from national public funding in 2023	0				0	0	0
Revenues received from national public funding in 2024	0					0	0
Total revenues received from national public funding (Art. 25(3)(a))*	0	0	0	0	0	0	0
Revenues from commercial activities up to 2017	0	0	0	0	0	0	0
Revenues from commercial activities in 2018	0	0	0	0	0	0	0
Revenues from commercial activities in 2019	0	0	0	0	0	0	0
Total revenues from commercial activities up to 2019	0	0	0	0	0	0	0
Revenues from commercial activities in 2020-2021	0	0	0	0	0		
Revenues from commercial activities in 2022	0			0	0	0	
Revenues from commercial activities in 2023	0				0	0	0
Revenues from commercial activities in 2024	0					0	0
Total revenues from commercial activities (Art. 25(3)(b))*	0	0	0	0	0	0	0
Revenues from contracts with airport operators up to 2017	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2018	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2019	0	0	0	0	0	0	0
Total revenues from contracts with airport operators up to 2019	0	0	0	0	0	0	0
Revenues from contracts with airport operators in 2020-2021	0	0	0	0	0		
Revenues from contracts with airport operators in 2022	0			0	0	0	
Revenues from contracts with airport operators in 2023	0				0	0	0
Revenues from contracts with airport operators in 2024	0					0	0
Total revenues from contracts with airport operators (Art. 25(3)(c))*	0	0	0	0	0	0	0
Revenue difference - revision of UR 2020-2021	5 464				1 093	1 093	3 279
Revenue difference - revision of UR 2022	0				0	0	0
Revenue difference - revision of UR 2023	0					0	0
Revenue difference - revision of UR 2024	0						0
Total revenue differences from temporary application of UR (Art. 29(5))	5 464	0	0	0	1 093	1 093	3 279
Cross-financing to (-) / from (+) other charging zone(s) 2020-2021							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2022							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2023							
Cross-financing to (-) / from (+) other charging zone(s) relating to 2024							
Total cross-financing to (-) / from (+) other charging zone(s)							
Total adjustments	3 590	-610	-571	-351	750	1 093	3 279

Amounts in '000 (national currency)

* Including carry-overs relating to the previous reference period(s)

Note: Adjustments relating to RP3 are to be calculated and carried forward only once the RP3 performance plan has been adopted in accordance with Article 16 (a) or (b)

Estimates made on assumption that actual TSUs 2021 are equal to forecast and that the revised plan is adopted in 2022

Table 4 - Complementary information on common projects and on revenues from Union assistance programmes allocated to the charging zone

Enland - Others

Amounts requested		Value of funded project in '000 Euro		Amounts granted (ex per GA) in '000 Euro		Common project s/n	Actual amounts received (charging zone) in '000 Euro												
Project reference (ex per Grant Agreement)	Project title	Total	For the charging zone	Total	For the charging zone		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		
PO1.06.03.00-00/00/11-00	Operational Programme Infrastructure and Environment	341 440	11 154	70 951	5 091	N	2 880	1 227	1 208	280	0	0	0						
MOUE/2-2014-717/SESAR FPA	Cost of FANGA's employees working for SESAR	200	26	200	26	N	0	0	0	0	0	0	0	0					
RP18.01.01.00-08-00/14-00	Deployment Alliance	1 008	411	732	201	N	0	0	205	0	0	0	0	0					
PA2N15-614/GA	Cost of FANGA's employees working for SESAR	13	1	13	1	N	0	0	2	3	-4	0	0	0					
GA 731781	Deployment Alliance	745	74	521	52	N	0	0	9	5	5	14	-4						
GA 73321	Increased Runway and Airport Throughput – P102 ERTM	101	10	71	7	N	0	0	1	0	1	2	0						
GA 731796	Total Airport Airspace Management – P108 AAM	327	32	229	23	N	0	0	3	4	5	8	-5						
GA 734143	Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management – P102 PROSA	405	40	283	28	N	0	0	2	2	3	14	0						
GA 734161	AD Trajectory Management – P121 ADTM	41	4	20	3	N	0	0	0	0	1	1	0						
GA INEA/CE/TRAN/M/2014/2017259	Call 2014 ITEC	6 600	654	3 304	327	Y	0	0	0	122	0	130	0						
GA INEA/CE/TRAN/M/2015/1131871	Call 2015 - ECI - LAN	3 570	362	3 040	308	Y	0	0	0	75	0	69	0						
GA INEA/CE/TRAN/M/2016/1349610	Call 2016	13 330	1 287	5 760	556	Y	0	0	0	189	0	0	188						
GA 734139	Airport Safety Nets P103b SAFE	376	37	263	26	N	0	0	0	2	2	12	30						
GA 734129	Trajectory based Free Routing – P105 TbfR/REE	759	75	531	53	N	0	0	0	12	6	26	9						
PO1.06.03.00-00/00/11-00	Operational Programme Infrastructure and Environment II	44 391	4 168	37 732	3 543	N	0	0	0	0	1 089	1 203	474						
GA INEA/CE/TRAN/M/2017/1349610	Call 2017	456	45	228	23	Y	0	0	0	0	0	23	0						
GA E74677	Wave 2 - P102	146	15	104	10	N	0	0	0	0	0	10	0						
GA E74672	Wave 2 - P104	56	6	39	4	N	0	0	0	0	0	4	0						
GA E74670	Wave 2 - P105	0	0	0	0	N	0	0	0	0	0	0	0						
GA E74665	Wave 2 - P107	125	12	87	9	N	0	0	0	0	0	9	0						
GA E74663	Wave 2 - P109	36	-4	25	2	N	0	0	0	0	0	2	0						
GA E74664	Wave 2 - P110	108	11	75	7	N	0	0	0	0	0	7	0						
GA E74674	Wave 2 - P113	0	0	0	0	N	0	0	0	0	0	0	-4						
GA E73220	Wave 2 - P118	126	13	86	8	N	0	0	0	0	0	9	0						
GA E74673	Wave 2 - P119	29	3	20	2	N	0	0	0	0	0	2	0						
GA E74675	Wave 2 - P120	20	1	20	1	N	0	0	0	0	0	2	0						
GA E74676	Wave 2 - V102	0	0	0	0	N	0	0	0	0	0	0	1						
Total in '000 Euro		214 150	14 487	124 412	10 913		2 880	1 236	1 233	684	1 114	1 593	689	0	0	0	0		
Total in '000 national currency		889 022	75 792	516 643	45 483		11 739	5 036	5 292	2 962	4 586	6 166	2 731						

Amounts reimbursed to airspace users through other revenues

Project reference (ex per Grant Agreement)	Project title	Amounts retained in respect of administrative costs for the charging zone in '000 Euro	Total to be reimbursed for the charging zone in '000 Euro	Amounts reimbursed to users (charging zone) in '000 national currency														
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	After 2024			
PO1.06.03.00-00/00/11-00	Operational Programme Infrastructure and Environment			1 566	1 594	1 676	2 039	1 670	-493	-499	1 400,7	1 133						
MOUE/2-2014-717/SESAR FPA	Cost of FANGA's employees working for SESAR Deployment Alliance			0	0	0	0	0	48	28	255	26						
RP18.01.01.00-08-00/14-00	1st System Global development			0	0	24	67	85	1	0	846	85						
PA2N15-614/GA	Cost of FANGA's employees working for SESAR Deployment Alliance			0	0	0	0	0	5	0	0	0						
GA 731781	Increased Runway and Airport Throughput – P102 ERTM			0	0	0	0	0	31	55	610	19						
GA 73321	Total Airport Airspace Management – P108 AAM			0	0	0	0	0	5	8	62	15						
GA 731796	Advanced Tool Support Management – P108 AAM Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management – P102 PROSA			0	0	0	0	0	30	23	335	19						
GA 734143	AD Trajectory Management – P121 ADTM			0	0	0	0	0	11	17	620	0						
GA 734161	Call 2014 ITEC			0	0	0	0	0	1	3	42	0						
GA INEA/CE/TRAN/M/2014/2017259	Call 2015 - ECI - LAN			0	0	0	0	0	78	32	482	72						
GA INEA/CE/TRAN/M/2015/1131871	Call 2016			0	0	0	0	0	7	10	434	95						
GA INEA/CE/TRAN/M/2016/1349610	Airport Safety Nets P103b SAFE			0	0	0	0	0	159	94	973	167						
GA 734139	Trajectory based Free Routing – P105 TbfR/REE			0	0	0	0	0	9	9	545	44						
GA 734129	Operational Programme Infrastructure and Environment II			0	0	0	0	0	0	114	378,9	618						
PO1.06.03.00-00/00/11-00	Wave 2 - P102										35,7	6						
GA E74677	Wave 2 - P104										0,1	0						
GA E74672	Wave 2 - P105										0,0	0						
GA E74670	Wave 2 - P107										0,2	15						
GA E74665	Wave 2 - P109										0,1	10						
GA E74663	Wave 2 - P110										0,0	0						
GA E74664	Wave 2 - P113										0,0	0						
GA E74674	Wave 2 - P118										0,0	4						
GA E73220	Wave 2 - P119										0,0	2						
GA E74673	Wave 2 - P120										0,0	3						
GA E74675	Wave 2 - V102										0,0	1						
Traffic adjustment	Traffic adjustment	0	0	0	0	0	0	0	-134	-261	463,5							
Total in '000 Euro		0	0	377	384	420	307	471	-38	-61	684	697	0	0	0			
Total in '000 national currency		0	0	1 566	1 594	1 920	2 206	1 953	-405	-344	2 507	2 894	0	0	0			

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

Terminal charging zone Poland - Others	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)	121 096 042	269 472 102	150 924 628	151 868 423	151 377 121	25,0%
Total terminal costs in real terms (in national currency at 2017 prices)	117 995 430	251 456 705	136 550 408	134 797 006	132 028 872	11,9%
Total terminal costs in real terms (in EUR2017) ¹	27 732 114	59 099 119	32 093 035	31 680 938	31 030 352	11,9%
YoY variation		113,1%	-45,7%	-1,3%	-2,1%	
Total terminal Service Units (TNSU)	138 516	123 291	100 766	125 663	138 906	0,3%
YoY variation		-11,0%	-18,3%	24,7%	10,5%	
Real terminal unit costs (in national currency at 2017 prices)	851,85	2 039,54	1 355,13	1 072,69	950,49	11,6%
Real terminal unit costs (in EUR2017) ¹	200,21	479,35	318,49	252,11	223,39	11,6%
YoY variation		139,4%	-33,6%	-20,8%	-11,4%	

National currency	PLN
¹ Average exchange rate 2017 (1 EUR=)	4,25

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

Terminal charging zone Poland - Others	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	121 096 042	114 834 656	6 261 386
Total terminal costs in real terms (in national currency at 2017 prices)	117 995 430	111 822 410	6 173 020
Total terminal costs in real terms (in EUR2017) ¹	27 732 114	26 281 287	1 450 827
Total terminal Service Units (TNSU)	138 516	138 516	0

Polish Performance Plan
Third Reference Period (2020-2024)
Revision

Annex B.2 Terminal Charging Zones WAW
Additional Information

Terminal Charging Zone Poland WAW
Reference Period 3 (2020-2024)

ADDITIONAL INFORMATION TO REPORTING TABLES 1 – TOTAL COSTS AND UNIT COSTS

1. Determined costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services, based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc 7754) as last amended, and a description of the methodology used for allocating those costs between different charging zones;

For the Polish Performance Plan for RP3 (PL RP3 PP) the cost base for terminal charges in Poland consists of cost incurred by the following six organizations:

- **Polish Air Navigation Services Agency (PANSa)** – provider of air traffic services, provider of CNS services and AIS,
- **Institute of Meteorology and Water Management – National Research Institute (IMWM)** – MET services provider,
- **Radom Meteo sp. z o.o. (Radom Meteo)** – MET services provider for EPRA approach and tower services,
- **Warmia i Mazury sp. z o.o. (Warmia i Mazury)** – MET services provider for EPSY approach and tower services,
- **Port Lotniczy Bydgoszcz S.A. (PL Bydgoszcz)** – MET services provider for EPBY approach and tower services,
- **Civil Aviation Authority of the Republic of Poland (CAA)** – national supervisory authority.

There are two terminal charging zones in Poland (FIR Warszawa) – no changes have been made since 2017. The I TCZ includes EPWA airport (TNC-EPWA), while the II TCZ (TNC-OTHER) includes the following 14 airports: EPGD, EPKK, EPBY, EPKT, EPLL, EPPO, EPRZ, EPSC, EPWR, EPZG, EPMO, EPLB, EPRA, EPSY.

	RP1	RP2			RP3	
		Single TCZ (until 2016)	TNC-EPWA (since 2017)	TNC-OTHER (since 2017)	TNC-EPWA	TNC-OTHER
Terminal	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination* +MET costs for EPSY)	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination*)
	IMWM (MET)	IMWM (MET for all airports excluding EPRA and EPSY)	IMWM (MET)	IMWM (MET for all airports excluding EPRA and EPSY)	IMWM (MET)	IMWM (MET for all airports excluding EPRA, EPSY and EPBY)
		MPL WM (AFIS - EPMO)		MPL WM (AFIS - EPMO)		
		Radom Meteo (MET – EPRA and EPSY)		Radom Meteo (MET – EPRA)		Radom Meteo (MET – EPRA)
				Warmia i Mazury (MET – EPSY) ¹		Warmia i Mazury (AFIS, COM, MET – EPSY)
						PL Bydgoszcz (AFIS, MET – EPSY)
	CAA (CAA+MS)	CAA (NSA+MS)	CAA (CAA+MS)	CAA (CAA+MS)	CAA (CAA+MS)	CAA (CAA+MS)

* SAR coordination is fully allocated to ER cost base (see letter c).

¹ In case of Warmia i Mazury in RP2 the whole cost of MET services provided were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2.

Terminal Charging Zone Poland WAW
Reference Period 3 (2020-2024)

I. PANSA

For the purpose of calculating the cost base for the terminal charges, PANSA has taken into consideration costs of facilities listed in the ICAO Regional Navigation Plan (Doc. 7754) reflecting all equipment used for the provision of air navigation services.

For methodology used for allocating costs between charging zones (en-route and terminal), and within terminal between two charging zones (based on allocation of costs to each individual airport) – see point c) below.

II. IMWM

See point c), d) and e) below.

III. CAA

The allocation of CAA's costs between ER and TNC is based on the number of personnel (FTEs) executing the tasks of national supervisory authority and part of member state responsibilities which are in the competence of CAA as stated in the Polish Aviation Law Act. The methodology, developed during Poland's technical integration with EUROCONTROL CRCO, remains unchanged since 2008. For more information, see point c).

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights in accordance with Article 31(3), 31(4) and 31(5);

I. PANSA

Cost of air navigation services provided to VFR flights is calculated through a marginal cost methodology. Being covered by the State budget, costs of VFR flights are deducted from the en-route determined costs (no additional costs established under marginal cost methodology are applicable to terminal services). The methodology applied for RP3 has not changed compared to previous reference period.

II. IMWM

Not applicable.

III. CAA

Not applicable.

c) Criteria used to allocate costs between terminal and en route services, in accordance with Article 22(5);

I. PANSA

Criteria for allocation of PANSA's costs between ER and TNC remain unchanged as compared with the RP2 and initial draft RP3 performance plan dated Nov 2019. In the initial draft PL RP3 PP, as compared to RP2, some modifications were introduced to allocation keys of two major investments (Tower Warsaw and new Campus) following consultation of draft PL RP3 PP and comments provided by airspace users. During works on revised PL RP3 PP PANSA has also updated the variable part of the allocation keys (timesheet, cost center structure, movements, SU, FTE, etc).

PANSA, for cost allocation purposes, uses the Services Cost Calculation and Profitability Analysis System built on the basis of Activity Based Costing methodology. The Cost Calculation system is based on a multi-step allocation principle.

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Some costs, by their origin may be allocated directly to the ER or TNC services (e.g. ACC ATCOs). Other costs, which are not directly linked with the provision of specific services (e.g. human resources or financial staff) are allocated using the allocation keys catalogue which is included in the model. Those keys were constructed in a very precise manner in order to reflect in the best possible way on the distribution of costs borne in operational activity (e.g. number of operations, number of service units, staff complement, power utilization etc.).

For ATS:

- The costs of services provided in the controlled area (CTA) and TMA are allocated to ER.
- Costs related to services provided in CTR (controlled zone) are allocated to TNC.

With regards to ATC units:

- Costs of APP and ACC units are allocated to ER in total.
- For TWR units distinction has to be made between airports where a separate APP unit has been established and airports where in fact the TWR unit provides procedural approach services:
 - In Poland, following operational requirements, 4 approach control units have been created for the major airports:
 - Gdańsk im. Lecha Wałęsy (EPGD),
 - Poznań-Ławica (EPPO) and Wrocław-Strachowice (EPWR) together,
 - Kraków-Balice (EPKK) and Katowice-Pyrzowice (EPKT) together,
 - Chopina w Warszawie (EPWA) and Warszawa/Modlin (EPMO) together.

For those airports, where a separate APP unit operates, cost of TWR service is allocated to ER only in the part, which covers services provided outside CTR boundaries and is limited to services provided to approaching (landing) operations.

- At remaining airports, TWR unit provides also APP services. When both APP and TWR services are provided by TWR unit, the cost of the unit is divided between ER and TNC in accordance with the airspace volume ratio (CTR and TMA). For that purpose the following formula is used: $V(CTR) / V(CTR + TMA)$. This formula should be understood as volume of airport controlled area to the total volume of the airport controlled zone and the airport controlled area.

Costs of FIS services, as well as SAR coordination, are in total allocated to ER.

For CNS:

- NAV: The basis for costs allocation of Nav aids is the degree of their use by individual air traffic control units (APP vs. TWR) and reflects use of those Nav aids in different airspace structures (TMA vs. CTR). Allocation of VOR/DVORs, DMEs and ILSS takes into account range of these Nav aids, and as a consequence, their possible use in TMA and CTR. Usage of the airport Nav aids for certain flights in different types of airspace is strictly connected with the dimension of the given airspace. Therefore, their cost is split between TWR and APP, and consequently between TNC and ER.
- SUR: Costs of en-route and approach radars are in total allocated to ER service. Costs of airport movements radars, ASMGCS system and airport MLAT are allocated in total to TNC services (in line with their location).
- COM: The cost allocation is based on the number of radio-stations and voice communication consoles used by each service.

The cost of ATM operational system Pegasus 21 is allocated between ER and TNC on the basis of revenues from navigation services provided. New ATM system (iTEC) is fully allocated to en-route as it will be dedicated to ACC and APP units.

Costs of PANSAT UTM system are divided between TNC (and within this part among airports)- and non-navigation cost segment based on the ratio of the amount of planned costs and the number of movements at a given airport.

II. IMWM

Tasks related to the provision of meteorological services for the TNC zones are carried out by Aeronautical Meteorological Stations, the central laboratory of the measuring equipment, Meteorological

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Services for Civil Aviation (AWOS systems) and administrative units. In addition, for RP3 the costs of these tasks have been divided by 40% for en-route charges and 60% for terminal charges. For more details see En-route Charging Zone Poland Reference Period 3 (2020-2024) additional information point c).

III. CAA

The allocation between en-route and terminal ANS based on the involvement of each of the CAA's organizational units' into activities linked within the en-route and terminal supervision, measured in FTEs.

d) Breakdown of the meteorological costs between direct costs and the costs of supporting meteorological facilities and services that also serve meteorological requirements in general ('MET core costs'). MET core costs include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

I. PANSA

Not applicable.

II. IMWM

Methodology of separating the costs of meteorological services for aviation in IMWM

Determination of the share of costs of meteorological services for civil aviation provided by IMWM in total MET costs is based on separation of direct costs of such services and on separation of MET core costs.

Methodology of direct costs of meteorological services determination.

The separation of direct costs of meteorological services for aviation from the total MET costs consists in defining the costs of services, facilities and systems used exclusively to provide meteorological services for aviation. IMWM defines these costs in accordance with ICAO Doc. 9161 'Manual on air navigation services economics' and WMO Publication No 904 'Guide to aeronautical meteorological services cost recovery. Principles and guidance', Annex 1, as the costs of: Meteorological Watch Office, Meteorological Forecasting Office in Cracow - only the part of the costs related to services for aviation, Aeronautical Meteorological Stations, telecommunication system which serve aviation, systems of aerodrome meteorological measuring devices, and costs of administrative support (including training) directly serving the aviation. Such defined direct costs include:

- 1) gross payments including: personal and impersonal wages, company's award fund contribution, social insurance contribution, company's social benefit fund contribution, and others; this cost is proportional to the amount of employees rendering meteorological services for civil aviation.

These group of costs are qualified as the staff costs.

The other groups of the direct costs of meteorological service for aviation are:

- 2) indirect costs proportional to remuneration fund and remuneration-related expenditures;
- 3) materials and equipment spare parts: office tools, printers ink, equipment purchase including purchase of equipment at airports, electricity, heat, computers, full equipment of the workplaces;
- 4) third party services: specialized software service (LEADS, AMHS, METAR2010, DEDAL, PROMET), renovation, check-ups, maintenance (computers, copiers, plotters, etc.), data communication network service (servers, routers) used by Meteorological Offices, and Aeronautical Meteorological Stations for meteorological services for civil aviation;
- 5) telecommunication: costs of maintaining communication between headquarters and Meteorological Watch Office, between meteorological offices and PANSA (AFTN network) and Aeronautical Meteorological Stations; SADIS communication system; fees for fixed-line telephones and mobile phones directly connected with meteorological services for civil aviation;
- 6) business trips inside and outside the country directly connected with meteorological services for civil aviation;
- 7) trainings and conferences: periodical meteorological training in respect of international European standards; enhancing qualifications trainings, inner audit costs connected with Quality Management System; other trainings connected with the service provision;

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- 8) lease of premises and meteorological ground on the premises of airports - leasing according to signed agreements;
- 9) usage of automatic weather observation systems (AWOS) for the needs of meteorological services for civil aviation, including: trainings for the service workers, relevant business trips, the costs directly connected with AWOS maintenance and the cost of measuring equipment modernization.

The above costs, point 2 to 9 constitute other operating costs of meteorological services for aviation.

Methodology of determining the share of meteorological services for aviation costs in core MET costs.

According to ICAO Doc. 9161 'Manual on air navigation services economics' and WMO no 904 'Guide on aeronautical meteorological services cost recovery. Principles and guidance' MET core systems are defined as systems, facilities and services not only used for meteorological services for aviation but also for the public. These are as follows:

- Generally forecasting system;
- Numerical weather forecast system;
- Telecommunication infrastructure;
- Hydrological-meteorological stations network;
- Aerology observations system;
- Meteorological radars and discharging detection systems;
- Satellite data receiving system;
- Historical database;
- Systems supervision.

Core MET costs are costs of maintenance of the above listed systems in this part which was included within total MET costs and on the basis of the methodology presented above.

The share of costs of most MET core systems in aviation costs was calculated in accordance with procedures defined in ICAO Doc. 9161 'Manual on air navigation services economics' and WMO no 904 'Guide on aeronautical meteorological services cost recovery. Principles and guidance', point 3.10 (d), namely: in proportion of all employees working for aeronautical meteorology to employees working for National Hydrological-Meteorological Service. The number of employees working for aeronautical meteorology was determined on the basis of dividing National Hydrological-Meteorological Service into HYDRO Service and MET Service. This methodology was applied in order to determine the share of costs of the following core systems:

- Generally forecasting system;
- Numerical weather forecast system;
- Hydrological-meteorological stations network;
- Aerology observation system;
- Satellite data receiving system;
- Historical database;
- Systems supervision.

The share of costs of telecommunication systems in aviation costs was determined analogously to the methodology which determines the share of MET costs (total MET costs) in National Hydrological-Meteorological Service. The methodology is defined in ICAO Doc. 9161 and WMO no 904 point 3.10 (c), namely it is based on the analysis of the size of computer network flow in IMWM.

III. CAA

Not applicable.

e) Description of the methodology used for allocating total meteorological costs and MET core costs referred to in point (d) to civil aviation and between charging zones;

I. PANSA

Not applicable.

II. IMWM

Methodology for division of costs of MET services to civil aviation into costs of particular products.

The methodology for determining the cost of various aviation products is based on an assessment of the percentage contribution of the working time of one post per day in the manufacture of products for meteorological service to civil aviation. The basis of the methodology is the assessment of involvement of different organizational units, directly producing aeronautical products such as the Meteorological Watch Office (MBN), Meteorological Forecasting Office in Cracow (BPM) and the Aeronautical Meteorological Stations (LSM) units and indirectly involved in services for civil aviation. The measure of this commitment is the amount of time required to manufacture a particular product. The share of work of the units indirectly involved is assigned to each product, and contribution of the Central Measuring Equipment Laboratory, was assigned only to products that are based on measuring instruments.

A detailed description of the methodology used to determine the costs of products is as follows:

- 1) A catalogue of basic classes of meteorological products has been defined. It was prepared by IMWM in order to provide meteorological services to civil aviation in 2020-2024. This catalogue is based on ICAO Annex 3, WMO Publication No. 904.
- 2) Daily work tables were constructed for the Meteorological Watch Office and Meteorological Forecasting Office in Cracow, and for Aeronautical Meteorological Stations. These tables describe the average time it takes to produce various aeronautical meteorological products in specific classes in the consecutive hours of the day, in different organizational units.
- 3) On the base of obtaining percentage of product workload, partial product cost has been calculated which is a product of the following elements:
 - Number of posts;
 - Labour consumption of the products;
 - Annual amount of salaries per post.

The term workload is understood as the amount of work needed or used for the implementation and monitoring of a single product that is expressed as a percentage of working time to the entire time. Cost share of other groups (service, AWOS, materials, external services, delegations, telecommunications, SADIS, trainings, rentals, infrastructure, depreciation, cost of capital) has been established - on the basis of dedicated work at each cost group to manufacture the product. This share has been added to the partial cost of the product. In this way, an annual cost of developing each of the products ordered by PANSA has been achieved. The sum of the individual products gives us an annual cost of MET services to civil aviation.

III. CAA

Not applicable.

f) For each entity, description of the composition of each item of the determined costs by nature and by service (points 1 and 2 of Table 1), including a description of the main factors explaining the planned variations over the reference period;

I. PANSA

Determined costs by nature and by service

Entity: PANSA	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Staff costs cover gross remuneration, overtime payments and other ancillary benefits including jubilee awards and bonuses, PANSA contributions to social security scheme,

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	including pension contributions, as well as provisions related to staff costs. Staff costs do not include the costs of training, which are disclosed under other operating costs. The main drivers for 2020-2021 cost evolution are: - implementation of cost containment measures in the area of base salaries due to the lack of the main source of income (ANS charges) – applicable to 2021; - reduction of all other remuneration components (overtime, bonuses, awards, allowances etc.) related to the extraordinary financial circumstances, reduced workload and use of furloughs/downtime – applicable to 2020-2021, - use of COVID-related state care allowance for small kids by some employees during lockdown and related school closure – applicable to 2020-2021, - temporary suspension/reduction of some contribution to social insurance scheme – applicable to 2020, - cancellation of special remuneration conditions for TWR EPWA ATCOs. The 2021 staff costs are also impacted by measures implemented by PANSA in terms of staff costs following the COVID-19 crisis outbreak as well as one-off costs that are necessary to allow for limiting cost increases for 2022+. The 2021 cost increase is related to additional obligations of the Agency towards its employees following from measures undertaken and planned to be undertaken, including those resulting from reduction of basic salaries and use of furloughs/downtime, employment optimisation, implementation of new rules of remuneration. To enable meeting the cost trend aligned with Union-wide trend for RP3 and to avoid significant increase in staff costs after RP3, changes to staff remunerations are necessary – limiting the 2022+ costs to values enabling meeting the required cost profile results in the need to incur one-off costs in 2021. Those one-off costs consider, among others, the main elements: - costs related to compensations for employees who will not accept the new salary levels and related costs stemming from the need to employ new employees to replace those leaving, - costs related to potential court cases initiated by some employees following contract termination by the employer, - one-off costs related to changes in remuneration of some employees resulting from Labour Law provisions (under which during the transitional period employees can benefit from both, old and new provisions of rules of remuneration to the extent that these are more favourable to them). The main assumptions for 2022-2024 planned cost evolution include: - partly restoration of basic salaries following the 2021 cuts indicated above, - restoration of other remuneration components to pre-pandemic levels where needed/justified, increase in employment (especially in the CNS and IT areas) due to i.a. infrastructure and systems development supporting TWR ATCOs.
of which, pension costs	These include PANSA contributions to national pension scheme (applicable to all entities in Poland) as well as additional PANSA occupational pension scheme applicable to PANSA employees (Defined Contribution Scheme). Pension contributions were assumed at the current level. In percentage: 1) for the state scheme: 9.76% - pension contribution rate; 6.5% - disability pension contribution rate and 1.5% - bridging pension contribution rate for employees employed in special conditions, 2) for PANSA occupational scheme: 7%. For the state scheme the costs assume the annual limit of basis for the contributions to state pension insurance applicable for 2021 in the amount of 157 770 PLN, which in subsequent years was increased by forecasted inflation (the limit is verified on annual basis by the state taking into account the level of monthly average salary in the Polish economy). 2020 pension costs are impacted by the temporary suspension of contribution to PANSA occupational scheme.
1.2 Other operating costs	The other operating costs were estimated according to the best knowledge regarding signed agreements with subcontractors, short term needs related to ensuring services continuity as well as savings and optimization of costs necessitated by COVID-19 situation. The level of costs also takes into account cost of training. The main drivers for 2020-2021 cost evolution are: - restrictions connected with COVID-19 pandemic, which have temporary impact on the level of such costs as travel, trainings, energy and utilities (remote work), events etc., - measures aimed at maintaining liquidity, consisting in temporary reduction of some expenditures or postponement of these – where possible, including

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	also CAPEX optimization (impacting costs related to new investments – incl. preparatory works, implementation and maintenance of infrastructure and systems, as well as costs related to repair services and other – incl. security, cleaning and maintenance services – needed to maintain PANSA's Property Plant and Equipment at the level ensuring undistorted operations). The main assumptions for 2022-2024 planned cost evolution include: – execution of projects aimed at increasing efficiency of TWR ATCOs, considering also the need to improve resilience and digitalization of services. These include both investment tasks as foreseen in the verified CAPEX plan (where planned investments have impact on costs related to preparatory works, implementation and maintenance of infrastructure and systems) and projects planned to be executed as OPEX, – restoration to normal operations where it is no longer possible to reduce or postpone activities and related costs, and where due account must be taken of increase in prices of energy, minimum wage (impacting costs of external services) and tax liabilities (also resulting from execution of investment tasks mentioned above). Following talks between NSA and the European Commission on the treatment of costs related to non-contractual use of land, costs related to accounting provisions on these claims are not included in the revised RP3 determined costs. In accordance with the outcome of the discussions with the EC, these will be reported as cost-exempt once the final amounts to be paid by PANSA are established and subject to payment and will be recovered accordingly.
1.3 Depreciation	The depreciation cost covers both, continued depreciation of assets existing before RP3 as well as depreciation on new assets, which were/will be put into operation over 2020-2024. It includes depreciation of fixed assets and intangible assets. Historic cost accounting is applied. The level of depreciation cost is impacted by investments executed before the COVID pandemic (up to 1Q 2020), limited investments carried out during 2020-2021 which are necessary to ensure service continuity, are required by regulatory framework or are subject to agreements signed with contractors and investments planned for the following years of RP3. Following the outbreak of the pandemic, in 2020 PANSA has undertaken a complete review of CAPEX plan for the whole RP3 and beyond. The aim was on the one hand to look for possible savings in the level of expenditures, especially for the period 2020-2021, including possible postponement of projects (financial dimension of the review), and on the other to again validate the projects from the perspective of current operational needs and expected benefits, also in the light of expected changes to traffic levels (operational perspective of the review). As a result of that review, some investments were cancelled/suspended, and many were postponed. Further review was undertaken in 2021 and led to some additional refinements in RP3 CAPEX plan, taking also into account actual execution of CAPEX over 2020 and early 2021. The reviewed investment plan includes both, replacement and development needs. New investments related to EPWA include modernization of EPWA TWR (project related to building new TWR for EPWA was suspended following the crisis outbreak) as well as A-SMGCS for EPWA.
1.4 Cost of capital	The evolution of the level of cost of capital over RP3 is related to increasing value of asset base, especially fixed assets, what is the consequence of implementation of the revised RP3 investment plan. For further details on the cost of capital calculation – see point i) below.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Evolution of ATM costs is related to the staff cost (see point 1.1) and infrastructure/systems related to ATM.
2.2 Communication	The level of COM costs reflects evolution of COM infrastructure and remains quite steady over RP3 as compared to RP2 actuals. These includes also evolution of related other operating costs – including energy, rental of land, security etc.
2.3 Navigation	Similarly as for COM above, the level of NAV costs reflects evolution of NAV infrastructure and remains quite steady over RP3 as compared to RP2 actuals. These includes also evolution of related other operating costs – including energy, rental of land, security etc.
2.4 Surveillance	The increase in costs is due to investments MLAT and subsequently A-SMGCS. Similarly as for COM above, these investments entail increase in related other operating costs.
2.5 Search and rescue	Not applicable.

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2.6 Aeronautical Information	In recent years due to implementation of POLFRA (free route airspace), the design of airways (which affect the costs of en-route navigation) has been abandoned. At the same time increase in workload dedicated to terminal area is visible due to development and deployment of new or modified procedures, such as: departure procedures (SID), arrival procedures (STAR), RNAV, RNP procedures. It is caused by developments of PL airports and also by putting in place or replacing old navigation aids. Another important issue is the increasing number of obstacles around airports (e.g. cranes, buildings), which makes it necessary to check the procedures in terms of safety. Due to the development of airports in Poland as well as changes in the airspace in the vicinity of airports, publications and procedures created for airports have an increasing share in these activities. This causes changes (increase) in the amount of costs for terminal navigation from 2021 onwards.
2.7 Meteorological services	Not applicable.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Not applicable.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: PANSA
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
Information on pension costs assumptions is provided above in point f) and in the revised PL RP3 PP (item 3.4.3).

II. IMWM

Determined costs by nature and by service

Entity: IMWM	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	The increase in personnel costs is related to the increase in wages in IMWM and the increase in the average wage in the country. In March 2020 we introduced IMWM Collective Labor Agreement.
of which, pension costs	The methodology of calculating pension and pension contributions paid by the employer for employees at the IMWM is based on suitable articles of the Act on the social insurance system of 13 th October 1998. The sum total of the pension and pension contribution paid by the employer is 9.76% plus 6.5% equal to 16.26% of the contribution basis.
1.2 Other operating costs	The increase in operating costs is dictated by the increase in the amount related to the lease of AWOS systems not owned by IMWM (EPWA). Assumptions that were adopted for the RP2 period did not provide for real costs incurred by the Institute in this respect. Operating expenses were also increased due to the need to adapt the IMWM infrastructure to the standards imposed by EUROCONTROL and EASA in the field of data exchange, including adaptation to SWIM information exchange standards.
1.3 Depreciation	n/a
1.4 Cost of capital	n/a
1.5 Exceptional items	n/a
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	n/a
2.2 Communication	n/a
2.3 Navigation	n/a
2.4 Surveillance	n/a
2.5 Search and rescue	n/a
2.6 Aeronautical Information	n/a
2.7 Meteorological services	Please see explanation above (1.1-1.5).
2.8 Supervision costs	n/a
n/a	

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Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008
n/a

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: IMWM
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
See point 1.1. of the chart

III. CAA

Determined costs by nature and by service

Entity: CAA (including EUROCONTROL)	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Among others – costs of: remuneration, pension contributions, bonuses.
of which, pension costs	Pension contributions covering the 9.76% and 6.5% parts of wages (national pension scheme).
1.2 Other operating costs	Among others – costs of: materials, energy, utilities, business travels, furniture, renovation, trainings, rents.
1.3 Depreciation	Not applicable.
1.4 Cost of capital	Not applicable.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	Not applicable.
2.8 Supervision costs	The growth of CAA costs in RP3 comparing to RP2 results from the planned rise of wages stemming from the government budget and the increase of obligations and task performed by the CAA in the field of air navigation service.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
The CAA, as a national budgetary unit financed from state budget, is obliged to follow accounting regulations applicable to national administration bodies. As a consequence, the CAA does not apply IAS but follows national regulations regarding budgetary units which are based on cash accounting rules.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: CAA (including EUROCONTROL)
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
The assumptions were based on the currently functioning national pension scheme. It is not expected to face any major changes over RP3.

g) For each entity, a description and justification of the method adopted for the calculation of depreciation costs (point 1.3 of Table 1): historical costs or current costs referred to in the fourth subparagraph of Article 22(4), and, where current cost accounting is used, provision of comparable historical cost data;

I. PANSA

In compliance with the Accounting Policy, historical cost accounting method is applied for the calculation of the depreciation costs. Depreciation is provided using the straight-line method over the estimated economic useful lives of the assets. The depreciation periods applied by PANSA remain unchanged as compared to previous reference periods. The economic useful life is periodically reviewed to ensure that

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depreciation periods are consistent with the expected pattern of economic benefits from items property, plant and equipment.

With regard to investments co-financed by the public funds, including EU Cohesion Fund and the Connecting Europe Facility fund, the full amount of depreciation costs is included in the determined costs. At the same time the subsidies are taken into account as other revenue – the calculation of other revenues fully follows provisions of article 25.3 of Regulation 2019/317 – see also point f) in the Additional Information to Table 2 below.

II. IMWM

Depreciation of appliances is always calculated from the next month after the takeover is completed. This calculation is done in accordance with expected operating life – in line with the operating life for the specific type of fixed assets as described in the 'Principles for establishing the cost-base for en-route charges and the calculation of the unit rates' - using the straight-line method and refers to historic cost of fixed assets depreciated and intangible and legal assets.

To calculate cost of capital the following pattern is used in the IMWM:

Cost of capital = (Average net value of fixed assets and possible adjustments of all assets determined by national regulatory body, currently operationally exploited or built, used by an institution serving air navigation + average net value of current assets, excluding interests, necessary for air navigation service) x weighted average of debt interest rate and of return on equity

IMWM follows EUROCONTROL Principles according to which only these assets can be calculated within the equity which operating period is expected to begin before the end of the year for which the cost calculation is made.

