Monitoring Report 2025

Poland

Fourth Reference Period (2025-2029)

Signatories

Monitoring report details	
Name	Poland
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NSA names	Name, title and signature of representative
Polish Civil Aviation Authority acting as NSA	President of Civil Aviation Authority Julian Rotter

Additional comments	

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SECTION 1: INTRODUCTION

1 - INTRODUCTION

1.1 - Scope

1. Background

Period covered by the monitoring report	01 Jan. 2025 - 31 Dec. 2025
NSAs responsible for drawing up the monitoring report	Polish Civil Aviation Authority acting as NSA
Adoption date of final performance plan (or, if not yet adopted, of the most recent draft performance plan)	
Additional comments	

2. ANSPs

Number of ANSPs	**5**

ANSP name	PANSA
Services	ANSP (ATS,CNS, AIS, SAR coordination)
Geographical scope	Flight Infromation Region Warszawa, all airports concerned.
Type	ATSP/CNSP

ANSP name	IMWM
Services	MET
Geographical scope	Flight Infromation Region Warszawa (excluding EPRA TMA and CTR, EPSY TMA and CTR/ATZ, EPBY TMA and CTR/ATZ, EPZG TMA and CTR and EPSC TMA and CTR).
Type	METSP

ANSP name	Airport Meteo Sp. z o.o.
Services	MET
Geographical scope	EPRA: TMA and CTR.
Type	METSP

ANSP name	Warmia i Mazury Sp. z o.o.
Services	MET, ATS (AFIS), CNS (COM)
Geographical scope	MET: EPSY TMA, CTR and ATZ; AFIS: EPSY ATZ; COM for TWR EPSY (outside WiM cost bases, included in PANSA costs base under other operating costs) and AFIS EPSY.
Type	ATSP/CNSP

ANSP name	Port Lotniczy Bydgoszcz S.A.
Services	ATS (AFIS), MET
Geographical scope	MET: EPBY TMA, CTR and ATZ; AFIS: EPBY ATZ.
Type	ATSP/CNSP

3. Other entities

Number of other entities	**2**

Entity name	Civil Aviation Authority of the Republic of Poland (NSA)
Domain of activity	Supervision

Entity name	EUROCONTROL
Domain of activity	Other/Network

4. Charging zones

En route:

Number of en route charging zones	**1**

En route charging zone	Poland

Terminal:

Number of terminal charging zones	**2**

Terminal charging zone	Poland zone 1
Terminal charging zone	Poland zone 2

5. Additional information

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1.2 - List of Airports

1. Airports

Number of airports	**15**

Airport name	Lotnisko Chopina w Warszawie
ICAO code	EPWA
Charging zone	Poland zone 1

Airport name	Bydgoszcz
ICAO code	EPBY
Charging zone	Poland zone 2

Airport name	Gdańsk im. Lecha Wałęsy
ICAO code	EPGD
Charging zone	Poland zone 2

Airport name	Kraków-Balice
ICAO code	EPKK
Charging zone	Poland zone 2

Airport name	Katowice-Pyrzowice
ICAO code	EPKT
Charging zone	Poland zone 2

Airport name	Lublin
ICAO code	EPLB
Charging zone	Poland zone 2

Airport name	Łódź
ICAO code	EPLL
Charging zone	Poland zone 2

Airport name	Warszawa/Modlin
ICAO code	EPMO
Charging zone	Poland zone 2

Airport name	Poznań-Ławica
ICAO code	EPPO
Charging zone	Poland zone 2

Airport name	Lotnisko Warszawa-Radom
ICAO code	EPRA
Charging zone	Poland zone 2

Airport name	Rzeszów-Jasionka
ICAO code	EPRZ
Charging zone	Poland zone 2

Airport name	Szczecin-Goleniów
ICAO code	EPSC
Charging zone	Poland zone 2

Airport name	Olsztyn-Mazury
ICAO code	EPSY
Charging zone	Poland zone 2

Airport name	Wrocław-Strachowice
ICAO code	EPWR
Charging zone	Poland zone 2

Airport name	Zielona Góra-Babimost
ICAO code	EPZG
Charging zone	Poland zone 2

1 - INTRODUCTION

1.3 - Overview

1. Economic and operational context and impact on the provisions of ANS

Over 2025 the consequences of the military aggression of the Russian Federation against Ukraine and the related geopolitical situation remained highly visible, especially in the operational dimension. A direct consequence of this geopolitical situation is the continued high level of military activity (including NATO operations) in FIR Warszawa and the limited availability of certain parts of the airspace for civilian traffic, particularly in the eastern part (eastern part of EPWW FIR is covered by MIL areas booked H24 and available for ad-hoc activation). This, coupled with increased traffic in the south-eastern Poland due to the shifted traffic flows circumnavigating the Ukrainian airspace, has impacted capacity and increased complexity. Standard flight planning rules cannot be applied requiring conflicts to be resolved tactically by ATCOs via radar vectoring. GNSS jamming and spoofing have become an operational reality, with the northern and central parts of Poland being mostly affected. Increased cyber threats have also been observed – in this area PANSA is heavily supported by the Cyber Command of Poland. In the second half of 2025 Poland faced additional operational challenges linked to drone and balloon incursions, leading to the necessary temporary closure of parts of the airspace for civilian traffic. The environmental performance (HFE/KEA) was also driven by these geopolitical developments, the restricted availability of the airspace beyond Poland's eastern border and military requirements. Details of the impact of the war and related developments on operational and environmental performance are described in subsequent chapters of this report.

The traffic level and structure were also continuously impacted by the geopolitical situation. In 2025 overflights still remained significantly below pre-pandemic levels (at 62% of 2019, similar to 2024), while total IFR operations reached 88% of the 2019 level. Traffic in FIR Warszawa increased by 5% compared to 2024, driven by the continuous growth in arriving and departing traffic to and from Polish airports, which also contributed to increased traffic complexity. ARR/DEP IFR traffic exceeded 2019 levels, and most Polish airports recorded higher volumes of operations than before the pandemic.