We do not plan any investments for EPWA in RP3 and therefore we will not settle the cost of depreciation and the cost of capital.

IMWM TNC - EPWA					
Equivalent in historic cost accounting					
	2020	2021	2022	2023	2024
Investment costs (in nominal terms in '000 national currency)					
1.3 Depreciation	-	-	-	-	-
1.4 Cost of capital	-	-	-	-	-
3.1 Net book val. fixed assets	-	-	-	-	-
3.2 Adjustments total assets	-	-	-	-	-
3.3 Net current assets	-	-	-	-	-
3.4 Total asset base	-	-	-	-	-
3.5 Cost of capital pre tax rate	-	-	-	-	-
3.6 Return on equity	-	-	-	-	-
3.7 Average interest on debts	-	-	-	-	-
3.8 Share of financing through equity	-	-	-	-	-

III. CAA

Not applicable.

h) For each entity, description and underlying assumptions of each item of complementary information (point 3 of Table 1), including a description of the main factors explaining the variations over the reference period;

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I. PANSA

PANSA	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	Cost of capital is calculated taking into account average value of the intangible assets and the tangibles assets as well as WACC rate (see item i) below).
3.12 Cost of leasing	For the purpose of establishing cost bases for RP3 PANSA follows EC recommendations and presents <u>lease payments under other operating costs</u> . It should be emphasized that depreciation charge for the leased asset, interest expense on a lease liability (as a consequence of IFRS 16 implementation) as well as right-of-use of leased asset <u>are not included in determined costs</u> (neither as depreciation nor as cost of capital).

II. IMWM

IMWM	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	See point f) and g).
3.11 Cost of capital	See point f), g) and i).
3.12 Cost of leasing	n/a

III. CAA

CAA	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Not applicable.
3.11 Cost of capital	Not applicable.
3.12 Cost of leasing	Not applicable.

i) For each entity, description of the assumptions used to compute the cost of capital (point 1.4 of Table 1), including the composition of the asset base, the return on equity, the average interest on debts and the shares of financing of the asset base through debt and equity;

I. PANSA

PANSA	
Average asset base	
3.1 NBV fixed assets	The average net book value of fixed assets for en-route services provision is calculated taking into account the intangible assets and the tangible assets (in operation and under construction). It should be emphasized that leased assets are excluded from average asset base calculation. The average considers level of fixed assets at the beginning and at the end of each year.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	The value of net current assets is calculated taking into account approach recommended by CRCO when auditing PANSA's cost base in 2010 and applied since then, which is also consistent with EUROCONTROL Principles. It assumes that only assets that are necessary to provide ANS are taken into account. Planned current assets required to provide air navigation services are calculated taking into consideration latest available (for the year preceding the calculation) credit period associated to the payment of invoices (credit from customers and credit suppliers and staff). Methodology applied guarantees exclusion of interest bearing items.
Cost of capital %	

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3.6 Return on equity	In order to properly reflect financial risk incurred when providing air navigation services PANSA applies a CAPM methodology for establishing return on equity. Assumptions taken into account to determine RoE rate for RP3 under the current submission: Capital structure – hypothetical efficient capital structure assuming 60% debt financing over whole RP3. Corporate tax rate – 19%, Risk free rate % (nominal) - an average of the latest available yield of 10 years Polish government bonds rate reported by Eurostat is used (August 2021 publication for the period Feb-Jul 2021). After the consultation process PANSA took a good note of airspace users expectations and has decreased the risk free rate for years 2020-2024. Equity risk premium % (after tax) – 6.54% - an average of equity risk premium estimated for Poland by Damodaran (6.48% as per Jul 2020 submission) and Fernandez IESE Business School study (6.60% as per Mar 2020 submission). ERP estimated in such way applies for the whole RP3. Asset beta is 0.4. The asset beta is assumed taking into consideration estimates made by SDG for efficient cost of capital for RP2 (a range of 0.3 to 0.5). It is consistent with assumptions used for RP2 and initial PL RP3 PP dated Nov 2019 and reflects financial risk of running ANSP business. Equity beta for every single year of RP3 amounts to 0.89 and is a product of estimated asset beta, corporate tax rate and assumed hypothetical efficient capital structure described above.
3.7 Average interest on debts	Average interest on debts is calculated taking into account effective annual interest rates calculated based on the agreed operating credit facility and investment credit, both received from Bank Gospodarstwa Krajowego (BGK); average interest on debts calculation was performed taking into account costs already incurred till Jun 2021 and these forecasted to the end of repayment periods. It should be noted that PANSA as a public legal entity is obliged to use financial products offered by this state-owned bank (BGK) only.
3.8 Share of financing through equity	As recommended by SDG and expected by EC (exchanges during discussions on the initial PL RP3 PP dated Nov 2019) hypothetical efficient capital structure 60% through debt and 40% through equity was assumed for the whole RP3.

WACC calculation	2020	2021	2022	2023	2024
Capital structure (% equity)	40%	40%	40%	40%	40%
Capital structure (% debt)	60%	60%	60%	60%	60%
Corporate tax rate %	19%	19%	19%	19%	19%
Risk free rate % (nominal)	1,60%	1,60%	1,60%	1,60%	1,60%
Market rate (after tax)	8,14%	8,14%	8,14%	8,14%	8,14%
Market (equity) risk premium % (after tax)	6,54%	6,54%	6,54%	6,54%	6,54%
Asset beta	0,4	0,4	0,4	0,4	0,4
Debt beta	0	0	0	0	0
Equity beta	0,89	0,89	0,89	0,89	0,89
Return on Equity % (after tax)	7,39%	7,39%	7,39%	7,39%	7,39%
Return on Equity % (pre tax)	9,13%	9,13%	9,13%	9,13%	9,13%
Debt risk premium %	1,69%	1,82%	1,87%	1,93%	1,96%
Interest on debt % (pre tax)	3,29%	3,42%	3,47%	3,53%	3,56%
Interest on debt % (after tax)	2,66%	2,77%	2,81%	2,86%	2,89%
WACC % vanilla	4,93%	5,01%	5,04%	5,07%	5,10%
WACC % after tax	4,56%	4,62%	4,64%	4,67%	4,69%
WACC % (pre tax)	5,62%	5,70%	5,73%	5,77%	5,79%

II. IMWM

IMWM	
Average asset base	
3.1 NBV fixed assets	Not applicable.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	Not applicable.
Cost of capital %	
3.6 Return on equity	Not applicable.

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3.7 Average interest on debts	Not applicable.
3.8 Share of financing through equity	Not applicable.

III. CAA

Not applicable.

j) Description of the determined costs of common projects (point 3.9 of Table 1).

I. PANSA

The costs of common projects include:

- cost of depreciation of existing and new planned assets,
- operating costs (travel costs, training, wages etc.) as presented in grant agreement,
- cost of capital.

Cost of capital is not eligible under grant agreements. However, it is part of determined costs under Regulation 2019/317.

PANSA					
Determined costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020	2021	2022	2023	2024
Local traffic complexity management AF4	43	54	53	48	46
SWIM Common PKI and policies & procedures for establishing a Trust framework AF5	1	2	-	-	-
DLS European Target Solution assessment AF6	0	-	-	-	-
LAN network upgrade AF5	39	67	113	108	90
The ECG Communication System upgrade AF5	16	35	34	33	32
ATM System Upgrade Towards Free Route Airspace AF3	222	261	264	264	239
ITEC Tests, Validations and Planning (ITEC- TVP) AF3	20	149	0	-	-
NewPENS Stakeholders contribution for the procurement and deployment of NewPENS AF5	10	-	-	-	-
Deploy SWIM governance AF5	0	0	0	-	-
Implementation of data link services for the ATM in FIR Warsaw AF6	108	109	110	111	102
1 st part of the upgrade of the P_21 Pegasus system to SESAR functionalities – test and validation platform AF3	76	13	12	12	12
Total (Table 1 item 3.9)	534	691	587	577	521

II. IMWM

Not applicable.

III. CAA

Not applicable.

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2. Actual costs and unit costs

a) For each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period;

As the local cost-efficiency performance targets for RP3 are currently subject to revision as part of the draft performance plans to be submitted by Member States to the Commission by 1 October 2021, in line with the exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627 of 3 November 2020), the monitoring of the 2020 actual performance is carried out against the 2019 actual performance. The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

I. PANSA

In the cost-efficiency area, the revised draft PL RP3 PP establishes also 2020 determined costs. Revised 2020 determined costs are equal to 2020 actual costs incurred by PANSA.

It should be noted that actual costs for the year 2020 included in the draft revised PL RP3 PP have been recalculated as compared to costs presented for the purpose of June 2021 submission. It led to slight increase in 2020 actual costs mainly due to exclusion of costs related to non-contractual use of land and revision of assumptions applied to cost of capital calculation (to ensure that cost of capital assumptions remain coherent over the whole RP3).

The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: PANSA	
1.1 Staff costs	The actual staff costs for 2020 are lower by 23.6% than 2019 staff costs mainly due to implementation of one-off cost containment measures taken in order to respond to traffic decrease and liquidity issues. Such decrease in staff costs is a result of temporary suspension of hiring new employees, temporary suspension of contributions to the occupational pension scheme and group insurance, limited number of working hours on weekends and night hours, reduction of bonuses and rewards and overtimes as well as use of furloughs/downtime. All these drivers led to reduction of basic as well as non-obligatory remuneration components comparing to pre-pandemic period. Reduced 2020 costs are also linked to use of COVID-related state care allowance for small kids by some employees during lockdown and related school closure. It should be also noted that 2020 ATCO TWR EPWA basic remuneration scheme did not consider any gratification for RAD licenses.
1.2 Other operating costs	The actual 2020 other operating cost are lower by 56.6% than in 2019 due to work reorganization (remote work), temporary business travelling restrictions, as well as cancellation of conferences, events etc. Extraordinary measures undertaken following COVID-19 crisis, including revision of investment plan, had impact on temporary change in the level of energy and materials consumption, level of taxes and charges as well as temporary reduction in use of external services and limitations in the provision of some air navigation services. Optimisation (including cancellation/postponement) of repair schedules where possible, using own staff for some repairs instead of external contractors led to temporary reductions in repair services costs. It should be noted that some unexpected costs related to purchase of additional materials and external services needed to minimise possible spreading of COVID among employees have been incurred in 2020.
1.3 Depreciation	The 3.0 % decrease in the level of depreciation costs in 2020 reflects investments executed before the COVID pandemic especially in previous years and in 1Q 2020, which in respect of EPWA were quite limited. Starting from the outbreak of the pandemic PANSA has undertaken a complete review of CAPEX plan looking for possible savings in the level of expenditures, especially for the rest of 2020 – this included revised planning for EPWA TWR.

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	It should be noted that 2020 actual depreciation presented in the charges' reporting tables does not include effects of implementation of IFRS16 – costs related to leasing are still disclosed under other operating costs.
1.4 Cost of capital	Increase in cost of capital comparing to 2019 is a result of different WACC rates applied in RP3 (including 2020) and 2019. 2020 actual WACC rate has been calculated taking into account updated CAPM assumptions reflecting financial risk of PANSA (as described above in point i). WACC for 2019 adopted in 2014 in RP2 PP did not reflect actual financial and regulatory risks. The decrease in net current assets base is mainly the result of lower than in 2019 TNC WAW actual cost base.

II. IMWM

As the local cost-efficiency performance targets for RP3 are currently subject to revision as part of the draft performance plans to be submitted by Member States to the Commission by 1 October 2021, in line with the exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627 of 3 November 2020), the monitoring of the 2020 actual performance is carried out against the 2019 actual performance.

The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

RP3 Monitoring – Year 2020 vs. 2019			
ANSP: IMWM	2019A	2020A	Difference 2020-2019
1.1 Staff cost	293	407	114
1.2 Other operating costs	1182	1275	93
1.3 Depreciation	0	0	0
1.4 Cost of capital	0	0	0
1.5 Exceptional items	0	0	0

Analysis of the actual costs for 2020 compared to the actual costs of 2019.

The increase in costs in 2020 compared to 2019 was influenced by, among others:

- an increase in the inflation rate from 2.10% in 2019 to 3.70% in 2020, this translated into an increase in the cost of materials and services despite the introduced COVID-19 savings
- in March 2020, an agreement was signed to amend the IMWM Collective Labor Agreement, as a result of which wages at the IMWM were regulated and equalized
- continuation of implementation of new products for PANSA in 2020 - development of a manual for the VENTO application

III. CAA

RP3 Monitoring – Year 2020 vs. 2019	
STATE/NSA: CAA	
1.1 Staff costs	The actual staff costs and other operating costs for 2020 are lower by 18.1 % than in 2019. The cost allocation between both terminal charging zones (TNC EPWA and TNC OTHER) is based on the actual IFR movements (MVS) broken down by airports. Due to the COVID-19 pandemic the MVS structure in 2020 has changed, compared to 2019 data, and this is reflected in the costs execution. Therefore the actual staff costs and other operating costs referring to TNC OTHER for 2020 will be higher than in 2019. Notwithstanding the above the total actual staff costs for both terminal charging zones for 2020 are higher than in 2019 and it was mainly the result of the growth of CAA costs in RP3 comparing to RP2 results from the planned rise of wages stemming from the government budget and the increase of obligations and task performed by the CAA in the field of air navigation service. As far as other operating costs are concerned the actual 2020 are higher than in 2019.
1.2 Other operating costs	
1.3 Depreciation	Not applicable
1.4 Cost of capital	Not applicable
1.5 Exceptional items	Not applicable

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b) Description of the reported actual service units and a description of any differences between those units and the figures provided by the entity that is billing and collecting charges as well as any differences between those units and the forecast set in the performance plan, for each year of the reference period;

2020 actual service units vs. 2019 actual service units

In 2020, air traffic and generated service units for EPWA were lower than planned in the initial PL RP3 PP dated Nov 2019 by 64% and lower by 60% than actual SU-L for EPWA in 2019. This was the result of the SARS Cov2 pandemic, which caused significant restrictions on both business and leisure travel. Until the beginning of March 2020, traffic was increasing as compared to 2019A, but the pandemic led to extraordinary traffic drop since March 2020, which persisted over all the following months of 2020.

Terminal SU - EPWA	2019	2020	Difference	Difference (%)
Draft PL RP3 PP Nov 2019 forecast		120 138		
Actual	107 857	43 637	-64 220	-59.5%
Difference		-76 501		
Difference (%)		-63.7%		

Table contains only PANSA service units

c) Breakdown of the actual costs of common projects per individual project;

I. PANSA

PANSA					
Actual costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020				
Local traffic complexity management AF4_	43				
SWIM Common PKI and policies & procedures for establishing a Trust framework AF5	1				
DLS European Target Solution assessment AF6	0				
LAN network upgrade AF5	39				
The ECG Communication System upgrade AF5	16				
ATM System Upgrade Towards Free Route Airspace AF3	222				
iTEC Tests, Validations and Planning (iTEC- TVP) AF3	20				
NewPENS Stakeholders contribution for the procurement and deployment of NewPENS AF5	10				
Deploy SWIM governance AF5	0				
Implementation of data link services for the ATM in FIR Warsaw AF6	108				
1 st part of the upgrade of the P_21 Pegasus system to SESAR functionalities – test and validation platform AF3	76				
Total	534				

II. IMWWM

Not applicable.

III. CAA

Not applicable

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d) Justification of the difference between the determined and the actual costs of new and existing investments of the air navigation service providers, as well as the difference between the planned and the actual date of entry into operation of the fixed assets financed by those investments for each year of the reference period;

In respect of calendar year 2020, this information is to be provided in the annual monitoring report (see section 4 of the RP3 monitoring template).

e) Description of the investment projects added, cancelled or replaced during the reference period with respect to the major investment projects identified in the performance plan, and approved by the national supervisory authority in accordance with Article 28(4).

In respect of calendar year 2020, this information is to be provided in the annual monitoring report (see section 4 of the RP3 monitoring template).

ADDITIONAL INFORMATION TO REPORTING TABLES 2 – UNIT RATE CALCULATION

a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones;

There are two charging zones in Poland.

- I TCZ covering the EPWA airport,
- II TCZ covering the EPGD, EPKK, EPBY, EPKT, EPLL, EPPO, EPRZ, EPSC, EPWR, EPZG, EPMO, EPLB, EPRA, EPSY airports.

The presented scope of airports and configuration of terminal charging zones remains unchanged since 2017. The implementation of the configuration of two charging zones was developed among others to minimize the level of potential cross-subsidising.

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

According to national law (Article 130 (6) of Aviation Act of 3 July 2002) the following flights are exempted from air navigation charges (both en-route and terminal) in Poland:

- performed under Visual Flight Rules (VFR);
- mixed – where a part of the flight is performed under Visual Flight Rules (VFR) and the remaining part is performed under Instrument Flight Rules (IFR) – for the part of the flight performed in the Polish airspace exclusively under VFR rules;
- performed by aircraft of which the maximum take-off weight is less than 2 tons;
- performed exclusively for the transport, on an official mission, of the reigning monarch and his/her immediate family, head of state, head of government and government ministers; in all cases the flight purpose must be confirmed by the appropriate flight status indicator or remark on the flight plan;
- search and rescue, authorized by a competent SAR coordination body;
- military performed by Polish military aircraft or military aircraft of a country where flights performed by Polish military aircraft are exempted from the air navigation charges;
- performed for military purposes and exempted from charges, under international agreements ratified by Poland in statutory way;
- military performed by military aircraft under multinational NATO programmes, to which Poland is a contracting party, other than those mentioned above;
- flights performed by ANSP for the purpose of checking or testing equipment.

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Costs of providing air navigation services to exempted flights are covered by the State budget – they are financed by the means of budgetary subsidy granted by the minister responsible for transport on the application of designated service provider.

I. PANSA

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2020.

	2020
Costs for exempted VFR flights	0
Costs for exempted IFR flights	279
Total costs for exempted flights	279

Costs items presented in '000

Costs planned in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2021.

	2021
Costs for exempted VFR flights	0
Costs for exempted IFR flights	234
Total costs for exempted flights	234

Costs items presented in '000

c) Description of adjustments resulting from the traffic risk sharing mechanism in accordance with Article 27;

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(1) and (2))).

d) Description of the differences between determined costs and actual costs of year n as a result of the changes in costs referred to in Article 28(3) including description of the changes referred to in that Article;

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(3))).

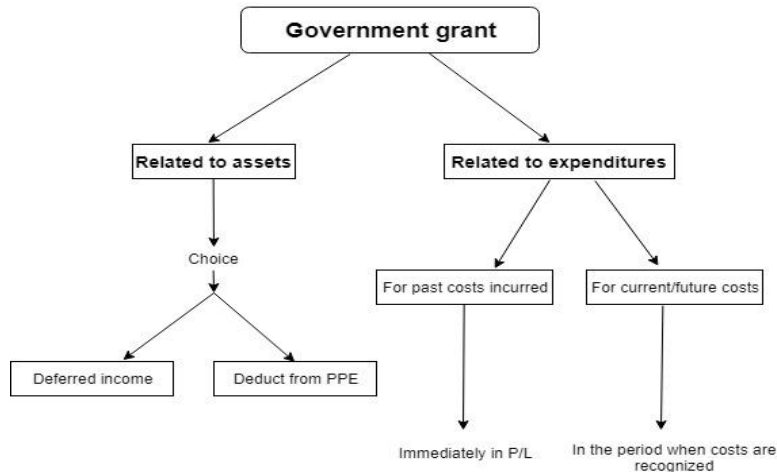
e) Description of adjustments resulting from unforeseen changes in costs in accordance with Article 28(3) to (6);

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(3))).

f) Description of the other revenues, if any, broken down between the different categories indicated in Article 25(3);

I. PANSA

As regards public funds obtained from public authorities including financial support from Union assistance programmes PANSA fully follows provisions of article 25.3 of Regulation 2019/317 and passes on to airspace users **revenues recognised** under IAS 20 framework. It assumes that **public funds obtained are recognised in profit or loss on a systematic basis over the period in which PANSA recognises as expenses the related costs for which public funds are intended to compensate.**



Under this submission PANSA:

- assumes that revenue obtained by PANSA from commercial activities are not deducted from determined costs,
- does not assume revenue from contracts/agreements concluded with airport operators.

II. IMWM

IMWM does not plan for the RP3 any additional income covering the costs of meteorological services for civil aviation, except for expected agreement between PANSA and IMWM, covering these costs. Also, IMWM does not provide the meteorological services for the military aviation and does not plan obtaining any income for such services in years 2020-2024. IMWM exchanges with the military services the results of aviation observations and forecasts, on the no-cost base. In this way the IMWM obtains (in no-cost way) the results of military aviation observations and forecasts, which are used by Institute to perform its services for the civil aviation.

g) Description of the application of the financial incentive schemes referred to in Article 11(3) and 11(4) in year n and the resulting financial advantages and disadvantages; description and explanation of the modulation of air navigation charges applied in year n under Article 32 where applicable, and resulting adjustments;

Financial incentive schemes

The description and justification of the parameters of the incentive scheme defined in accordance with Article 11(3) and 11 (4) are provided in the body of the performance plan under item 5.2.

Modulation of charges

It is not planned to implement any modulation of charges in RP3.

The actual application and relating financial advantages and disadvantages for 2020 is not applicable (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 3 (3)).

h) Description of adjustments relating to the temporary application of a unit rate under Article 29(5);

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(4)).

It is assumed that the difference in revenues referred to in Article 29(5) of Regulation 2019/317 will be recovered over 5 years period.

i) Description of the cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of Regulation 550/2004;

The eligible costs were allocated between en-route and terminal charging zones by using appropriate allocation keys. The topic of the cost allocation was elaborated in the Part I of Additional information.

j) Information on the application of a lower unit rate under Article 29(6) than the unit rate calculated in accordance with Article 25(2) and the means to finance the difference in revenue;

Not applicable for this submission.

k) Information and breakdown of the adjustments relating to previous reference periods impacting the unit rate calculation;

The process of the discussion between NSA and EC on the treatment of non-contractual use of land (Branicki case) as unforeseeable new cost items not covered in the performance plan but required by law has been ongoing since 2nd half of 2020. Lately, the subject was raised in bilateral discussions with EC held in course of May and June 2021. Consequently, the approach to be followed seems to be defined. The solution discussed would be applied through a one-off correction of the unit rate of calendar year 2023 leading to effective settlement with AUs of eligible (justified) amount of non-contractual use of land. This approach is reflected in the revised draft RP3 performance plan for Poland as -905 kPLN adjustment related to RP2 impacting 2023 unit rate.

It has been agreed with the EC that over RP3 future payments related to future rulings on compensation for non-contractual use of land will continue to be recognized as cost exempt once the final amounts to be paid by PANSA are established and subject to payment.

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**ADDITIONAL INFORMATION TO REPORTING TABLE 3 – COMPLEMENTARY INFORMATION
ON COMMON PROJECTS AND ON UNION ASSISTANCE PROGRAMME**

l) Information on the costs of common projects and other funded projects broken down per individual project, as well as of public funds obtained from public authorities for these projects.

Details of the cost of common projects can be found per individual project in Table 1 point 1j above and in table 4 of the reporting tables.

Table 4 includes complementary information on common projects and on revenues from both Union assistance programmes and national public funding allocated to the charging zone.

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Revision

Annex B.2 Terminal Charging Zones OTHER
Additional Information

Terminal Charging Zone Poland Other
Reference Period 3 (2020-2024)

ADDITIONAL INFORMATION TO REPORTING TABLES 1 – TOTAL COSTS AND UNIT COSTS

1. Determined costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services, based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc 7754) as last amended, and a description of the methodology used for allocating those costs between different charging zones;

For the Polish Performance Plan for RP3 (PL RP3 PP) the cost base for terminal charges in Poland consists of cost incurred by the following six organizations:

- **Polish Air Navigation Services Agency (PANSa)** – provider of air traffic services, provider of CNS services and AIS,
- **Institute of Meteorology and Water Management – National Research Institute (IMWM)** – MET services provider,
- **Radom Meteo sp. z o.o. (Radom Meteo)** – MET services provider for EPRA approach and tower services,
- **Warmia i Mazury sp. z o.o. (Warmia i Mazury)** – MET services provider for EPSY approach and tower services,
- **Port Lotniczy Bydgoszcz S.A. (PL Bydgoszcz)** – MET services provider for EPBY approach and tower services,
- **Civil Aviation Authority of the Republic of Poland (CAA)** – national supervisory authority.

There are two terminal charging zones in Poland (FIR Warszawa) – no changes have been made since 2017. The I TCZ includes EPWA airport (TNC-EPWA), while the II TCZ (TNC-OTHER) includes the following 14 airports: EPGD, EPKK, EPBY, EPKT, EPLL, EPPO, EPRZ, EPSC, EPWR, EPZG, EPMO, EPLB, EPRA, EPSY.

	RP1	RP2			RP3	
		Single TCZ (until 2016)	TNC-EPWA (since 2017)	TNC-OTHER (since 2017)	TNC-EPWA	TNC-OTHER
Terminal	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination* +MET costs for EPSY)	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination*)	PANSa (ATS, CNS, AIS, SAR coordination*)
	IMWM (MET)	IMWM (MET for all airports excluding EPRA and EPSY)	IMWM (MET)	IMWM (MET for all airports excluding EPRA and EPSY)	IMWM (MET)	IMWM (MET for all airports excluding EPRA, EPSY and EPBY)
		MPL WM (AFIS - EPMO)		MPL WM (AFIS - EPMO)		
		Radom Meteo (MET – EPRA and EPSY)		Radom Meteo (MET – EPRA)		Radom Meteo (MET – EPRA)
				Warmia i Mazury (MET – EPSY) ¹		Warmia i Mazury (AFIS, COM, MET – EPSY)
						PL Bydgoszcz (AFIS, MET – EPSY)
	CAA (CAA+MS)	CAA (NSA+MS)	CAA (CAA+MS)	CAA (CAA+MS)	CAA (CAA+MS)	CAA (CAA+MS)

* SAR coordination is fully allocated to ER cost base (see letter c).

¹ In case of Warmia i Mazury in RP2 the whole cost of MET services provided were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2.

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

I. PANSA

For the purpose of calculating the cost base for the terminal charges, PANSA has taken into consideration costs of facilities listed in the ICAO Regional Navigation Plan (Doc. 7754) reflecting all equipment used for the provision air navigation of services.

For methodology used for allocating costs between charging zones (en-route and terminal), and within terminal between two charging zones (based on allocation of costs to each individual airport) – see point c) below.

II. IMWM

See point c), d) and e) below.

III. Radom Meteo

Not applicable to Radom Meteo as this ANSP only provides MET services. For details, see point c).

IV. Warmia i Mazury

Warmia i Mazury's MET services are the only ANS allocated between en-route and terminal charging zones. Apart from that, Warmia i Mazury provides AFIS and COM at EPSY airport. For more details on allocation, see point c).

V. PL Bydgoszcz

PL Bydgoszcz provides only MET services, which are allocated between en-route and terminal charging zones and AFIS at EPBY airport. For more details on allocation, see point c).

VI. CAA

The allocation of CAA's costs between ER and TNC is based on the number of personnel (FTEs) executing the tasks of national supervisory authority and part of member state responsibilities which are in the competence of CAA as stated in the Polish Aviation Law Act. The methodology, developed during Poland's technical integration with EUROCONTROL CRCO, remains unchanged since 2008. For more information, see point c).

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights in accordance with Article 31(3), 31(4) and 31(5);

I. PANSA

Cost of air navigation services provided to VFR flights is calculated through a marginal cost methodology. Being covered by the State budget, costs of VFR flights are deducted from the en-route determined costs (no additional costs established under marginal cost methodology are applicable to terminal services). The methodology applied for RP3 has not changed compared to previous reference period.

II. IMWM

Not applicable.

III. Radom Meteo

Not applicable to Radom Meteo.

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

IV. Warmia i Mazury

Warmia i Mazury allocates small part of the terminal AFIS and MET costs to exempted VFR flights, basing on marginal cost methodology, in line with art. 22(6) of Reg. 2019/317/EU.

The allocation keys used for recognition of VFR flights are basing on:

- in case of AFIS – time of communication between AFIS and VFR flight operator,
- in case of MET – time needed for MET staff to prepare announcement and documentation for VFR flights.

V. PL Bydgoszcz

PL Bydgoszcz allocates part of the AFIS and MET terminal costs to VFR flights, basing on marginal cost methodology, with regard to art. 22(6) of Reg. 2019/317/EU.

As for AFIS, the allocation of costs to VFR has been done with regard to the ratio calculated as a relation of the sum of time that AFIS personnel is in direct contact with VFR flight operators to the sum of total time of AFIS personnel operates at EPBY.

In case of MET, the MET-TNC costs are firstly divided between TWR and AFIS services, basing on the relation of TWR/AFIS operating hours and then the amount of costs allocated to AFIS is calculated by the same VFR ratio as in case of AFIS costs, as mentioned in subparagraph above.

VI. CAA

Not applicable.

c) Criteria used to allocate costs between terminal and en route services, in accordance with Article 22(5);

I. PANSA

Criteria for allocation of PANSA's costs between ER and TNC remain unchanged as compared with the RP2, and initial draft PL RP3 performance plan dated Nov 2019. In the initial draft PL RP3 PP, as compared to RP2, some modifications were introduced to allocation keys of two major investments (Tower Warsaw and new Campus) following consultation of draft RP3 PP and comments provided by airspace users. During works on revised PL RP3 PP PANSA has also updated the variable part of the allocation keys (timesheet, cost center structure, movements, SU, FTE, etc).

PANSA, for cost allocation purposes, uses the Services Cost Calculation and Profitability Analysis System built on the basis of Activity Based Costing methodology. The Cost Calculation system is based on a multi-step allocation principle.

Some costs, by their origin may be allocated directly to the ER or TNC services (e.g. ACC ATCOs). Other costs, which are not directly linked with the provision of specific services (e.g. human resources or financial staff) are allocated using the allocation keys catalogue which is included in the model. Those keys were constructed in a very precise manner in order to reflect, in the best possible way, the distribution of costs borne in operational activity (e.g. number of operations, number of service units, staff complement, power utilization etc.).

For ATS:

- The costs of services provided in the controlled area (CTA) and TMA are allocated to ER.
- Costs related to services provided in CTR (controlled zone) are allocated to TNC.

With regards to ATC units:

- Costs of APP and ACC units are allocated to ER in total.
- For TWR units distinction has to be made between airports where a separate APP unit has been established and airports where in fact the TWR unit provides procedural approach services:

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

- In Poland, following operational requirements, 4 approach control units have been created for the major airports:
 - Gdańsk im. Lecha Wałęsy (EPGD),
 - Poznań-Ławica (EPPO) and Wrocław-Strachowice (EPWR) together,
 - Kraków-Balice (EPKK) and Katowice-Pyrzowice (EPKT) together,
 - Chopina w Warszawie (EPWA) and Warszawa/Modlin (EPMO) together.

For those airports, where a separate APP unit operates, cost of TWR service is allocated to ER only in the part, which covers services provided outside CTR boundaries and is limited to services provided to approaching (landing) operations.

- At remaining airports, TWR unit provides also APP services. When both APP and TWR services are provided by TWR unit, the cost of the unit is divided between ER and TNC in accordance with the airspace volume ratio (CTR and TMA). For that purpose the following formula is used: $V(CTR) / V(CTR + TMA)$. This formula should be understood as volume of airport controlled area to the total volume of the airport controlled zone and the airport controlled area.

Costs of FIS services, as well as SAR coordination, are in total allocated to ER.

For CNS:

- NAV: The basis for costs allocation of Navaids is the degree of their use by individual air traffic control units (APP vs. TWR) and reflects use of those Navaids in different airspace structures (TMA vs. CTR). Allocation of VOR/DVORs, DMEs and ILSs takes into account range of these Navaids, and as a consequence, their possible use in TMA and CTR. Usage of the airport Navaids for certain flights in different types of airspace is strictly connected with the dimension of the given airspace. Therefore, their cost is split between TWR and APP, and consequently between TNC and ER.
- SUR: Costs of en-route and approach radars are in total allocated to ER service. Costs of airport movements radars, ASMGCS system and airport MLAT are allocated in total to TNC services (in line with their location).
- COM: The cost allocation is based on the number of radio-stations and voice communication consoles used by each service.

The cost of ATM operational system Pegasus 21 is allocated between ER and TNC on the basis of revenues from navigation services provided. New ATM system (iTEC) is fully allocated to en-route as it will be dedicated to ACC and APP units.

Costs of PANSA UTM system are divided between TNC (and within this part among airports) and non-navigation cost segment based on the ratio of the amount of planned costs and the number of movements at a given airport.

II. IMWM

Tasks related to the provision of meteorological services for the TNC zones are carried out by Aeronautical Meteorological Stations, the central laboratory of the measuring equipment, Meteorological Services for Civil Aviation (AWOS systems) and administrative units. In addition, for RP3 the costs of these tasks have been divided by 40% for en-route charges and 60% for terminal charges.

For more details see En-route Charging Zone Poland Reference Period 3 (2020-2024) additional information point c).

III. Radom Meteo

Radom Meteo has been designated on 14th May 2019 by the Minister responsible for transport for the provision of MET services in CTR/TMA at Radom-Sadków airport (EPRA) for the period from 1st January 2020 to 31st December 2024. Radom Meteo has been also provided with the renewal of ANSP certificate on 18th March 2020 r. by the President of Civil Aviation Authority of Poland.

Since 2019, the EPRA airport remains under reconstruction – despite that fact, Radom Meteo is constantly providing MET services in order to fulfil its obligations stemming from the designation, ANSP certificate and in order to maintain the Radom Meteo's potential to deliver the high-quality MET services once the EPRA will be opened once again, what is currently expected at the turn of 2022/2023.

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

Methodology used for allocating costs between en-route and terminal ANS

Radom Meteo's only efforts are dedicated to prepare MET products and services, which final clients are to a large extent Airspace Users.

The methodology for determining the cost of various aviation products is based on an expert internal assessment of the percentage division of the working time devoted to preparation of the MET products. The indicators of this commitment are the amounts of time required to prepare a particular product.

The next step of cost-allocation is based on guidelines included in the 'Guide to Aeronautical Meteorological Services Cost Recovery' by WMO - No 904 second edition from 2007 which are in line with ICAO Doc 9161, and was performed in order to divide the costs incurred between en-route and terminal ANS.

The table below presents the results of the product division prepared by Radom Meteo for the meteorological service according to the methodology presented above. The final allocation proportions are equal to 40.00% ER / 59.40% TNC / 0.60% Other, what was presented in the table below.

Product/service	Labour intensity	Allocated to ANS	Allocated to other activities	WMO 904 attachment II		Cost		
				ER	TNC	ER	TNC	Other
Providing local meteorological reports for ATC/ATIS	0,32	100%	0,00%	0%	100%	0,00	0,32	0,00
Providing METAR reports	0,22	100%	0,00%	75%	25%	0,17	0,06	0,00
Providing and supervising over forecasts TAF FC (TAF AMD)	0,23	100%	0,00%	75%	25%	0,17	0,06	0,00
Providing meteorological warnings	0,10	95%	5,00%	0%	100%	0,00	0,10	0,01
Wind shear warnings	0,02	100%	0,00%	0%	100%	0,00	0,02	0,00
Providing meteorological flight documentation	0,03	100%	0,00%	75%	25%	0,02	0,01	0,00
Forwarding reports from the air to MBN	0,04	100%	0,00%	100%	0%	0,04	0,00	0,00
Conduction on briefings and meteorological consultations	0,02	95%	5,00%	0%	100%	0,00	0,02	0,00
Providing climatological information	0,02	100%	0,00%	0%	100%	0,00	0,02	0,00
Total	1,00	-	-	-	-	40,00%	59,40%	0,60%

Due to the EPRA airport closure, some of the (mainly terminal) activities (such as providing local meteorological reports for ATC/ATIS, wind shear warnings or forwarding reports from the air to MBN) are not realized, while the final clients of some other are not Airspace Users. Therefore, it was essential to provide additional cost allocation methodology for the period of EPRA closure, based on the same proportion of labour intensity, with regard only to products provided. In that time, the final allocation of Radom Meteo's costs is equal to 54.44% ER / 18.15% TNC / 27.42% Other, what was presented in the table below and is planned to be applied in 2020-2022.

Product/service	Labour intensity	Allocated to ANS	Allocated to other activities	WMO 904 attachment II		Cost		
				ER	TNC	ER	TNC	Other
Providing local meteorological reports for ATC/ATIS	0,00	0%	0%	0%	100%	0,00	0,00	0,00
Providing METAR reports	0,22	100%	0%	75%	25%	0,17	0,06	0,00
Providing and supervising over forecasts TAF FC (TAF AMD)	0,23	100%	0%	75%	25%	0,17	0,06	0,00
Providing meteorological warnings	0,10	0%	100%	0%	100%	0,00	0,00	0,10
Wind shear warnings	0,00	0%	0%	0%	100%	0,00	0,00	0,00
Providing meteorological flight documentation	0,03	0%	100%	75%	25%	0,00	0,00	0,03
Forwarding reports from the air to MBN	0,00	0%	0%	100%	0%	0,00	0,00	0,00
Conduction on briefings and meteorological consultations	0,02	0%	100%	0%	100%	0,00	0,00	0,02

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Providing climatological information	0,02	0%	100%	0%	100%	0,00	0,00	0,02
Total	0,62	-	-	-	-	54,44%	18,15%	27,42%

IV. Warmia i Mazury

Warmia i Mazury scope of provided services generates the necessity of a costs' breakdown between en-route and terminal charging zones only for MET service. Warmia i Mazury methodology is in line with doc. WMO 904 (Annex II) – 'Guide to Meteorological Services Cost Recovery', coherent with ICAO Doc 9161. The division of labour intensity between each product and service delivered is based on internal estimations. The table below presents product allocation to the en-route and TNC.

Warmia i Mazury does not exclude the 'Other' segment as it is utterly marginal. Any additional exercise done by MET staff is paid in bonuses which are excluded from the cost-bases.

Product/service	Labour intensity	WMO 904 attachment II		Cost	
		ER	TNC	ER	TNC
Wind shear warnings	1,25%	0%	100%	0,00%	1,25%
Providing local meteorological reports for ATC/ATIS	18,50%	-	100%	0,00%	18,50%
Providing METAR reports	30,00%	75%	25%	22,50%	7,50%
Providing and supervising over forecasts TAF FC (TAF AMD)	35,00%	75%	25%	26,25%	8,75%
Providing meteorological warnings	5,00%	-	100%	0,00%	5,00%
Providing meteorological flight documentation	2,00%	75%	25%	1,50%	0,50%
Forwarding reports from the air to MBN	7,25%	100%		7,25%	0,00%
Conduction on briefings and meteorological consultations	0,50%	0%	100%	0,00%	0,50%
Providing climatological information	0,50%	0%	100%	0,00%	0,50%
Total	100,00%	-	-	57,50%	42,50%

Warmia i Mazury accounting policy bases on synthetic accounts in accordance with the applicable accounting regulations and analytical accounts based on the organizational structure of Warmia i Mazury. Separate analytical records are kept for MET, AFIS and COM services, which include the following costs:

- Direct costs – which are allocated in 100% based on the financial and accounting documents (e.g. invoices, payroll),
- Indirect costs – which division is calculated based on the proportion of the costs of Warmia i Mazury by using appropriate and specific keys, such as inter alia: space occupied, number of staff, assigned fixed assets, labour intensity, or utilities consumption.

Due to COVID-19 pandemic which had a large impact on the structure of Warmia i Mazury activity as a whole entity, since 1st January 2021 Warmia i Mazury is in testing phase of the new accounting policy concerning especially the improvement of management accounting, which will be fully implemented by 1st January 2022. Therefore, the planning exercise for years 2022-2024 and future reporting methodology will include these changes in order to provide full consistency between methodologies of calculating the determined and actual costs to provide comparable data. One of the aims of these decision was to provide more accurate allocation of assets and identification of cost centres.

V. PL Bydgoszcz

In general, PL Bydgoszcz is dividing all the costs incurred by company on ANS-directly related, ANS-directly unrelated and indirect costs that are furtherly allocated using the average company's departments ratios of involvement in providing ANS, which values are based on expert estimations.

The AFIS costs are allocated to TNC in 100%.

In case of MET costs, PL Bydgoszcz has identified various MET products and services that are provided, and has estimated the labour intensity proportions for their provision, basing on employees' historical

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experiences. In parallel, the products and services are allocated to ANS (for Airspace Users) and to other activities (for other recipients – which are marginal).

The allocation between en-route and TNC is fully based on International Civil Aviation Organization's Doc 9161 and World Meteorological Organization's Doc 904, which are coherent with each other. The final allocation was presented in the table below, in proportions: 41.00% ER / 58.89% TNC / 0.11% Other.

Product/service	Labour intensity	Allocated to ANS	Allocated to other activities	WMO 904 annex II		Cost		
				ER	TNC	ER	TNC	Other
Wind shear warnings	5,00%	100,00%	0,00%	0%	100%	0,00%	5,00%	0,00%
Providing local meteorological reports for ATC/ATIS	35,00%	100,00%	0,00%	0%	100%	0,00%	35,00%	0,00%
Providing METAR reports	25,00%	100,00%	0,00%	75%	25%	18,75%	6,25%	0,00%
Providing and supervising over forecasts TAF FC (TAF AMD)	25,00%	100,00%	0,00%	75%	25%	18,75%	6,25%	0,00%
Providing meteorological warnings	5,00%	97,92%	2,08%	0%	100%	0,00%	4,90%	0,10%
Providing meteorological flight documentation	2,00%	100,00%	0,00%	75%	25%	1,50%	0,50%	0,00%
Forwarding reports from the air to MBN	2,00%	100,00%	0,00%	100%	0%	2,00%	0,00%	0,00%
Conduction on briefings and meteorological consultations	0,50%	97,92%	2,08%	0%	100%	0,00%	0,49%	0,01%
Providing climatological information	0,50%	100,00%	0,00%	0%	100%	0,00%	0,50%	0,00%
Total	100,00%	-	-	-	-	41,00%	58,89%	0,11%

VI. CAA

The allocation between en-route and terminal ANS based on the involvement of each of the CAA's organizational units' into activities linked within the en-route and terminal supervision, measured in FTEs.

d) Breakdown of the meteorological costs between direct costs and the costs of supporting meteorological facilities and services that also serve meteorological requirements in general ('MET core costs'). MET core costs include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

I. PANSA

Not applicable.

II. IMWM

Methodology of separating the costs of meteorological services for aviation in IMWM

Determination of the share of costs of meteorological services for civil aviation provided by IMWM in total MET costs is based on separation of direct costs of such services and on separation of MET core costs.

Methodology of direct costs of meteorological services determination.

The separation of direct costs of meteorological services for aviation from the total MET costs consists in defining the costs of services, facilities and systems used exclusively to provide meteorological services for aviation. IMWM defines these costs in accordance with ICAO Doc. 9161 'Manual on air navigation services economics' and WMO Publication No 904 'Guide to aeronautical meteorological services cost recovery. Principles and guidance', Annex 1, as the costs of: Meteorological Watch Office, Meteorological Office in Cracow - only the part of the costs related to services for aviation, Aeronautical

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Meteorological Stations, telecommunication system which serve aviation, systems of aerodrome meteorological measuring devices, and costs of administrative support (including training) directly serving the aviation. Such defined direct costs include:

- 1) gross payments including: personal and impersonal wages, company's award fund contribution, social insurance contribution, company's social benefit fund contribution, and others; this cost is proportional to the amount of employees rendering meteorological services for civil aviation.

These group of costs are qualified as the staff costs.

The other groups of the direct costs of meteorological service for aviation are:

- 2) indirect costs proportional to remuneration fund and remuneration-related expenditures;
- 3) materials and equipment spare parts: office tools, printers ink, equipment purchase including purchase of equipment at airports, electricity, heat, computers, full equipment of the workplaces;
- 4) third party services: specialized software service (LEADS, AMHS, METAR2010, DEDAL, PROMET), renovation, check-ups, maintenance (computers, copiers, plotters, etc.), data communication network service (servers, routers) used by Meteorological Offices, and Aeronautical Meteorological Stations for meteorological services for civil aviation;
- 5) telecommunication: costs of maintaining communication between headquarters and Meteorological Watch Office, between Meteorological Office in Cracow and PANSA (AFTN network) and Aeronautical Meteorological Stations; SADIS communication system; fees for fixed-line telephones and mobile phones directly connected with meteorological services for civil aviation;
- 6) business trips inside and outside the country directly connected with meteorological services for civil aviation;
- 7) trainings and conferences: periodical meteorological training in respect of international European standards; enhancing qualifications trainings, inner audit costs connected with Quality Management System; other trainings connected with the service provision;
- 8) lease of premises and meteorological ground on the premises of airports - leasing according to signed agreements;
- 9) usage of automatic weather observation systems (AWOS) for the needs of meteorological services for civil aviation, including: trainings for the service workers, relevant business trips, the costs directly connected with AWOS maintenance and the cost of measuring equipment modernization.

The above costs, point 2 to 9 constitute other operating costs of meteorological services for aviation.

Methodology of determining the share of meteorological services for aviation costs in core MET costs.

According to ICAO Doc. 9161 'Manual on air navigation services economics' and WMO no 904 'Guide on aeronautical meteorological services cost recovery. Principles and guidance' MET core systems are defined as systems, facilities and services not only used for meteorological services for aviation but also for the public. These are as follows:

- Generally forecasting system;
- Numerical weather forecast system;
- Telecommunication infrastructure;
- Hydrological-meteorological stations network;
- Aerology observations system;
- Meteorological radars and discharging detection systems;
- Satellite data receiving system;
- Historical database;
- Systems supervision.

Core MET costs are costs of maintenance of the above listed systems in this part which was included within total MET costs and on the basis of the methodology presented above.

The share of costs of most MET core systems in aviation costs was calculated in accordance with procedures defined in ICAO Doc. 9161 'Manual on air navigation services economics' and WMO no 904 'Guide on aeronautical meteorological services cost recovery. Principles and guidance', point 3.10 (d), namely: in proportion of all employees working for aeronautical meteorology to employees working for National Hydrological-Meteorological Service. The number of employees working for aeronautical meteorology was determined on the basis of dividing National Hydrological-Meteorological Service into

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HYDRO Service and MET Service. This methodology was applied in order to determine the share of costs of the following core systems:

- Generally forecasting system;
- Numerical weather forecast system;
- Hydrological-meteorological stations network;
- Aerology observation system;
- Satellite data receiving system;
- Historical database;
- Systems supervision.

The share of costs of telecommunication systems in aviation costs was determined analogously to the methodology which determines the share of MET costs (total MET costs) in National Hydrological-Meteorological Service. The methodology is defined in ICAO Doc. 9161 and WMO no 904 point 3.10 (c), namely it is based on the analysis of the size of computer network flow in IMWM.

III. Radom Meteo

For details on cost allocation see point c).

IV. Warmia I Mazury

For details on cost allocation see point c).

V. PL Bydgoszcz

For details on cost allocation see point c).

VI. CAA

Not applicable.

e) Description of the methodology used for allocating total meteorological costs and MET core costs referred to in point (d) to civil aviation and between charging zones;

I. PANSA

Not applicable.

II. IMWM

Methodology for division of costs of MET services to civil aviation into costs of particular products.

The methodology for determining the cost of various aviation products is based on an assessment of the percentage contribution of the working time of one post per day in the manufacture of products for meteorological service to civil aviation. The basis of the methodology is the assessment of involvement of different organizational units, directly producing aeronautical products such as the Meteorological Watch Office (MBN), Meteorological Office (BPM) and the Aeronautical Meteorological Stations (LSM) units and indirectly involved in the protection of civil aviation. The measure of this commitment is the amount of time required to manufacture a particular product.

The share of work of the units indirectly involved is assigned to each product, and contribution of the Central Measuring Equipment Laboratory, was assigned only to products that are based on measuring instruments.

A detailed description of the methodology used to determine the costs of products is as follows:

- 1) A catalogue of basic classes of meteorological products has been defined. It was prepared by IMWM in order to provide meteorological services to civil aviation in 2020-2024. This catalogue is based on ICAO Annex 3, WMO Publication No. 904.
- 2) Daily work tables were constructed for the Meteorological Watch Office and individual meteorological offices, and for aeronautical meteorological stations. These tables describe the

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average time it takes to produce various aeronautical meteorological products in specific classes in the consecutive hours of the day, in different organizational units.

- 3) On the base of obtaining percentage of product workload, partial product cost has been calculated which is a product of the following elements:
- Number of posts;
 - Labour consumption of the products;
 - Annual amount of salaries per post.

The term workload is understood as the amount of work needed or used for the implementation and monitoring of a single product that is expressed as a percentage of working time to the entire time.

Cost share of other groups (service, AWOS, materials, external services, delegations, telecommunications, SADIS, trainings, rentals, infrastructure, depreciation, cost of capital) has been established - on the basis of dedicated work at each cost group to manufacture the product. This share has been added to the partial cost of the product. In this way, an annual cost of developing each of the products ordered by PANSA has been achieved. The sum of the individual products gives us an annual cost of MET services to civil aviation.

III. Radom Meteo

For details on cost allocation see point c).

IV. Warmia I Mazury

For details on cost allocation see point c).

V. PL Bydgoszcz

For details on cost allocation see point c).

VI. CAA

Not applicable.

f) For each entity, description of the composition of each item of the determined costs by nature and by service (points 1 and 2 of Table 1), including a description of the main factors explaining the planned variations over the reference period;

I. PANSA

Determined costs by nature and by service

Entity: PANSA	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Staff costs cover gross remuneration, overtime payments and other ancillary benefits including jubilee awards and bonuses, PANSA contributions to social security scheme, including pension contributions, as well as provisions related to staff costs. Staff costs do not include the costs of training, which are disclosed under other operating costs. The main drivers for 2020-2021 cost evolution are: - implementation of cost containment measures in the area of base salaries due to the lack of the main source of income (ANS charges) – applicable to 2021; - reduction of all other remuneration components (overtime, bonuses, awards, allowances etc.) related to the extraordinary financial circumstances, reduced workload and use of furloughs/downtime – applicable to 2020-2021, - use of COVID-related state care allowance for small kids by some employees during lockdown and related school closure – applicable to 2020-2021, - temporary suspension/reduction of some contribution to social insurance scheme – applicable to 2020. The 2021 staff costs are also impacted by measures implemented by PANSA in terms of staff costs following the COVID-19 crisis outbreak as well as one-off costs that are necessary to allow for limiting cost increases for 2022+. The 2021 cost increase is related to additional obligations of the Agency towards its employees following from measures undertaken and planned to be undertaken, including those resulting from reduction of basic salaries and use of furloughs/downtime, employment optimisation,

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	implementation of new rules of remuneration. To enable meeting the cost trend aligned with Union-wide trend for RP3 and to avoid significant increase in staff costs after RP3, changes to staff remunerations are necessary – limiting the 2022+ costs to values enabling meeting the required cost profile results in the need to incur one-off costs in 2021. Those one-off costs consider, among others, the main elements: – costs related to compensations for employees who will not accept the new salary levels and related costs stemming from the need to employ new employees to replace those leaving, – costs related to potential court cases initiated by some employees following contract termination by the employer, – one-off costs related to changes in remuneration of some employees resulting from Labour Law provisions (under which during the transitional period employees can benefit from both, old and new provisions of rules of remuneration to the extent that these are more favourable to them). The main assumptions for 2022-2024 planned cost evolution include: - partly restoration of basic salaries following the 2021 cuts indicated above, - restoration of other remuneration components to pre-pandemic levels where needed/justified, increase in employment (especially in the CNS and IT areas) due to i.a. infrastructure and systems development supporting TWR ATCOs.
of which, pension costs	These include PANSA contributions to national pension scheme (applicable to all entities in Poland) as well as additional PANSA occupational pension scheme applicable to PANSA employees (Defined Contribution Scheme). Pension contributions were assumed at the current level. In percentage: 1) for the state scheme: 9.76% - pension contribution rate; 6.5% - disability pension contribution rate and 1.5% - bridging pension contribution rate for employees employed in special conditions, 2) for PANSA occupational scheme: 7%. For the state scheme the costs assume the annual limit of basis for the contributions to state pension insurance applicable for 2021 in the amount of 157 770 PLN, which in subsequent years was increased by forecasted inflation (the limit is verified on annual basis by the state taking into account the level of monthly average salary in the Polish economy). 2020 pension costs are impacted by the temporary suspension of contribution to PANSA occupational scheme.
1.2 Other operating costs	The other operating costs were estimated according to the best knowledge regarding signed agreements with subcontractors, short term needs related to ensuring services continuity as well as savings and optimization of costs necessitated by COVID-19 situation. The level of costs also takes into account cost of training. The main drivers for 2020-2021 cost evolution are: – restrictions connected with COVID-19 pandemic, which have temporary impact on the level of such costs as travel, trainings, energy and utilities (limited number of persons on-site, remote work), events etc., – measures aimed at maintaining liquidity, consisting in temporary reduction of some expenditures or postponement of these – where possible, including also CAPEX optimization (impacting costs related to new investments – incl. preparatory works, implementation and maintenance of infrastructure and systems, as well as costs related to repair services and other – incl. security, cleaning and maintenance services – needed to maintain PANSA's Property Plant and Equipment at the level ensuring undistorted operations). The main assumptions for 2022-2024 planned cost evolution include: – execution of projects aimed at increasing efficiency of TWR ATCOs, considering also the need to improve resilience and digitalization of services. These include both investment tasks as foreseen in the verified CAPEX plan (where planned investments have impact on costs related to preparatory works, implementation and maintenance of infrastructure and systems) and projects planned to be executed as OPEX, – restoration to normal operations where it is no longer possible to reduce or postpone activities and related costs, and where due account must be taken of increase in prices of energy, minimum wage (impacting costs of external services) and tax liabilities (also resulting from execution of investment tasks mentioned above). Following talks between NSA and the European Commission on the treatment of costs related to non-contractual use of land, costs related to accounting provisions on these claims are not included in the revised RP3 determined costs. In accordance with the outcome of the discussions with the EC, these will be reported as cost-

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	exempt once the final amounts to be paid by PANSa are established and subject to payment and will be recovered accordingly.
1.3 Depreciation	The depreciation cost covers both, continued depreciation of assets existing before RP3 as well as depreciation on new assets, which were/will be put into operation over 2020-2024. It includes depreciation of fixed assets and intangible assets. Historic cost accounting is applied. The level of depreciation cost is impacted by investments executed before the COVID pandemic (up to 1Q 2020), limited investments carried out during 2020-2021 which are necessary to ensure service continuity, are required by regulatory framework or are subject to agreements signed with contractors and investments planned for the following years of RP3. Following the outbreak of the pandemic, in 2020 PANSa has undertaken a complete review of CAPEX plan for the whole RP3 and beyond. The aim was on the one hand to look for possible savings in the level of expenditures, especially for the period 2020-2021, including possible postponement of projects (financial dimension of the review), and on the other to again validate the projects from the perspective of current operational needs and expected benefits, also in the light of expected changes to traffic levels (operational perspective of the review). As a result of that review, some investments were cancelled/suspended, and many were postponed. Further review was undertaken in 2021 and led to some additional refinements in RP3 CAPEX plan, taking also into account actual execution of CAPEX over 2020 and early 2021. The reviewed investment plan includes both, replacement and development needs. New investments shall enable standardization of TWR positions, support digitalization of services and include tools to support efficiency of TWR ATCOs.
1.4 Cost of capital	The cost of capital remains quite steady over RP3. The fixed assets base reflects execution of investment plans. For further details on the cost of capital calculation – see point i) below.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Evolution of ATM costs is related to the staff cost (see point 1.1) and planned execution of investments related to ATM.
2.2 Communication	The level of COM costs reflects evolution of COM infrastructure and remains quite steady over RP3 as compared to RP2 actuals. These includes also evolution of related other operating costs – including energy, rental of land, security etc.
2.3 Navigation	Similarly as for COM above, the level of NAV costs reflects evolution of NAV infrastructure and remains quite steady over RP3, also as compared to RP2 actuals. These includes also evolution of related other operating costs – including energy, rental of land, security etc.
2.4 Surveillance	The SUR costs remain steady over RP3, also as compared to 2018-2019 actuals.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	In recent years due to implementation of POLFRA (free route airspace), the design of airways (which affect the costs of en-route navigation) has been abandoned. At the same time increase in workload dedicated to terminal area is visible due to development and deployment of new or modified procedures, such as: departure procedures (SID), arrival procedures (STAR), RNAV, RNP procedures. It is caused by developments of PL airports and also by putting in place or replacing old navigation aids. Another important issue is the increasing number of obstacles around airports (e.g. cranes, buildings), which makes it necessary to check the procedures in terms of safety. Due to the development of airports in Poland as well as changes in the airspace in the vicinity of airports, publications and procedures created for airports have an increasing share in these activities. This causes changes (increase) in the amount of costs for terminal navigation from 2021 onwards.
2.7 Meteorological services	Not applicable.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Not applicable.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: <PANSa>
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
Information on pension costs assumptions is provided above in point f) and in the revised PL RP3 PP (item 3.4.3).

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II. IMWM

Determined costs by nature and by service

Entity: IMWM	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	The increase in personnel costs is related to the increase in wages in IMWM and the increase in the average wage in the country. In March we introduced IMWM Collective Labor Agreements that regulates wages in IMWM.
of which, pension costs	The methodology of calculating pension and pension contributions paid by the employer for employees at the IMWM is based on suitable articles of the Act on the social insurance system of 13 th October 1998. The sum total of the pension and pension contribution paid by the employer is 9.76% plus 6.5% equal to 16.26% of the contribution basis.
1.2 Other operating costs	The increase in operating costs is dictated by the increase in the amount related to the lease of AWOS systems not owned by IMWM (EPWA, EPPO, EPLB, EPZG, EPMO). Assumptions that were adopted for the RP2 period did not provide for real costs incurred by the Institute in this respect. In addition, the assumptions related to the service of systems owned by IMWM were verified, which also resulted in increased operating costs. Operating expenses were also increased due to the need to adapt the IMWM infrastructure to the standards imposed by Eurocontrol and EASA in the field of data exchange, including adaptation to SWIM information exchange standards. Another element is the introduction of new products and tools supporting the work of forecasters and tools supporting the work of PANSATC / Vento, MeteoFlight /. Also a number of IT activities for the meteorological services were also carried out: consolidation of the IT environment (mainly in relation to servers), construction of a backup node for transmission and processing environments and data storage, replacement and supplementation of network equipment, development of monitoring tools and tools for measuring parameters of applications, servers and ICT network, maintenance of the incident management system, expansion of configuration management systems, development and maintenance of the business continuity management system, replacement (reconstruction) of computers functioning as workstations, development and migration from the tools used so far as well as operational implementation of the acquisition and distribution system with operational and historical databases, analysis of the use and analysis of the functionality of the software used by meteorological services- process from aeronautical meteorological stations level to the level of forecasting offices, purchase of infrastructure elements dedicated to the needs of projects and tasks carried out as part of the meteorological services, modernization of AWOS and ICEALERT systems in order to increase reliability and reduce the number of single points of failure, changes in the connections of the AWOS system with the infrastructure of airports and the Polish Air Navigation Services Agency (PANSATC) in order to increase reliability.
1.3 Depreciation	Subsequent years of operation of the AWOS systems purchased in 2016 and other fixed assets purchased.
1.4 Cost of capital	Subsequent years of operation of the AWOS systems purchased in 2016 and other fixed assets purchased.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	n/a
2.2 Communication	n/a
2.3 Navigation	n/a
2.4 Surveillance	n/a
2.5 Search and rescue	n/a
2.6 Aeronautical Information	n/a
2.7 Meteorological services	Please see explanation above (1.1-1.5).
2.8 Supervision costs	n/a
2.9 Other State costs	n/a
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
n/a	

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Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: IMWM
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
see point 1.1 of the chart

III. Radom Meteo

Determined costs by nature and by service

Entity: Radom Meteo	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Radom Meteo in 2019 and 2020 has minimized the staff costs by largely reducing the working time of employees, to the levels necessary to fulfil the obligations of ANSP certificate, designation and employees' requirements to maintain their authorities to perform MET services. From 2023, the staff costs are expected to significantly rise, also comparing to RP2, as the MET services are planned to be delivered 24 hours a day as EPRA is planned to become an important airport devoted to handling the Warsaw's traffic.
of which, pension costs	Pension costs are planned to rise in the later years of RP3 as a consequence of the increase in employment and changes in legal form of cooperation with employees to the form of contracts that include social security expenses.
1.2 Other operating costs	Radom Meteo has reached agreements for the years 2020-2022 with lots of contractors which have resulted in minimalization of the costs incurred for the time of EPRA closure. From 2023, due to the plans of EPRA modernization and its significant growth in terms of level of handled traffic, lots of MET investments are planned to be performed, which will eventually result in higher level of costs due to its maintenance and utilities. Also, the values of contracts with the external counterparties are planned to rise to the levels from before the EPRA closure as the temporary agreements, mentioned above, will reach their end.
1.3 Depreciation	Depreciation of the old equipment, which is constantly in use, will end in 2022. At the beginning of 2023, new important investments, such as AWOS modernization equipment and climatological software are planned to be purchased, which will generate the significant depreciation costs for further years. The investments are necessary to bring the EPRA airport category to a higher level.
1.4 Cost of capital	The COVID-19 pandemic and changes in navigation charges distribution system at national level have made the level of cost of capital incurred not neglectable anymore. The determined WACC values are based on the recommendation of PRB (for details see point j))
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	All costs are related to this activity. Please see explanation above (1.1-1.5).
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Radom Meteo follows the rules of Polish Accounting Act. Full compliance with the IFR Standards is not possible at this stage, nevertheless Radom Meteo is aware its obligation to achieve such compliance to the maximum possible extent.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: Radom Meteo
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
As stated in point 1.1. of the table above. No changes are expected.

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IV. Warmia i Mazury

Determined costs by nature and by service

Entity: <Warmia i Mazury>	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Staff costs are lower in 2020 and 2021 due to lower working hours of AFIS than initially planned. The working hours of AFIS are planned to reach the usual level in 2022.
of which, pension costs	The pension costs are proportionate to staff costs.
1.2 Other operating costs	Other operating costs are lower in 2020 and 2021 due to lower working hours of AFIS than initially planned. The working hours of AFIS are planned to reach the usual level in 2022.
1.3 Depreciation	Depreciation costs rise significantly in 2022 due to planned investment in COM vehicles in late 2021 (postponed from 2020) and also grow in 2024 as a result of investment in rAFIS. "Remote AFIS" is changing the provision of Air Traffic Services (ATS) in a way that it is more service tailored, dynamically positioned and available when and where needed, enabled by advanced surveillance solutions making the physical presence of aerodrome flight information service officers (AFISO) In next step it enables centralised aerodrome AFIS services in terms of Remote AFIS Centers to further increase cost efficiency.
1.4 Cost of capital	Cost of capital variation is strictly connected with depreciation costs evolution.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	The costs of AFIS has been reduced in 2020 and 2021 due to COVID-19 pandemic and temporary limitation of working hours of EPSY airport and WiM's air navigation services. In 2024 the costs are rising due to investment in rTWR in which WiM's participation in costs is equal only to 25%. For details see points 1.1-1.5 above.
2.2 Communication	The COM cost drivers are the same as for AFIS (see above). For details see points 1.1-1.5 above.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	The MET costs YoY evolution is marginal and varies mainly on forecasted inflation rates. For details see points 1.1-1.5 above.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
Warmia i Mazury follows the rules of Polish Accounting Act. It is not possible to provide full compliance with the IFRS, though the compliance with IFRS is currently at the maximum possible extent.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: <Warmia i Mazury>	
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3	
Warmia i Mazury does not foresee any changes in law which may have an impact on pension costs in RP3.	

V. PL Bydgoszcz

Determined costs by nature and by service

Entity: <PL Bydgoszcz>	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Costs in 2020 are lower than in years 2021-2024 due to the airport's closure for several weeks due to COVID-19 pandemic and PL Bydgoszcz's ability to lower staff costs, as a consequence from the so called 'Shield' programme. The wages in next years are rising as a compensation for high inflation rates and as a reward for the increase of experience of employees in order to prevent the key personnel from leaving the company. The AFIS costs are rising due to increase in operating hours in subsequent years.

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of which, pension costs	The pension costs consist of social security expenses and are strictly connected with staff costs growth.
1.2 Other operating costs	Majority of other operating costs is planned for trainings of the staff posted to ANS provision, utilities, rent, COM for AFIS rental fees, external services such as IT support and maintenance. What is more, some of PL Bydgoszcz's personnel has been contracted as external counterparties what also has a significant impact on the final cost values. The AFIS other operating costs are also rising in 2023 and 2024 which are stemming from the TWR modernization.
1.3 Depreciation	Depreciation of MET assets is maintaining the similar level over RP3. The main MET cost-driver is depreciation of AWOS system and MET software. In terms of AFIS, the values are rapidly growing in 2023 and 2024 due to planned and postponed TWR modernization.
1.4 Cost of capital	Costs of capital is falling YoY as the net book value of assets is declining due to its depreciation. The values for AFIS are rising in 2023 and 2024 as the planned investment in TWR modernization will be finished and entered into operation.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	The AFIS costs are rising in 2023 and 2024 due to the planned in the second half of 2023 TWR modernization, which has been postponed from 2020, caused by, among others, COVID-19 pandemic. The other cause of the cost growth is increased number of planned operating hours of AFIS comparing to 2020 and 2021, which were minimized in these years due to low traffic. For details see points 1.1-1.5 above.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.
2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	The costs are rising mainly due to the growth in staff costs. For details see points 1.1-1.5 above.
2.8 Supervision costs	Not applicable.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
PL Bydgoszcz accounting policy is basing on the rules of Polish Accounting Act. It is not possible to provide full compliance with the IFR Standards, though PL Bydgoszcz is struggling to achieve coherence with IFRS at the maximum possible extent.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: <PL Bydgoszcz>
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
No changes in law having an impact on pension costs in RP3 are expected. For details, see point 1.1. in table above.

VI. CAA

Determined costs by nature and by service

Entity: CAA (including EUROCONTROL)	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	Among others – costs of: remuneration, pension contributions, bonuses.
of which, pension costs	Pension contributions covering the 9.76% and 6.5% parts of wages (national pension scheme).
1.2 Other operating costs	Among others – costs of: materials, energy, utilities, business travels, furniture, renovation, trainings, rents.
1.3 Depreciation	Not applicable.
1.4 Cost of capital	Not applicable.
1.5 Exceptional items	Not applicable.
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	Not applicable.
2.2 Communication	Not applicable.
2.3 Navigation	Not applicable.
2.4 Surveillance	Not applicable.
2.5 Search and rescue	Not applicable.

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2.6 Aeronautical Information	Not applicable.
2.7 Meteorological services	Not applicable.
2.8 Supervision costs	The growth of CAA costs in RP3 comparing to RP2 results from the planned rise of wages stemming from the government budget and the increase of obligations and task performed by the CAA in the field of air navigation service.
2.9 Other State costs	Not applicable.
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
The CAA, as a national budgetary unit financed from state budget, is obliged to follow accounting regulations applicable to national administration bodies. As a consequence, the CAA does not apply IAS but follows national regulations regarding budgetary units which are based on cash accounting rules.	

Pension costs

Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

Entity: CAA (including EUROCONTROL)
Assumptions underlying the determined pension costs and expected evolution over Reference Period 3
The assumptions were based on the currently functioning national pension scheme. It is not expected to face any major changes over RP3.

g) For each entity, a description and justification of the method adopted for the calculation of depreciation costs (point 1.3 of Table 1): historical costs or current costs referred to in the fourth subparagraph of Article 22(4), and, where current cost accounting is used, provision of comparable historical cost data;

I. PANSA

In compliance with the Accounting Policy, historical cost accounting method is applied for the calculation of the depreciation costs. Depreciation is provided using the straight-line method over the estimated economic useful lives of the assets. The depreciation periods applied by PANSA remain unchanged as compared to previous reference periods. The economic useful life is periodically reviewed to ensure that depreciation periods are consistent with the expected pattern of economic benefits from items property, plant and equipment.

With regard to investments co-financed by the public funds, including EU Cohesion Fund and the Connecting Europe Facility fund, the full amount of depreciation costs is included in the determined costs. At the same time the subsidies are taken into account as other revenue – the calculation of other revenues fully follows provisions of article 25.3 of Regulation 2019/317 – see also point f) in the Additional Information to Table 2 below.

II. IMWM

Depreciation of appliances is always calculated from the next month after the takeover is completed. This calculation is done in accordance with expected operating life – in line with the operating life for the specific type of fixed assets as described in the 'Principles for establishing the cost-base for en-route charges and the calculation of the unit rates' - using the straight-line method and refers to historic cost of fixed assets depreciated and intangible and legal assets.

To calculate cost of capital the following pattern is used in the IMWM:

Cost of capital = (Average net value of fixed assets and possible adjustments of all assets determined by national regulatory body, currently operationally exploited or built, used by an institution serving air navigation + average net value of current assets, excluding interests, necessary for air navigation service) x weighted average of debt interest rate and of return on equity

IMWM follows EUROCONTROL Principles according to which only these assets can be calculated within the equity which operating period is expected to begin before the end of the year for which the cost calculation is made.

IMWM TNC -OTHER					
Equivalent in historic cost accounting					
	2020	2021	2022	2023	2024

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Investment costs (in nominal terms in '000 national currency)					
1.3 Depreciation	1 026	1 073	1 372	1 372	2 092
1.4 Cost of capital	493	482	217	257	262
Average asset base					
3.1 Net book val. fixed assets	5 443	4 884	4 705	3 615	3 087
3.2 Adjustments total assets	0	0	0	0	0
3.3 Net current assets	10 728	10 225	3 369	4 755	4 892
3.4 Total asset base	16 171	15 109	8 074	8 370	7 979
Cost of capital %					
3.5 Cost of capital pre tax rate	3,05%	3,19%	2,69%	3,07%	3,28%
3.6 Return on equity	4,00%	4,00%	4,00%	4,00%	4,00%
3.7 Average interest on debts	1,34%	1,40%	1,40%	1,40%	1,40%
3.8 Share of financing through equity	64,29%	68,85%	49,62%	64,23%	72,31%

III. Radom Meteo

Radom Meteo uses the historical costs methodology for the calculation of depreciation costs. No assets revaluation has been included or is planned to be performed in the scope of RP3.

IV. Warmia I Mazury

Warmia i Mazury uses the historical costs methodology, therefore there is no need for additional information concerning comparable data on depreciation costs.

V. PL Bydgoszcz

PL Bydgoszcz uses the historical costs methodology for the calculation of depreciation costs. No assets revaluation has been included or is planned to be performed in the scope of RP3.

VI. CAA

Not applicable.

h) For each entity, description and underlying assumptions of each item of complementary information (point 3 of Table 1), including a description of the main factors explaining the variations over the reference period;

I. PANSA

PANSA	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	Cost of capital is calculated taking into account average value of the intangible assets and the tangibles assets as well as WACC rate (see item i) below).
3.12 Cost of leasing	For the purpose of establishing cost bases for RP3 PANSA follows EC recommendations and presents <u>lease payments under other operating costs</u> . It should be emphasized that depreciation charge for the leased asset, interest expense on a lease liability (as a consequence of IFRS 16 implementation) as well as right-of-use of leased asset <u>are not included in determined costs</u> (neither as depreciation nor as cost of capital).

II. IMWM

IMWM	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	See point f) and g).
3.11 Cost of capital	See point f), g) and i).
3.12 Cost of leasing	n/a

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III. Radom Meteo

<Radom Meteo>	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above.
3.11 Cost of capital	Radom Meteo has not included in cost bases in RP2 the incurred cost of capital as its level were neglectable. Details of its evolution in RP3 are covered in item f) above.
3.12 Cost of leasing	The cost of leasing is not planned in RP3 and were not incurred in RP2.

IV. Warmia I Mazury

<Warmia i Mazury>	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	Cost of capital related to new and existing investments is a product of the forecasted values of NBV fixed assets and WACC.
3.12 Cost of leasing	Not applicable.

V. PL Bydgoszcz

<PL Bydgoszcz>	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	The values of cost of capital stemming from new and existing investments are the product of the forecasted WACC and net book value of fixed assets.
3.12 Cost of leasing	Not applicable to PL Bydgoszcz.

VI. CAA

CAA	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Not applicable.
3.11 Cost of capital	Not applicable.
3.12 Cost of leasing	Not applicable.

i) For each entity, description of the assumptions used to compute the cost of capital (point 1.4 of Table 1), including the composition of the asset base, the return on equity, the average interest on debts and the shares of financing of the asset base through debt and equity;

I. PANSA

PANSA	
Average asset base	
3.1 NBV fixed assets	The average net book value of fixed assets for terminal services provision is calculated taking into account the intangible assets and the tangible assets (in operation and under construction). It should be emphasized that leased assets are excluded from average asset base calculation. The average considers level of fixed assets at the beginning and at the end of each year.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	The value of net current assets is calculated taking into account approach recommended by CRCO when auditing PANSA's cost base in 2010 and applied since then, which is also consistent with EUROCONTROL Principles. It assumes

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	that only assets that are necessary to provide ANS are taken into account. Planned current assets required to provide air navigation services are calculated taking into consideration latest available (for the year preceding the calculation) credit period associated to the payment of invoices (credit from customers and credit suppliers and staff). Methodology applied guarantees exclusion of interest bearing items.
Cost of capital %	
3.6 Return on equity	In order to properly reflect financial risk incurred when providing air navigation services PANSA applies a CAPM methodology for establishing return on equity. Assumptions taken into account to determine RoE rate for RP3 under the current submission: Capital structure – hypothetical efficient capital structure assuming 60% debt financing over whole RP3. Corporate tax rate – 19%. Risk free rate % (nominal) - an average of the latest available yield of 10 years Polish government bonds rate reported by Eurostat is used (August 2021 publication for the period Feb-Jul 2021). After the consultation process PANSA took a good note of airspace users expectations and has decreased the risk free rate for years 2020-2024. Equity risk premium % (after tax) – 6.54% - an average of equity risk premium estimated for Poland by Damodaran (6.48% as per Jul 2020 submission) and Fernandez IESE Business School study (6.60% as per Mar 2020 submission). ERP estimated in such way applies for the whole RP3. Asset beta is 0.4. The asset beta is assumed taking into consideration estimates made by SDG for efficient cost of capital for RP2 (a range of 0.3 to 0.5). It is consistent with assumptions used for RP2 and initial PL RP3 PP dated Nov 2019 and reflects financial risk of running ANSP business. Equity beta for every single year of RP3 amounts to 0.89 and is a product of estimated asset beta, corporate tax rate and assumed hypothetical efficient capital structure described above.
3.7 Average interest on debts	Average interest on debts is calculated taking into account effective annual interest rates calculated based on the agreed operating credit facility and investment credit, both received from Bank Gospodarstwa Krajowego (BGK); average interest on debts calculation was performed taking into account costs already incurred till Jun 2021 and these forecasted to the end of repayment periods. It should be noted that PANSA as a public legal entity is obliged to use financial products offered by this state-owned bank (BGK) only.
3.8 Share of financing through equity	As recommended by SDG and expected by EC (exchanges during discussions on the initial PL RP3 PP dated Nov 2019) hypothetical efficient capital structure 60% through debt and 40% through equity was assumed for the whole RP3.