As a result, the number of IFR operations in 2025 slightly exceeded the level assumed in the RP4 Performance Plan, while the volume of en-route service units – which directly drives revenues – remained below the planned target. This divergence represents an unfavourable situation for PANSA, where an increased workload is not accompanied by a corresponding increase in revenues. In the terminal area both traffic levels and service units were above the planned values.

Although the inflation recorded in 2025 was below the RP4 PP assumptions, a dynamic increase in salaries in the Polish economy was observed. According to official data published by Statistics Poland, the average salary in the national economy in real terms increased by 5.5% in 2025 compared to 2024 (8.8% in nominal terms). The minimum wage in 2025 was 10% higher than the one applicable in the first half of 2024. The increase in wages and salaries impacted the prices of certain external services (e.g. medical services), as well as the prices of construction works and investments in intangible assets. This is clearly visible in the tenders conducted by PANSA, where the values of a number of CAPEX projects are visibly higher than assumed in the RP4 PP. During 2025 PANSA continued to rely on debt financing.

2. NSA key observations and highlight per KPA

Please provide the key observations from the monitoring for each KPA :

Safety
The year 2025 constituted the first reference year of RP4 and, consequently, the first year in which ANSPs covered by the Performance Plan completed the new version of the EoSM questionnaire. As a result, both the preparation of the ANSPs' submissions and their assessment by the NSA required significantly more time, effort, and resources compared to the previous year. In particular, the collection and verification of supporting evidence proved to be more demanding. Nevertheless, all three ANSPs covered by the performance scheme successfully implemented a set of measures aimed at achieving the targets established in the Safety Key Performance Area (KPA) for 2025. The information collected during the EoSM assessment process clearly indicate that safety still remains the top priority. There are no signals suggesting that safety performance has been adversely affected by external factors such as the war in Ukraine or other unforeseen events or circumstances. The ANSPs' management systems demonstrate sufficient robustness and efficiency to effectively manage the impact of changing operational conditions.

Environment
In the key performance area of environment the 2025 target for horizontal flight efficiency (HFE) Poland was not achieved. HFE actual value was 4.71%, compared to the target set at 4.51%. As the main causes of this situation, as in the previous years, distinct factors beyond CAA's and PANSA's control should be named, such as: the geopolitical situation and the resulting closures of airspace, an increased military demand for airspace, as well as weather conditions. It should be clearly noted that the 2025 target for Poland in the area of the environment was significantly increased compared to the 2024 value (1.65%), as it generally took into account the effects of the war in Ukraine. Nevertheless, based on the current situation, achieving the targets set in RP4 PP regarding the KEA indicator still appears to be a highly ambitious task.

Capacity
The target set in the KPA of en-route capacity was met in 2025. The ATFM delay per flight indicator achieved value was 0,17 minutes/flight with the target – 0,24 minutes/flight, set in the PP. This means that the capacity performance was better than in 2024 (0,23 min/flight). When taking into account ATC delays only (codes CRSTMP) the achieved value was 0,082 min/flight. As the incentive scheme is obligatory for the Capacity KPA, and taking into account the actual performance achieved in this area, the maximum financial advantage will be granted to PANSA for en-route capacity. In terms of terminal capacity the 2025 target was not achieved. The ATFM delay in 2025 was 0.48 minutes per flight, even though the target was set at 0.06 minutes per flight. Nevertheless, it should be noted that the majority (91.4%) of terminal delays in 2025 were caused by reasons unrelated to air traffic control (ATC), including weather conditions (45.4%), primarily at Kraków-Balice (EPKK) and Warsaw Chopin Airport (EPWA), and airport capacity (43.8%), particularly at EPWA and Wrocław-Strachowice (EPWR). However, the value of ATC only terminal delays (codes CRSTMP) was lower than forecasted and lower than the modulated pivot value based on ATC-related delays (0.04 vs. 0.05 minute/arrival), falling within the symmetric range around the pivot value set by the national supervisory authority. Consequently, no financial implications arise from the incentive scheme. The largest ATC-related delays occurred at Katowice-Pyrzowice (EPKT) airport and were related to the "ATC Equipment" category, and at EPKK airport, due to "ATC Capacity."

Cost-efficiency
In the area of cost-efficiency, in terms of route charges, the total nominal value of costs for 2025 was higher by 0,6% than planned. Total en route costs in real terms were higher by 2.8% compared to the planned ones, SU were by 2.7% lower than planned. AUC for 2025 was by 5.7% higher than DUC. Regarding terminal charges in Terminal Charges Zone 1, the total real nominal value of costs for 2025 was lower by 0.6% than planned. The total costs in real terms in TCZ1 were by 2.0% higher than planned. The total number of SU-L in TCZ1 was by 12.1% higher than planned. AUC was by 9.1% lower than DUC. In terms of terminal charges in Terminal Charges Zone 2, the total real nominal value of costs for 2025 was 4.1% lower than planned. The total terminal costs in real terms in TCZ2 were lower by 1.8% than planned. The total number of SU-L was by 4.8% higher than planned. AUC was by 6.4% lower than DUC.

1 - INTRODUCTION

1.4 - Traffic figures

1. En route

En route charging zone	Poland

Forecast values from the PP	2025	2026	2027	2028	2029
IFR movements (thousands)	786	823	853	882	911
IFR movements (yearly variation in %)		4,7%	3,6%	3,4%	3,3%
En route service units (thousands)	4 065	4 255	4 425	4 590	4 757
En route service units (yearly variation in %)		4,7%	4,0%	3,7%	3,6%

Actual values	2025	2026	2027	2028	2029
IFR movements (thousands)	800				
IFR movements (yearly variation in %)					
En route service units (thousands)	3 953				
En route service units (yearly variation in %)					

Differences	2025	2026	2027	2028	2029
IFR movements (thousands)	13				
IFR movements (in %)	1,7%				
En route service units (thousands)	-112				
En route service units (in %)	-2,7%				

2. Terminal

Terminal charging zone	Poland zone 1

Forecast values from the PP	2025	2026	2027	2028	2029
IFR departure movements (thousands)	94	98	101	104	107
IFR dep. movements (yearly variation in %)		4,9%	3,1%	2,9%	2,8%
Terminal service units (thousands)	112	119	123	127	131
Terminal service units (yearly variation in %)		5,9%	3,7%	3,2%	3,2%

Actual values	2025	2026	2027	2028	2029
IFR departure movements (thousands)	100				
IFR dep. movements (yearly variation in %)					
Terminal service units (thousands)	126				
Terminal service units (yearly variation in %)					

Differences	2025	2026	2027	2028	2029
IFR departure movements (thousands)	6				
IFR departure movements (in %)	6,9%				
Terminal service units (thousands)	14				
Terminal service units (in %)	12,1%				

Terminal charging zone	Poland zone 2

Forecast values from the PP	2025	2026	2027	2028	2029
IFR departure movements (thousands)	153	162	168	175	181
IFR dep. movements (yearly variation in %)		5,8%	4,1%	3,9%	3,7%
Terminal service units (thousands)	187	198	207	217	225
Terminal service units (yearly variation in %)		6,4%	4,4%	4,5%	4,0%

Actual values	2025	2026	2027	2028	2029
IFR departure movements (thousands)	159				
IFR dep. movements (yearly variation in %)					
Terminal service units (thousands)	196				
Terminal service units (yearly variation in %)					

Differences	2025	2026	2027	2028	2029
IFR departure movements (thousands)	6				
IFR departure movements (in %)	3,7%				
Terminal service units (thousands)	9				
Terminal service units (in %)	4,8%				

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1.5 - Other general information

1. Cross-border cooperation initiatives

The unprovoked Russian invasion of Ukraine continued to affect PANSA's possibilities for comprehensive cross-border cooperation. Despite this, PANSA continued cooperation with other ANSPs aiming at improving provision of ATM/ANS in the European Network. The main areas of PANSA cross-border cooperation in 2025 included the following:

• FRA expansion – after successful implementation of cross-border FRA with Lithuania and Slovakia in 2022, cross-border FRA was expanded in November 2024 to encompass Czechia (SEEFRA) and Sweden (DK-SE FAB FRA). In 2025 there were some minor simplifications of RAD restrictions introduced to facilitate use of cross-border FRA;

• FRA operations in TMAs (Warszawa TMA, Gdańsk TMA and Kraków TMA) above FL195 – works started in 4Q 2025 (initially planned in 3Q 2025);

• participation in selected work-stream topics in the Operational Excellence Program launched by the Network Manager;

• active support to the 2025 Summer measures implemented through collaboration of ANSPs and the Network Manager;

• information exchange with other ANSPs on GNSS jamming and spoofing, including meetings with: ICAO, EUROCONTROL, neighbouring ANSPs and regular meetings with Airspace Users;

• radar data exchange with:

  ◦ Oro Navigacija – PANSA receives data from Vilnius radar and Oro Navigacija receives data from Gdańsk radar. Talks are underway with Oro Navigacija to amend the agreement due to scheduled replacement (PSR/MSSR Mode_S) of Gdańsk radar;

  ◦ DFS – PANSA receives data from Neubrandenburg and Berlin Brandenburg Nord radar, whereas DFS receives data from Poznań and Szczecinek radars;

  ◦ in 2025 talks were underway with ANS CR, expected conclusion in 2026. This will allow data exchange from new PSR/MSSR Mode_S Katowice radar and WAM system Poznań, whereas PANSA will receive data from Praha and Pisek radars;

• continued cooperation with other ANSPs under iTEC Collaboration;

• following entry into force of Regulation (EU) 2024/2803 of the European Parliament and of the Council of 23 October 2024 on the implementation of the Single European Sky (recast), and specifically its Article 3 concerning functional airspace blocks, the Baltic FAB initiated revision of its strategy; Baltic FAB plans to adopt the new strategy in 2026 after completing necessary internal steps;

• agreements between PANSA and UkSATSE (Ukrainian State Air Traffic Service Enterprise) concerning exchange of radar data (located in Rzeszów in Poland and Lviv in Ukraine) are valid, however practical implementation is suspended due to the war. After reopening of Ukrainian airspace further possibilities for cross-border cooperation will likely appear, however the timing is beyond PANSA's control and detailed scope is not known yet. Any implementation will be worked out in close cooperation among interested parties (PANSA, neighbouring ANSPs, Network Manager and other stakeholders);

• participation in works on possible scenarios for traffic flows changes in case the war in Ukraine is coordinated with UkSATSE and Network Manager;

• for Device DSD project please see description for iTEC project in section 4.1 – Investments, subsection 2 Investment plan from RP3 performance plan or added during the RP3 period.

Planning of future cross-border cooperation initiatives is difficult due to local circumstances, especially continued Russian aggression on Ukraine.

2. Description of the process and activities implemented by the NSA for the monitoring of performance

Monitoring of ANSPs' performance within the scope of the Performance Plan was conducted on a regular basis, in accordance with Regulation (EU) 2019/317 and Regulation (EU) 2017/373. The NSA clearly defined the scope of data to be submitted by ANSPs at specified intervals, covering, inter alia, planned costs and their execution, ATCO training and employment, major projects aimed at increasing capacity and improving flight efficiency, investments, and the effectiveness of safety management.

The data received were analysed, and any necessary clarifications were sought from the ANSPs.

Complementary monitoring of targets and performance was carried out through routine inspections (both planned and unplanned), conducted by the NSA inspectors.

SECTION 2: PERFORMANCE

SECTION 2.1: SAFETY KPA

2 - PERFORMANCE AT LOCAL LEVEL

2.1 - Safety

2.1.1 - Key Performance Indicator

2.1.1.(a) Safety KPI #1: Level of Effectiveness of Safety Management

Please populate the table. The overall score per EoSM component is defined as the lowest score from the questions within a given component. For example, if verified levels for the Safety Culture component for questions 1.1, 1.2 and 1.3 were C, C, A, then the overall score for the component is A.