WACC calculation	2020	2021	2022	2023	2024
Capital structure (% equity)	40%	40%	40%	40%	40%
Capital structure (% debt)	60%	60%	60%	60%	60%
Corporate tax rate %	19%	19%	19%	19%	19%
Risk free rate % (nominal)	1,60%	1,60%	1,60%	1,60%	1,60%
Market rate (after tax)	8,14%	8,14%	8,14%	8,14%	8,14%
Market (equity) risk premium % (after tax)	6,54%	6,54%	6,54%	6,54%	6,54%
Asset beta	0,4	0,4	0,4	0,4	0,4
Debt beta	0	0	0	0	0
Equity beta	0,89	0,89	0,89	0,89	0,89
Return on Equity % (after tax)	7,39%	7,39%	7,39%	7,39%	7,39%
Return on Equity % (pre tax)	9,13%	9,13%	9,13%	9,13%	9,13%
Debt risk premium %	1,69%	1,82%	1,87%	1,93%	1,96%
Interest on debt % (pre tax)	3,29%	3,42%	3,47%	3,53%	3,56%
Interest on debt % (after tax)	2,66%	2,77%	2,81%	2,86%	2,89%
WACC % vanilla	4,93%	5,01%	5,04%	5,07%	5,10%
WACC % after tax	4,56%	4,62%	4,64%	4,67%	4,69%
WACC % (pre tax)	5,62%	5,70%	5,73%	5,77%	5,79%

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II. IMWM

IMWM	
Average asset base	
3.1 NBV fixed assets	Average accounting net value of fixed assets was calculated on the basis of actually involved fixed assets, which serve meteorological services for civil aviation and on the basis of all planned purchases of fixed assets for above mentioned purposes.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	Average net value of working assets – <u>net working assets</u> - working assets excluding short-term liabilities; – <u>average net value of working assets</u> was calculated in the following way: (net working assets at the beginning of the year + net working assets at the end of the year) : 2. Working assets are all amounts due on account of the agreement for meteorological services for civil aviation calculated at the end of financial year. Taking into account the fact that there is a monthly settlement cycle, at the end of the year stays only a December instalment, namely 1/12 part of the amount written in the agreement. Short-term liabilities - accepted at an average index level resulting from the division of short term liabilities by working assets.
Cost of capital %	
3.6 Return on equity	Interest on equity for the years 2019-2024 - adopted at the level of 4% acc. interest rate presented in the performance plan for the reference period.
3.7 Average interest on debts	Interest on the loan to finance the purchase of AWOS systems in 2020 -1,34% and in the years 2021-2024 - 1,40%.
3.8 Share of financing through equity	Calculated as the ratio of equity to total capital employed.

III. Radom Meteo

<Radom Meteo>	
Average asset base	
3.1 NBV fixed assets	NBV of fixed assets was calculated as a average value of fixed assets between subsequent years, with respect of its depreciation.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	Net current assets were calculated as a difference between forecasted levels of current assets and liabilities.
Cost of capital %	
3.6 Return on equity	RoE was calculated basing on CAPM and PRB recommendations, including the risk-free rate based on the Poland's government bonds yields (Eurostat data), capped beta factor at level 0.4 and county risk premium based on average of available A. Damodaran, Fernandez-IESE and Dimson-Marsh-Staunton values.
3.7 Average interest on debts	Not applicable as Radom Meteo does not foresee any financial liabilities in RP3.
3.8 Share of financing through equity	Equal to 100% as Radom Meteo does not foresee any financial liabilities in RP3.

IV. Warmia i Mazury

<Warmia i Mazury>	
Average asset base	
3.1 NBV fixed assets	The NBV of fixed assets was calculated basing on the sum of values of fixed assets less depreciation.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	Warmia i Mazury has taken into account the difference between the receivables and liabilities and their turnover ratios.
Cost of capital %	
3.6 Return on equity	Warmia i Mazury has taken into account the PRB recommendations. The RoE was calculate by using Capital Asset Pricing Model. Risk-free rate was based on the Poland's domestic long-term bonds' yield, while beta factor was capped and

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	equal to 0.4, in line with PRB suggestions. There was no need for Hamada's equation application as forecasted debt is equal to 0. Risk premium values were based on the average of A. Damodaran and Fernandez-IESE calculations.
3.7 Average interest on debts	Not applicable as Warmia i Mazury has no external financing concerning MET services.
3.8 Share of financing through equity	The value is constant through RP3 and equal to 100%, see point 3.7 above.

V. PL Bydgoszcz

<PL Bydgoszcz>	
Average asset base	
3.1 NBV fixed assets	The net book value of fixed assets was calculated basing on monthly averages of fixed assets reduced by appropriate levels of depreciation.
3.2 Adjustments total assets	Not applicable.
3.3 Net current assets	PL Bydgoszcz has calculated net current assets by diminishing the product of receivables and receivables turnover ratios by the product of non-financial liabilities and liabilities turnover ratios.
Cost of capital %	
3.6 Return on equity	PL Bydgoszcz's calculated RoE by following the PRB recommendations. The CAPM model was used to determine the proper values. The domestic long-term bonds' yield was used as a risk-free rate, together with capped beta equal to 0.4, which was further levered using Hamada's equation. As for risk premium, PL Bydgoszcz has used the average of calculations performed only by A. Damodaran and Fernandez-IESE as Dimson-Marsh-Staunton values were not publicly available.
3.7 Average interest on debts	PL Bydgoszcz has used the average interest on debts basing on relation of actual and planned interests and external capital used for funding the MET services.
3.8 Share of financing through equity	The share of financing through equity was based on the real proportions of debt and equity used to finance the provision of ANS.

VI. CAA

Not applicable.

j) Description of the determined costs of common projects (point 3.9 of Table 1).

I. PANSA

The costs of common projects include:

- cost of depreciation of existing and new planned assets,
- operating costs (travel costs, training, wages etc.) as presented in grant agreement,
- cost of capital.

Cost of capital is not eligible under grant agreements. However, it is part of determined costs under Regulation 2019/317.

PANSA					
Determined costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020	2021	2022	2023	2024
Local traffic complexity management AF4_	143	190	159	130	116
SWIM Common PKI and policies & procedures for establishing a Trust framework AF5	2	6	-	-	-
DLS European Target Solution assessment AF6	0	-	-	-	-
LAN network upgrade AF5	141	207	326	298	236
The ECG Communication System upgrade AF5	58	107	99	91	84
ATM System Upgrade Towards	735	798	746	695	585

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Free Route Airspace AF3					
iTEC Tests, Validations and Planning (iTEC- TVP) AF3	66	459	1	-	-
NewPENS Stakeholders contribution for the procurement and deployment of NewPENS AF5	34	-	-	-	-
Deploy SWIM governance AF5	1	0	0	-	-
Implementation of data link services for the ATM in FIR Warsaw AF6	356	334	313	291	249
1 st part of the upgrade of the P_21 Pegasus system to SESAR functionalities – test and validation platform AF3	255	40	35	31	29
Total (Table 1 item 3.9)	1 790	2 142	1 679	1 537	1 299

II. IMWM

Not applicable.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia I Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VI. CAA

Not applicable.

2. Actual costs and unit costs

a) For each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period;

As the local cost-efficiency performance targets for RP3 are currently subject to revision as part of the draft performance plans to be submitted by Member States to the Commission by 1 October 2021, in line with the exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627 of 3 November 2020), the monitoring of the 2020 actual performance is carried out against the 2019 actual performance. The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

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I. PANSA

In the cost-efficiency area, the revised draft PL RP3 PP establishes also 2020 determined costs. Revised 2020 determined costs are equal to 2020 actual costs incurred by PANSA.

It should be noted that actual costs for the year 2020 included in the draft revised PL RP3 PP have been recalculated as compared to costs presented for the purpose of June 2021 submission. It led to slight increase in 2020 actual costs mainly due to exclusion of costs related to non-contractual use of land and revision of assumptions applied to cost of capital calculation (to ensure that cost of capital assumptions remain coherent over the whole RP3).

The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: PANSA	
1.1 Staff costs	The actual staff costs for 2020 are lower by 7.4 % than 2019 staff costs mainly due to implementation of one-off cost containment measures taken in order to respond to traffic decrease and liquidity issues. Such decrease in staff costs is a result of temporary suspension of hiring new employees (including courses for ATCO), temporary suspension of contributions to the occupational pension scheme and group insurance, limited number of working hours on weekends and night hours, reduction of bonuses and rewards and overtimes as well as use of furlough/downtime. Reduced 2020 costs are also linked to use of COVID-related state care allowance for small kids by some employees during lockdown and related school closure. All these drivers led to reduction of basic as well as non-obligatory remuneration components comparing to pre-pandemic period.
1.2 Other operating costs	The actual 2020 other operating cost are lower by 41.3% than in 2019 due to work reorganization (limited presence of employees on-site, remote work), temporary business travelling restrictions as well as temporary training suspension and lower cost of accommodation (cancellation of new recruitments for ATCO courses, use of furloughs/downtime for current students), as well as cancellation of conferences, events etc. Extraordinary measures undertaken following COVID-19 crisis, including revision of investment plan, had impact on temporary change in the level of energy and materials consumption, level of taxes and charges as well as temporary reduction in use of external services and limitations in the provision of some air navigation services. Optimisation (including cancellation/postponement) of repair schedules where possible, using own staff for some repairs instead of external contractors led to temporary reductions in repair services costs. It should be noted that some unexpected costs related to purchase of additional materials and external services needed to minimise possible spreading of COVID among employees have been incurred in 2020.
1.3 Depreciation	A slight increase in the level of depreciation costs in 2020 is mainly impacted by investments executed before the COVID pandemic especially in previous years (including towers at Kraków and Katowice airports) and in 1Q 2020. Starting from the outbreak of the pandemic PANSA has undertaken a complete review of CAPEX plan looking for possible savings in the level of expenditures, especially for the rest of 2020. It should be noted that 2020 actual depreciation presented in the charges' reporting tables does not include effects of implementation of IFRS16 – costs related to leasing are still disclosed under other operating costs.
1.4 Cost of capital	Increase in cost of capital comparing to 2019 is a result of different WACC rates applied in RP3 (including 2020) and 2019. 2020 actual WACC rate has been calculated taking into account updated CAPM assumptions reflecting financial risk of PANSA (as described above in point i). WACC for 2019 adopted in 2014 in RP2 PP did not reflect actual financial and regulatory risks.

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	Slight decrease in average net book value of fixed assets as well as in average net asset base comparing to 2019 has an immaterial impact on cost of capital.
1.5 Exceptional items	Not applicable.

II. IMWM

RP3 Monitoring – Year 2020 vs. 2019			
ANSP: IMWM	2019A	2020A	Difference 2020-2019
1.1 Staff costs	4 030	4 718	688
1.2 Other operating costs	11 285	10 750	-535
1.3 Depreciation	940	1 026	86
1.4 Cost of capital	215	493	278
1.5 Exceptional items	0	0	0

Analysis of the actual costs for 2020 compared to the actual costs of 2019.

The increase in the costs of 2020 compared to the costs of 2019 was influenced, among others, by:

- an increase in the inflation rate from 2.10% in 2019 to 3.70% in 2020, this translated into an increase in the costs of materials and services despite the introduced COVID-19 savings
- in March 2020, an agreement was signed to amend the IMWM Collective Labor Agreement, as a result of which wages at the IMWM-PIB were regulated and equalized
- continuation of the implementation of new products for PANSA in 2020 - development of a manual for the VENTO application
- in December 2019, investment purchases were made - sensors for AWOS systems and a truck for the AWOS system service team were purchased, which resulted in an increase in depreciation costs in 2020.
- the increase in the cost of capital resulted from the increase in receivables at the end of 2020. This was the result of an annex to the contract concluded with the Polish Air Navigation Services Agency, under which, due to the aviation situation related to COVID-19, the partial payment for 2020 was postponed in the amount of PLN 35,4 million until April 2021.

III. Radom Meteo

As the local cost-efficiency performance targets for RP3 are currently subject to revision as part of the draft performance plans to be submitted by Member States to the Commission by 1 October 2021, in line with the exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627 of 3 November 2020), the monitoring of the 2020 actual performance is carried out against the 2019 actual performance.

The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: Radom Meteo	
1.1 Staff costs	Years 2019 and 2020 were dedicated to restructuring process due to EPRA airport closure. Because of that and because of the changes in cost allocation (for details see point 1. c)) and EPRA airport closure adjustments stemming from 2019 (for details see part 2 point k) and historical sets of RP2 reporting tables and additional information), it is impossible to reliably compare the 2019 and 2020 actuals.
1.2 Other operating costs	
1.3 Depreciation	
1.4 Cost of capital	In 2019, the cost of capital, due its neglectable values, was not presented in cost bases (for details see point 1. f))
1.5 Exceptional items	Not applicable.

IV. Warmia i Mazury

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: <Warmia i Mazury>	
1.1 Staff costs	Warmia i Mazury was providing MET services in RP2, though the whole costs were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2. Therefore, comparing 2020 TNC MET and 2019 TNC MET costs are not comparable. Therefore, for the reliable comparison, 2020 ER and TNC MET costs has to be aggregated.
1.2 Other operating costs	
1.3 Depreciation	
1.4 Cost of capital	
1.5 Exceptional items	

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

	The total MET costs in nominal terms were 65% higher than in 2019 as a consequence of the following factors: • increase in AWOS data costs provided by the external owner, • increase in MET working hours to 24/7, • inclusion of MET costs provided for AFIS, as AFIS in 2019 was provided outside SES regulations and MET costs provided for this ANS were not included in 2019 actuals.

V. PL Bydgoszcz

As the local cost-efficiency performance targets for RP3 are currently subject to revision as part of the draft performance plans to be submitted by Member States to the Commission by 1 October 2021, in line with the exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627 of 3 November 2020), the monitoring of the 2020 actual performance is carried out against the 2019 actual performance.

The main drivers for differences between actual data for 2020 and actual data for 2019 are presented for each item of cost by nature in the tables below.

RP3 Monitoring – Year 2020 vs. 2019	
ANSP: <PL Bydgoszcz>	
1.1 Staff costs	Not applicable to PL Bydgoszcz as this ANSP has started providing services in SES in 2020.
1.2 Other operating costs	
1.3 Depreciation	
1.4 Cost of capital	
1.5 Exceptional items	

VI. CAA

RP3 Monitoring – Year 2020 vs. 2019	
STATE/NSA: CAA PL	
1.1 Staff costs	The actual staff costs and other operating costs for 2020 are higher than in 2019. The cost allocation between both terminal charging zones (TNC EPWA and TNC OTHER) is based on the actual IFR movements (MVS) broken down by airports. Due to the COVID-19 pandemic the MVS structure in 2020 has changed, compared to 2019 data, and this is reflected in the costs execution. Therefore the actual staff costs and other operating costs referring to TNC EPWA for 2020 will be lower than in 2019. Notwithstanding the above the total actual staff costs for both terminal charging zones for 2020 are higher than in 2019 and it was mainly the result of the growth of CAA costs in RP3 comparing to RP2 results from the planned rise of wages stemming from the government budget and the increase of obligations and task performed by the CAA in the field of air navigation service. As far as other operating costs are concerned the actual 2020 are higher than in 2019.
1.2 Other operating costs	
1.3 Depreciation	Not applicable
1.4 Cost of capital	Not applicable
1.5 Exceptional items	Not applicable

b) Description of the reported actual service units and a description of any differences between those units and the figures provided by the entity that is billing and collecting charges as well as any differences between those units and the forecast set in the performance plan, for each year of the reference period;

In 2020, air traffic and generated service units for TNC-Other were lower than planned in the initial RP3 PP dated Nov 2019 by 58% and lower by 55% than actual SU-L for TNC-Other in 2019 (SU-L served by all ATSPs operating in this charging zone). This was the result of the SARS Cov2 pandemic, which caused significant restrictions on both business and leisure travel. Until the beginning of March 2020, traffic was increasing as compared to 2019A, but the pandemic led to extraordinary traffic drop since March 2020, which persisted over all the following months of 2020.

**Terminal Charging Zone Poland Other
Reference Period 3 (2020-2024)**

I. PANSA

Terminal SU - Other	2019	2020	Difference	Difference (%)
Draft RP3 PP 11.2019 forecast		146 864		
Actual	138 516	62 267	- 76 249	-55.0%
Difference		- 84 597		
Difference (%)		-57.6%		

Table contains only PANSA service units

II. IMWM

Not applicable.

III. Radom Meteo

Not applicable.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury as this ANSP has not billed nor collected charges in en-route.
In 2020, Warmia i Mazury has handled 32 IFR SU-L at EPSY airport.

V. PL Bydgoszcz

PL Bydgoszcz has not provided AFIS services in SES in 2019.
PL Bydgoszcz has handled 52 IFR SU-L at EPBY airport in 2020.

Total for Poland

Terminal SU – Other –	2019	2020	Difference	Difference (%)
Draft RP3 PP 11.2019 forecast		146 864		
Actual	138 516	62 352	- 76 164	-55.0%
Difference		- 84 513		
Difference (%)		-57.5%		

c) Breakdown of the actual costs of common projects per individual project;

I. PANSA

PANSA					
Actual costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020				
Local traffic complexity management AF4_	143				
SWIM Common PKI and policies & procedures for establishing a Trust framework AF5	2				
DLS European Target Solution assessment AF6	0				
LAN network upgrade AF5	141				
The ECG Communication System upgrade AF5	58				
ATM System Upgrade Towards Free Route Airspace AF3	735				
iTEC Tests, Validations and Planning (iTEC- TVP) AF3	66				
NewPENS Stakeholders	34				

**Terminal Charging Zone Poland Other
Reference Period 3 (2020-2024)**

contribution for the procurement and deployment of NewPENS AF5					
Deploy SWIM governance AF5	1				
Implementation of data link services for the ATM in FIR Warsaw AF6	356				
1 st part of the upgrade of the P_21 Pegasus system to SESAR functionalities – test and validation platform AF3	255				
Total	1 790				

II. IMWM

Not applicable.

III. Radom Meteo

Not applicable to Radom Meteo.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz.

VI. CAA

Not applicable.

d) Justification of the difference between the determined and the actual costs of new and existing investments of the air navigation service providers, as well as the difference between the planned and the actual date of entry into operation of the fixed assets financed by those investments for each year of the reference period;

In respect of calendar year 2020, this information is to be provided in the annual monitoring report (see section 4 of the RP3 monitoring template).

e) Description of the investment projects added, cancelled or replaced during the reference period with respect to the major investment projects identified in the performance plan, and approved by the national supervisory authority in accordance with Article 28(4).

In respect of calendar year 2020, this information is to be provided in the annual monitoring report (see section 4 of the RP3 monitoring template).

**Terminal Charging Zone Poland Other
Reference Period 3 (2020-2024)**

ADDITIONAL INFORMATION TO REPORTING TABLES 2 – UNIT RATE CALCULATION

a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones;

There are two charging zones in Poland.

- I TCZ covering the EPWA airport,
- II TCZ covering the EPGD, EPKK, EPBY, EPKT, EPLL, EPPO, EPRZ, EPSC, EPWR, EPZG, EPMO, EPLB, EPRA, EPSY airports.

The presented scope of airports and configuration of terminal charging zones remains unchanged since 2017. The implementation of the configuration of two charging zones was developed among others to minimize the level of potential cross-subsidising.

Radom Meteo - Not applicable. The allocation keys for Radom Meteo has been presented in point 1. c), which were based on the official ICAO and WMO guidances, therefore there is no cross-subsidising between ER and TNC charging zones.

Warmia i Mazury - Not applicable. Warmia i Mazury provides only MET services that are allocated between ER and TNC. The allocation keys has been presented in part 1 c) and has been based on the recommendations stemming from WMO and ICAO Docs, therefore there is no cross-subsidising between ER and TNC. AFIS and COM are 100% allocated to TNC.

PL Bydgoszcz - Not applicable. Only MET services provided by PL Bydgoszcz are allocated between ER and TNC. The allocation keys were presented in part 1 c). The allocation was based on the provisions of World Meteorological Organization and International Civil Aviation Organization guidances, which results in no cross-subsidising between ER and TNC.

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

According to national law (Article 130 (6) of Aviation Act of 3 July 2002) the following flights are exempted from air navigation charges (both en-route and terminal) in Poland:

- performed under Visual Flight Rules (VFR);
- mixed – where a part of the flight is performed under Visual Flight Rules (VFR) and the remaining part is performed under Instrument Flight Rules (IFR) – for the part of the flight performed in the Polish airspace exclusively under VFR rules;
- performed by aircraft of which the maximum take-off weight is less than 2 tons;
- performed exclusively for the transport, on an official mission, of the reigning monarch and his/her immediate family, head of state, head of government and government ministers; in all cases the flight purpose must be confirmed by the appropriate flight status indicator or remark on the flight plan;
- search and rescue, authorized by a competent SAR coordination body;
- military performed by Polish military aircraft or military aircraft of a country where flights performed by Polish military aircraft are exempted from the air navigation charges;
- performed for military purposes and exempted from charges, under international agreements ratified by Poland in statutory way;
- military performed by military aircraft under multinational NATO programmes, to which Poland is a contracting party, other than those mentioned above;
- flights performed by ANSP for the purpose of checking or testing equipment.

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

Costs of providing air navigation services to exempted flights are covered by the State budget – they are financed by the means of budgetary subsidy granted by the minister responsible for transport on the application of designated service provider

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2020.

I. PANSA

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2020.

	2020
Costs for exempted VFR flights	0
Costs for exempted IFR flights	2 870
Total costs for exempted flights	2 870

Costs items presented in '000

II. PL Bydgoszcz

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2020.

	2020
Costs for exempted VFR flights	242
Costs for exempted IFR flights	29
Total costs for exempted flights	271

Costs items presented in '000

III. Warmia i Mazury

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2020.

	2020
Costs for exempted VFR flights	128
Costs for exempted IFR flights	13
Total costs for exempted flights	142

Costs items presented in '000

Costs planned in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone in 2021.

The costs of exempted VFR flights and exempted IFR flights were financed by the ministry responsible for transport (state budget), in line with art. 130(7) of Polish Aviation Act.

	2021
Costs for exempted VFR flights - PANSA	0
Costs for exempted VFR flights – PL Bydgoszcz	117
Costs for exempted VFR flights – Warmia i Mazury	224
Costs for exempted IFR flights – total for PL	2 090
Total costs for exempted flights	2 431

Costs items presented in '000

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

c) Description of adjustments resulting from the traffic risk sharing mechanism in accordance with Article 27;

Not applicable for this submission – will be based on the combined year 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(1) and (2)).

d) Description of the differences between determined costs and actual costs of year n as a result of the changes in costs referred to in Article 28(3) including description of the changes referred to in that Article;

Not applicable for this submission – will be based on the combined year 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(3)).

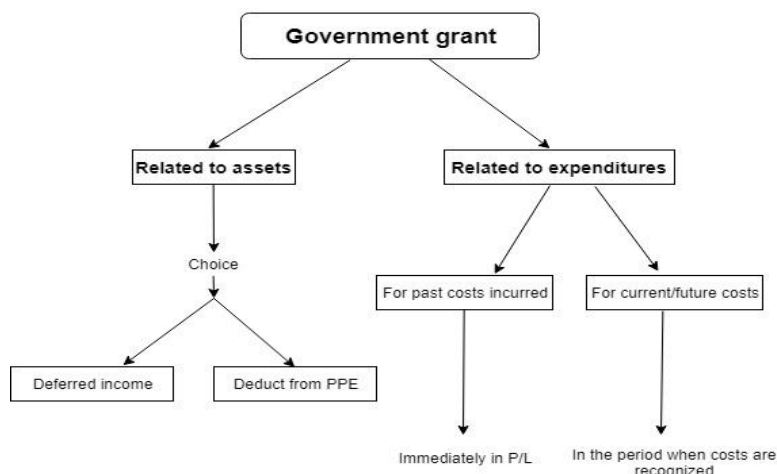
e) Description of adjustments resulting from unforeseen changes in costs in accordance with Article 28(3) to (6);

Not applicable for this submission – will be based on the combined year 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(3)).

f) Description of the other revenues, if any, broken down between the different categories indicated in Article 25(3);

I. PANSA

As regards public funds obtained from public authorities including financial support from Union assistance programmes PANSA fully follows provisions of article 25.3 of Regulation 2019/317 and passes on to airspace users **revenues recognised** under IAS 20 framework. It assumes that **public funds obtained are recognised in profit or loss on a systematic basis over the period in which PANSA recognises as expenses the related costs for which public funds are intended to compensate.**



Under this submission PANSA:

- assumes that revenue obtained by PANSA from commercial activities are not deducted from determined costs,
- does not assume revenue from contracts/agreements concluded with airport operators.

Terminal Charging Zone Poland Other Reference Period 3 (2020-2024)

II. IMWM

IMWM does not plan for the RP3 any additional income covering the costs of meteorological services for civil aviation, except for expected agreement between PANSA and IMWM, covering these costs. Also, IMWM does not provide the meteorological services for the military aviation and does not plan obtaining any income for such services in years 2020-2024. IMWM exchanges with the military services the results of aviation observations and forecasts, on the no-cost base. In this way the IMWM obtains (in no-cost way) the results of military aviation observations and forecasts, which are used by Institute to perform its services for the civil aviation.

III. Radom Meteo

Not applicable.

IV. Warmia i Mazury

Not applicable to Warmia i Mazury.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz

VI. CAA Not applicable.

g) Description of the application of the financial incentive schemes referred to in Article 11(3) and 11(4) in year n and the resulting financial advantages and disadvantages; description and explanation of the modulation of air navigation charges applied in year n under Article 32 where applicable, and resulting adjustments;

Financial incentive schemes

The description and justification of the parameters of the incentive scheme defined in accordance with Article 11(3) and 11 (4) are provided in the body of the performance plan under item 5.2.

Modulation of charges

It is not planned to implement any modulation of charges in RP3.

The actual application and relating financial advantages and disadvantages for 2020 is not applicable (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 3 (3)).

h) Description of adjustments relating to the temporary application of a unit rate under Article 29(5);

Not applicable for this submission – will be based on the combined period 2020-2021 after the adoption of the RP3 performance plan as per Article 16 (Exceptional measures for RP3 due to the COVID-19 pandemic (Regulation (EU) 2020/1627, Article 5(4).

It is assumed that the difference in revenues referred to in Article 29(5) of Regulation 2019/317 will be recovered over 5 years period.

i) Description of the cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of Regulation 550/2004;

The eligible costs were allocated between en-route and terminal charging zones by using appropriate allocation keys. The topic of the cost allocation was elaborated in the Part I of Additional information.

**Terminal Charging Zone Poland Other
Reference Period 3 (2020-2024)**

j) Information on the application of a lower unit rate under Article 29(6) than the unit rate calculated in accordance with Article 25(2) and the means to finance the difference in revenue;

Not applicable for this submission.

k) Information and breakdown of the adjustments relating to previous reference periods impacting the unit rate calculation;

I. PANSA

The process of the discussion between NSA and EC on the treatment of non-contractual use of land (Branicki case) as unforeseeable new cost items not covered in the performance plan but required by law has been ongoing since 2nd half of 2020. Lately, the subject was raised in bilateral discussions with EC held in course of May and June 2021. Consequently, the approach to be followed seems to be defined. The solution discussed would be applied through a one-off correction of the unit rate of calendar year 2023 leading to effective settlement with AUs of eligible (justified) amount of non-contractual use of land. This approach is reflected in the revised draft RP3 performance plan for Poland as -1 573 kPLN adjustment related to RP2 impacting 2023 unit rate.

It has been agreed with the EC that over RP3 future payments related to future rulings on compensation for non-contractual use of land will continue to be recognized as cost exempt once the final amounts to be paid by PANSA are established and subject to payment.

II. IMWM

Not applicable.

III. Radom Meteo

The application of the inflation carry-overs from 2018 and 2019 resulted in -72.7 kPLN adjustment on 2020/2021 applicable unit rate.

The application of the traffic adjustment carry-overs from 2018 and 2019 resulted in -79.1 kPLN adjustment on 2020/2021 applicable unit rate.

The application of the other revenues carry-over stemming from the closure of EPRA airport in 2019 resulted in -189.0 kPLN adjustment on 2020/2021 applicable unit rate.

There are no other carry-overs from previous reference periods that have an impact on the unit rates neither in RP3 nor in later RPs.

IV. Warmia I Mazury

Warmia i Mazury was providing MET services in RP2 both in ER and TNC, though the whole costs were allocated to the terminal cost base, what was decided during the revision of RP2 concerning the inclusion of EPSY airport into BFAB PP RP2. Therefore, all adjustments relating to previous reference periods impacting the unit rate calculation are included in TNC.

The application of the inflation adjustments from 2018 and 2019 resulted in -143.8 kPLN adjustment on 2020/2021 applicable unit rate.

The application of the traffic adjustment from 2018 and 2019 resulted in -188.2 kPLN adjustment on 2020/2021 applicable unit rate.

There are no other carry-overs from previous reference periods that have an impact on the unit rates neither in RP3 nor in later RPs.

V. PL Bydgoszcz

Not applicable to PL Bydgoszcz, as this ANSP is providing services in SES since 2020 and has no carry-overs stemming from RP2

**Terminal Charging Zone Poland Other
Reference Period 3 (2020-2024)**

**ADDITIONAL INFORMATION TO REPORTING TABLE 3 – COMPLEMENTARY INFORMATION
ON COMMON PROJECTS AND ON UNION ASSISTANCE PROGRAMME**

I) Information on the costs of common projects and other funded projects broken down per individual project, as well as of public funds obtained from public authorities for these projects.

Details of the cost of common projects can be found per individual project in Table 1 point 1j above and in table 4 of the reporting tables.

Table 4 includes complementary information on common projects and on revenues from both Union assistance programmes and national public funding allocated to the charging zone.

Polish Performance Plan
Third Reference Period (2020–2024)
Revision
Annex C. Consultation

This Annex provides an overview of the results of the consultation process during the revision of the Polish Performance Plan for RP3.

The development of the revised Polish Performance Plan for RP3 was conducted by Polish NSA (CAA) in cooperation with stakeholders, including the ANSPs, airspace users, airline associations, individual airlines, military AUs, representatives of airport operators and professional staff representative body. Due to the pandemic situation the number of meeting was reduced and the Stakeholders Consultation on 31 August 2021, was conducted via teleconference.

During the several meetings, Polish NSA was presenting proposals of the changes to the Performance Plan developed in 2019 resulting from changes caused by COVID-19 pandemic.

Discussions were focused on Key Performance Areas targets including environment, safety, capacity and cost-efficiency, and additionally on the incentive scheme mechanism.

Through the consultation the priorities and requirements were discussed and there was opportunity to incorporate them in the plan. Stakeholders agreed with many of NSA proposals, however there were areas of disagreement.

Discussion during the meeting was open and created room for exchange opportunity for stakeholders to present their positions and expectations.

Polish NSA conducted the following meetings:

- 27 May 2021;
- 28 June 2021;
- 31 August 2021.

Meeting on 27 May 2021:

On 27 May 2021 a meeting with participation of the representatives of Polish CAA and Polish Air Navigation Services Agency (PANSa) was held at the CAA headquarters. It was focused on the issues related to the revision of the Performance Plan (PP) for RP3 and the assessment of the Agency's plans and results achieved in 2020.

The goal of the meeting was to discuss the revised EU-wide performance targets on RP3 (2020-2024) and to present potential areas for development of local performance targets.

PANSa was also informed about CAA internal decisions to appoint the Team for the development of the PSD RP3, chaired by Vice President of the Polish CAA, Ms Izabela Szymajda-Wojciechowska, and the schedule for the PP development.

PANSa was also asked to provide all necessary information to update the data in Performance Plan and provide the most accurate information concerning performance areas and indicators.

Meeting on 28 June 2021:

On 28 June 2021 a meeting with participation of Polish CAA, the representatives of Institute of Meteorology and Water Management – National Research Institute (IMWM) and PANSa was held to discuss the possible further cooperation and reduction of some costs included in the Performance Plan for the third reference period.

Meeting on 31 August 2021:

At the beginning of the consultation meeting the President of the Polish CAA, Mr Piotr Samson, who is also the Vice President of the Eurocontrol PC, the chair of the EASA Management Board and the member of the Coordinating Committee in ECAC, shared with the participants a few reflections regarding the global and the local situation, connected with the aviation sector.

Unquestionably, the most striking point is the unprecedented drop in air traffic, not seen on such scale for a very long time, which translates directly into the financial crisis faces by almost all aviation sector players.

On the other hand there is an increasing need to develop and implement new technologies, focused on the automatisatio~~n~~of ATM. This long run that will allow to reduce costs and guarantee the required level of safety, which is the highest priority.

The Airspace Users took steps to reduce the operating and labour costs. In their opinion ANSPs were reluctant to follow the same way, especially in area of Investments and human resources– especially ATCOs. This trend is visible not only in Poland, but in the Europe as a whole.

Reluctance can also be perceived in the actions of EU states' governments to support the ANSPs by offering them direct assistance to cover the raising costs. Instead of that there is a preference to support ANSPs from comercial loans.

The CAA President reminded the audience that soon the world will face the upturn of the air traffic, so the aviation sector has to prepare its technology to this level of traffic in order to avoid the situation from the 2019. In other words, money for investments must not be reduced and the investments cannot be suspended.

Yet another element, connected with new investments, is the Green Deal. The CAA President stressed that there will be a substantial amount of money from the investments side to prepare the Aviation industry for the Green Deal, announced by the EC.

Last element, mentioned by Mr Samson, is a trend of changing big and heavy planes to smaller ones. More and more flights operated by smaller aircraft will also be reflected on the revenue side and the unit rate.

The CAA President has also mentioned some local factors – with respect to the Polish market. One of them is the creation of the Solidarity Transport Hub, the new greenfield airport and – what's linked to that – the necessity to build new operation centre and new PANSA headquarters. This, in the opinion of Mr Samson, is in line with the EUROCONTROL strategy to invest in brand new technologies, new operational systems and new operation room, aimed at handling the traffic, which sooner or later will recover.

Another local element is a significant increase of inflation in Poland, linked with the increase of minimum wage in Poland, which translated into increase in labour costs, including Polish aviation sector.

Yet another, worth mentioning, factor is the so-called speculation bubble of the prices on the Polish construction and the real estate market. So if we look at the increase of costs related to creation of the new operation centre and headquarters for PANSA, we have to connect it with the unprecedented increase of prices in Polish construction market.

At the end of this short introduction, Mr Samson stressed that Polish Performance Plan is in line with EU and national targets in all four areas.

The acting President of PANSA, Mr Janusz Janiszewski, took over the floor. He stressed that the aviation sector is in the very special time. The aviation is fighting for survival, as the world has not faced such a crisis since the end of the WW II. Therefore, in case of PANSA, the highest priority of its engagement is the prevention of the loss of qualified personnel, especially highly specialised, like ATCOs and technical staff.

PANSA's president also said that despite the establishment of various tools to help the aviation sector – PANSA has not received any kind of such support. At the same time, PANSA's highest priority was to maintain the service provision at the current level, as well as its financial liquidity and not withhold its planned investments.

PANSA's President stressed that during the past few years, using the money from the AU, the Agency had managed to raise the level of safety management, developed new systems and improved its operational performance and efficiency. The good example is implementation of POLFRA.

Mr Janiszewski drew attention of the participants to the fact, that – in order to reduce the financial burden of the AU in the light of the global crisis – PANSA had reduced its performance plan from 2019, as well as staff costs by 25%. Thanks to this step, the Agency was able not to dismiss a single employee during the crisis caused by C-19.

Summarising, PANSA's president stressed that PANSA is fulfilling the EU obligations to AU with regard to Performance Plan targets and continues developing new solutions and new technologies, e.g. iTEC 3.0, that is new investments aiming at reducing delays, improving the network and creating the new digital and green European sky.

During the consultation meeting all Key Performance Areas and other important factors influencing Performance Plan for Poland were discussed.

Below please find the outcome of the meeting, covering the issues raised by stakeholders and the answers provided by Polish CAA and ANSPs:

	Questions/Comments	Answers
I. KPA Environment		
1.	(PRB) The Stakeholders were interested in the local factors influencing the KPA Environment. Especially there were questions concerning the influence of the geopolitical nature. The specific questions were concentrated on the impact of the situation with the Belarus airspace. As Belarusian situation leads to traffic diversions, which affects Polish airspace - was this impact considered by PL in the proposed RP3 environmental target or is that not yet taken into account?	Polish CAA explained that the reference value proposed by PRB, concerning the horizontal flight efficiency was implemented directly. In this case the values of the local Environment targets are reflecting PRB proposals in this matter. During the consultation meeting it was underlined that Polish CAA and PANSA will do their utmost to reach the KEA values established by the European Commission (1.65%). But the political situation (Belarus, Ukraine, Kaliningrad, Afghanistan and other) is impacting KEA value in the Polish airspace. Responding to the question – it was explained that Belarusian situation was not considered in the proposed target for Poland. PANSA estimates show that HFE value for some of the flights avoiding Belarus will be between 12% and 36%. KEA value for Poland is already one of the lowest in Europe – below EU average. It was stressed that environmental performance depends on decisions of all stakeholders – especially Airspace Users – as well as on what is going on in neighbouring States. This is proved also by 2020 results, when despite low traffic and RAD relaxation the KEA value in Poland did not decrease much. There are also additional factors that have a significant impact on KEA in Poland (geopolitical situation, weather, decisions of Airspace Users, restricted airspace outside Poland etc.). There are plans and tools aimed to be implemented¹ to minimise possible impact of military activities in Poland on HFE/KEA value (AFUA) – the goal is to avoid increase in KEA while military activities are expected to increase.
2.	(IATA) While on the one hand we hear that there are many elements causing that KEA target may not be reached, on the other hand in the draft PP there are many elements, including investments and significant developments aimed at reaching the target – where is the balance in both? 2020 KEA value is above the target for remaining years of RP3 – how realistic is the ambitious target? There seem to be more factors against than supporting achievement of the target. Everybody is under pressure to improve environmental	CAA explained that by applying FRA and introducing other initiatives, Poland is doing their utmost to reach the ENV target. The situation is dynamic. When traffic declined significantly, then environmental performance improved and CO2 emissions were lower. Now we have the issue of Belarus and Ukraine – it's very difficult to foresee at the moment what will be the future situation. CAA understands the logic behind EU ENV target and understands the need to have this KPI. At the same time it is clear that they are very ambitious and it is visible that there are some elements that are beyond Poland's control and this is the risk. In general Poland wants to take the ambitious targets as set by the EU – but there is a risk that it won't be achieved it even though Polish ANSPs are doing their best. PANSA stressed that it is doing their best to achieve the ambitious target of 1.65%. Some investments are aimed to support it and there are also other projects aimed at offering the Airspace

¹ Radar data visualisation-to significantly improve RSA usage monitoring process. Including analysis of GAT traffic flows and sector capacity in the process of allocating RSA processed by the system-to improve RSA allocation and mitigate impact on GAT both at pre-tactical and tactical level. Possibility of RSAs reservation on the day of operation-ERSA improvement (*required change in governmental regulations*).

	performance and we would like to make sure that the best ENV performance is in place in Poland. How are we going to achieve that? How the success can be built?	Users the most convenient and most “green” trajectory. Studies undertaken by PANSA show that if the shortest routes are used by the Airspace Users, then the KEA value can reach even 0.375% (ideal situation) – but there are circumstances that are beyond our control. POLFRA was implemented in FEB 2019 – but only ca. 50% of Airspace Users are using POLFRA – therefore PANSA encourages AUs to use it fully. CAA explained that in Poland we are doing utmost to offer the shortest routes – but the KEA calculation algorithm takes into account the full flight - from origin to destination – so even if the route in the Polish airspace is the shortest possible, extensions in other parts of the European airspace can negatively impact the indicator for Poland. Apart from the difficulties resulting from the situation on the Eastern border of Poland, in the years to come PL anticipates also that the difference in the level of ER charges between Poland and Germany may result in increased traffic at the Western border (flying on “costodrome”). The Wise Persons Group in their report suggested implementing a single ER unit rate – but this idea was rejected. If such common UR was adopted, it could eliminate flying on “costodrome”, which could be beneficial for States and AUs.
3.	(Lufthansa - LH) The idea of a common UR is not supported.	Comment noted.
4.	(IATA) There is not much reference to CDO/CCO operations in the performance plan – this could also bring many benefits to ENV.	It was explained that CDO/CCO were deployed in Poland in 2020 – all airports are now equipped with procedures that can be used by AUs.
II. Traffic forecast		
1.	(Ryanair) Stakeholder requests confirmation of whether the STATFOR Base Case (Scenario 2) has been used in the creation of this performance plan.	For the purpose of revised draft RP3 PP preparation scenario 2 (base) of May 2021 STATFOR forecast was used. However, it needs to be considered that STATFOR forecast provides only annual values – and some expected differences in traffic distribution over a year needed to be considered (see also section IV, question 2. below).
2.	(PLL LOT) There are a number of elements impacting traffic in the Polish airspace – like Belarus, traffic avoiding German or Ukrainian airspace – there are concerns that if STATFOR forecast is directly taken into account, then the traffic can be underestimated. In such cases charges would be too high – encourage PL CAA to consider this and adjust the STATFOR forecast to take that into account for the following years’ traffic forecast. PLL LOT does not agree with the use of the forecast	CAA explained that STATFOR forecast is the only forecast available, both for PL and Union-wide. CAA decided to apply the forecast available at the moment of the development of the PP. The next forecast will be released by STATFOR in October 2021 – we can expect that performance plan for Poland may be updated using this new forecast (in accordance with EC recommendations). In the STATFOR forecast there is not only European-wide forecast, but also forecasts for individual States. CAA indicated that the message related to elements that STATFOR should consider in their next forecast (Belarus, differences in URs) will be passed to EUROCONTROL. Additionally, PANSA explained that for the time being no better forecast than STATFOR is available – in the current unstable and unforeseeable circumstances the NM seems to have the best knowledge and anticipation of possible traffic evolution in the coming years, however, naturally

	which does not take into account some elements that are already known to exist – CAA should propose some modifications.	there is always the risk that actual figures will be different than any forecast. As concerns the cost-efficiency area, in case actual traffic is different than forecast, then the traffic risk sharing mechanism applies and related risk is shared between ATSP and AUs (unit rate for year n+2 will be adjusted accordingly). The situation with Belarus emerged in May – so it was not possible to take that into account in STATFOR May forecast. STATFOR forecasts are consulted with expert group – STATFOR User Group – where also PANSA experts are participating – Belarusian impact will most probably be discussed in the following forecasts preparation process. On the possible traffic forecast updates - this is a general question whether ANSPs should keep the static plans for 5 years that are the performance plans or should they adapt them dynamically considering STATFOR forecast updates every 6 months? PANSA would much welcome having accurate and reliable forecast. as that is the basis for planning – however, for the time being no better forecast than the latest STATFOR one is available.
III. Investments		
1.	General comment	CAA explained that in terms of investments, PANSA follows the same approach as other ANSPs and as EUROCONTROL – it implements new systems and new technical solutions. Similar to EUROCONTROL, PANSA plans to construct new OPS room and implement new ATM Indra system. Respective investments at ANSPs’ side, including PANSA, are needed to achieve the required capacity in the years to come. NM system alone will be not sufficient enough to reach that goal. A number of investments implemented by PANSA are interrelated – and need to be implemented jointly to reach the goal. There is a risk related to strong increase in construction material in Poland, which leads to increase in the value of PANSA investment tasks. This should be considered as one of the local factors for Poland. PANSA added that there is a strong need to modernize PANSA systems and related infrastructure. Among the first ones in Europe PANSA will deploy real ATM solution bringing Digital European Sky into life – iTEC V3 system - it will unify technology in Europe – what proves that PANSA aims at supporting capacity and environment.
2.	(Ryanair) Stakeholder indicated that more information on cost drivers and expected benefits is needed to enable formulation of opinion on the investments. While increase in the construction materials can be understood, it is still unclear why there is 100% increase in costs.	Information on expected benefits is provided in chapter 2.1 of the draft revised RP3 PP. The projects presented in the revised RP3 PP are those that were planned already in the initial draft RP3 PP and for most of them also already in revised RP2 PP – the long-term horizon of their implementation results in a situation where these projects (like new Campus, iTEC etc.) are implemented over a longer period of time than a single RP. The related benefits were also presented during the consultation on the initial RP3 PP in 2019. Following the crisis outbreak in 2020, a thorough review of all investment projects was undertaken and where possible and justified by operational and legal requirements, projects were postponed or spread over a longer period of time to support the aim of lower cost base for RP3. Further

		postponement of these tasks would however pose a risk for providing required capacity and flight efficiency during post-RP3 period. Reasons for changes in the value of major investments are provided below.
3.	(Ryanair) Why so significant CAPEX investments plans that are being proposed are not so clear in efficiency in counts in costs requirements?	Only once modern, digital solutions are fully implemented, benefits in terms of limiting other costs can be expected. SESAR and AAS implementation is a long-term project and benefits related to implementation of these solutions can be expected only after RP3. Investment projects can take many years between the initial outlay and the realisation of the benefits. The modernisation timeframe foreseen by the ATM Master Plan lasts until 2035.
4.	(Lufthansa – LH) #1 – New Campus: Cost increase by 70%	
	a) Why is there a need to increase the office space so much?	The increase in the value of the investment as compared to 2019 draft performance plan does not result from increased office space. It results from accomplishment of design phase and development of priced bill of quantities (see also question b) below), based on which the value of the project turned out to be much higher than initial rough estimates. What should be noted here is the fact that the Campus project has been divided in three phases. The first phase, to be initiated in RP3 and then completed in RP4, covers OPS rooms with required technical infrastructure supporting ADS/digitalisation. These facilities are needed to install iTEC system and provide increased number of controller working positions to be able to open more sectors. This phase does not cover administrative offices – these are foreseen only in phase 2 to be executed after RP3 and which will be subject to further verification based on ongoing monitoring of PANSAs needs and capabilities in terms of office space.
	b) Why was this not known last year, when the investment was originally consulted?	The value shown in 2019 was based on initial estimates - on the indicative price estimation method. As indicated in chapter 2.1.2 of the draft RP3 PP, as a result of the accomplishment of the design phase of the investment, once the design documentation was fully available and accepted, the priced bill of quantities was prepared. Following this, the total value of the investment has been made more realistic taking into account the actual (at the time of preparing the documentation) valuation of the applied solutions against the estimated valuation. What also needs to be stressed is that a sharp increase in building material prices in Poland has been observed over the past months/last years, which has a direct impact on the value of investment tasks related to construction works.
	c) Was by then not the usage of most modern technologies foreseen?	The increase in the value of the investment as compared to 2019 draft performance plan does not result from use of modern technologies not foreseen already in 2019. From the early stage of project definition it was assumed that it should meet the following criteria: • meet requirement for low energy consumption infrastructure, including use of ground source heat pumps, • photovoltaics as additional source of energy,

		• use of renewable energy by application of modern environmentally friendly solutions that minimise negative impact on the environment. All the above shall support the climate-related initiatives and should be also considered as supporting the Green Deal.
	d) Why was there such a significant wrong budgeting?	Please see answers to the questions a-c above.
	e) What were the consequences of this massive failure?	The increase in the value of the project cannot be considered as failure. For explanation of the increase, please see questions a-c above. Following the increase in the value of the project, it has been decided to implement the project in phases (to spread the related costs for airspace users over longer period of time and avoid costly investments during the RP3 period). Three phases have been identified: I phase - the operational building A and B, which includes technical building with the power supply, compressive underground infrastructure (waste water and rain water sewer network, water mains), fire-protection systems that allow early fire detection (SAP), a fire-extinguishing system located in the premises that are most critical for operations, utilities i.e. electricity, gas, water, sewage system, access and internal roads as well as parking places and guard-houses for security; the planned start of the stage is 2023, and the planned completion date after RP3 (2029). II phase - HQ building with a underground staff car park; planned start of the stage is after RP3. III phase - the warehouse and social housing; planned start of the stage is after RP3.
	f) We would like to see a detailed cost-benefit analysis of this investments before and after the amended investment volume?	The Campus project is closely related to a number of other investment tasks – together they are expected to bring benefits to the airspace users in the four KPAs. The outcome of CBA expressed in NPV for the group of related investments is provided in Annex E to the revised RP3 PP. CBA results for the initial value in the performance plan dated Nov 2019 are provided in Annex E to that draft PP.
	g) We demand a PRB review of this project	NSA is responsible for the review of ANSP CAPEX plan. PRB revision will be done at the later stage of the PP assessment.
	h) Is so much office space needed in an environment that more home office is now easily possible?	Due to specificity of ANSP operations, large part of staff (except for some support/administration staff) has to work in the office – this relates to ATCOs, technical staff, OPS support etc. What needs to be stressed here is that as indicated in question e) above, office space for support staff is foreseen only in the second phase on the Campus project, which is planned to be executed after RP3. Moreover, legal solutions related to home office work in Poland so far have been implemented periodically as a result of the COVID-19 pandemic – it remains to be seen whether legal changes sanctioning such way of working will be introduced on permanent basis.
	i) Can you please explain the minor 7% TNC share?	As indicated in chapter 2.1.2 of the draft revised RP3 PP, the main aim of building the new Campus is to provide required facilities for ACC and APP services, which are allocated fully to en-route

		charges. On top of those OPS facilities, in the future the new Campus is considered to also host PANSa HQ and support (non-ATC) services. Therefore only part of those support facilities in the new Campus will be allocated to terminal services – TWR services will still be provided from existing locations.
5.	(IATA) Is there a need to build the new OPS center in the times of low traffic? Traffic will not be back to 2019 levels earlier than 2024 while the investments will start already in RP3 and generate costs then. We wish to ensure that we are getting the best outcome for costs. The question is not about the necessity for the investment but about the necessity to build it already now. AU's support for EUROCONTROL new OPS center was based on a risk analysis and the same detailed questions were asked to EUROCONTROL. The magnitude of EUROCONTROL 5-year programme is lower than PANSa 5-year investment plan.	In the answer, PANSa explained that now is the best time to implement new technology – to be prepared for the future. What PANSa has done since 2015 proves that they put a lot of emphasis on modernization and new technologies – not only to improve services in the Polish airspace, but also to support the Network. PANSa reminded that in 2019 PANSa was asked by the NM to take over some traffic following from capacity problems in other parts of Europe – and PANSa provided the required support. Considering the need to reduce costs in RP3, PANSa decided to limit expenditure for Campus during that period – to 168 mPLN. In total PANSa reduced CAPEX in RP3 by almost 300 mPLN – ca. 23% of the values initially planned for RP3. PANSa gave example of US NextGen system – which is being deployed since 2007. PANSa plans that the new iTEC/OneSky system will be deployed in Poland in 2027. It was stressed that these investments are aimed at implementing AAS and Wise Persons Group recommendations. The Campus has been divided into three phases – to adjust the schedule to the operational needs and financial constraints. The main investments (Campus, iTEC and other related) are foreseen to start in RP3 but then continue in RP4 – further postponing them would pose great risk that the Polish airspace is not ready to accommodate traffic after RP3, which is expected to be above 2019 levels.
6.	(IATA) Would the Government financially support creating this critical infrastructure?	For the time being no direct public support for the new Campus has been foreseen. However, possible sources of financing investment plan from public funds are analyzed. In case there is any option to get such support, PANSa will apply for it – and if such support is granted, then this would be reflected in the other revenues and thereby in the unit rates in the years to come.
7.	(LH) #3 – ATM System with a simulator: Cost increase by 120% (89% in fall)	
	a) Please break down the detailed effects of the cost increase - What is due to the new version of the iTech? - What is caused by work done by contractors iso PANSa employees? - Etc.	The cost increase is related to a number of factors: - Decision to implement more advanced version of the system (v3 vs v2 foreseen in the initial RP3 PP dated 2019), - Change in the task valuation – the 2019 value was based on estimate using components purchased under test-validation platform for P-21/iTEC contracted earlier. After submission of the initial draft RP3 PP, PANSa received revised valuation from the system supplier, based on which the value of the task has been verified. In August 2020 a contract with the system supplier was signed for delivery of the system to be installed in ATC Poznan OPS room. The total value of the investment task covers also delivery of iTEC system to be installed in the new Campus – this has been now estimated using the contract for Poznan as the basis.

		• Depreciation of PLN against EUR (while iTEC contract price is expressed in EUR).
	b) What are the associated staff cost reductions on PANSa when work is carried out by contractors?	Use of contractors is pursued when either time-limited tasks are executed (what makes permanent employment suboptimal) or when certain competences needed for the task execution are not available in PANSa. This allows PANSa to limit increase in employment and use financial resources efficiently. Therefore use of contractors cannot be considered as reducing staff costs – rather as allowing to avoid further staff costs increase. The external support is dedicated to defined tasks/projects and therefore time-limited (periodic). This allows for cost-optimization and supports efficient use of resources.
	c) We would like to see a detailed cost-benefit analysis of this investments before and after the amended investment volume?	The iTEC project is closely related to a number of other investment tasks – together they are expected to bring benefits to the airspace users. The outcome of CBA expressed in NPV for the group of related investments is provided in Annex E to the revised RP3 PP. CBA results for the initial value in the performance plan dated Nov 2019 are provided in Annex E to that draft PP.
	d) Will there be no cost share for TNC? Especially for the simulator?	As indicated in chapter 2.1.2 of the revised draft RP3 PP, iTEC will be primarily dedicated to ACC and APP units – TWR units are to be supported by other systems (following implementation of Electronic Flight Progress Strips and Virtualization of ATS airport services). Cost of ACC and APP is allocated to ER – therefore iTEC-related costs are not allocated to terminal services. The same applies to simulator. Simulator for TWR services constitutes a separate task/project.
8.	(LH) #7 – Tower at Central Hub	
	a) In fall 2020 it was foreseen, that no investments should take place in RP3. Why is there now investment already in 2024?	In the investment plan underlying the initial draft RP3 PP dated 2019, Tower at Central Hub was foreseen – at that time it was foreseen that the investment would start in 2023. Following the COVID-19-related crisis outbreak the investment was postponed until 2024 – with only minor CAPEX to be incurred in 2024 (85 kPLN). This assumption from 2020 is still valid – under the current revised draft RP3 PP it is assumed that out of the total 61.5 mPLN of CAPEX only 38 kPLN will be spent in 2024 – the remaining part to be incurred in RP4.
9.	(LH) #11 – CWP Tower Cost increase by 210%	
	a) Why was this not known in 2019, when the investment was originally consulted?	This investment was already foreseen in the initial draft RP3 PP – but due to lower value (below 5 mEUR2017) it was not disclosed separately under major investment part of the PP (was included in other new investments value). The initial value of this investment in the 2019 plan amounted to 21.7 mPLN (in nominal terms). Current value amounts to 32.3 mPLN – the increase in value equals to 49% as compared to the 2019 plan. The increase in the value of the task results from extended scope. The current scope covers all 15 TWR units (initially only 5 units were considered) aiming at full unification of CWP at all TWR units in Poland. The current scope of the project covers also EPWA TWR modernisation – this results from the decision taken not to pursue building a new TWR at EPWA airport (this new

		EPWA TWR was foreseen in the 2019 plan but the project was suspended/abandoned following the outbreak of the COVID-19 crisis). Moreover, the current project assumes technical solution that will allow for further development of TWR systems (is to be based on digital signal managing by hardware matrix).
	b) Why was there such a significant wrong budgeting?	Please see explanation in letter a) above.
	c) What were the consequences of this massive failure?	The increase in the value of the project cannot be considered as any failure. Please see explanation in letter a) above.
	d) We would like to see a detailed cost-benefit analysis of this investments before and after the amended investment volume?	The outcome of CBA expressed in NPV for this project is provided in Annex E to the revised RP3 PP. CBA has not been performed for the initial scope of the investment foreseen under the initial draft RP3 PP dated 2019 as at that time the value of the task did not qualify it as a major investment.
10.	(LH) We agree that a common fleet of aircraft has positive economies of scale. Can you please detail the positive effects on staff costs (reduced crew costs; same technicians) and OPEX (lower fuel consumption by more modern aircraft; lower maintenance cost due to more modern aircraft and more efficient spare part management) Is this aircraft solely used by Poland? Did Poland assess opportunities to share the aircraft with other nations, as Germany does with Austria, Switzerland and Luxembourg?	CAA explained that it decided that the purchase of the second aircraft would not be financed by the Airspace Users and other sources for financing will be considered. Following consultation process on revised investment plan in 2020 and analysis of CAA, inclusion of purchase of the second aircraft by PANSa in RP3 was not approved by the CAA. Therefore it is not included in the revised RP3 PP and not subject to the current consultation process. For the time being, purchase of the second aircraft was postponed to RP4, when the crisis caused by COVID-19 hopefully will have passed. However, as the old, second aircraft used by PANSa for inspection flights has been withdrawn from operation in 2021 (further using it was not economically viable) and currently PANSa uses only one aircraft, to ensure continuity of inspection flights over RP3, leasing of an aircraft or purchasing of inspection flight services is considered.
11.	(LH) What has happened with the Capex that was already spend on the renovation of tower in Warsaw which was consequently stopped?	So far only minor amounts were spent on the EPWA TWR (ca. 1 mPLN). These expenditures related to design phase of the new TWR building – this project, initiated before RP3, has been suspended following the COVID-19-related crisis outbreak. For the time being revised RP3 PP assumes that the project will not be continued (no CAPEX for new TWR foreseen, only minor amounts for modernization of the current TWR building under the CWP TWR project) – but if future traffic evolution at EPWA and situation related to new Solidarity Transport Hub prove that there is still a need for a new building at EPWA, then the project might be reconsidered (in such case the documentation collected so far could be used).
12.	(LH) Why is there multiple times the same investment “Purchase of AWOS back-up Systems” in the table 2.2.3.2?	The detailed information about purchase of AWOS back-up Systems was included in the table 2.2.3.2

13.	(LH) We are not against investments, we support having modern and efficient systems in the Polish airspace, but we wish to highlight that there is efficiency needed and most cost-efficient solution for the Polish airspace needs to be found. Currently we are not in a position to support any nice-to-have investments – only critical ones – this relates mostly to the new Campus as we do not feel that this is really needed in the current times.	CAA explained that based on strategic plans of the Polish Government, the EPWA airport will probably be closed and the land will be used for other purposes – in such a case PANSa will not be able to use the land where the current HQ is located. It was indicated that even EUROCONTROL DG noted that we need to use the current times to prepare for the upturn of traffic in the coming years, after the crisis and we need to invest now in “green” technology. That will cost money but that is the necessity. See also answers below.
14.	(PLL LOT) Stakeholder indicated that they are not opposed to the investment programme presented by PANSa, recognizing the fact that there is certain Aviation Strategy in Poland and these investments are aimed at implementing this strategy – stressed that aviation infrastructure in Poland is underdeveloped as compared to other parts of Europe and its modernization is much needed to support required level of service. It indicated that they support construction of the new Campus as this is also linked to the project of new Solidarity Transport Hub (STH) in Poland.	Comment noted.
15.	(Wrocław Airport) How realistic is the date 2027 for opening of the new STH? If it is not realistic, then maybe the investments planned should be postponed.	CAA explained that 2027 is the date communicated by the Government and CAA needs to follow that. Based on experience in other states, the critical element is the planning phase – once the planning phase is over, then construction itself is the easier part. For the time being the beginning of the construction is planned for 2023 – from the CAA point of view, we need to stick to that timeline established by the Government. PANSa supplemented that it cooperates closely with the company responsible for the STH project and if there are any changes in the schedule for that project, PANSa will adjust its investment plans respectively.
16.	(Wrocław Airport) What is the cost allocation of the new investments (Campus and other related) between terminal charging zones? Are the costs of CPK allocated also to second terminal charging zone? Does that impact terminal unit rate in the second charging zone?	It was explained that as concerns Campus and related investments, large majority of those costs is allocated to ER services – this was explained earlier by the CAA that the Campus is mostly dedicated to new OPS rooms for ACC and APP units which are allocated to ER services – new Campus does not cover current TWR units – TWR services will still be provided from regional locations. The part that will be allocated to regional airports is part of support functions that will be provided from the new Campus (which are currently provided from the current PANSa HQ and

		are also now partly allocated to II terminal charging zone). There is no major change in the allocation of these costs in the revised RP3 PP as compared to the current situation and the increase in terminal UR in the II charging zone is not linked to the Campus construction, also considering the fact that Campus is planned to be put into operation only after RP3. As visible in chapter 2.1 of the draft revised RP3 PP, only ca. 7% of the Campus costs are allocated to terminal services. CAA added that Campus is dedicated mostly to ACC unit and needs to be relocated as the current ACC OPS room is located at EPWA airport which will be redesigned to other purposes (possibly real estate). PANSA added that the Campus project has been divided into 3 phases – 1st phase is dedicated to only OPS rooms and related technical elements needed for installation of the new ATM system and for restructuring of the Polish airspace.
17.	(LH) Based on Karlsruhe example, ACC does not need to be located at an airport. ACC services can be provided from any location. If it is more cost-efficient, ACC could stay where it is now.	It was explained that the current ACC room is simply too small to accommodate more controller working positions needed in the years to come following traffic upturn 2024+. Therefore there is a need to have new OPS room to be able to provide required capacity. The new ACC OPS room will not be located at an airport.
18.	(EnterAir) The need for such huge investments in the current times needs to be revised – increase in charges would negatively impact traffic recovery. Now the focus should be on supporting the market recovery, not increasing costs as result of i.a. investments. If the Government sees the necessity for these significant investments, then it should follow up with respective financial support for PANSA either for investments or for PANSA losses that needed to be covered by a loan. It may be the case that the investments are not needed anymore if customers (AUs) disappear from the market following their financial difficulties.	It was explained that the investment plan for RP3 has been revised following the crisis outbreak. The initial draft RP3 PP assumed CAPEX of 1.3 bn PLN – now it is reduced to below 1 bn PLN. RP3 CAPEX has been reduced by almost ¼ - almost 300 mPLN. What is now presented as RP3 CAPEX are projects that are really needed and need to start already in RP3 – they cannot be further postponed/given up as that would have an impact on fulfilling requirements stemming from EU regulations, the expectation of AUs and the need to move to digital and modern ATM system in Europe.
19.	Związek Zawodowy Pracowników – Technicznych -ZZPT (Technical Trade Union of PANSA) provided following statement: As indicated in the Airspace Architecture Study and the European ATM Master Plan, ZZPT do recognize	Comment noted.

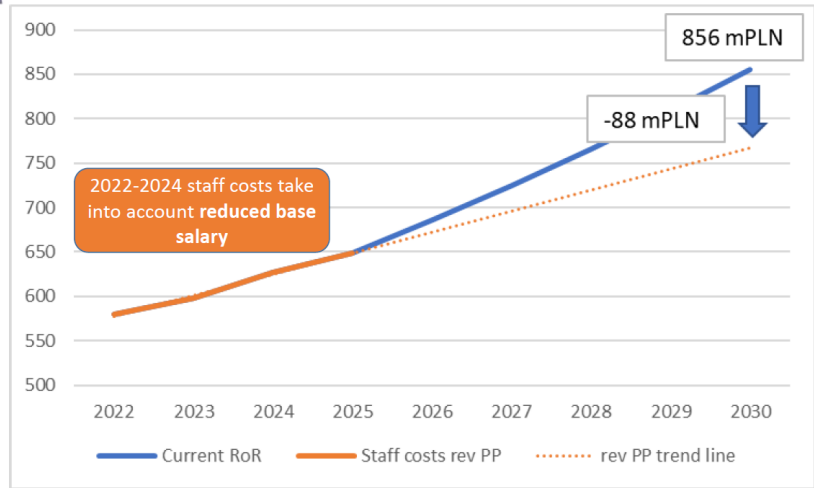
	the need and support for optimization understanding as further digitization of processes in PANSa. To make it happen, PANSa need to invest heavily in technology in the coming years. One of the main elements of PANSa's technology revolution is the iTEC system. This is the future core ATM system. ZZPT is also a member of the iTEC project team. That is why ZZPT do feel comfortable to express it's view. ZZPT see how important it is. If PANSa wants to be competitive, must invest in the future. Invest both in modern technological solutions, but not forgetting about human resources. This is the most important resource. It is thanks to highly qualified engineers, investments and R&D departments PANSa can provide enhancement of digitized technological ATM future. Without Investments and human resources, projects such as iTEC cannot rise. Summarizing, when planning to implement new technologies all need to remember that it cannot be done without proper support. Necessary technical Human Resources and new technical competences need to be planned to develop and deploy to operate new technologies. Technologies of the future. The social site is deeply concerned about the risk of reducing the investment in innovations and human resources on which the future of PANSa depends.	
IV. <u>Staffing & Staff Costs:</u>		
1.	(LH) Can you please explain the need for 20 additional ATCOs in 2024 vs. 2019? Traffic will still be below 2019 levels (IFR Mvmts. & SUs). We need to understand the staffing plan with the underlying traffic scenario?	The required number of ACC ATCOs for 2024 is a combined result of the following factors: • Planned comprehensive reorganization of FIR EPWW airspace, which considers also preparation for opening of new Solidarity Central Hub airport (airspace reorganization needs to start already within RP3 to allow the new airport opening within RP4 and to allow for undistorted operations in FIR EPWW over RP4), • Planned airspace resectorisation following implementation of 3 layers vertical split,

	- Is the vertical sectorization into 3 layers now needed or must it be staffed?	- Increased needs related to ATCOs training resulting from the above mentioned comprehensive airspace reorganization, planned I stage of new ATM system (iTEC) implementation as well as refreshment trainings related to traffic recovery (additional trainings for higher traffic levels following lower traffic over the COVID-19 pandemic period required due to safety reasons), - Expected possible different traffic distribution over seasons/months/weeks/weekdays/hours, resulting in different traffic recovery levels at certain months/days than annual forecasted STATFOR average (see also letter b) below). What should be stressed is that number of ATCOs in RP3 has been significantly reduced as compared to initial draft RP3 PP dated 2019. As concerns the 3 layers vertical split, its implementation has already been postponed following the COVID-19 pandemic outbreak. Current plan for its implementation considers staged implementation – the aim is that the resectorisation is in place once traffic recovers to pre-pandemic levels.
2.	(LH) Is PANSAs staff planning according to Statfor Sc.2 or Sc.1?	As a principle, PANSAs planning considers the latest STATFOR scenario 2 forecast. However, STATFOR forecasts provide only annual values, without any details on traffic distribution over seasons/months/weeks/weekdays/hours. Therefore for OPS staff planning PANSAs needs to consider possible different traffic distribution over the annual timeframe. Based on information provided by NM as well as observations of actual traffic developments over 2021, it is expected that annual distribution of traffic over 2022+ will be different than the one observed in 2019 – with higher traffic levels over the peak summer season and lower levels over the remaining period. This is also the case for the NOP planning process where summer peak season capacity requirements do not directly reflect annual trends. Latest data, as also stressed by the Network Manager, clearly shows greater seasonality of traffic with Summer season traffic recovering faster than annual averages – therefore for OPS staff planning PANSAs had to consider that for summer months 2019 traffic levels can be reached earlier than 2024 and that over summer months of 2024 traffic levels can be higher than 2019 actuals for this period. Moreover, under the 2022-2026 NOP planning process NM advised to consider scenario 1 for the summer season.
3.	(LH) PANSAs has one of the highest employment cost for ATCOs (in PPPs) but only on average productivity. What steps is PANSAs doing to address this imbalance between employment cost and ATCO productivity?	The total ATCO productivity for PANSAs (which is above the European average – in 2019 1.01 for PANSAs vs. 0.94 for the European average – based on ACE data) is significantly influenced by TWR services provided at a large number of regional airports, among which there are also airports with low traffic levels (despite low traffic, TWR service needs to be provided). For ACC only (where ACC costs have the highest share in total ATCO employment costs) productivity of PANSAs ATCOs is one of the highest in Europe (based on ACE data – the second highest in 2019 right after Lisboa ACC).

4.	(LH) We are worried to see the share of ATCOs remains only at 33% in RP3. We would expect the number of support staff reducing over time to a ratio of 50% ATCOs. Can you please give a break down per staff category?	Share of ATCOs in OPS for PANSAs for RP3 is similar to the 2019 average for all European ANSPs (ca. 34-35% for the last years based on ACE data). This share is at the same time higher than the average within PANSAs comparator group for RP3 (group C) which amounts to ca. 27-28%. It needs to be stressed that for the time being PANSAs owns and operates ANS infrastructure for both, ER and terminal services as well as provides all support functions by its own staff (with limited outsourcing). Regulatory requirements for development of infrastructure and systems, including those aimed at supporting flexibility, scalability and digitalization, as well as other regulatory requirements do not allow for reduction on non-ATCO staff over RP3. The employment structure planned at the end of 2024 for PANSAs is the following: PANSAs employment structure at 31.12.2024 <table border="1"><thead><tr><th>Category</th><th>Percentage</th></tr></thead><tbody><tr><td>PRU1</td><td>32%</td></tr><tr><td>PRU7A&7B</td><td>20%</td></tr><tr><td>PRU6</td><td>20%</td></tr><tr><td>PRU8</td><td>19%</td></tr><tr><td>PRU9</td><td>3%</td></tr><tr><td>PRU10</td><td>2%</td></tr><tr><td>PRU2</td><td>1%</td></tr><tr><td>PRU3&4</td><td>1%</td></tr><tr><td>PRU5</td><td>2%</td></tr></tbody></table>	Category	Percentage	PRU1	32%	PRU7A&7B	20%	PRU6	20%	PRU8	19%	PRU9	3%	PRU10	2%	PRU2	1%	PRU3&4	1%	PRU5	2%
Category	Percentage																					
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PRU9	3%																					
PRU10	2%																					
PRU2	1%																					
PRU3&4	1%																					
PRU5	2%																					
5.	(LH) Why is the staff cost in 2021 higher than in 2022 & 2023 (PANSAs / ERC)	The 2021 staff costs are impacted by measures implemented by PANSAs in terms of staff costs following the COVID-19 crisis outbreak as well as one-off costs that are necessary to allow for limiting cost increases for 2022+. The 2021 cost increase is related to additional obligations of the Agency towards its employees following from measures undertaken and planned to be undertaken, including those resulting from reduction of basic salaries and use of furloughs/downtime, employment optimisation, implementation of new rules of remuneration. To enable meeting the cost trend aligned with Union-wide trend for RP3 and to avoid significant increase in staff costs after RP3, changes to staff remunerations are necessary – limiting the 2022+ costs to values enabling meeting the required cost profile results in the need to incur one-off costs in 2021. Those one-off costs consider, among others, the main elements:																				

		- costs related to compensations for employees who will not accept the new salary levels and related costs stemming from the need to employ new employees to replace those leaving, - costs related to potential court cases initiated by some employees following contract termination by the employer, - one-off costs related to changes in remuneration of some employees resulting from Labour Law provisions (under which during the transitional period employees can benefit from both, old and new provisions of rules of remuneration to the extent that these are more favourable to them).
6.	(Ryanair) If the 2021 staff costs, which are above 2019 costs, include one-off reserve funds for compensation of employees following court cases – are the reserves required, do the court cases last, were there any amounts payable – if not, when will be the reserves released and 2021 costs updated?	Please see the answer above for the constituents of the 2021 cost increase. As regards provisions it needs to be stressed that these are calculated and included in PANSAs financial figures in line with IAS/IFRS. Any provisions for staff costs are an integral part of PANSAs financial plans and financial statements – the values are updated on annual basis and are subject to assessment of auditor assessing PANSAs financial statements.
7.	(Ryanair) En route staffing costs increased by €40m from 2020 to 2021, can you please clarify the cause of this 9% increase in the midst of the worst crisis in aviation history? 2021 staff costs are set to exceed costs in 2022 and 2023 and are increasing annually for the remainder of RP3.	It needs to be stressed that 2020 staff costs have been reduced in all charging zones (ER and terminal) as compared to 2020A. This was achieved through a combination of measures that were reported in the Interim Monitoring Report in 12.2020 and are also listed in Annex R to the draft RP3 PP. As indicated in question 5 above, the 2021 staff costs are impacted by one-off costs that are necessary to allow for limiting cost increases for 2022+ and to cater for consequences of measures implemented by PANSAs in terms of staff costs following the COVID-19 crisis outbreak. To enable meeting the cost trend aligned with Union-wide trend for RP3, changes to staff remunerations for the period 2021-2024 are necessary – limiting the 2022+ costs to values enabling meeting the expected cost profile requires one-off costs to be incurred in 2021. Staff costs over 2022-2024 increase only marginally in the ER and EPWA charging zones – in 2024 they are close to the actual levels of 2019. For the second terminal charging zone the increase is related mostly to development of infrastructure and systems, which development and maintenance requires greater involvement of technical and other support staff as well as development of some regional airports where extended hours of providing TWR service by PANSAs are expected
8.	(Ryanair) Stakeholder noted PANSAs intention to increase ATCO staffing numbers significantly up to 2024 and asked to elaborate on the decision to add to PANSAs headcount. Additionally they requested information why the	PANSAs ATCO numbers over RP3 have been significantly reduced as compared to the initial RP3 PP dated 2019. PANSAs started its development and modernisation program related to CAPEX over RP2 – this, among other reasons, was underlying the revision of RP2 performance plan. This process is now being continued over RP3. During the implementation phase of major CAPEX initiatives rather further increase in staffing is required – only once modern, digital solutions are

	significant Capex investment plans are not delivering efficiencies in operational headcount requirements?	fully implemented, benefits in terms of limiting required staffing levels can be expected. Major part of the solutions implemented by PANSa are following directions foreseen in the SESAR ATM MP and AAS. However, SESAR and AAS implementation is a long-term project and benefits related to implementation of these solutions can be expected only after RP3. Investment projects can take many years between the initial outlay and the realisation of the benefits. The modernisation timeframe foreseen by the ATM Master Plan lasts until 2035. It was stressed during the meeting that staff costs for 2024 in real terms are at the level of 87% of 2019A – which proves that PANSa is doing its utmost to contain costs, what was also clearly visible in 2020. PANSa did a lot to maintain liquidity and optimise costs, what is clearly visible from the revised RP3 cost figures.
9.	(PLL LOT) Have the anticipated changes in legal regulations concerning the increase of the maximum number of working hours for ATCOs per week been included in the revision of RP3 PP? If not, how can the possible change be reflected in the charges in the following years if it is adopted in subsequent months?	PANSa explained that the possible change in the working hours for ATCOs has not been considered in the draft revised RP3 PP. The reason is that the legislative process is not advanced yet and there is no certainty that the change will enter into force. From PANSa perspective such change would provide greater flexibility in terms of managing OPS staff and therefore could be supported – but for the time being PANSa needs to plan its costs based on legal provisions currently in force and as there is no certainty whether the change will enter into force in the coming months, it could not have been considered in PANSa cost forecast underlying the revised RP3 PP. CAA added that the proposed change was provided for opinion of the CAA and the opinion was positive. The constraint is the timeframe – the revised PP needs to be provided to EC by end of September. If before the end of September the legal act changing the working hours is adopted, then this could be reflected in the PP, if not – the PP would have to be submitted without this element.
10.	(PLL LOT) Is the proposed change to PANSa rules of remuneration already reflected in the draft revised RP3 PP cost figures? If not, how can that be reflected in the charges for the following years if it is approved in the months to come?	In the answer PANSa explained that the change to RoR has not been taken into account in the draft revised RP3 PP – as it has not been approved yet. For the purpose of the revised PP PANSa had to base their cost prediction on the rules that are currently applicable. PANSa explained that the new rules of remuneration have been presented to the CAA and Ministry of Infrastructure for opinion/approval (change of RoR for PANSa requires approval by the Minister of Infrastructure) – but no decision has been taken so far on their approval. It stressed that the change in RoR is aimed at providing greater flexibility to PANSa management in terms of staff costs as well as to limit staff costs increase in the years to come. PANSa illustrated how the level of staff costs would evolve beyond RP3 if the currently applicable RoR continue to apply (see the chart below – it represents one of the slides presented by PANSa during the meeting) – the proposed change in RoR is aimed at limiting this increase (for the period 2021-2024, to reach

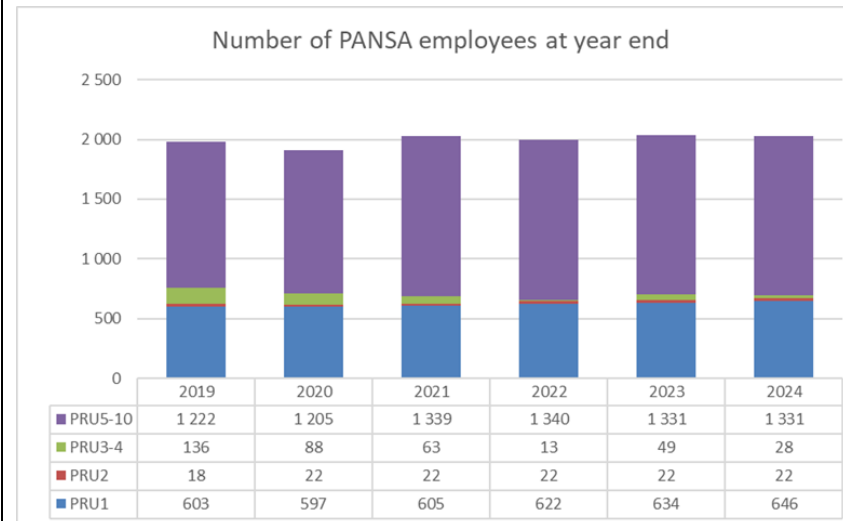
		the local targets consistent with Union-wide, reduction to base salaries for all PANSAs employees had to be applied).  PANSAs's direct employment costs (mPLN)  PERFORMANCE PLAN RP3 – Consultation Meeting CAA added that the proposed change to RoR was provided for opinion of the CAA and the opinion was positive. The constraint is the timeframe – the revised PP needs to be provided to EC by end of September. If before the end of September the new RoR is approved, then this could be reflected in the PP.
11.	(Ryanair) We request detailed information on PANSAs's headcount plans for the remainder of RP3 including planned retirements, attrition, training and recruitment plans, training capacity, failure rate, and training duration. We further request clarification of the evolution of headcounts divided by ATCO/Operational and Support/non-Operational staff and whether training courses were maintained during the C19 downturn.	For ATCO training process it is assumed that the duration of the training over 2023-2024 (new recruitments for ATCO courses are planned to start end 2022) would be similar to duration in the past – that is the full training (from start of the basic course till ATCL) to take ca. 24 months. Currently (2020-2022) the training process of trainees employed before the pandemic is being continued – due to low traffic levels and pandemic the training process is being prolonged beyond those average 24 months. Based on past experience, for new courses PANSAs assumes success ratio of 40-50% (failure rate of 50-60%). To achieve this success rate PANSAs decided to organise courses with limited number of recruits (experience shows that smaller groups of trainees allow for increased effectiveness of the training process). In total over 2022-2024 it is planned that four courses for ATCOs will be initiated.