PANSA

Effectiveness of Safety Management		2025	2026	2027	2028	2029
(a) safety policy and objectives	Values from PP	B	C	C	C	C
	Actual values	B				
(b) safety risk management	Values from PP	C	C	C	C	D
	Actual values	C				
(c) safety assurance	Values from PP	B	C	C	C	C
	Actual values	B				
(d) safety promotion	Values from PP	C	C	C	C	C
	Actual values	C				
(e) safety culture	Values from PP	B	B	C	C	C
	Actual values	B				

Assessment of the achieved level of actual performance
In 2025 PANSA achieved all targets set for that year. At the end of 2025 the actual safety performance was in line with the established targets. Evidence supporting the EoSM maturity levels declared by PANSA in each component was provided to the NSA. The NSA conducted an in-depth analysis of the responses provided, as well as the supporting evidence. During this assessment, additional questions arose, and PANSA was requested to provide further explanations. Representatives of the NSA and PANSA held a meeting during which all identified issues and additional arguments related to the introduced changes were discussed. Following the receipt of additional explanations and the discussions held during the meeting, the NSA accepted the responses provided and the maturity levels declared by PANSA.

Main measures put in place to achieve the safety performance targets
• The "PANSA Safety Culture" document was prepared in 2025 and approved by the Safety Manager. It is accompanied by the "Safety Culture Assessment Programme" based on the blocks and target audience defined in the document. The Assessment Programme was approved by the Safety Manager and market research started for the purpose of obtaining a contractor for the assessment. • Various meetings in local ATS units, including “Safety Days”, were continued in 2025 to popularise PANSA’s Safety Vision, promote Just Culture, including Reporting Culture and discuss local safety issues. • Local Safety Experts have become key experts in risk assessment. • PANSA has updated the training programme for all personnel which covers Safety Management matters. Dedicated training has been developed for the top management in a classroom form. SMS training for the operational personnel is part of the operational training. Other PANSA personnel are provided with mandatory e-learning. • The integrated Hazard Register was ramped-up under the control of the dedicated unit for hazard identification and SMS development. • All SMS procedures have been reviewed and updated, and new Just Culture Policy was agreed with all trade unions, signed and published. • A rolling programme of verifying working time based on rostering was continued (planned and executed) for all units (3 subsequent operational units at once on a quarterly basis). The reports were provided to the Director of Operations for on-going corrections. • Co-operation was established with other ANSPs and information exchanged on practices in safety performance and procedures. • PANSA joined the Data4Safety programme of EASA. • PANSA joined the CANSO/EUROCONTROL safety benchmarking programme Standard of Excellence in SMS. • Initiation of integration of change management with safety assessment processes within the safety management department. • Training and implementing the Kanban method using MS Teams to oversee air traffic occurrence investigations.

If the targets have not been achieved, please explain the underlying causes or circumstances that let to this situation.
n/a

Is the NSA aware of any circumstances that may cause the SAF performance targets not to be met, either this year or in future years in the reference period?	Yes

What, if any, remedial actions have been implemented or planned by the ANSP to address this?
Certain initiatives still need to be undertaken and implemented in order to allow achievement of the targets set for PANSA for the upcoming years of RP4. These include: • Dedicated Human Factor expert(s) to be employed to provide support across PANSA. Actions are planned be taken to acquire a contract expert (Safety Risk Management – Level D – 2029). • Fatigue Risk Management procedure to be revised and adapted to improve the management of fatigue-related risk based on internally and externally collected data (Safety Risk Management – Level D – 2029). HR data research started in 2025. • Safety Dashboard shall be ready in 2026 and is intended to be the tool to identify and present operational risk for acceptance by the operational managers. The current operational risk identification is limited to sector overload (Safety Risk Management – Level D – 2029). • Formalisation of current practices to analyse trends arising from SMS audits and surveys (Safety Assurance – Level C – 2026).

What further measures does the NSA intend to undertake to remedy this situation?
The NSA will closely monitor the implementation of measures aimed at improving the effectiveness of safety management, including through ongoing monitoring activities, as well as planned and unplanned inspections carried out as part of the continuous oversight of the ANSP.

Port Lotniczy Bydgoszcz S.A.

Effectiveness of Safety Management		2025	2026	2027	2028	2029
(a) safety policy and objectives	Values from PP	B	B	B	C	C
	Actual values	B				
(b) safety risk management	Values from PP	C	C	C	C	D
	Actual values	C				
(c) safety assurance	Values from PP	B	B	B	C	C
	Actual values	B				
(d) safety promotion	Values from PP	B	B	B	C	C
	Actual values	B				
(e) safety culture	Values from PP	B	B	B	C	C
	Actual values	B				

Assessment of the achieved level of actual performance
In 2025 Port Lotniczy Bydgoszcz S.A. achieved all targets declared for that year across all five components. However, as this was the first year of completing the new version of the questionnaire, the process proved to be significantly more time- and resource-consuming, and the assessment of Port Lotniczy Bydgoszcz S.A. declared maturity levels required increased engagement from both the ANSP and the CAA.

Main measures put in place to achieve the safety performance targets
Changes were introduced to internal procedures related to the Safety Management System, including an expansion of the scope of its internal assessments.

If the targets have not been achieved, please explain the underlying causes or circumstances that let to this situation.
n/a

Is the NSA aware of any circumstances that may cause the SAF performance targets not to be met, either this year or in future years in the reference period?	Yes

What, if any, remedial actions have been implemented or planned by the ANSP to address this?
Based on the results of the 2025 questionnaire assessment, the CAA considers that in order to achieve the target RP4 safety levels Port Lotniczy Bydgoszcz S.A. will need to implement additional measures related to safety requirements. In the coming years the organisation is expected to further strengthen internal governance and management involvement in safety, in particular by ensuring that board-level management is systematically informed about key operational and organisational risks, safety hotspots, ongoing safety initiatives and safety culture assessments outcomes. Continued improvement is required in the formalisation and effective implementation of hazard identification processes, ensuring they adequately address both current operations and changes, and are supported by an appropriate balance of reactive, proactive and predictive safety data. Port Lotniczy Bydgoszcz S.A. should also focus on enhancing safety culture assessment processes and implementing robust actions to address identified gaps. Further efforts are needed to reinforce Just Culture principles and encourage staff involvement in developing solutions related to Just Culture. In addition, improvements are expected in supporting areas such as change management, emergency preparedness, and targeted safety communication. Overall, ANSPs should aim to ensure greater consistency, integration and effectiveness across all SMS elements, with a focus on continuous improvement.

What further measures does the NSA intend to undertake to remedy this situation?
The NSA will closely monitor the implementation of measures aimed at improving the effectiveness of safety management, including through ongoing monitoring activities and planned and unplanned inspections carried out as part of the continuous oversight of the ANSP.