It is assumed that over 2021-2024 6 ATCOs will retire – however, what needs to be stressed is that in accordance with Polish Labour Law retirement is a privilege for employees (right, not an obligation) and employer cannot decide on the retirement (it needs to be a decision of the employee) – therefore actual number of retirements can be different than the planned value.

Over RP3 (as compared to 2019A) PANSAs plans to increase number of ATCOs by 43 – this covers increases in ACC ATCOs and APP ATCOs. No increases are foreseen in TWR ATCOs (decrease by 8 ATCOs is foreseen as compared to actual number at the end of 2019). Reasons for the increase were presented above under question I.

For non-ATCO staff some increases are foreseen in the technical staff domain – these are necessary to maintain infrastructure and systems and to support implementation of new systems and digital solutions (including new competence). Some increase is also planned in relation to monitoring and reporting on CAPEX execution – aimed at further strengthening supervision over CAPEX execution.

It needs to be stressed that as compared to initial draft RP3 PP dated 11.2019, employment plan for ATCO was reduced by 88 ATCOs (comparison of planned figures at the end of 2024). Evolution of currently planned employment over RP3 is presented below:



V. MET Services		
1.	(LH) Stakeholders asked the following questions concerning MET service: – Why is GAMET attributed to 100% ERC? – Why are reports from aircraft attributed to 100% ERC? – Why is TAF (Terminal Area Forecast) only attributed by 25% to TNC? – Why is QNH determination not attributed 100% to TNC?	IAW Doc 9161 (Manual o Air Navigation Services Economics – Fifth edition. 2013, Appendix 2) and WMO No 904 (Guide to Aeronautical Meteorological Services Cost Recovery Principles and Guidance – Annex I and II • GAMET is attributed to E (en-route); • Reports from aircraft are attributed mainly to E (en-route) as a part of meteorological observations and reports disseminated beyond the aerodrome; • TAF (Terminal Area Forecast) is mainly attributed to E (en-route) • QNH may be area or En-Route forecasts other than issued within WAFS – similar to GAFOR – it is attributed to E (en route).
VI. Terminal charging zones		
1.	(Gdańsk Airport) The solution of having two terminal charging zones is not a fair solution – it does not support solidarity. There should be a single zone covering also EPWA or – if efficiency is sought – 14 separate zones. What are PANSA costs related to Gdańsk Airport?	See answer below. Costs per individual airport are disclosed in reporting table 1 annexed to the draft revised RP3 PP.
2.	(LH) Support for site-specific terminal charging was expressed – or, as intermediary step, breaking down TCZ II into two or three separate zones.	CAA explained that for the moment changing the zones in the PP is not possible. This can be considered at some time in the future. When looking at other States, none has implemented site-specific zones.
3.	(PLL LOT) If there was a proposal to implement more terminal charging zones, such proposal would be supported. Two zones are the required minimum – but ultimate, best solution would be to have site-specific zones.	Comment noted.
4.	(IATA) Would support site-specific charges for the terminal area, if appropriate. Single zone is not supported.	Comment noted.
VII. Public support		
1.	(Ryanair) Stakeholder notes, with disappointment, the absence of any national public funding by the Polish state to support Its essential aviation industry in recovering from the C19 crisis. We note some minor EU assistance received in the WAW Terminal	PANSA has not received any direct financial support for ANS during the COVID crisis and for the time being we are not informed that such support could be provided – to maintain liquidity PANSA had to use debt financing, which needs to be repaid and the revised performance plan needs to allow for such repayment.

	Zone in 2020/21 but this was lower than that received in 2019. Can you please clarify the source of this and why it was not replicated In the other charging zones?	It should be noted that received EU funds are reimbursed to AUs under the procedure described in article 25.3 of Regulation 2019/317 and additionally explained in point XVII. Common Projects below.
2.	(IATA) In the 2020 Monitoring report public financing for PANSAs was indicated impacting URs through other revenues – while during the consultation meeting information was provided that PANSAs did not receive any public support during the crisis. Further clarification is needed.	PANSAs explained that what was reported in the Dec 2020 IMR as public support is not any kind of support received by PANSAs during the crisis. What was reported there are the amounts of revenues recognised in PANSAs financial documents following from support received before 2020 to co-finance certain elements of infrastructure, under Operational Programme Infrastructure and Environment, SESAR financing and other similar instruments. This is co-financing reported by PANSAs every year under ‘other revenues’ that is also now disclosed in Table 4 of the charges’ reporting tables attached to draft revised RP3 PP. These amounts received for support of investments are returned to the AUs as other revenues over the depreciation timeframe of the assets. In addition PANSAs stressed that it did not receive any direct, non-refundable financial support following the crisis outbreak, although PANSAs applied for it. This resulted in the need for PANSAs to take out a loan to support liquidity.
3.	(Gdańsk Airport) There is no agreement to increase of ATC charges in Poland – as that would have negative consequences for Polish airports, airlines, tour operators and passengers – the whole aviation industry. We know that PANSAs, similar as PL airports, is in a dramatic situation and needs help. PANSAs should ask their stakeholder (the Government) for help – as airports and airlines do. German Government supported DFS, some other European governments did the same – it should also be the case in Poland. Such solution would not contradict EU rules. The loan cannot be considered as a public support as still the interest would be included in the URs and would need to be covered by AUs/passengers.	It was indicated that if there is any public support offered to support their operations, they will gladly take it and that would be fully reflected in the unit rates of charges. For the time being, however, despite PANSAs asking for support, no such support has been granted to PANSAs. PANSAs clarified that the extraordinary support schemes offered by Poland to various companies during the crisis were not designed in a way that they could be used by PANSAs. CAA added that Poland suggested to the EC and EUROCONTROL to create a support scheme to ANSPs at Union level – but this idea was rejected.
4.	(LH) Has PANSAs received any equity help from the Polish government during the Covid-19 crisis?	No, PANSAs has not received any equity help during the COVID-19 crisis.
5.	(LH) Public support for PANSAs would not contradict EU rules – over RP2 and RP3 several governments in Europe provided such support to	Comment noted.

	their ANSPs e.g. by equity support. Lately there are examples of such support in the Czech Republic, Spain, Germany. Tourism-based countries like Slovenia or Croatia are also considering lowering charges for regional airports by using article 29(6) of the Charging Regulation. The proposed increase in TCZII in Poland puts flights from regional airports at risk, unless airports compensate for that.	
5.	(IATA) In other States we saw initiatives aiming at supporting charges at regional airports – in Germany, second zone is being established with State supporting the charge, in Belgium the State support charges at regional airports, in Slovakia certain aerodromes are being removed from the PP scope and national funding is in place to support the ANS at these aerodromes. In Switzerland, Germany, Norway, Finland and some other States, the States supported the ANSPs. In Spain the State will fund terminal services to limit the increase. There are some options which could be considered by Poland.	CAA indicated that PL Government is supporting PANSA through a loan (the loan was offered by Bank Gospodarstwa Krajowego which is a state bank). The loan from BGK offered better conditions than the commercial loan offered by EUROCONTROL – unfortunately the EU did not offer zero-interest rate loan for ANSPs. It was stressed that despite the public support, significant increase in UR in Germany is visible, what worries Poland as it could negatively impact flight efficiency.
VIII. Cost efficiency: En Route and Terminal Costs		
1.	(Ryanair) En route costs Stakeholder notes the efforts taken by each entity to deliver a 3% reduction in en route costs in 2020. This reduction in cost, however, was in light of a 57% reduction in traffic in Polish airspace. Stakeholder requests detail of why cost reductions were not pursued in line with traffic decline and why these were not sustained beyond 2020. It is clear from the draft performance plan that long-term and sustainable cost reductions were not pursued by PANSA during the C19 downturn. Costs of all entities increased by 8% in 2021, exceeding 2019 costs, with traffic levels still 52% lower than 2019. Stakeholder requests detailed clarification as	In real terms, 2020 ER costs are by 5.3% lower than 2019 actuals. It is not possible to reach annual ANS cost reductions by 50-60%. This results from the fact that majority of ATM/ANS costs are fixed. Despite significant traffic drop ANS service continuity had to be maintained over the whole 2020. ANS infrastructure must remain operational at all times, even if traffic level is low. The same relates to AIS provision. MET services and several other functions provided by the ANSPs as well as supervision of ANS provided by the NSA. Also EUROCONTROL costs, which constitute part of ER cost base, were not reduced to the extent reflecting traffic drop. What needs to be stressed also here is that comparisons of 2020A costs vs 2019A costs must consider the fact that 2019 costs reported in the reporting tables are calculated using artificially low level of cost of capital – this level of 1.38% cannot be the reference point for any comparisons. If 2019 WACC is calculated at fair value reflecting financial market parameters (for example 2020 WACC rate), then 2020 cost reduction in real terms is at the level of almost 11% as compared to 2019 actuals, which proves efforts undertaken by the Polish entities to contain costs during the crisis period.

	to why such an unjustifiable increase has occurred in 2021.	Over the whole RP3 PANSA costs in real terms remain below 2019 actual values calculated using the WACC rate comparable with RP3 parameters. This has been achieved despite continuation of investment programme and related increase in investment costs – meaning that a lot of effort has been put to contain operating costs. It also needs to be remembered that over RP3 PANSA uses debt financing (required to maintain liquidity following the crisis) that also impacts the level of cost of capital. For 2021 staff costs please see question IV 5 above.
2.	(Ryanair) TCZ I costs Stakeholder is disappointed by the planned 21% increase in costs over the course of RP3. Similar to en route costs, there was a 22% decrease in costs in 2020 followed by a 45% increase in 2021. This erratic cost behaviour must be explained in detail at the consultation meeting.	2024 EPWA costs increase by 8% in real terms as compared to 2019A. It needs to be stressed that for EPWA 2020 cost reductions were largely one-off, possible due to limited volume of traffic following the restrictions on travelling put by States. As traffic starts to recover from 2021 onwards (especially over the summer season) these reductions cannot be continued in the following years of RP3. Therefore 2021 costs return to level close to 2019A and in the following years they remain at almost constant level (for 2021 staff costs please see question IV 5 above). RP3 cost increase for EPWA as compared to 2019A results to large extent from investments implemented that are necessary to provide required level of service at this airport – this is visible through evolution of depreciation cost and fixed asset base over RP3. They are also impacted by level of WACC that over RP3 reflects debt financing and risk incurred by ANSP.
3.	(Ryanair) TCZ II costs This charging zone delivered the weakest cost reduction in 2020 of only 2.6% but was again followed by a 42% increase in costs in 2021. These cost increases are sustained throughout RP3 resulting in a 32% increase in 2024 costs compared to 2019. Most critically, the Other Airport charging zone will not meet European cost efficiency targets. The proposed 73% increase not only fails to meet targets that European states voted to support but significantly risks loss of connectivity for the airports under this charging scheme.	In real terms 2020 actual costs for TNC II are by 5.3% lower than 2019A. As visible from the reporting tables, 2020 cost evolution is partly impacted by investment costs related to investment tasks executed before the pandemic (visible through evolution of depreciation). Moreover, 2020 costs are reflecting the fact that Polish airports remained open during 2020 despite lower traffic levels – even if number of flight was much lower, TWR service had to be provided. RP3 terminal cost evolution in TNC II results mostly from development of facilities and systems necessary to support ATC in regional units. This has an impact on staff costs (including technical and administrative staff maintaining and developing these new assets) as well as other operating costs (energy, security, training etc.). RP3 TNC II cost base reflects also evolution of AIS service – please see section XIII below. RP3 cost level is also impacted by the fact that new ANSPs are being included in the cost base for charges. There are many specificities differentiating circumstances related to provision of en-route and terminal services. Simple comparisons between evolution of ER and terminal unit rates are incorrect. General assumptions underlying evolution of ER and terminal costs in Poland over RP3 are the same – however, planned evolution of ER and terminal infrastructure and services leads to a situation where evolution of unit cost is different. This reflects also local circumstances for terminal service provisions. These differences between ER and terminal services as well as impact of local circumstances on TANS were the main reason why it was decided that no Union-wide targets are established for terminal services.

IX. Cost efficiency: OPEX		
1.	(LH) OPEX: Why is there such a massive increase in OPEX over RP3? (PANSA / ERC)	There is no massive increase in OPEX in real (2017) terms over RP3 period comparing to 2019 actuals. In the earlier years of RP3 period (2020 – 2021) OPEX is even lower than 2019 actuals (33% and 24% respectively). Then in the following years OPEX is slightly higher than 2019 actuals, respectively by 6%, 9% and 5%. Increase in costs in years 2022-2024 is caused, among others, by increase in energy costs and some of external services related to maintenance of infrastructure used by PANSA (increase in minimum wages in Poland, directly impacting cost of some external services, which is beyond ANSPs control) and as a result of execution of CAPEX, which increases number of facilities that need maintenance services. Also increase in rents and lease payments is visible. Increase in those years is also caused by implementation of expenditures postponed from previous years (2020-2021) due to COVID-19 crisis and cost of trainings.
X. Cost efficiency: Cost of capital		
1.	(LH) There seems to be a mistake in the calculation, as the average of the interest rates is in 2023 & 2024 higher than the interest rates of both loans.	Please note that for the purpose of cost of capital calculation for RP3 PANSA applied average interest on debts amounting to 3.53% in 2023 and 3.56% in 2024 (information included in additional information to reporting tables), which are averages of operating credit facility rate (3.29%) and investment credit rate (3.57%). The Stakeholder's finding probably refers to information provided in draft PP for Poland in sheet 3.4.4 Interest rates under item "Average weighted interest rate %" – 4.22% in 2023 and 4.30% in 2024. Please note that these rates are automatically calculated in the PP files provided to MS by the PRB and reflect relation of interest amount incurred within the whole year to total remaining balance of both loans at the end of the year – therefore they do not reflect interest rate on debt.
2.	(LH) Why is Loan No. 1 not used more into 2023 & 2024 as it shows lower interest than Loan No. 2?	It should be noted that decision on what loan may be used depends on the external arrangement condition proposed by Bank Gospodarstwa Krajowego (which is the only bank, whose services and products PANSA can use due to PANSA legal status). In case of operating credit facility repayment date has been already agreed on 31st Dec 2024, which together with limited cash available due to reduced traffic levels in years 2021-2023 makes its higher usage in 2023 and 2024 impossible.
3.	(LH) Why can IMWM obtain cheaper loans than PANSA?	PANSA as a public legal entity is obliged to use financial products offered by state-owned bank Bank Gospodarstwa Krajowego only. The terms of loans agreed by PANSA are the most favourable that could have been negotiated with the Bank during the COVID-19 crisis. It needs to be stressed that the interest on loans can be dependent on many factors, including the legal structure and framework of the entity that takes on the loan, the purpose of the loan, the value of the loan, the repayment period (that needs to be adjusted to repayment ability of the entity), financial market situation at the moment when the loan is negotiated etc. Therefore simple comparison of interest rates on loans taken by PANSA and other entities should not be done.

4.	(LH) WACC calculation in our view needs correction for several factors:	PANSA cost of capital is calculated in accordance with guidance provided by SDG in 2014 as confirmed by September 2019 PRB publication on cost of capital calculation and has been consequently applied since RP2. It needs to be stressed that WACC rate for RP3 proposed in the revised draft RP3 PP (5.7-5.9%) is significantly lower than the rate applied in the revised RP2 PP (7.81% for 2017-2018) and in the initial draft RP3 PP dated 11.2019 (6.29%).
	a) As the performance period is normally only 5 years and in this special case even only 3 years also the yields of those time periods should be used which are: – 5y: 1,05% – 3y: 0,61%	In accordance with “Guidance on the route charges system” published in June 2012 by EUROCONTROL CRCO, cost of capital estimated by using CAPM formula should consider as risk-free rate the yield on ten-year government bonds. That is why for the purpose of cost of capital calculation for RP3 PANSA as a risk-free rate took into account the latest available at the moment of performing the financial model calculations yield of 10 years Polish government bonds rate for May 2021 reported by Eurostat. Such approach was also adopted in past reference periods and remains consistent.
	b) The equity risk premium acc. Damodaran is shown as 5.54% (iso. 6,48%).	PANSA in cost of equity calculation considered Damodaran estimations as per Jul 2020 (6.48%) instead of Damodaran estimations published in Jan 2021 (5.54%). PANSA holds the position that Jan 2021 estimates do not reflect market risks for the whole RP3, it means years 2020-2024. Following analysis of the equity risk premiums over the past it is clearly visible that the Jan 2021 value is extraordinary and therefore cannot be considered in the calculations.
	c) The overall risk should not be higher than 4.4%, which is according to the PRB the maximum risk ANSPs are bearing due to the safeguards of the regulation.	PANSA holds the position that the cost of capital calculation methodology in accordance with guidance provided by SDG in 2014 as confirmed by September 2019 PRB (WACC with RoE calculation according CAPM Formula) does not take into account the idea of maximum traffic risk exposure. Moreover, it needs to be stressed that apart from traffic risk sharing, PANSA faces also other financial risks, including for example exchange rate related risk, customers’ financial failure related risk etc. Under the CAPM methodology, limited risk exposure of ANSP business is already duly considered through asset beta which is at low level of 0.4%.
	d) What is the organizational difference between PANSA and IMWM, that IMWM can simply use a return on equity of flat 4%?	PANSA cost of capital is calculated in accordance with guidance provided by SDG in 2014 as confirmed by September 2019 PRB publication on cost of capital calculation and has been consequently applied since RP2. For PANSA the cost of capital calculation considers actual terms of debt financing. Moreover it needs to be born in mind that under the EU Charging Scheme risk exposure for ATSPs is different from the one faced by MET service providers. Also national scheme related to charging and financial settlements between ANSPs differentiates the financial risk exposure between PANSA and IMWM.
5.	(LH) In RP2 PANSA opted to an artificial low WACC to reduce its cost. Due to the crisis, we call on PANSA to repeat this exercise and reduce the	The artificially low WACC rate for 2019 was not deliberately set by PANSA. It was purely technical adjustment done only for the year 2019 to reach negative DUC trend over RP2 as required by the European Commission during discussion on revision of PL RP2 performance plan. The WACC level of 1.38% that was applied for 2019 as a consequence of this technical adjustment

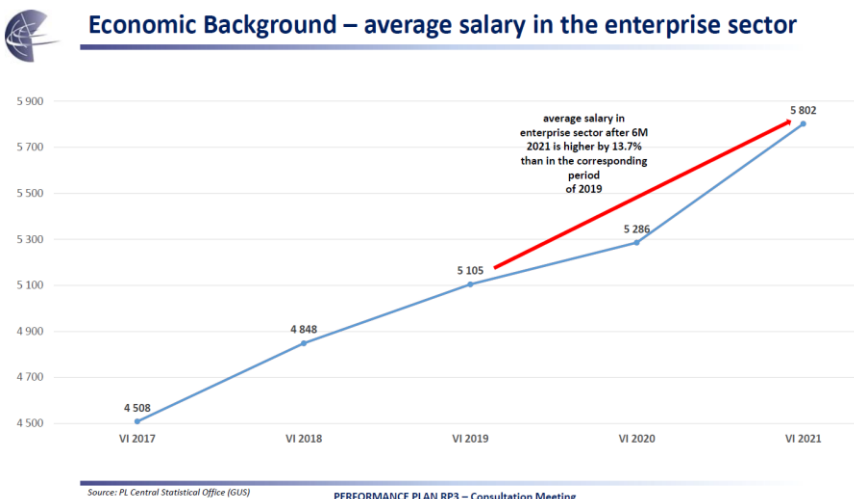
	WACC again to a level below the Polish risk free rate.	was not based on any evaluation of risk or other parameters – and it cannot be considered as justified for RP3, nor can it be considered sustainable for a longer period of time than only 2019. The level of WACC for RP2 (in the revised RP2 PP) calculated in line with efficient cost of capital provisions amounted to 7.81% and was applied to 2017-2018. The WACC rate included in the draft RP3 PP is already much lower than this 7.81% rate applicable for RP2 and further reductions could endanger PANSAs financial liquidity and pose risk for debt financing (credit) repayment plan.
6.	(LH) Has PANSAs paid out any dividends to its owners in 2020?	No, PANSAs has not paid any dividends to its owner (State) in 2020.
7.	(Ryanair) Stakeholder requests clarification on the cause of the significant increase in cost of capital for PANSAs from 1.3% in 2019 to 9.4% in 2020. This can be seen as nothing short of profiteering at the expense of airlines during a crisis where government restrictions resulted in travel bans and record low traffic. This unjustifiable increase is a driving factor in the 16% increase in en route costs over the course of RP3.	It should be noted that cost of capital in 2020 amounts to 5.73%. The rate 9.4% indicated in the question refers to RoE. The RoE rate for 2019 (1.38%) was purely technically adjusted in order to reach negative DUC trend over RP2 as required by the European Commission during discussion on revision of PL RP2 performance plan and it did not consider any debt financing. The RoE rate for 2020-2024 (9.4%) was estimated using CAPM formula taking into account market assumption binding for years 2020-2024 and it also considers debt financing. The difference in WACC and RoE rates between 2019 and RP3 results from the fact that 2019 cost of capital level was set at artificially low level and has not been calculated in accordance with rules underlying calculation of cost of capital for ANSPs (see question II e) and h) above). The correct reference point for WACC comparison for RP3 is the WACC rate applied for 2017-2018 – comparison of these values show that WACC for RP3 (5.7%-5.9%) is lower than the one calculated for RP2 in the revised RP2 PP (7.81%). As concerns RoE, its level in RP3 is impacted also by the use of debt financing – for RoE calculation please see additional information to RP3 reporting tables annexed to the draft revised RP3 PP.
8.	(Ryanair) Stakeholder requests further clarification on the calculation method of the proposed WACC which is significantly greater than is appropriate for the industry.	Cost of capital was calculated using the methodology recommended by SDG back in 2014 and confirmed by PRB in 2019. Cost of capital included in the revised draft RP3 PP is significantly lower than the one included in the initial draft RP3 PP and the WACC rate is also much below the rate used in the revised RP2 PP (7.81% at that time). All parameters used in the cost of capital calculation are described in additional information to the draft revised RP3 PP and the calculation is fully transparent. Following the COVID-19 crisis, PANSAs has to take on a loan – the level of cost of capital considers the interest on loan and the need for PANSAs to maintain liquidity and to be able to pay back the loan. Please also see questions above.
9.	(Ryanair) We additionally request clarification of the calculation of the average interest on debts which is significantly in excess of the risk-free rates presently available on 3/5 year terms.	The average interest on debts for years 2020-2024 is the weighted average that has been calculated taking into account effective annual interest rates of operating credit facility rate (3.29%) and investment credit rate (3.57%) already offered by Bank Gospodarstwa Krajowego as well as corresponding average balances of loans concerned over every single year of RP3.

XI. Cost efficiency: Surveillance costs		
1.	(Ryanair) Stakeholder requests further clarification of the 50% increase in this en route cost category over the course of RP3. We further question why there is a 100% increase in the WAW charging zone but a decrease for Other Airports. The changes in charges are extremely inconsistent across charging zones.	The increase in costs results from investments in radar facilities: Radar MSSR Pułusk, PSR/MSSR Gdańsk, PSR/MSSR Katowice, MSSR Gdańsk and also hyperbolic MLAT systems for FIR EPWW. In addition, large investments are planned in air traffic system, which is based on data obtained from radars, such as „iTEC” or the „modernization of the ATM system”. The above resulted in increased costs of maintenance as well as indirect costs incurred by planning, procurement and implementation division in PANSa. What is more, in recent years, PANSa has implemented new radars in Łomża, Skotniki, Dąbrowica, Stobierna. Due to the fact that the radars are used to provide en-route navigation, hence most of the increase in costs relates to ER navigation, while the increase in costs related to I Terminal Charging Zone (EPWA airport) is the result to the investment in the ASMGCS system and the maintenance of the Warsaw surface movement radar. As no investments in radar systems are planned in other airports, surveillance costs in Terminal Charging Zone II remain constant.
XII. Cost efficiency: Search and Rescue & Aeronautical Information Services		
1.	(Ryanair) Stakeholder welcomes the cost reductions of up to 60% in these cost categories for the en route charging zone and question why the actions taken to drive these reductions were not replicated in other areas of the business. We do, however, question the trebling of aeronautical costs in the Other Terminal charging zone and request clarification in this regard.	The increase in the cost of aeronautical information provision, i.e. air traffic procedures, AIP information, NOTAM, etc., applies to both the I and II Terminal Charging Zone. However, for en-route navigation, AIS costs are decreasing. This is due to the fact that in recent years due to implementation of POLFRA (free route airspace), the design of airways (which affect the costs of en-route navigation) has been abandoned. At the same time these costs increase in terminal area due to development and deployment of new or modified procedures, such as: departure procedures (SID), arrival procedures (STAR), RNAV, RNP procedures. It is caused by developments of PL airports and also by putting in place or replacing old navigation aids. Another important issue is the increasing number of obstacles around airports (e.g. cranes, buildings), which makes it necessary to check the procedures in terms of safety. In addition, each procedure is periodically checked or modified following ATCO's opinion and also changes in the airspace (CTR, TMA) allowing for the smooth traffic flow. The increase in costs is also related to increased number of NOTAMs for airports and extension in the scope of AIP publication. Considering the above, the costs of providing AIS services are shifting from en-route services towards terminal services.
XIII. Cost efficiency: Asset base		
1.	(Ryanair) The asset base of all entities in en route charging is planned to increase by 250m PLN over	The increase of fixed asset base is a direct consequence of investment plan for RP3. Total CAPEX plan for PANSa for RP3 assumes expenditures at the level of 966 MPLN.

	the course of RP3, can you please provide greater insight into the driving factors behind this significant increase? Net current assets also increase by 100% over the same period which deserves further clarification given the outrageous cost of capital proposed to be charged. These significant increases are mirrored in both terminal charging zones.	As concerns net current assets increase is mainly due to application to 2020-2024 years extended credit period associated to payments of 2020 en-route invoices (on average after 92 days). Concerning both terminal charging zones the increase in net current asset is significantly lower and mainly results from higher costs planned for RP3.
XIV. Cost efficiency: Traffic Risk Sharing Mechanism		
1.	(Ryanair) We note the intention to reclaim the alleged "revenue gap" over a period of 5 years. We request detail of the analysis carried out to arrive at the decision to reclaim the amounts over 5 years. We also request clarification of how these amounts have been financed by PANSa to date. Stakeholder is strongly against the proposal to force airlines to pay for a service they were unable to use as a result of government-imposed restrictions which will have long-lasting effects on traffic recovery and growth. The proposed recovery of the alleged "revenue gap" will unnecessarily increase the chargeable en route unit rate from 215PLN to 253PLN in 2023 and from 202PLN to 235PLN in 2024.	The 5 year adopted in the draft revised RP3 PP period is related to liquidity forecasts for PANSa and the need to repay debt financing incurred to maintain liquidity following the crisis and related sharp revenue drop. This 5 year period is fully in line with provisions of article 5.4 of Commission Implementing Regulation (EU) 2020/1627 of 3 November 2020 on exceptional measures for the third reference period (2020-2024) of the single European sky performance and charging scheme due to the COVID-19 pandemic. COVID-19 related crisis led to a situation where over 2020 PANSa used all available cash generated over the past 14 years (since PANSa inception). On top of that, for the first time since PANSa establishment debt financing had to be used – two credit facilities for combined value of 800 mPLN.
Cost efficiency: Inflation index		
1.	(Ryanair) Stakeholder requests clarification of the source of the inflation index used in the creation of this performance plan. The proposed index which suggests a 20% inflation adjustment by 2024 compared to 2017 is excessive and not in line with realistic economic expectations.	As indicated in Annex R to the draft revised RP3 PP, inflation rates are based on IMF forecast (the latest World Economic Outlook dated April 2021) – this follows from requirement of Regulation 2019/317, which in Article 2 states: “‘forecast inflation index’ means the annual inflation index based on the third year before the start of a reference period and computed by using the latest available inflation forecast of average Consumer Price Index percentage change published by the International Monetary Fund for the Member State concerned at the time of drafting the performance plan. In case the percentage change published by the International Monetary Fund for a given year is negative, a zero value shall be used.”
XV. Cost efficiency: Common Projects		
1.	(Ryanair) We request clarification of the amounts received and paid under the Common Projects	As regards public funds obtained from public authorities including financial support from Union assistance programmes PANSa fully follows provisions of article 25.3 of Regulation 2019/317

	initiative which display clear inconsistencies. Tables supplied indicate that since 2014, €94m has been received by Polish entities but only €32m of this has been reimbursed to airlines. Stakeholder requests urgent clarification of when this additional €62m will be returned to airlines.	and passes on to airspace users revenues recognised under IAS 20 framework. It assumes that public funds obtained are recognised in profit or loss on a systematic basis over the period in which PANSA recognises as expenses the related costs for which public funds are intended to compensate. The public funds covering staff costs and other operating costs will be deducted from the determined costs no later than in year n+2 after recognition in P&L. Public funds covering depreciation costs will be deducted from the determined costs in accordance with the depreciation schedule of the financed asset (duration and annuity). As regards funds received by the end of 2020 and following the rules described in article 25.3, PANSA will reimburse received funds to the airspace users up to the end of 2059. A significant part of the remaining amount (around 34-35 mEUR will be reimbursed to AUs up to the end of 2027). The average annual amount of reimbursement to AUs in those years will be around 5.5 – 6 mEUR.
2.	(Ryanair) We additionally request clarification of the significant "traffic adjustments" being included in the Common Project reporting tables which amount to over €1m in the en route charging zone alone.	Provision of article 27.8 of Regulation 2019/317 assumes that adjustments related to EU and public funds are subject to traffic variation. It means that any additional revenue in year n due to differences between actual service units and the service unit forecast included in the performance plan for that year shall be passed on to airspace users, and any revenue loss shall be recovered from airspace users through an adjustment of the unit rate in year n+2". This provision did not apply to previous reference periods. Thanks to "Traffic adjustment" included in reporting table no 4, any additional or lost revenue (related to EU and public funds) due to traffic variation would be settled with airspace users to ensure that full amounts of public funding are settled with the airspace users.
XVI. Cost efficiency: costs exempt from the cost sharing mechanism		
1.	(LH) Can you please explain the actual status of the "Branicki case"? We can't fully understand the explanation given in the additional information.	In accordance with outcome of discussion with the Commission and PRB during the revision of PL RP2 PP over 2016, PANSA has been reporting costs related to "Branicki case" as cost exempt over RP2 (2015-2019). The amounts reported for each year of RP2 have been calculated using IFRS accounting rules and were reflecting annual changes in the value of provisions related to those claims subject to court proceedings, in line with values reported each year in audited PANSA financial statements. This approach has been questioned by the European Commission, who considered that the cost exempt value related to "Branicki case" should not reflect costs as reported in accordance with IFRS and included in PANSA financial statements (accrual-based approach) but should rather reflect actual payments done by PANSA following court rulings (cash-based approach). Discussions between PL NSA, supported by PANSA, and EC on a possible solution of the issue took place over H1 2021 which allowed for agreeing a way forward. Following these discussions it was agreed that: - related costs are to be recognized in the cost bases for calculation of charges' UR once the liability materialises – that is when the amount is finally known and subject to payment by PANSA – this means cash basis approach instead of accrual basis approach used before;

		this does not impact recognition of these liabilities in PANSA annual accounts – still accrual basis will be used for that purpose in accordance with International Accounting Standards, - this approach is to apply to RP2 as well as RP3 and possibly beyond, - these costs would still be recognised as cost exempt from cost risk sharing for RP3 and possibly beyond – under the item “new cost items not covered in the performance plan but required by law” – using the cash based approach. As a consequence, for RP2 amount of compensation actually paid by PANSA in 2020 would be eligible for recognizing as cost exempt for RP2. For RP3 costs related to “Branicki case” are not included in the determined costs in the draft revised RP3 PP but they will be added to the grand total for calculation of UR in year n+2 where year n is the year when additional liabilities towards Branicki heirs will materialize.
2.	(Ryanair) Stakeholder notes that costs exempt from the cost sharing mechanism dating back to 2017 are being added to the cost base in 2021 and 2023 leading to an increase in costs of 42m PLN. Can you please elaborate on the nature of these costs and why they are being recharged to airlines instead of being absorbed by the Polish government?	It should be noted that total amount settled with airspace users in PANSA reporting table in en route charging zone is 11.7 mPLN instead of 42 mPLN as mentioned in the Stakeholder comment. It is a combined result of increase in unit rate in 2020/2021 in amount of 26.7 mPLN and decrease in unit rate in 2023 in amount of -15.0 mPLN. This value is a result of new costs required by law (Branicki case) over RP2 reported in cost exempt report. The current status of Branicki case is described in point V. Other Topics. It should also be noted that PANSA has to obey the applicable law and does not have the competence to create it. Possible absorption of costs of Branicki case by the Polish government is out of PANSA control and depends on decision taken by appropriate Polish State institutions.
XVII. Cost efficiency – other issues		
1.	(PLL LOT) Approach to exempting VFR flights from charges should be reconsidered. Currently VFR flight receive service for free – if these are charged, then the related amounts would decrease cost base for IFR flights.	Comment noted. For any change in terms of VFR exemption/charging, changes to the Aviation Act are needed.
2.	(PLL LOT) The increase in charges per passenger in TCZ II resulting from increase in UR as proposed would be at the level of ca. 3 PLN – this increase is not dramatic.	Comment noted.
3.	(Ryanair) No support can be expressed to increase of URs, neither for ER, not for terminal services.	On the UR increases, CAA stressed that the increases are visible in all States. This is the result of arithmetic – lower traffic. It was also stressed that PL Government has not introduced environmental tax like some other States did.