Warmia i Mazury Sp. z o.o.

Effectiveness of Safety Management		2025	2026	2027	2028	2029
(a) safety policy and objectives	Values from PP	B	B	B	C	C
	Actual values	B				
(b) safety risk management	Values from PP	C	C	C	C	D
	Actual values	C				
(c) safety assurance	Values from PP	B	B	B	C	C
	Actual values	B				
(d) safety promotion	Values from PP	B	B	B	C	C
	Actual values	C				
(e) safety culture	Values from PP	B	B	B	C	C
	Actual values	B				

Assessment of the achieved level of actual performance
In 2025 Warmia i Mazury Sp. z o.o. achieved all targets declared for that year across all five components. In the Safety Promotion component the organisation has reached a level higher than declared for 2025, namely C. The process of completing the new version of the questionnaire proved to be more time- and resource-consuming, and the CAA assessment of the organisation’s declared maturity levels identified a need for increased engagement.

Main measures put in place to achieve the safety performance targets
In 2025 Warmia i Mazury Sp. z o.o. introduced and executed a comprehensive suite of initiatives designed to uphold the safety targets specified in the preceding year's questionnaire. Key actions included aligning all SMS-related procedures, requirements, and documentation with national and international legal frameworks. Continuous SMS training was delivered to both internal staff and external contractors. Operational oversight was strengthened through the active roles of the Safety Manager, Safety Committee, and Safety Review Board, complemented by routine Local Safety Meetings and the refinement of key safety performance indicators. To foster a proactive organisational culture, the airport conducted systematic internal SMS audits, regular safety surveys, and integrated safety-specific investments into its annual business planning while actively exchanging best practices. Notably, in accordance with the latest regulatory frameworks, the airport has implemented an Information Security Management System (ISMS) compliant with Part-IS requirements. To demonstrate the continuous maturity of Level C within safety risk management, the following evidence-backed processes were confirmed: • A comprehensive review of the SMS framework is conducted at least annually. • Risk management processes utilise a combination of reactive, proactive, and predictive methods.

If the targets have not been achieved, please explain the underlying causes or circumstances that let to this situation.
n/a

Is the NSA aware of any circumstances that may cause the SAF performance targets not to be met, either this year or in future years in the reference period?	Yes

What, if any, remedial actions have been implemented or planned by the ANSP to address this?
Based on the results of the 2025 questionnaire assessment, the CAA considers that in order to achieve the target RP4 safety levels Warmia i Mazury Sp. z o.o. will need to implement additional measures related to safety requirements. In the coming years the ANSP is expected to further strengthen internal governance arrangements and ensure that board-level management is systematically informed about key operational and organisational risks, safety hotspots, safety initiatives and safety culture outcomes. A stronger and more consistent top-down commitment from senior and middle management is required to actively promote and sustain a positive safety culture, supported by clear communication, visible leadership engagement and structured organisational messaging. Further development is also expected in the integration of human performance principles into day-to-day operations, including the adoption and effective use of recognised good practices and the active involvement of Human Factors expertise across relevant organisational areas. In addition, the organisation should continue to mature its safety culture process, including regular and structured safety culture assessments, the implementation and tracking of improvement actions, and effective monitoring of their outcomes. Overall, the ANSP is expected to ensure greater consistency, integration and effectiveness across all SMS and safety culture elements, with a clear focus on continuous improvement and operational resilience.

What further measures does the NSA intend to undertake to remedy this situation?
The NSA will closely monitor the implementation of the measures aimed at improving the effectiveness of safety management, including through ongoing monitoring activities, as well as planned and unplanned inspections carried out as part of the continuous oversight of the ANSP.

2.1.2 - Performance Indicators

2.1.2.(a) - Safety PI#1: Rate of runway incursions (Airport level)

Important note:
Please refer to the Supporting Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs) for the Fourth Reference Period (RP4) - Section III Safety performance indicators (SPIs) for the monitoring of runway incursions (RIs). Only airports listed in the Performance Plan (mandatory & voluntary) and their corresponding IFR/ VFR movements should be used to derive the rate of runway incursions. The indicator set out in subsection 2.1.2(a) should include occurrences whose safety risk grade is red or yellow/amber in the European Risk Classification Scheme (ERCS) matrix.

Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs)

EPWA (Lotnisko Chopina w Warszawie)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	5				
Total number of IFR and VFR movements at the airports	201 341				
Rate of Runway Incursions at airports Located in the Member State	0,00002				

EPBY (Bydgoszcz)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	1				
Total number of IFR and VFR movements at the airports	15 109				
Rate of Runway Incursions at airports Located in the Member State	0,00007				

EPGD (Gdańsk im. Lecha Wałęsy)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	62 230				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPKK (Kraków-Balice)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	2				
Total number of IFR and VFR movements at the airports	91 359				
Rate of Runway Incursions at airports Located in the Member State	0,00002				

EPKT (Katowice-Pyrzowice)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	50 395				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPLB (Lublin)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	5 391				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPLL (Łódź)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	1				
Total number of IFR and VFR movements at the airports	17 024				
Rate of Runway Incursions at airports Located in the Member State	0,00006				

EPMO (Warszawa/Modlin)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	21 354				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPPO (Poznań-Ławica)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	1				
Total number of IFR and VFR movements at the airports	46 775				
Rate of Runway Incursions at airports Located in the Member State	0,00002				

EPRA (Lotnisko Warszawa-Radom)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	4 769				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPRZ (Rzeszów-Jasionka)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	18 760				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPSC (Szczecin-Goleniów)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	8 635				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPSY (Olsztyn-Mazury)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	2 429				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPWR (Wrocław-Strachowice)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	40 219				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

EPZG (Zielona Góra-Babimost)	2025	2026	2027	2028	2029
Total number of runway incursions with a safety impact	0				
Total number of IFR and VFR movements at the airports	1 651				
Rate of Runway Incursions at airports Located in the Member State	0,00000				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
Runway Safety Teams meetings are the standard means of controlling and managing airport safety. PANSA's own initiatives include local Safety Days, during which incidents at specific airports are discussed, as well as Safety Lessons, which enable lessons learned from investigated occurrences to be shared with all operational staff. The CAA addresses the reduction of runway incursions through the National Aviation Safety Plan 2026–2028 (Area A.5 – Runway Incursion). Key initiatives implemented and planned include: • Establishment by the CAA President of the internal CAA National Runway Safety Team aimed at enhancing the exchange of information between the CAA and aerodrome operators in the field of runway safety. The Team meets on a regular annual basis (with additional ad hoc meetings convened when necessary), and representatives of other aviation industry stakeholders may also be invited to participate in the meetings, where appropriate. Information from the meetings is published on the CAA website. • Organising yearly meetings with aerodrome operators to discuss the entire spectrum of aerodrome oversight most vital issues; • Supporting development and implementation of Local Runway Safety Plans by aerodrome operators; • Promoting safety awareness through Local Safety Days and the dissemination of Safety Lessons derived from occurrence investigations; • Strengthened oversight of aerodrome operators' Safety Management Systems (SMS), with particular focus on ground movement safety and preventive barriers, including dissemination of safety information (e.g. EASA SIB) to aerodrome operators for implementation, publication of such information on the Authority's website, and verification of related recommendations during ongoing oversight activities; particular attention is also given to the assessment of detailed information concerning RI reporting, including verification of reports submitted by aerodrome operators and ATS providers, in order to ensure comprehensive occurrence reporting and effective exchange of information between the involved parties. The CAA monitors the SPI (number of runway incursions as well as taxiway and apron incursions, per 10,000 operations) on a continuous basis using data from the ECCAIRS2 system and mandatory reporting by aerodrome operators. Effectiveness is assessed through trend analysis, the severity of occurrences, the percentage of events with ATS/CNS contribution, and the implementation rate of safety recommendations. Where negative trends are observed, the CAA applies additional supervisory measures, including enhanced audits and targeted corrective action plans.

2.1.2.(b) - Safety PI#2: Rate of separation minima infringements (Member State level)

Important note:
Please refer to the Supporting Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs) for the Fourth Reference Period (RP4) - Section III Safety performance indicators (SPIs) for the monitoring of separation minima infringements (SMIs). The indicator set out in subsection 2.1.2(b) should include occurrences whose safety risk grade is red or yellow/amber in the European Risk Classification Scheme (ERCS) matrix. This indicators is at Member State level.

Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs)

Poland	2025	2026	2027	2028	2029
Total number of separation minima infringements with a safety impact that occurred in the airspace	9				
Total number of controlled flight hours within the airspace	430 614				
Rate of separation minima infringements within the airspace of all controlling air traffic services units in the Member State	0,00002				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend to monitor their effectiveness?

PANSA's measures to improve the SMI PI include regular occurrence investigations accompanied by recommendations, local Safety Days, during which incidents are discussed, as well as Safety Lessons which enable lessons learned from investigated occurrences to be shared with all operational staff, including ATCO training.

In accordance with the National Aviation Safety Plan 2026–2028 (Area A.3 – Mid-Air Collision – MAC which includes Level busts, Separation Minima Infringements and Airspace Infringements), the NSA is implementing a number of measures to enhance the Separation Minima Infringements (SMI) indicator at the Member State level. Key initiatives include:
• Systematic investigation of occurrences, followed by the issuance of safety recommendations to PANSA and other stakeholders;
• Support for PANSA’s Local Safety Days and Safety Lessons programme, with an emphasis on sharing lessons learned with operational staff and ATCOs.
• Enhanced oversight of PANSA’s Safety Management System (SMS), focusing on separation management processes and human factors.
• Promotion of targeted training programmes for air traffic controllers in conflict detection and resolution.

The NSA continuously monitors the SMI SPI through the national occurrence database (ECCAIRS2) and quarterly reports submitted by PANSA. The effectiveness of these measures is evaluated based on indicator trends, the number and severity of separation-related events, the implementation rate of safety recommendations, and the outcomes of regular SMS audits. The results are reviewed annually within the framework of reporting on the National Safety Plan.

2.1.2.(c) - Safety PI#3: Rate of runway incursions with ATS/CNS contribution (Airport level)

Important note:
Please refer to the Supporting Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs) for the Fourth Reference Period (RP4) - Section III Safety performance indicators (SPIs) for the monitoring of separation minima infringements (SMIs) and runway incursions (RIs). Only IFR/ VFR movements at airports listed in the Performance Plan should be used to derive the rate. The indicators set out in subsection 2.1.2(c) should include occurrences whose risk analysis tool (RAT) ground severity classification is A, B, or C. These are the indicators at airport level.
When monitoring RIs ensure that the following has been coded and reported:
— unambiguously identify the safety occurrences that are RIs;
— the location indicator of the airport where the RI took place;
— the ATS unit name, airspace type, class and FIR/UIR name;
— information on whether, in the judgement of the investigators of the occurrence, the ATS or CNS contributed to the RI, either directly or indirectly or none, as appropriate;
— RAT ground severity associated to the RI, as obtained by the application of the RAT methodology by the ANSP; and
— ERCS risk grade associated to the RI, as obtained by the application of the ERCS methodology by the State or other suitable risk classification tool used by the provider.

Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs)

EPWA (Lotnisko Chopina w Warszawie)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	5				
Total number of IFR and VFR movements at the airport	201 341				
Rate of runway Incursions at the airport	0,00002				

EPBY (Bydgoszcz)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	1				
Total number of IFR and VFR movements at the airport	15 109				
Rate of runway Incursions at the airport	0,00007				

EPGD (Gdańsk im. Lecha Wałęsy)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	62 230				
Rate of runway Incursions at the airport	0,00000				

EPKK (Kraków-Balice)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	2				
Total number of IFR and VFR movements at the airport	91 359				
Rate of runway Incursions at the airport	0,00002				

EPKT (Katowice-Pyrzowice)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	50 395				
Rate of runway Incursions at the airport	0,00000				

EPLB (Lublin)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	5 391				
Rate of runway Incursions at the airport	0,00000				

EPLL (Łódź)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	1				
Total number of IFR and VFR movements at the airport	17 024				
Rate of runway Incursions at the airport	0,00006				