4.	(Wizzair) Due consideration must be given to decreasing passenger demand while charges increase – passengers from local airports are especially sensitive to charges increase. Costs for airlines will also increase following the Green Deal implementation – and probably salary increases in Poland will not compensate for that. We support digitalization and investments – but PL Government should step in.	It was explained that despite the crisis, average salaries in Poland have been constantly increasing (see the chart below – it represents one of the slides presented by PANSA during the meeting) and this trend is expected to continue in the years to come. This has an impact on costs of some staff categories in PANSA but also cost of external services. Similar situation is with minimum wage (significant increase over the past period), what again impacts costs of external services as well as come CAPEX values.  Economic Background – average salary in the enterprise sector average salary in enterprise sector after 6M 2021 is higher by 13.7% than in the corresponding period of 2019 <table><tr><th>Period</th><th>Average Salary (PLN)</th></tr><tr><td>VI 2017</td><td>4 508</td></tr><tr><td>VI 2018</td><td>4 848</td></tr><tr><td>VI 2019</td><td>5 105</td></tr><tr><td>VI 2020</td><td>5 286</td></tr><tr><td>VI 2021</td><td>5 802</td></tr></table> Source: PL Central Statistical Office (GUS) PERFORMANCE PLAN RP3 – Consultation Meeting	Period	Average Salary (PLN)	VI 2017	4 508	VI 2018	4 848	VI 2019	5 105	VI 2020	5 286	VI 2021	5 802
Period	Average Salary (PLN)													
VI 2017	4 508													
VI 2018	4 848													
VI 2019	5 105													
VI 2020	5 286													
VI 2021	5 802													
5.	(PLL LOT) There is different trend in ER and terminal unit rates. Looking back at 2019, ER and TANS charges were below EU average. When looking at 2022, ER is still below EU average (becomes significantly lower than European average), while TANS UR in II TCZ goes above the European average. The low ER UR may further incentivize airline to fly on a costodrome. The cost allocation between ER and TANS be reviewed – encourage CAA to review it to try to ensure that ER unit cost moves up closer to EU average and terminal costs go down. Sample element that should be looked at is “Aeronautical Information” – the amount allocated to ER is decreasing, while amount	CAA indicated that possible changes to allocation will be looked at, including possible changes to allocation between TCZI and TCZII. PANSA clarified that the change in the % of AIS allocated to ER and TANS services since 2021 results from the workload related to certain processes. Following introduction of POLFRA the amount of work dedicated to ER procedures and related processes has been reduced – this leads to lower ER costs in respect of AIS. On the other hand development of airports in Poland, new infrastructure (both, at the airports and in their neighbourhoods, also including NAVaids), redesign of airspace around airports etc. leads to greater workload and thereby increase in costs for the terminal services. It was explained that following the above, the proportion of ER- and TANS-related cost has changed, what is now reflected in revised RP3 PP figures. (see also question XII 1 above). At the same time PANSA indicated that if there is a decision by regulatory bodies to change the allocation, PANSA will follow that decision.												

	allocated to TANSA increases – what is the reason for this change? Encourage CAA to look at this position and move back to previous allocation of these costs.	
6.	(PLL LOT) ATM related costs are rapidly increasing – there is little explanation in the PP on the breakdown of these costs.	It was explained that the increase in ATM costs results from staff costs evolution and cost of investments. For the investment costs – these are mostly investments in modernisation/development of the ATM systems, including upgrade of the currently used Pegasus_21 system, which is needed to accommodate changes in the Polish airspace and enable cross-border FRA operations and data exchange until the time when the new, modern iTEC system will be installed. With regard to staff costs the increase corresponds to planned slight increase in ATCO numbers needed to support development of PL airspace and meet capacity targets (both, during RP3 and beyond RP3) as well as to non-ATCO staff maintaining and developing the ATM systems.
7.	(IATA) The DUC reduction for ER should also apply to terminal services – we need to ensure we have a viable and affordable system. Modernization is supported but at the right cost level and the right time. We stress a need for CBAs for the main investments – some element of CBA were presented, what is appreciated. It is recognized that the PL Government decided on new STH – but in other States (Portugal, the Netherlands) we saw that decisions can change.	The dynamics of costs per service (ER/TANSA) derives from actions and projects undertaken for development of services in a given charging zone. For example, dynamics of C,N,S services is a direct consequence of infrastructure developments at each location, which then impacts depreciation, asset base, security, external services and other similar cost items. Therefore no direct comparison between ER and TANSA should be made. As indicated by the Stakeholder, for the major investments PANSA has undertaken cost-benefit analysis, results of which (expressed by NPV) are presented in the annex to the draft revised RP3 PP.
8.	Gdańsk Airport: The Gdańsk Airport representative expressed the opinion that Polish CAA and government are going in the wrong direction. Airspace Users, airports and tour operators are struggling every day for survival. Airports know that PANSA is in a bad situation. He recalled that few months ago, Minister Horała said that PANSA should ask shareholders for help. Why PANSA did not ask stakeholders for help? Airports are not PANSA shareholders, he underlined.	The COVID-19 pandemic has led to a significant decrease in air traffic negatively affecting the processes and measures for the implementation of the performance and charging scheme in the third reference period, including the setting of performance targets and unit rates. The assumptions adopted during the preparation of the draft PP RP3 (i.e. in 2019) are no longer valid, in particular with regard of traffic forecast. In light of the above EC concluded that in response to these unprecedented circumstances, it is necessary to revise the PP RP3 at the European level. The COVID-19 pandemic has undoubtedly had a negative impact on the entire aviation industry among others for air navigation service providers. Therefore the rise of air navigation charges is inevitable. This approach is also observed in other European countries. The analysis of CAA PL have shown that the planned average increase of the 2022 unit rates in Europe, in comparison to 2021, might be ca. 40%, while in some European countries the projected growth may even exceed 100%.

	He said that the current crisis is related to COVID. The current situation is related to the decisions taken by of government and the government should be responsible for the costs. Some governments are supporting ANSPs. There are no contraindications for the Polish government to do the same. If we are talking about solidarity, which is a very popular word in Poland, why does a passenger in Gdańsk have to pay 3 times as much as a passenger in Warsaw? In this context he requested to provide the information what are the costs of PANSA in EPGD?	Therefore, CAA PL is of the opinion that one of the possible measure to minimize the unit rates increase would be a direct financial support from the responsible authority at the European level. Additionally we put your attention to the fact that the action taken by the EUROCONTROL in the second quarter of 2020, to assist States and their ANSPs to cover the “minimum operating costs to maintain safety critical infrastructure during the period when airlines were unable to pay”, were focused solely on intermediation between Member States and lending institutions aimed to obtaining a debt financing.
XVIII. Written comments provided before the meeting:		
1.	Please explain why establishing of one terminal charging zone was not considered while requirement of 80,000 instrument flight rules (IFR) air transport movements per year in EPWA is no longer met and according to one of the Eurocontrol forecast scenarios will not be met by the end of the reference period.	In line with the provisions of the Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 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, the air transport movements per year threshold mentioned in the provisions of this Regulation is set as the sum of instrument take-offs and landings, calculated as the annual average for the three calendar years preceding the year in which the draft performance plan was to be submitted in accordance with art. 12 of the Regulation. Additionally it needs to be emphasized that the establishment of two terminal charging zones was the result of the consultation process with airspace users and PL airports representatives.
2.	Please indicate the legal basis regarding the terminal charging zones establishment that takes into account the requirement of 80,000 instrument flight rules (IFR) air transport movements per year.	There is no legal provision containing such requirement. The regulations in force at the national level set the following criteria for establishing terminal charging zones: 1) air traffic service is provided by at least one service provider common to airports which are to be covered by the zone; 2) the airports to be included in the terminal charging zone are similar by type and scope of air navigation services provided; 3) air navigation services to be provided at: (a) the airport to be included in the terminal charging zone, or (b) the airports to be included in the terminal charging zone - are included in the performance plan or the drafting of this plan, covering the period for which the zone is established.
3.	Please provide the amount of the theoretical unit rate assuming that there will be only one terminal charging zone in Poland in 2022.	Taking into account the data from the TNC-EPWA and TNC-OTHER reporting tables (Annex A to the revised draft PSD RP3 published on August 6, 2021) and the assumption that there would be one terminal charging zone in PL in 2022, the theoretical unit rate would amount to ca. 996.06

		PLN.
4.	Please indicate why there is such a huge difference between the unit rates in both terminal charging zones, despite the "similar type and scope of air navigation services provided".	As regards the reasons for the differences in the dynamics of changes of unit rates for both terminal charging zones the following should be taken into account: - different dynamics of cost changes – these relates particularly to staff costs (staff cost increase in TCZ II vs. relatively constant level of these costs for TCZ I – measures undertaken by PANSa aimed at limiting staff costs include resignation from special remuneration conditions for TWR EPWA ATCOs related to RAD, review of EPWA TWR employment plan and reduction of ATCOs remuneration over 2021-2023 as a result of application of Remuneration Scheme linking remuneration to traffic level served by a given unit – considering lower traffic levels; - the difference in the adjustment of the traffic risk sharing mechanism, reducing the unit rates in both terminal charging zones i.e. higher adjustment for TCZ I (-34% for 2022 and -15% for 2023) than for TCZ II (respectively -16% for 2022 and -11% for 2023).
5.	Please provide us with the explanation regarding the reasons of the different dynamics of cost changes between TNC I and TNC II	The dynamics of cost changes broken down into services in both terminal charging zones relates among others to ongoing activities being a part of air navigation services development process in the locations concerned. For example the dynamics of changes for C, N, S services is connected with the infrastructural changes being implemented in the locations concerned. These changes have a direct impact on cost among other on amortization, staff costs related to the maintenance of the devices concerned, security services. For this reason, it is not possible to easily compare the dynamics of costs changes broken down into services between both terminal charging zones.
6.	Please provide us with the updated information on PANSa planned investments, including their impact on the terminal unit rates (paragraph 15. point 1. of the Regulation of the Minister of Infrastructure of September 28, 2020 on air navigation charges and charging zones).	Information on planned investments was presented by PANSa at a meeting with the Regional Airports Association on June 30, 2021.

At the end of the meeting PL CAA President assured the participants that all their comments, questions and opinions had been duly noted. Despite the fact that the final decision lies with the minister responsible for transport, PL CAA President committed himself to close cooperation with PANSA and the Ministry of Infrastructure and pledged that he would do his best to convince the Minister to some more favourable – from the AU perspective – modifications of the Polish Performance Plan.

Polish Performance Plan Third Reference Period (2020-2024) Revision

Annex E. Investments

Based on definition in Article 2 point 13 of the *Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 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*, **12 investments have been currently identified as major investments for RP3** (i.e. their total value is above 5 million EUR in real terms 2017). All of them are to be carried out by PANSa.

Changes to initial RP3 performance plan dated 2019

Initial draft RP3 performance plan dated Nov 2019 identified 18 such investments. However, COVID-19 pandemic and related consequences for air traffic and financial position of PANSa led to necessity to review RP3 CAPEX plan. First verification was done already over Spring-Summer 2020, when PANSa has undertaken a complete review of CAPEX plan for the whole RP3 and beyond. The aim was on the one hand to look for possible savings in the level of expenditures, especially for the period 2020-2021, including possible postponement of projects (financial dimension of the review), and on the other to again validate the projects from the perspective of current operational needs and expected benefits, also in the light of expected changes to traffic levels (operational perspective of the review). As a result, the following groups of investment tasks were identified in 2020:

- investments aimed at ensuring service continuity and required level of service, which must be executed (priority tasks) – these include investments in ATM system, contingency infrastructure, elements of CNS infrastructure and investments related to flow management,
- investments subject to co-financing from public sources and covered by already concluded agreements which cannot be cancelled or suspended (e.g. LAN network, certain CNS infrastructure elements),
- investments which can be postponed without significant negative operational consequences (e.g. new PANSa HQ, some CNS elements incl. radiolocation infrastructure, virtualization of ATS at airports),
- investments, which despite being fully justified from the perspective of operational or financial benefits, can be suspended at least for the time being (e.g. Warsaw TWR or GBAS EPKK).

Moreover, restrictions related to the COVID-19 pandemic also impacted ability to execute some of the elements of the planned investments in line with initial schedules.

Following the comprehensive review of the investment plan in 2020, changes were implemented to a number of projects - some were cancelled, some were shifted in time, for some the scope has changed. As a consequence, the list of RP3 major investments has changed. This change was submitted to the NSA for approval and was subject to consultation with airspace users' representatives over Summer 2020.

During the works on revised draft RP3 performance plan, additional review of the CAPEX plan for RP3 and beyond was undertaken. It aimed at adjusting the schedule of expenditures as well as value estimated to current knowledge, including provisions of contracts concluded up to date, latest information from

contractors as well as considering actual 2020 expenditures and, where relevant, changes to exchange rate of PLN against EUR (where contracts are expressed in EUR).

Current RP3 plan dated 2021

Revised PANSA investment plan for RP3 reflects necessary and realistic level of CAPEX based on experiences from previous years and detailed analysis of investment needs and considers prospective financial position and liquidity of PANSA. It needs to be stressed, however, that considering the observed prices increase in construction market in Poland, value of certain investments might increase and actual expenditures may be higher than the current plan.

The current total value of PANSA CAPEX planned for RP3 equals to 966 388 kPLN (compared to 1 256 237 kPLN planed in the initial RP3 performance plan dated Nov 2019), out of which 927 320 kPLN is allocated to ANS (see table 2.1.1 in the performance plan). 84% of RP3 CAPEX is related to capacity.

To evaluate the major investments planned for RP3 and to assess their contribution to performance, PANSA has conducted updated benefit analyses with regard to the four key performance areas. For the purpose of quantifying the impact, based on detailed analyses of functionalities planned to be implemented and expected impact on performance, the 12 RP3 major investments were grouped into 3 groups.

Group 1:

- 01440701_Campus
- 21440701_ATM_OPS_Centre_Poznań
- IT430900_Modernization_of_the_ATM_system_2
- 03440701_iTEC
- 2440701_Communication_systems
- 06440701_VCS_system
- IT430404_Server_Business_Infrastructure

Group 2:

- IT430803_Radar_PSR/MSSR_Gdańsk
- IV440732_MLAT_system_for_FIR_Warsaw

Other:

- IT170202_Tower_at_the_Central_Hub_Airport
- IP470701_U-Space_Program
- IR470209_CWP_TWR

For groups 1 and 2 analysis of benefits and investment-related costs was performed jointly for all investments within each of those groups, resulting in calculation of Net Present Value (NPV) for these groups. As concerns group 1, all the projects within this group are closely interrelated and therefore it is not possible to conduct quantified analysis expressed in monetary terms for each of them separately – as some of the tasks are considered enablers for others any only joint execution of all tasks within this group will bring full expected benefits that can be quantified. As concerns group 2, there are also close links between the two projects, which together are aimed at ensuring service continuity through reduced risk of SUR coverage loss. For the three other investments individual analyses were performed.

In case of all calculations, the year 2015 was used as the base year (year 0, where flows are not discounted) – as first cash outflows took place in that year. Benefits start to be calculated from 2021

onwards. As for parameters, the ones recommended in EUROCONTROL Standard Inputs for Economic Analyses¹ were used. Exchange rates were based on European Central Bank data from July 2021. PANSA has used a long-term time horizon, considering EUROCONTROL latest traffic forecasts (where applicable, for 2041+ traffic at 2040 levels was assumed as constant). In addition, sensitivity analysis was performed by using Low/Base/High traffic scenarios. The calculated NPV takes into account the costs incurred by airspace users (instead of CAPEX) and benefits to airspace users.

The results of the financial analysis are presented below.

1) Group 1:

Traffic forecast	NPV (mPLN)
Low	3 454
Base	5 875
High	10 521

2) Group 2:

Traffic forecast	NPV (mPLN)
Low	8
Base	32
High	46

3) Tower_at_the_Central_Hub_Airport:

Traffic forecast	NPV (mPLN)
Low	6
Base	27
High	32

4) U-Space_Program²:

Traffic forecast	NPV (mPLN)
Low	14
Base	23
High	27

5) CWP_TWR:

Traffic forecast	NPV (mPLN)
Low	6
Base	16
High	19

¹ EUROCONTROL Standard Inputs for Economic Analyses - Edition 9, December 2020

² As the cost of the project is shared between TANS and non-ANS services, for the NPV purposes also related income from non-ANS activities was taken into account.

For group 2 (SUR infrastructure) additional quantification of financial consequences was based on assumed airport closure for 6 hours, 24 hours and 7 days. Financial consequence was calculated individually for each of the airports with radar approach. Results are presented below.

Duration of airport closure	EPWA (mPLN)	Regional airport ³ (mPLN)
6 hours ⁴	18-28	2-6
1 day	51	7-16
7 days	346	46-112

Results of the consultation of airspace users' representatives

Majority of the investments currently identified as major investments (except for Server Business Infrastructure and CWP TWR) were classified as major investments already in the initial RP3 performance plan dated Nov 2019 and were subject to consultation with stakeholders, including airspace users' representatives, over Summer 2019. During that consultation process information on the scope of the investments, main functionalities planned to be implemented and benefits expected in each of the four key performance areas, as well as calculated NPV for some of them, were presented to stakeholders. Following the consultation meeting organised on 22nd August 2019, comments on the investment part of the draft RP3 performance plan were received from IATA and LOT Polish Airlines. LOT Polish Airlines expressed their support to investments facilitating potential readiness of LOT Polish Airlines to become the main user of the new Solidarity Transport Hub, which constitutes strategic development project for Poland. IATA expressed appreciation for presentation of the scope, functionality and benefits of the main investments as well as the cost-benefit analysis, including net present value calculation results. At the same time IATA asked for some additional information on the benefits to be achieved already within RP3 – this information was provided to the Stakeholders in a letter dated 13th September 2019. Moreover, Ryanair in their letter dated 28th August 2019, asked for more details of the new major investments and for accompanying these with a cost-benefit analysis. As indicated above, information on the scope, main functionalities and benefits expected from the RP3 major investments was provided during the consultation meeting, which gave an opportunity to all stakeholders to ask additional questions – this was again communicated to Ryanair in Poland's response to the said letter. During the 2019 consultation process no final negative positions towards any of the investments proposed at that time in the draft RP3 PP was received.

Following the thorough review of the RP3 CAPEX plan by PANSA over Spring/Summer 2020 resulting from the COVID-19 pandemic outbreak, revised list of major investments was sent for consultation with airspace users' representatives in September 2020. Information provided at that time included changes to CAPEX values and schedules for their execution as well as clarification on the reasons for the changes. Following the consultation, comments to the proposed changes to the investment plan were received from LOT Polish Airlines and Lufthansa. During the consultations some questions were raised by these airspace users with regard to several investments, including Campus, U-Space Program, CWP TWR – the questions related mostly to changes to values of the projects or schedules for their execution. These questions were also considered by the NSA during assessment of revised CAPEX plan. Additional information on these changes was also provided in Monitoring Report 2020 for Poland, which was also sent to airspace users' representatives on July 9th 2021.

The outcome of the consultation on revised RP3 performance plan is provided in Annex C.

³ Depending on airport analysed.

⁴ Depending on scenario – assumed ATFM delays or full calculation of cost of holdings, diversions, cancellations etc.

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Annex F. Baseline values (cost-efficiency)

1. Baseline value for en-route cost efficiency targets (Reference to tab. 3.4.1. c.3) in PP)

In accordance with point 3.3(c) of Annex II of *Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 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*, the draft Performance Plan should contain substantiated information in respect of the baseline values used for performance target setting for the calculation of the local cost-efficiency targets. Those baseline values are to be set in accordance with point (a) of Article 10(2) of above mentioned Regulation, including description and justification of the methodology used to estimate those values for each charging zone.

According to the recital (21) of the preamble to *Commission Implementing Decision (EU) 2021/891 of 2 June 2021 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* the Union-wide baseline values for RP3 contained in Implementing Decision (EU) 2019/903 were set on the basis of estimates and forecasts regarding costs and traffic, in the absence of actual data for calendar year 2019. Taking into consideration the data known at the current submission, those baseline values should be revised in order to accurately reflect the actual costs and service units recorded for 2019 on a Union-wide level.

Moreover, the European Commission's services statement delivered during discussions on revised Union-wide RP3 targets indicates that local baseline values established on the basis of the actual costs and traffic of calendar year 2019 may be adjusted to reflect relevant changes between the reference periods.

In the light of the above, Poland revised baseline values to reflect the actual costs and service units recorded for 2019 and decided to continue the methodology applied for the calculation of baseline value, considering also necessary adjustments aimed at ensuring comparability of baseline values with RP3 determined costs/unit cost. In connection with the above, the methodology presented in this document is convergent with the one applied in the former PP RP3 project (i.e. in the project submitted to the European Commission in November 2019).

Based on the above, the level of *en-route* baseline value for Poland in real terms is equal to 866.7 million PLN₂₀₁₇ (888.3 million PLN in nominal terms) and the DUC apportionment between institutions stands as follows:

$$\text{Baseline value}_{\text{en-route}} = \mathbf{174.76 \text{ PLN}} \left\{ \begin{array}{l} \text{PANSa} = 156.11 \text{ PLN (89.3\% share of BV)} \\ \text{IMWM} = 5.45 \text{ PLN (3.1\% share of BV)} \\ \text{EUROCONTROL} = 10.68 \text{ PLN (6.1\% share of BV)} \\ \text{NSA} = 1.66 \text{ PLN (1.0\% share of BV)} \\ \text{Radom Meteo} = 0.16 \text{ PLN (0.1\% share of BV)} \\ \text{Warmia i Mazury} = 0.41 \text{ PLN (0.2\% share of BV)} \\ \text{PL Bydgoszcz} = 0.29 \text{ PLN (0.2\% share of BV)} \end{array} \right.$$

For calculating *en-route* baseline values the actuals for 2019 were taken into account, nevertheless some additional adjustments needed to be done. The proposed baseline value is higher than the actuals for 2019 (163.92 PLN), as we are aware that these figures shall present the actual situation in RP3 and also the circumstances concerning setting final figures for the last year of RP2 PP (stemming from the decisions made in revision of the en-route part of PP RP2 for the years 2017-2019).

Going further, it has to be underlined that the cost of capital rate applied in actuals for 2019 does not reflect risk incurred by PANSA and should not be considered as a reference point for RP3. It needs to be stressed that the WACC for 2019 in the revised RP2 PP was established artificially at the level not reflecting financial risk of running an ANSP business – the rate of 1.38% was much below even the risk-free rate for Poland in 2019 and in RP3. The artificial lowering of the rate was done solely to achieve negative ER DUC trend over RP2. Poland holds the view that WACC rate applied for baseline value calculation for RP3 should reflect the efficient rate calculated in line with Steer Davies Gleave (SDG) methodology of 2014, as used in the revised RP2 PP for the period 2017-2018 (7.81%) which was approved by the EC. This approach would guarantee comparability of figures over RP2 and RP3 period and would reflect provisions of the EU Charging Scheme. Nevertheless, taking into consideration current market situation and EC recommendations, NSA decided to reduce this value to the level that represents the average value of the WACC planned by PANSA for RP3 (5.72%). In our opinion this approach reflects current risk of running business by PANSA and is fully in line with EC expectations.

What is more, the main MET service provider (IMWM) reduced the scope of services provided since January 2020. The reduction of the scope of the MET service provision applies to EPBY area which was handed over to PL Bydgoszcz. Thus, to ensure comparability of 2019 figures with the RP3, the negative adjustment to the costs underlying BV calculation for IMWM was made.

As for the other, so called ‘small ANSPs’ (Radom Meteo, Warmia i Mazury, PL Bydgoszcz – en-route MET providers at the regional airports), the baseline value for them was previously calculated using the actual average 2018 hour cost of service provision and adjusted to the planned average hours of service provision per day in RP3. To ensure data comparability, the same methodology was applied by using now the actual average 2019 costs (as actuals for 2019 are already available).

Referring to Warmia i Mazury, the adjustment is stemming from the increase of planned scope and time of service provision for this ANSP in RP3 (24h) at EPSY airport. Additionally, it has to be underlined that according to the EC decision upon the inclusion of EPSY airport in the middle of RP2, the MET service costs of WiM were allocated only to TNC area – in the current submission ER BV 2019 is adjusted by adding respective 2019 costs applicable to ER area, again to ensure comparability of 2019 BV with RP3 figures (terminal 2019 BV was respectively adjusted downwards by the costs applicable to ER). Referring to the Radom Meteo, the adjustments are stemming from the increase of planned time of services provision for Radom Meteo in RP3 (24h) at EPRA airport and the fact of EPRA closure for renovation in 2019. When it comes to PL Bydgoszcz, it should be indicated that it is a new entity without any historical costs and the baseline value for this ANSP was previously based on the average cost of similar MET providers in 2018. To ensure data comparability, the same methodology was applied for this submission, using now the actual average 2019 (as actuals for 2019 are already available). To ensure that no double counting takes place, IMWM costs underlying 2019 BV calculation were adjusted downwards, as explained in paragraph above. As the adjustments for the so called ‘small ANSPs’ may seem complicated, it has to be underlined that the sum of their final baseline values equals only to 0.86 PLN₂₀₁₇ (0.5% of baseline value for Poland), which is immaterial in the terms of general calculation and was done mainly for the local needs of NSA to have the proper view and tools to enforce cost-cutting of every ANSP to the appropriate levels.

What is more, it has to be clearly underlined that EUROCONTROL costs are beyond Poland’s control. As the EUROCONTROL costs are expressed in EUR, the adjustment to the BV should reflect increase in exchange rate of EUR/PLN forecasted for RP3 as compared to actuals for 2019, to the growth of which contributed, among others, the outbreak of the COVID-19 pandemic. Analyses have shown that the EUROCONTROL costs planned for RP3, assigned to PL cost base may not be in line with Union-wide cost-efficiency targets, what has a negative impact on the cost efficiency target for Poland. NSA analyses show that the fair value of the adjustment should be equal to ca. +1.9 million PLN, but at this stage Poland decided not to include it in baseline value calculation.

With regard to NSA, no additional adjustments were made.

2. Baseline value for terminal cost efficiency (Reference to tab 3.4.2. c) in PP)

As for terminal charges, NSA was obliged to prepare the calculation of baseline value both for I Terminal Charging Zone (including only EPWA airport) and II Terminal Charging Zone (including 14 regional airports). The main idea concerning the calculation for terminal baseline values is consistent with the en-route – NSA has taken into account the actual costs for 2019 and provide the adjustments consistent with the methodology used for the en-route part of the PP.

Additionally, it should be noted that terminal part of PP for RP2 was not agreed to be included in the RP2 PP revision process and therefore the actuals for 2019 do not represent the real level of risk for this year. Moreover, over RP2 terminal ANS in Poland were exempted from traffic risk sharing, while the Performance and Charging Regulation applicable for RP3 (Regulation 2019/317) does not allow for continuation of such exemption in RP3. Therefore, to ensure comparability of data for 2019 with RP3, the increased risk stemming directly from changes to EU regulation, must be duly reflected in the baseline value for RP3. Considering the above NSA has decided to make an additional adjustment in this regard concerning the cost of capital (PANSA's factor) by increasing this value to the level that represents the average value of the WACC planned by PANSA for RP3 (5.72%) similarly to the en-route part. This approach reflects current risk of running business by PANSA. For the calculation of terminal baseline values (both for I and II TCZ) for NSA, the actuals for 2019 has been used.

Referring to IMWM – in I TCZ no adjustments were made, and as far as II TCZ is concerned, in order to ensure comparability of 2019 figures with the RP3, the negative adjustment to the costs underlying BV calculation was made in connection to the reduction of the scope of MET service provision at EPBY area, since January 2020. As for the 'small ANSPs' (Radom Meteo – MET provider at EPRA, Warmia i Mazury – AFIS, COM and MET provider at EPSY, PL Bydgoszcz – AFIS and MET provider at EPBY), the baseline values were calculated basing on the actual average 2019 cost per hour and adjusted to the planned average hours of service providing per day in RP3. What is more, as PL Bydgoszcz is the new entity without any historical costs, therefore the baseline value for this ANSP was based on the average cost of similar AFIS and MET providers. It has to be underlined, that the sum of the baseline value components for 'small ANSPs' equals to 51.02 PLN₂₀₁₇ (6.0% of baseline value for Poland in II TCZ) which does not have a significant impact in the terms of general calculation.

Based on the information listed above, the level of TNC-EPWA baseline value for Poland is equal to 43.7 million PLN₂₀₁₇ (45.0 million PLN in nominal terms) and the DUC apportion between institutions stands as follows:

$$\text{Baseline value}_{\text{TNC-EPWA}} = 405.62 \text{ PLN} \left\{ \begin{array}{l} \text{PANSA} = 380.98 \text{ PLN (93.9\% share of BV)} \\ \text{IMWM} = 13.24 \text{ PLN (3.3\% share of BV)} \\ \text{NSA} = 11.40 \text{ PLN (2.8\% share of BV)} \end{array} \right.$$

Based on the information listed above, the level of TNC-OTHER baseline value for Poland is equal to 118.0 million PLN₂₀₁₇ (121.1 million PLN in nominal terms) and the DUC apportion between institutions stands as follows:

$$\text{Baseline value}_{\text{TNC-OTHER}} = 851.85 \text{ PLN} \left\{ \begin{array}{l} \text{PANSA} = 678.86 \text{ PLN (79.7\% share of BV)} \\ \text{IMWM} = 99.76 \text{ PLN (11.7\% share of BV)} \\ \text{NSA} = 22.21 \text{ PLN (2.6\% share of BV)} \\ \text{Radom Meteo} = 8.45 \text{ PLN (1.0\% share of BV)} \\ \text{Warmia i Mazury MET} = 10.90 \text{ PLN (1.3\% share of BV)} \\ \text{Warmia i Mazury AFIS + COM} = 10.25 \text{ (1.2\% share of BV)} \\ \text{PL Bydgoszcz MET} = 14.68 \text{ PLN (1.7\% share of BV)} \\ \text{PL Bydgoszcz AFIS} = 6.74 \text{ (0.8\% share of BV)} \end{array} \right.$$

3. Conclusions - adjustments to the 2019 baseline value for the determined costs (Reference to tabs 3.4.1 c.3), 3.4.2 c.3) in PP) in nominal terms

In a view of European Commission expectations regarding the baseline values to be presented in nominal terms, the appropriate values with justification were presented in tables below. Additionally, the comparison to actuals for 2019 in nominal terms was made mainly for presentation purposes. The presented baseline value for en-route area is equal to ca. 888.3 milion PLN in nominal terms and the deviation between the baseline values and actuals for 2019 is ca. 51.8 milion PLN in nominal terms.

Table 1. En-route charging zone – adjustments to the 2019 baseline value for the determined costs [kPLN, nominal terms].

Nature	Entity type	A2019	BV2019	Diff.	Diff. [%]
Staff costs	ANSP	526 489	526 489	0	0,0%
	MET	7 360	8 313	953	12,9%
	ECTL	0	0	0	-
	NSA	5 624	5 624	0	0,0%
Other operating costs	ANSP	113 964	113 964	0	0,0%
	MET	21 160	22 778	1 618	7,6%
	ECTL	52 967	52 967	0	0,0%
	NSA	2 624	2 624	0	0,0%
Depreciation	ANSP	89 719	89 719	0	0,0%
	MET	833	1 034	201	24,1%
	ECTL	0	0	0	-
	NSA	0	0	0	-
Cost of capital	ANSP	15 603	64 662	49 059	314,4%
	MET	144	155	11	7,7%
	ECTL	0	0	0	-
	NSA	0	0	0	-
Total		836 486	888 327	51 842	6,2%

Source: Own elaborations.

Additional adjustments were made with regard to baseline value for I TCZ, thus the baseline value is equal to ca. 45.0 milion PLN in nominal terms and the deviation and the difference to actuals for 2019 is ca. 0.9 milion PLN. As far as baseline vales for II TCZ is concerned, it is equal to ca. 121.1 milion PLN in nominal terms and the deviation and the difference to actuals for 2019 is ca. 6.3 milion PLN.

Table 2. I TCZ – adjustments to the 2019 baseline value for the determined costs [kPLN, nominal terms].

Nature	Entity type	A2019	BV2019	Diff.	Diff. %
Staff costs	ANSP	31 897	31 897	0	0,0%
	MET	293	293	0	0,0%
	NSA	838	838	0	0,0%
Other operating costs	ANSP	4 828	4 828	0	0,0%
	MET	1 182	1 182	0	0,0%
	NSA	391	391	0	0,0%
Depreciation	ANSP	3 329	3 329	0	0,0%
	MET	0	0	0	-

	NSA	0	0	0	-
Cost of capital	ANSP	1 367	2 219	853	62,4%
	MET	0	0	0	-
	NSA	0	0	0	-
Total		44 126	44 979	0	1,9%

Source: Own elaborations.

Table 3. II TCZ - adjustments to the 2019 baseline value for the determined costs [kPLN, nominal terms].

Nature	Entity type	A2019	BV2019	Diff.	Diff. %
Staff costs	ANSP	61 497	62 697	1 120	2,0%
	MET	4 555	5 104	549	12,0%
	NSA	2 097	2 097	0	0,0%
Other operating costs	ANSP	14 971	16 017	1 045	7,0%
	MET	12 577	12 529	-48	-0,4%
	NSA	979	979	0	0,0%
Depreciation	ANSP	11 972	12 120	148	1,2%
	MET	1 004	1 244	239	23,8%
	NSA	0	0	0	-
Cost of capital	ANSP	4 960	8 086	3 126	63,0%
	MET	222	224	2	0,9%
	NSA	0	0	0	-
Total		114 835	121 096	6 261	5,5%

Source: Own elaborations.

4. Summary

Considering the presented explanations, the local baseline values are in our opinion consistent with EU regulations i.e. article 10(2) a) of Regulation 2019/317, as well as with recital (21) of preamble to the Commission Implementing Decision (EU) 2021/891. The provisions stemming from Commission Implementing Regulation (EU) 2020/1627 of 3 November 2020 on exceptional measures for the third reference period (2020-2024) of the single European sky performance and charging scheme due to the COVID-19 pandemic were also taken into consideration. The calculation of baseline values reflects the actual costs and services units recorded for 2019 also including additional adjustments with reference to RP3 situation that are aimed at ensuring consistency and comparability of BV with RP3 costs (to reflect relevant changes between the reference periods as indicated by Commission's services in their statement from the Appeal Committee when revised RP3 Union-wide targets were agreed). Last but not least, it should be emphasized that NSA decided only to include some adjustments in order to not increase the gap between 2019 actuals and BV, nevertheless we believe that the other adjustments described in the document should also have been taken into account and are fully justified.

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Annex I. Parameters for the mandatory capacity incentives

Incentive scheme

PL CAA has established an incentive mechanism for the en-route capacity target and the arrival terminal capacity target as presented in part 3.3.1 and part 3.3.2. All targets were set on national level. The financial advantage or disadvantage from those incentive schemes shall be calculated on as a 0,5 % of the determined costs of year n of PANSa and recovered from (reimbursed to) airspace users through an increase (reduction) of unit rate respectively in year n+2.

En-route capacity

The en-route capacity target of 0.12 min/flight for year 2022 complies with the reference value presented in the PRB document “Advice on the revision of performance targets for RP3” published in March 2021. The incentive mechanism for en-route targets will be modulated in accordance with NOP published in November year n-1.

Dead band is set in symmetrical range 0,20 % around the pivot value, in which the actual ATFM delay does not lead to any bonuses or penalties.

The level of delays for which maximum bonus or penalty are to be applied is set automatically based on the Commission Implementing Decision (EU) 2021/ 891 setting revised Union-wide performance targets for the air traffic management network for the third reference period and repealing Implementing Decision (EU) 2019/903. For year 2022 it is set at value 0,07 min/ flight for Maximum bonus and 0,17 min/ flight for maximum penalties.

Terminal capacity

The incentive scheme for terminal capacity was set on state level on average arrival ATFM delay per flight. The incentive mechanism applies a modulation mechanism of terminal pivot values in accordance with points (c)(ii) of Article 11(3) will calculate the delay causes attributable to the ANSP 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.

The modulated pivot value is calculated based on traffic and capacity simulation, since the traffic level in pandemic period 2020-2021 is not representative so the pivot value will be based on the forecast of terminal delays prepared by PANSa and current data available.

	2022	2023	2024
Target	0,21	0,24	0,23
Pivot value	0,07	0,05	0,04
PV/ total delay	33%	21%	17%

Dead band for terminal incentive scheme is set in symmetrical range 20 % of the pivot value, in which the actual ATFM delay does not lead to any bonuses or penalties. The value of the alert threshold determines the level of delays for which maximum bonus or penalty are to be applied. For year 2022 it is set at value 0,035 for maximum bonus and 0,105 for maximum penalties.

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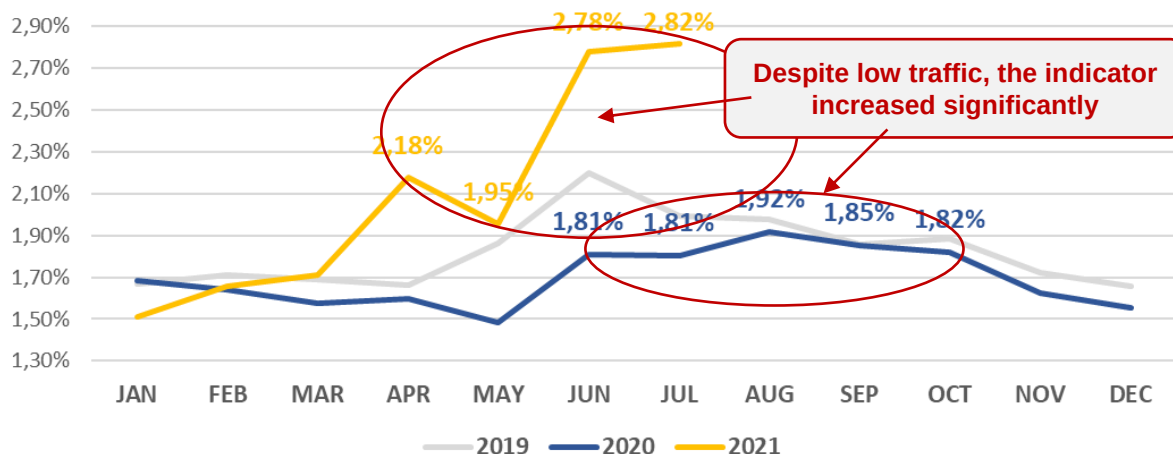
Annex P. Justifications for the local environment targets

Environment – main factors influencing KEA independent of PANSAs

As shown by the experience gathered so far during RP2 (2015-2019), as well as RP3 (2020, 2021), the value of the KEA indicator is influenced by numerous external factors. Many of them are independent of ANSP. It should be also underlined that the KEA environmental indicator is in some sense not enough sensitive to air traffic fluctuation. For example, despite a significant decrease in traffic, in the period June-October 2020, the horizontal flight efficiency indicator for the actual trajectory on a monthly basis (HFE) – closely correlated with the KEA – increased significantly as compared to earlier 2020 months. The analysis showed that this was related to the decisions of airspace users, in particular, with flights that decided to fly over Poland instead of a more direct route (e.g. flights related to military missions, flights avoiding certain areas, e.g. conflict areas – Ukraine, MIL/State flights avoiding Kaliningrad airspace, goods from East Asia, possibly carrying medical equipment to Europe).

The deviations in the length of the actual trajectory compared to the length of the allocated great circle resulted in a significant increase in the indicator in the Summer 2020. Similarly, in 2021, a significant increase in the indicator has been noticeable since March. It needs to be underlined that for the above traffic flows the trajectory inside Poland is almost straight and the additional distance is coming from the overall trajectory inefficiency.

Poland – HFE (actual trajectory) in the years 2019-2021



Source: Own elaboration based on EUROCONTROL/PRU.

The KEA indicator for Poland is mainly influenced by external factors. Route Availability Document (RAD) trajectory data used to analyse KEA's performance for individual movements indicate that these are mainly by:

1. **Weather conditions** – weather phenomena have a major impact on aviation operations and they impact flight efficiency. The most important ones are wind, turbulence, precipitation (rain, snow); and their intensity and frequency. For example, ATFM regulations due to storms are quite frequent during the summer season, directly impacting airspace capacity and flight efficiency.
 - Wind: Some, typically long haul routes tend to operate on routes that are not necessarily the shortest ones, but allow the flight to benefit from feasibly oriented jet stream. So, despite not being the shortest ones, flights tend to get to their destination faster while burning less fuel.

- Storms: Thunderstorms or snow storms can have disruptive impact on aviation, causing closure of routes and significant volumes of airspace, forcing aircraft operators to fly around these areas.

The example of weather conditions influence on KEA: Due to storms, the KEA indicator reached even 5% in June, examples of bypassing storms (red line – flight plan, green line – actual route, flights on June 20th 2021):



Source: NEST/EUROCONTROL.

Note:

Impact of weather is not reflected in the current definition of KEA metric.

2. Geopolitical location – external geopolitical factors affecting KEA include the following:

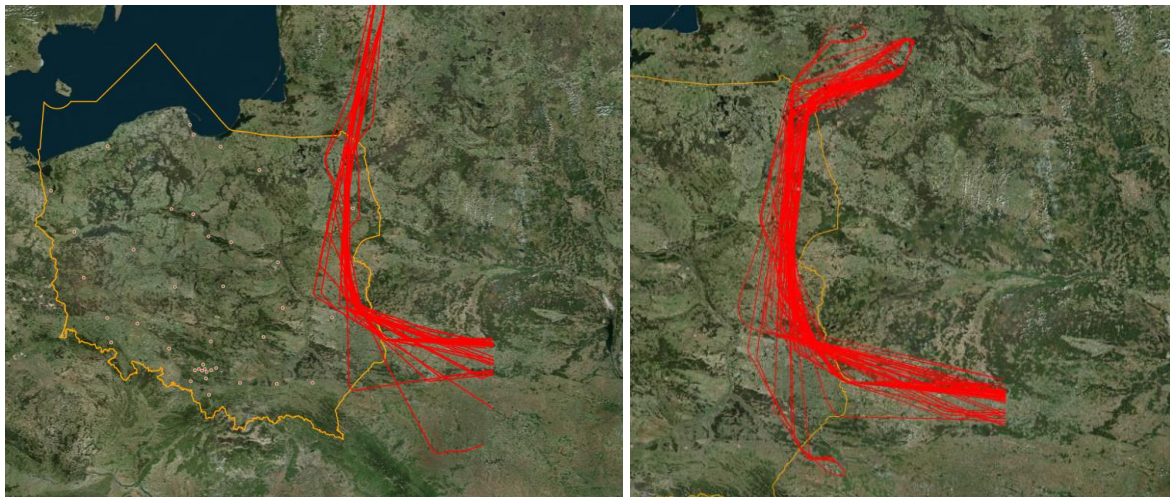
- Airlines registered in Russia are not allowed to fly via Ukrainian airspace and instead, they often fly through Poland. Due to the concept of „achieved distance”, that works as a function of the great circle distance between Origin and Destination, the resulting KEA for these flights measured in EPWW is significantly above the average.
- During periods of Donetsk airspace closure (a continuous closure from 2014 until now), the traffic (to/from far East) is shifted to the South in order to avoid the Ukrainian airspace and the airspace above the significant part of the Black Sea (Simferopol FIR). Again, this has an impact on KEA that cannot be mitigated by Poland itself.
- Crimea: a part of the Black Sea area is officially under the sovereignty of Ukraine (Simferopol FIR) but claimed by Russia to be controlled by Russia. Most of the airlines therefore prefer to avoid this airspace via South Europe. Part of flights previously planned via Simferopol FIR

and Poland to/from Scandinavia are now flying via Bulgaria, Romania, Hungary, Slovakia/the Czech Republic and then via Poland. Rest of this flow to/from the western Europe (e.g. Amsterdam) is now completely avoiding the Polish airspace (after avoiding the Ukrainian airspace routing via Poland would increase distance).

- Kaliningrad airspace: airlines flying through this area need to provide details (e.g. names of the passengers on board, ID numbers) to Russian authorities. As such data is not collected on Schengen flights, European airlines (e.g. SAS) are avoiding this area and prefer to fly via Poland and/or Baltic states.
- Belarus airspace: similarly as in the case of Ukraine above, following the incident with Ryanair flight on May 23rd 2021, EU air carriers are advised not to fly via Belarus airspace, what for a number of connections means flying longer routes.

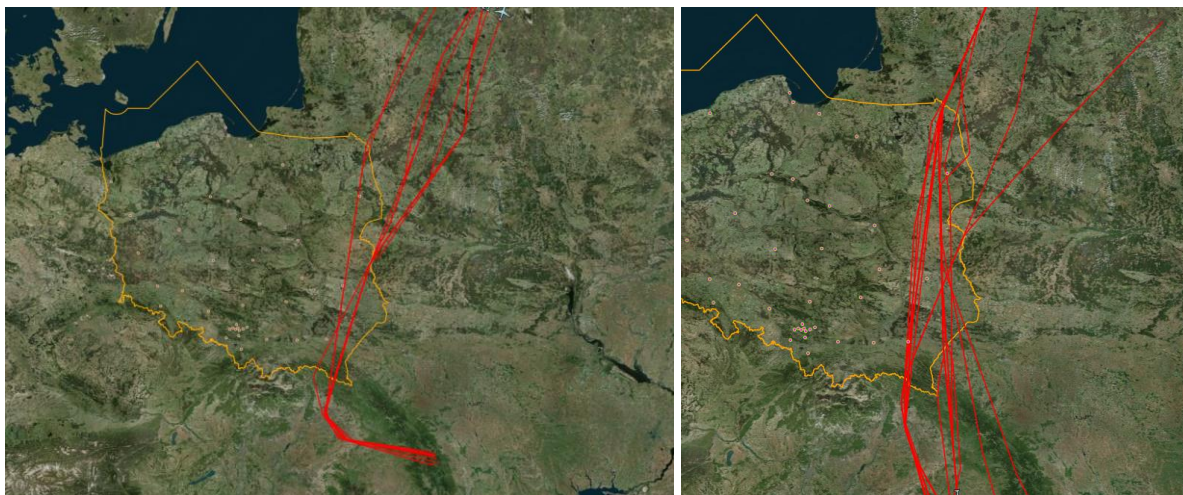
Below there are examples of influence of the geopolitical location on the traffic:

- examples of bypassing Belarus – following the incident with Ryanair flight on May 23rd (in June KEA indicator even reached 36%), Ukraine – Lithuania / Latvia / Estonia / Finland routes:



Source: SERIS/PANSA.

- examples of bypassing Ukraine (Russian airlines bypassing Ukraine) – in June KEA indicator even reached 40% (additionally, the increase in the KEA indicator was influenced by the increased holiday traffic from Russia to the South), Russia – South of Europe routes:



Source: SERIS/PANSA.

3. Decisions of airspace users:

- Cost-optimised routes: as the overarching goal of airlines is to make profit, cost- optimised routes are preferred to shortest (most efficient) routes regardless of availability of free route airspace in the given area. There are many factors that enter the decision-making formulae of the airlines, these do not only include fuel and charges. ANSPs should be evaluated on the basis of what route structure they offer to airspace users, not based on what routes airspace users decide to use.
- Charging schemes: differences in costs of ANS provision lead to different ANS charges applied to flight crossing multiple airspaces. This gives aircraft operators a freedom to plan and operate the route in a way that would avoid overly expensive sectors, despite having to fly potentially longer trajectories in cheaper sectors. Big differences between ANS charges influence airlines' decisions.
- Weather-optimised routes: similarly to cost-optimisation, airline planning allows for optimisation of trajectory with regards to expected weather. So, for example, instead of flying the shortest route (against wind), airline may choose to operate on a longer route where the winds are favourable to the direction of flight. Even if such a trajectory is longer (and seems less efficient using KEA metric), the real environmental footprint of such flight can be in fact smaller than the one of a flight that operated on shortest route (and against the wind). This is possible thanks to reduction in flight time (when flying with wind) and associated decrease in fuel burned/emissions produced.
- Flight planning: airline flight planning affects flown routes as the main factor, which is visible especially on longer routes, where the focus is on minimum cost or time, not minimum distance. Also, the airlines flight planning systems do not always make full use of various tools and techniques facilitating re-routing and do not enable a full exploitation of conditional routes (CDRs) and/or FRA. PANSAs therefore cannot influence the route selection which can affect its ability to manage their performance against the KEA metric.

It should be borne in mind that airspace users planning and tactical decisions made during execution of the flight have a greater impact on KEA than the availability of direct routes. Although PANSAs offer free-route airspace, it does not guarantee a reduction in the KEA indicator.

4. Airspace capacity (outside EPWW), Network measures – sharing a boundary with one of the busiest and most complex airspaces in Europe, the Polish KEA is dependent also on capacity and staffing issues in Germany and other neighbouring countries:

- Capacity and staffing issues outside EPWW (in neighbouring FIRs) have a potential to affect KEA performance in Poland. As an example, a flight from Asia to the UK may wish to avoid flying around congested German airspace and therefore its entry points to/from Poland are shifted accordingly. This results in different KEA measured for this flight.
- Network measures: to mitigate bottleneck areas within Europe, capacity enhancement measures have been developed by the Network Manager (NM) and executed both at a strategic level, by implementing re-routings or level caps to mitigate constrained ACCs, and at a tactical level for example through measures to reduce the impact of unexpected bad weather conditions. A different set of measures were applied in the summer of 2018 (4ACC) and since April of 2019 (eNM). Although this leads to a decrease in en-route delay at European network level (and post-ops adjustments allow NM to re-allocate delay resulting from eNM measures), there is currently no available study/mechanism that would quantify/redistribute additional distances flown in each country as a result of implementation of the NM measures.
- Re-routing constraints are propagated either through the Network Manager (resulting in

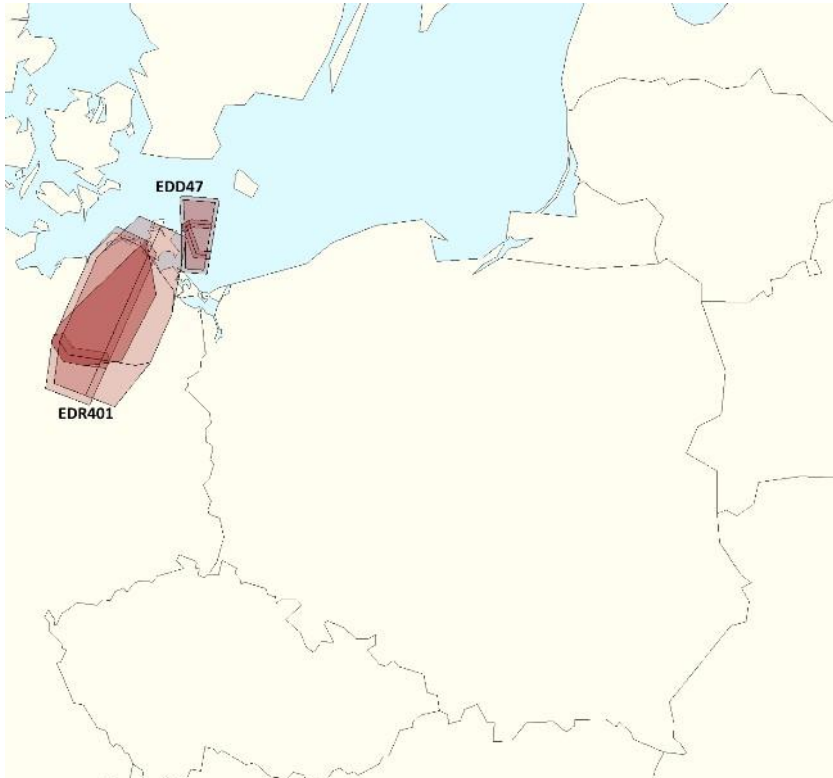
changes to flight plans) or on a tactical nature (such as STAM re-routing). Both constraints can have an impact on the horizontal flight efficiency metric.

5. **Restricted** airspace:

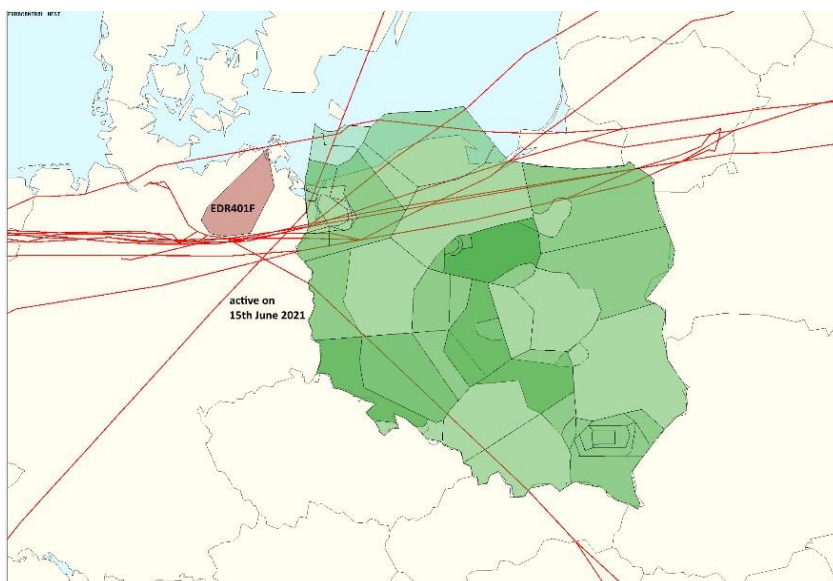
- Military operations outside EPWW: when large military areas outside EPWW are activated for a prolonged duration (a couple of hours, day, etc.), these closures affect traffic flows to/from Poland and influence trajectories flown.

Below there are examples of military areas outside EPWW and their impact on flight trajectory in EPWW (source: NEST/EUROCONTROL):

German zones – location:



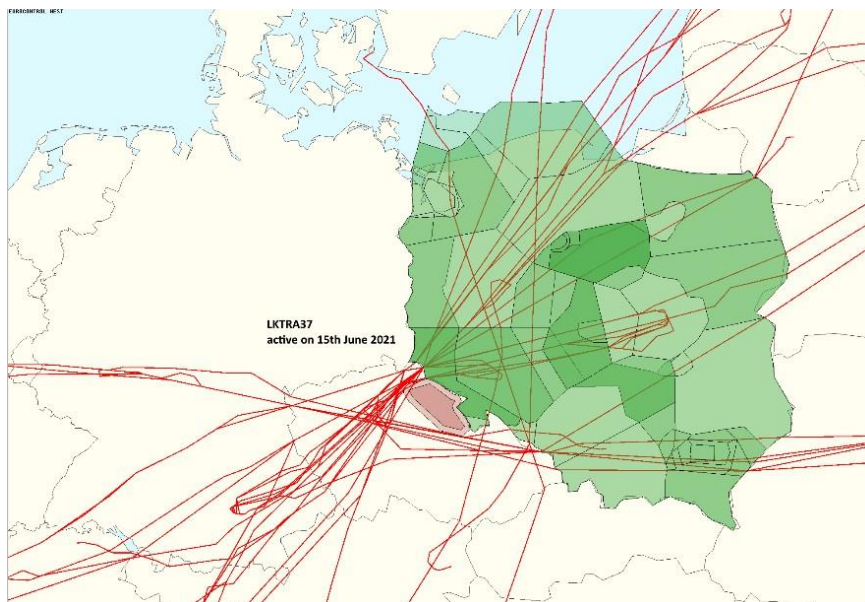
German zone – impact on a sample day:



Czech zone – location:



Czech zone – impact on a sample day:



Polish Performance Plan
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Revision

Annex Q. Justifications for the local capacity targets

En-route ATFM delay per flight:

There is no inconsistency between National reference values and National targets for 2021-2024.

The pivot values will be used for the purpose of calculating the financial advantages or disadvantages. The local CAPACITY pivot values for 2023–24 will be developed based on latest European Network Operations Plan.

The National reference values are based on the PRB document “Advice on the revision of performance targets for RP3” from March 2021 and analysis based on NEST tool simulation, referring to the data from 2019.

Available for the time being NOP Rolling Seasonal Plans are a specific version of the NOP covering the short period and do not present breakdown values for en-route capacity/delays. The European Network Operations Plan covering the period 2022–2026 is currently prepared and will be presented for approval in Autumn 2021. So all the above documents couldn't be taken into consideration while setting the targets in current plans.

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

A set of measures focused on the positive impact on the capacity performance includes the following actions:

- 1) In the staffing area:
 - continuation of new ATCOs training:
 - over 2020-2021 continued training process for trainees employed before the pandemic outbreak, while plans for additional recruitments to start 2020+ were suspended/revised, considering lower traffic levels expected by end of RP3 as well as difficulties related to training caused by low levels of traffic and COVID restrictions,
 - over 2022+ required increase in ATCO numbers as a result of planned airspace changes – new recruitments to start end 2022;
 - flexible staff planning during traffic peaks;
 - flexible roster responding to traffic complexity and week/weekend demand;
- 2) In the airspace area:
 - increasing No of sectors opened + extended hours of opening more sectors;
 - implementation of third layer of vertical split of ACC sectors within area of responsibility of Warszawa ACC (sectors JR in 2022, sectors TC in 2023);

- reorganisation of lower airspace in Poland (including TMAs) in order to optimise airspace configuration – 2022/2024;
 - evolving ACC sector configurations and management to cope with updated STATFOR traffic forecast;
 - development of FRA – successive introduction with neighbouring ANSP - Cross Border FRA;
- 3) In operations area
- adaptation of the air traffic management system to operational needs and modernisation of the ATM System;
 - improvement of comprehensive airspace management;
 - development of tools supporting ATCOs and flow management optimisation (including Traffic Complexity Tool);
 - continued investments in infrastructure (CNS) and technology allowing optimisation of airspace structures and optimisation of coverage in the Polish airspace as well as supporting contingency – current investment plan is described under investment part of this PP;
 - ATFCM techniques including STAM – less sectors overload;
 - FMP dynamic management: reaction on “core area” – tactical reduction of delays, closer cooperation with AUs, dynamic capacity/occupancy management, offload rerouting scenarios;
 - full implementation of A-CDM, continued improvement of AMAN at Warsaw Chopin airport, implementation of local CDM in regional airports.

ATFM arrival delay per flight:

There are a lot of factors influencing the ATFM arrival delays forecast in FIR EPWW. In the case of TMA Warszawa and TMA Kraków, limitations of airport capacity and the rapid increase in traffic expected from 2022 may cause accumulation, and thus generate delays. In addition, the introduction of changes in the airspace and TMA Kraków capacity in the summer of 2022 – until the operational staff will have gained experience – may require a reduction in capacity during the transition period, which will result in the arrival delays in EPKK, EPKT airports in and possibly EPRZ.

Also, core night at EPWA airport can increase inbound and outbound traffic during the morning and evening rush hours, which could result in delays. The estimate level of delays was increased in the years 2022–2023 compared to 2020–2021 due to the possible increasing complexity of traffic.

A significant increase in military air traffic at TMA EPPO may result in delays for the EPPO airport due to the need to impose restrictions on civil traffic.

In addition, large military exercises have been set up at least once a year since 2022. Historical record is no more than 1,200 minutes of delay. The annual aviation parade will be organised in the years 2022–2024. It will result in closure of EPWA and EPMO for the duration of the event, which is historically around 2,000 minutes of delays to both airports.

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

Plans for the following years of RP3 include, among others:

- reorganisation of ACC Warszawa sector configuration - three layer vertical division - to be implemented under staged approach with the start in 2022/2023 (implementation postponed as compared to earlier plans due to traffic reduction following COVID-19 pandemic),
- reorganisation of TMA Kraków in 2022 – new sectors, new SID/STAR procedures,

- continuation of training process for new ATCOs (required increase in ATCO numbers as a result of planned airspace changes – new recruitments to start end 2022),
- refreshment training for current ATCOs to maintain their competence following the 2020-2021 significant traffic drop,
- continued investments in infrastructure (CNS) and technology allowing for optimisation of airspace structures and optimisation of coverage in the Polish airspace as well as supporting resilience, scalability and flexibility of service provision,
- continuation of flexible rostering,
- evolving ACC sector configurations and management to cope with updated traffic forecasts,
- continued FMP dynamic management,
- improvement of comprehensive airspace management.

Polish Performance Plan

Third Reference Period (2020-2024)

Annex R. Justification for the local cost efficiency targets

1. General information

Macroeconomic forecasts

1.1. Gross Domestic Product

The coronavirus (COVID-19) crisis has hit the economy growth of the Republic of Poland. After a long time of its stable growth, GDP dropped sharply in 2020 and is expected that the recession will have a long-lasting consequence. Following the decline of 2.7% in 2020, GDP is projected to recover by 3.5% in 2021 and to grow by 4.6% in 2022. This means that the level of %GDP growth is expected to be recorded below the level observed during the second half of the RP2. The expected GDP growth for each year of the RP3, based on forecasts from the International Monetary Fund is presented in the table below. For comparison, the table contains also the GDP's assumptions used for drafting the Polish PP for the RP2 (including its revision in the area of route charges for period 2017-2019) as well as the actual GDP growth for period 2015-2020 announced by EUROSTAT. The table also contains the GDP's values (actual for 2017-2020 and forecasted for the coming years) as officially announced in July 2021 by the National Bank of the Republic of Poland. Nevertheless, the outlook, remains uncertain amid still current epidemiological risks.

Table 1. GDP assumptions for the Republic of Poland for the RP3 and historical values.

Real GDP growth rate [%]	2015	2016	2017	2018	2019	2020	2021 F	2022 F	2023 F	2024 F
Initial assumptions for the purpose for the RP2 (forecast)	3.30	3.35	3.54	3.59	3.62					
EUROSTAT data (actual and provisional) ¹	4.20	3.10	4.80	5.40	4.70	-2.70				
IMF – WEO April 2021 (actual/forecast) ²	4.24	3.14	4.83	5.35	4.54	-2.72	3.47	4.54	3.98	3.01
National Bank of the Republic of Poland – GDP (actual and forecast) March 2021 ³			4.80	5.10	4.50	-2.70	5.00	5.40	5.30	
Assumed for the PP purpose for the RP3 (forecast)							3.47	4.54	3.98	3.01

1. <https://ec.europa.eu/eurostat/databrowser/view/tec00115/default/table?lang=en> [access July 2021].

2. https://www.imf.org/en/Publications/WEO/weo-database/2021/April/weo-report?c=914,913,963,918,960,944,967,921,943,962,964,968,922,942,186,926,&s=NGDP_RPCH,&sy=2015&ey=2026&ssm=0&scsm=1&ssc=0&ssd=1&ssc=0&scic=0&sort=country&ds=.&br=1 [access July 2021].

3. https://www.nbp.pl/home.aspx?f=/polityka_pieniezna/dokumenty/projekcja_inflacji.html [access July 2021].

1.2. Inflation

Inflation assumptions used for drafting the revision of PP for RP3 are consistent with the International Monetary Fund April 2021 forecast. The inflation assumptions have been presented in the table below. For comparison the table presents also the inflation values as officially published in July 2021 by the National Bank of the Republic of Poland.

Table 2. Inflation rates assumptions for the Republic of Poland for the RP3 and historical values.

Inflation rate [%]	2015	2016	2017	2018	2019	2020	2021 F	2022 F	2023 F	2024 F
Assumed for the purpose for the PP RP2 (revised, determined)	2.38	2.50	1.05	1.86	2.35					
EUROSTAT data (actual) ¹	-0.70	-0.20	1.60	1.20	2.10	3.70				
IMF – WEO April 2021 (actual/forecast) ²	-0.93	-0.58	1.98	1.60	2.31	3.40	3.20	2.52	2.53	2.50

National Bank of the Republic of Poland – Inflation Forecast July 2021 ³			2.00	1.60	2.00	3.40	4.20	3.30	3.40	
Assumed for the PP purpose for the RP3 (forecast)							3.20	2.52	2.53	2.50

1. <https://ec.europa.eu/eurostat/databrowser/view/tec00118/default/table?lang=en> [access July 2021].
2. https://www.imf.org/en/Publications/WEO/weo-database/2021/April/weo-report?c=914,913,963,918,960,944,967,921,943,962,964,968,922,942,186,926,&s=NGDP_RPCH,PCPIPCH,LUR,&sy=2015&ey=2026&ssm=0&scsm=1&ssc=0&ssd=1&ssc=0&sc=0&sort=country&ds=.&br=1 [access July 2021].
3. http://www.nbp.pl/home.aspx?f=/polityka_pieniezna/dokumenty/projekcja_inflacji.html [access July 2021].

1.3. Exchange rate

In order to calculate and present local targets in the field of cost efficiency, the national currency of the Republic of Poland (Polish zloty, PLN) was used. The table below presents exchange rate values used as an assumption for PP for RP2 and the actuals presented by EUROSTAT, Reuters and National Bank of the Republic of Poland. The table shows also the assumptions taken into account for the purpose of drafting Polish PP for the RP3. As for the RP3, Poland assumed the exchange rates as recommended by Polish MoF for average annual values for 2021-2024.

Table 3. EUR/PLN exchange rates assumptions for the RP3 and historical values.

Exchange rate [%]	2015	2016	2017	2018	2019	2020	2021 F	2022 F	2023 F	2024 F
Initial assumptions for the purpose for the RP2 (forecast)	4.18	4.18	4.18	4.18	4.18					
EUROSTAT data (actual) ¹	4.18	4.36	4.26	4.26	4.30	4.44				
Reuters (actual)	4.18	4.36	4.25	4.26						
National Bank of the Republic of Poland (actual) ²	4.18	4.36	4.26	4.26	4.30	4.44				
MoF of Republic of Poland recommendations for macroeconomic assumptions July 2020 ³				4.26	4.30	4.43	4.45	4.45	4.45	4.45
Assumed for the PP purpose for the RP3 (forecast)							4.45	4.45	4.45	4.45

1. https://ec.europa.eu/eurostat/databrowser/view/ert_bil_eur_a/default/table?lang=en [access July 2021]
2. <http://www.nbp.pl/homen.aspx?f=/kursy/kursyen.htm> [access July 2021].
3. <https://www.gov.pl/web/finanse/wytyczne-sytuacja-makroekonomiczna> [access July 2021].

2. Main measures put in place to achieve the targets for determined unit cost (DUC) for en-route / terminal ANS

The COVID-19 pandemic led to a sharp drop in air traffic on an unprecedented scale and to minimize its negative impact the adoption of specific measures was required. Those measures were specified in the Commission Implementing Regulation (EU) 2020/1627 of 3 November 2020 *on exceptional measures for the third reference period (2020-2024) of the single European sky performance and charging scheme due to the COVID-19 pandemic*. In the light of the provisions of that regulation the Commission has been empowered to set revised Union-wide performance targets for the third reference period. In the light with the above the Commission Implementing Decision (EU) 2021/891 of 2 June 2021 *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* was published. Upon the setting of the revised performance targets Poland was obliged to establish a revised PP for RP3 containing those measures for that period.

To achieve compliance with the union-wide performance target in the key performance area of cost efficiency the appropriated measures had to be undertaken. The description of measures, taken by air navigation service providers concerned, is presented below.

2.1. PANSA

Measures undertaken by PANSA aimed at limiting staff costs include:

- review of ACC and APP ATCO employment plan (en-route charging zone) / EPWA TWR employment plan (I TCZ) / TWR ATCO employment plan at regional airports (II TCZ), which resulted in reduction of employment planned for the following years, also in terms of ATCO students/trainees,
- reduction of base salary for all staff categories (reduction from 1st January 2021),
- reduction of ATCOs remuneration over 2021-2023 as a result of application of Remuneration Scheme linking remuneration to traffic level served by a given unit – considering lower traffic levels.
- resignation from special remuneration conditions for TWR EPWA ATCOs related to RAD (I TCZ);
- development of revised standards for ANS provision at regional airports, including optimisation of periods/hours of provision of ATS services adjusting them to commercial IFR operations, as well as standards for ATCO positions at TWR units and tools supporting TWR ATCO work (II TCZ)
- reduction of ATCOs remuneration over 2021-2023 as a result of experience categories related to lower traffic (II TCZ).

To limit staff costs in the following years PANSA has also developed and consulted with social partners new internal Remuneration Scheme, which was submitted for approval to Minister responsible for transport in May 2021 (approval still pending).

Additionally, over 2020-2021 the following measures were implemented (they relate to all staff categories):

- use of furlough / downtime, in accordance with article 81 of Labour Law,
- temporary suspension of new employments,
- limitation of bonuses and rewards,
- temporary suspension of contributions to the occupational pension scheme and group insurance,
- reduction of contributions to the Company Social Benefits Fund,
- reduction of overtime, work during weekends/holidays and overnight hours.

Measures aimed at optimisation of other operating costs were focused mostly on:

- optimisation of cost levels, adjusting budgets (to the extent possible) to lower traffic levels, especially over 2020-2021,
- review and postponement of necessary expenditures to support liquidity,
- adjusting cost structure to new ways of executing tasks and projects,
- optimised use of resources, especially over 2020-2021, when the three waves of pandemic were negatively impacting execution of tasks within the timeframes initially foreseen due to sanitary restrictions, travel restrictions or limited supply related to health issues or quarantine procedures.

The measures implemented included:

- optimisation and change of schedules for investment tasks execution,
- abandonment or changes to timeframes of some OPEX-related tasks,
- reduction of costs related to preparation / maintenance of on-site workplaces through use of furlough/downtime, introduction of teleworking, use of holiday periods by employees, as well as introduction of additional care allowance days for parents by the State,
- limitation to necessary minimum (over 2020-2021) of trainings and business trips and postponement of required trainings,
- limitation over 2020-2021 of costs related to promotion and organization of meetings, conferences etc. and postponement of related budgets for the following years,
- changed approach to execution of some tasks and budgetary shifts between CAPEX and OPEX,
- changes to organisational structure.

The above measures significantly impacted the executed and planned level of costs related especially to:

- energy and supplies;
- taxes and charges, especially related to land and VAT tax recognised in costs,
- external services, especially those related to technical support and software upgrades, advisory services, analyses and expertise, legal services, IT support,
- trainings and business trips.

Moreover, implementation of new Organizational Scheme allowed for optimisation of division of competence and tasks among organisational units, what indirectly also impacted transparency of cost allocation among services.

As a consequence of difficult situation in the aviation sector caused by COVID-19 pandemic, which negatively impacted PANSa financial position, and considering the need to maintain liquidity and limit costs, PANSa has undertaken a thorough review of investment plan for the following years, aimed at CAPEX optimisation with due consideration of operational requirements of PANSa on the one hand, and financial capacity of PANSa on the other hand. As a result of this work, CAPEX plan for RP3 was reduced from initial 1 256 milion PLN to 966 milion PLN. This was additionally supported by optimisation of CAPEX schedules, following which part of expenditures was postponed as compared to the initial draft RP3 PP. All this led to reduction of depreciation costs related to new investments executed over RP3, what directly translates into lower total depreciation costs.

Reduction in the amount of cost of capital is related to the two following factors:

- reduced cost of capital rate (WACC) as a consequence of updated assumptions which consider current market conditions and debt financing,
- reduced fixed asset base as a consequence of the CAPEX plan review described above under the depreciation part, as well as lower current asset base resulting from cost-containment measures.

2.2. Other ANSP (IMWM, Radom Meteo, Warmia i Mazury and PL Bydgoszcz)

IMWM, the main MET service provider in Poland has taken among others the following measures achieve the determined unit cost target:

- review of employment plan for 2021-2024, which resulted in temporary suspension of new employments for the following years, especially for 2021-2022,
- over 2020-2021 the limitation of bonuses and rewards was applied,
- taking additional measures limiting staff costs and other operating costs, especially over 2020-2021,
- limitation to the minimum of trainings and business trips and postponement of required trainings,
- optimization of costs levels that have a positive impact on other operating costs categories among others energy and supplies, external services especially those related to overhaul services; review of the level of indirect costs, which resulted in its reduction ca. 20-25% over 2021-2024.

Radom Meteo has achieved higher cost-efficiency by reducing the staff and costs to the minimal levels required for the company to survive until the reopening of EPRA airport which is currently planned in late 2022, instead of the previously assumed end of 2020. These actions were taken in order to not to close operationally the Radom Meteo company and to prevent AU from bearing additional costs stemming from the costly processes of reopening, recertification, redesignation, repurchasing assets and rehiring staff. What is more, despite significant reductions, Radom Meteo is still preparing MET products which are being sent to the international MET databases.

Referring to staff costs, it should be indicated that due to the EPRA closure the staff total values for 2020-2021 has been significantly reduced to the minimum required to fulfil the obligations stemming from the ANSP certificate and designation as MET provider. Additionally, due to changes in the scope of meteorological products provided, some labour intensity changes have been introduced, which affected the allocation between the ER/TNC during the closure of EPRA airport. As far as other operating costs are concerned, as well as staff costs, they have been reduced to the minimum levels required to fulfil the obligations stemming from the ANSP certificate and designation as MET provider, therefore the total values for 2020-2022 have been reduced to the marginal level. It has to be mentioned that despite the EPRA closure, the assets held by Radom Meteo are still in use as Radom Meteo keeps providing MET services and therefore are depreciating. The fixed assets currently maintained will be fully depreciated by the end of 2022. The depreciation planned in the 2023 and beyond will be related to the new equipment purchases, i.e. software, telecommunications equipment, server, sensors dedicated to the AWOS system. When it comes to cost of capital, the determined WACC values calculation was based on the recommendation of PRB. It should be noted that Radom Meteo does not plan to use any form of external financing in the RP3 perspective, nevertheless the current situation additional risks has been identified which led to the necessity of the reporting of the cost of capital, as its value is being no longer negligible.

When it comes to Warmia i Mazury, it should be stressed out that the extraordinary circumstances caused by the COVID-19 pandemic had a significant impact on the processes and measures for the implementation of the performance scheme in the third reference period 2020-2024. That has created an exceptional situation which needed to be addressed with specific temporary measures.

The main measures that have been introduced to achieve the cost-efficiency:

- temporarily wages reduction in the period from 1st April 2020 to 31th June 2020 (three months).
- all training planned by Warmia i Mazury from 1st April 2020 to 31th December 2020 (nine months) has been suspended.
- from 15th March 2020, the number of hours of providing air navigation services was reduced due to the implementation of the Regulation of the Council of Ministers of 13 March 2020 on air traffic ban in the Republic of Poland.
- all significant investments were postponed.

Going to PL Bydgoszcz, it should be emphasized that this institution has achieved higher cost-efficiency by reducing the working hours of services in 2020 and 2021 when the traffic was at the level significantly lower than previously assumed. In addition to this, PLB has postponed some investments (i.a. Tower modernization) which resulted in diminishing the total cost base for RP3 in terms of depreciation and cost of capital stemming from the investment activities.

3. Consistency with the union-wide target

3.1. En-route cost-efficiency target

The proposed local cost-efficiency target was set at the level allowing for a DUC change over RP3 (2024 DUC as compared to 2019BV of DUC set at the level of 174.76 PLN (for details, see Annex F)) of 1.5%.

3.2. Terminal cost-efficiency target

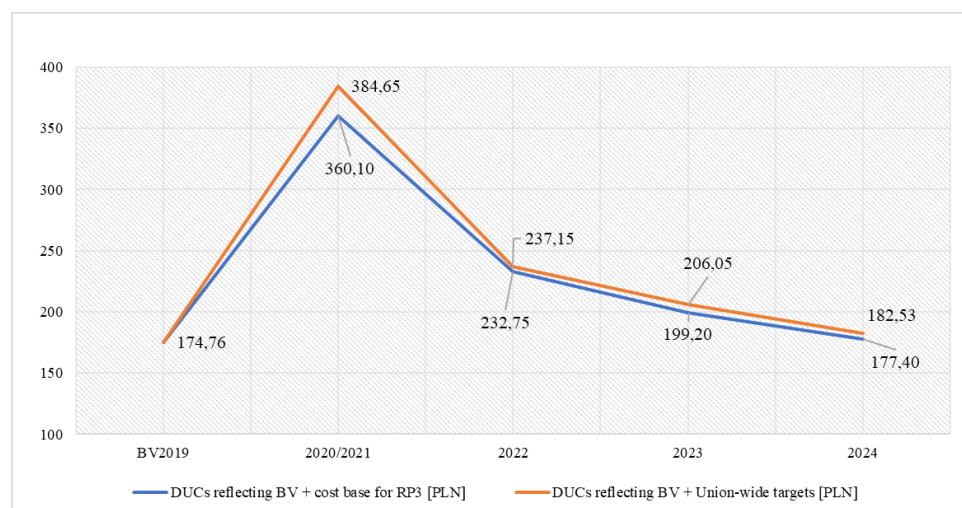
Poland was obliged to set two local terminal cost-efficiency targets, one for each charging zone (for details, see Annex F).

- TNC-EPWA – the baseline value has been set at the level of 405.62 PLN,
- TNC-OTHER – the baseline value has been set at the level of 851.85 PLN.

3.3. Justification

Taking into consideration the baseline value for en-route cost efficiency target for Poland (for details, see Annex F) the en-route short-term determined unit cost trend is to be consistent with the provision streaming from the article 4 of the *Commission Implementing Decision (EU) 2021/891 of 2 June 2021 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*. Those values were set in consistency with the provisions stemming from Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 laying down a performance and charging scheme in the single European sky and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391 and with the exceptional measures set in the Commission Implementing Regulation (EU) 2020/1627 of 3 November 2020 on exceptional measures for the third reference period (2020-2024) of the single European sky performance and charging scheme due to the COVID-19 pandemic. The figure below presents en-route short-term determined unit cost trend for Poland in comparison with the Union-wide targets.

Figure 1. Evolution of local cost-efficiency trend for Poland in RP3 [PLN].



Source: Own elaboration.

This value of 1.5% representing change over RP3 (2024 DUC vs 2019BV) is lower than change of Union-wide DUC over RP3 which amounts to 4.0% (EUR 52.23 in 2024 as compared to 2019 BV of EUR 50.23). Therefore the Poland's local cost-efficiency target is considered to be fully consistent (and even exceeding) Union-wide expectations for RP3.

Additionally, it has to be underlined, that Poland (as any other state) had to cope with the EUROCONTROL cost part allocated to PL cost base – taking the EUROCONTROL out of the calculation, Poland's cost-efficiency short term trend would be equal to 1.7% instead of 2.1%.

With regard to the long-term determined unit cost trend apart from the above, inconsistency with the Union-wide performance targets in the field of cost-efficiency is the result of the revision of the RP2 PP.