EPMO (Warszawa/Modlin)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	21 354				
Rate of runway Incursions at the airport	0,00000				

EPPO (Poznań-Ławica)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	1				
Total number of IFR and VFR movements at the airport	46 775				
Rate of runway Incursions at the airport	0,00002				

EPRA (Lotnisko Warszawa-Radom)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	4 769				
Rate of runway Incursions at the airport	0,00000				

EPRZ (Rzeszów-Jasionka)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	18 760				
Rate of runway Incursions at the airport	0,00000				

EPSC (Szczecin-Goleniów)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	8 635				
Rate of runway Incursions at the airport	0,00000				

EPSY (Olsztyn-Mazury)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	2 429				
Rate of runway Incursions at the airport	0,00000				

EPWR (Wrocław-Strachowice)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	40 219				
Rate of runway Incursions at the airport	0,00000				

EPZG (Zielona Góra-Babimost)	2025	2026	2027	2028	2029
Total number of runway incursions with any contribution from ATS or CNS services with a safety impact that occurred at the airport	0				
Total number of IFR and VFR movements at the airport	1 651				
Rate of runway Incursions at the airport	0,00000				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend to monitor their effectiveness?
Runway Safety Team with PANSA's participation is the standard initiative and means of controlling and managing airports safety. PANSA's own initiatives include local Safety Days, during which incidents at specific airports are discussed, as well as Safety Lessons, which allow lessons learned from investigated occurrences to be shared with all operational staff. This indicator is a subset of runway incursions with specific focus on ATS/CNS contribution. Actions are aligned with the National Aviation Safety Plan 2026–2028 (Area A.5). Main initiatives: • Active involvement of PANSA in Runway Safety Teams at all airports. • Detailed analysis of runway incursion occurrences to identify ATS/CNS-related causal factors and issuance of dedicated recommendations. • Organisation of targeted Local Safety Days addressing incidents involving air traffic services. • Distribution of Safety Lessons to both aerodrome and PANSA operational personnel. The CAA tracks both the overall runway incursion rate and the specific proportion of events with ATS/CNS contribution via ECCAIRS2 data. Monitoring includes trend analysis, audit findings, and verification of implemented safety barriers. A decreasing share of ATS/CNS-contributed events is the key measure of success.

2.1.2.(d) - Safety PI#4: Rate of separation minima infringements with ATS/CNS contribution (ANSP level)

Important note:
Please refer to the Supporting Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs) for the Fourth Reference Period (RP4) - Section III Safety performance indicators (SPIs) for the monitoring of separation minima infringements (SMIs) and runway incursions (RIs).
When monitoring SMIs ensure that the following has been coded and reported:
— unambiguously identify the safety occurrences that are SMIs;
— when the SMI occurred at the arrival or departure at an airport, the location indicator of the airport where it took place;
— The ATS unit name, airspace type, class and FIR/UIR name;
— information on whether, in the judgement of the investigators of the occurrence, the ATS or CNS contributed to the SMI, either directly or indirectly or none, as appropriate;
— RAT ground severity associated to the SMI, as obtained by the application of the RAT methodology by the ANSP;
— ERCS risk grade associated to the SMI, as obtained by the application of the ERCS methodology by the State or other suitable risk classification tool used by the provider.

Guidance Material for the implementation and measurement of the safety key performance indicator (SKPI) and safety performance indicators (SPIs)

PANSA	2025	2026	2027	2028	2029
Total number of separation minima infringements with any contribution from ATS or CNS services with a safety impact	9				
Total number of controlled flight hours within the airspace	430 614				
Rate of separation minima infringements within the airspace where the air navigation service provider provides air traffic services	0,00002				

Port Lotniczy Bydgoszcz S.A.	2025	2026	2027	2028	2029
Total number of separation minima infringements with any contribution from ATS or CNS services with a safety impact	0				
Total number of controlled flight hours within the airspace	5 482				
Rate of separation minima infringements within the airspace where the air navigation service provider provides air traffic services	0,00000				

Warmia i Mazury Sp. z o.o.	2025	2026	2027	2028	2029
Total number of separation minima infringements with any contribution from ATS or CNS services with a safety impact	0				
Total number of controlled flight hours within the airspace	0				
Rate of separation minima infringements within the airspace where the air navigation service provider provides air traffic services					

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
PANSA's measures to improve the SMI PI include regular occurrence investigations accompanied by recommendations, local Safety Days, during which incidents are discussed, as well as Safety Lessons, which allow lessons learned from investigated occurrences to be shared with all operational staff, including ATCO training. Actions aimed at reducing Separation Minima Infringements with ATS/CNS contribution are defined in the National Aviation Safety Plan 2026–2028 (Area A.3 – Mid-Air Collision – MAC). Key initiatives include: • Thorough investigation of all SMI occurrences involving ATS/CNS factors, followed by binding safety recommendations to PANSA; • Supporting regular Local Safety Days and the Safety Lessons programmes specifically tailored for air traffic controllers; • Intensified oversight of PANSA’s SMS in the areas of separation assurance, conflict management, and use of safety nets. • Promoting best practices and enhanced controller training programmes. The indicator is monitored by the CAA through dedicated ECCAIRS2 reporting and regular performance reports from PANSA. The CAA evaluates effectiveness of these initiatives via trend analysis of the SPI, the implementation status of recommendations, the results of oversight audits, and the overall reduction in the number and risk level of separation events with ATS contribution. Progress is formally reported as part of the National Safety Plan review cycle.

2.1.3 - Additional Safety Indicators

Number of additional Safety Indicators	0

Name of additional indicator #1	
Details and description	

Name of additional indicator #2	
Details and description	

Name of additional indicator #3	
Details and description	

Name of additional indicator #4	
Details and description	

Name of additional indicator #5	
Details and description	

Name of additional indicator #6	
Details and description	

Name of additional indicator #7	
Details and description	

Name of additional indicator #8	
Details and description	

Name of additional indicator #9	
Details and description	

Name of additional indicator #10	
Details and description	

Name of additional indicator #11	
Details and description	

Name of additional indicator #12	
Details and description	

SECTION 2.2: ENVIRONMENT KPA

2.2 - Environment

2.2.1 - Key Performance Indicator

2.2.1.(a) - Environment KPI #1: Horizontal en route flight efficiency of the actual trajectory (KEA)

1. Horizontal en route flight efficiency of the actual trajectory (KEA)

Poland	2025	2026	2027	2028	2029
Targets as shown in PP	4,51%	4,49%	4,47%	4,45%	4,43%
Actual values	4,71%				
Difference	0,20%				

Assessment of the achieved level of actual performance in the environment KPA
The 2025 target, based on reference value calculated in 2024 by EC/PRB for Poland, was not met. This situation resulted from external circumstances beyond control of both ANSP (PANSA) and NSA (CAA Poland). Similarly to the 2022–2024 period, the geopolitical situation had the strongest impact on the 2025 results. The HFE indicator remained at a very high level in 2025. Although the targets set for RP4 took into account the effects of the war in Ukraine, the KEA indicator exceeded the 2025 target from February onwards. Between June and August the KEA indicator decreased; however the situation from September 2025 onwards, related to drone and repeated balloon incursions into Polish airspace, and in consequence even more intensified military activity, resulted in a renewed increase in the indicator. Additionally, violations of Polish airspace by Russian drones necessitated the establishment of further zones restricting civil aviation operations. At the same time, military activity related to border defense during attacks on Ukraine is further restricting civilian traffic, and thus reducing efficiency. As a consequence, the target set for 2025 was not met. Furthermore, the increased traffic (a higher number of movements than assumed in RP4 PP) might have also resulted in an increase in the number of ineffective movements, which determined the deviation of actual results from the target. Other factors affecting the KEA indicator for Poland in 2025 were similar to those observed in the preceding years and included airspace users' preference for certain routes that differred from the shortest available route, weather conditions (e.g. storms, particularly during the summer season) or restricted airspace (also beyond Poland's borders). It needs to be underlined that for the traffic flows affected by the above factors the trajectory offered by PANSA inside Poland is as short as possible, while the additional distance mostly comes from the overall trajectory inefficiency (so called inter-connectivity component, as visible in EUROCONTROL annual Performance Review Reports – Figure 5–20 in Performance Review Report 2025). What also needs to be borne in mind is the significant increase in military activity along Polish eastern border. Although PANSA – in close cooperation with the military (including the Polish Armed Forces and NATO) as well as with partners from ANSPs from neighboring States – implements actions aimed at minimising the negative impact of the geopolitical situation on civil aviation, it should not be overlooked that Poland is a frontline state and the impact of the developments outside the SES/EUROCONTROL area is specifically significant in Polish airspace. In the near future, given the current geopolitical situation and the continued traffic increase (which, according to the latest STATFOR forecast, is expected to exceed the assumptions adopted for RP4 PP), achievement of the targets set in RP4 PP regarding the KEA indicator seems to be really ambitious. The evolution of KEA in the Polish airspace over RP3 and 2025 proves that this indicator is not suitable for measuring ANSPs' contribution to the environmental performance.

Has the ANSP implemented any major operational or structural changes (incl. any new fixed assets put into operation) during the calendar year impacting performance in this key performance area? Please outline the relevant changes and their estimated impact
For information on measures implemented before 2025, please refer to the respective Annual Monitoring Reports. During 2025 PANSA continued implementing improvements aimed at providing airspace users with the shortest possible routes, in line with the provisions of ERNIP and adopted RP4 Performance Plan for Poland. Main actions undertaken in 2025 to improve the environmental performance: • Optimisation of FRA airspace and cross-border FRA operations by reviewing current RAD restrictions (limiting the plannability availability) for the LOW and MID ACC sectors. This resulted in updated definitions of most of the analysed restrictions (easing flow restriction conditions), freeing up some flows, and withdrawing selected restrictions. • Implementation of the Dynamic RAD (Route Availability Document) functionality managed via own ASM support system (CAT – implementation of CAT system update) connected via B2B to NM, enabling improved horizontal and/or vertical flight efficiency. • Implementation of new coordination procedures between AMC Poland and FMP Warszawa to support flexible use of airspace, for example, enabling management of so-called Dynamic RAD via AUP. The above actions resulted in increased availability of more direct routings within Baltic FRA for airspace users. Tools for automatic exchange of information regarding activities in military zones and ASM support systems have also been developed to optimise the process of releasing military zones for civilian traffic. Web-based tools were implemented in the CAT system to streamline the process of requesting, negotiating, and activating/deactivating zones. Changes to the TRA/TSA zones for the military are subject to ongoing negotiations based on the needs of both parties. In addition, an agreement was reached with UAC Karlsruhe on the possibility of using the FARCU point for planning overflights in the Polish and German FRA, which allowed for shortening the planned routes – previously, the point was only available for flights to EPSC. In 2025 PANSA also worked on the operational use of the three-layer airspace split across all sectors of Polish airspace, with full implementation planned for 2026 (the implementation of the three-layer airspace split for all sectors took place in 2025, and the operational use for JR sectors took place in 2023). The vertical split of the FIR Warszawa is intended to reduce the risk of negative impacts from potential congestion in ACC sectors – introduced earlier than assumed in ERNIP 2024.

Progress on the implementation of the measures committed to in the ERNIP
Please refer to the information above. Other initiatives foreseen in ERNIP and not mentioned above include: • Cross-border FRA with Sweden (DK-SE FAB) – due to the limitations of Norwegian ATM system currently limited only to traffic departing/arriving from/to Danish and Swedish airports. Implemented in November 2024, resulting in shortening plannable routes for all flights to/from Denmark and Sweden in south direction. • New DEP/ARR points for EPWR on EPWW – LKAA border: start of development phase in 2025, planned for implementation in 2027. New TMA entry/exit gates will significantly shorten planned routing for EPWR departures and arrivals in south direction via LKAA airspace. • Lower airspace re-organisation – planned for 2028, in 2025 start of RTS preparation. • FRA in TMAs (Warszawa TMA, Gdańsk TMA and Kraków TMA) – implementation date postponed due to reprioritisation, currently planned for 2027. • Cross-border FRA operations with Germany – planned for 2029. • Cross-border FRA operations with Ukraine – project suspended due to the geopolitical situation. Following approval from the Inspector General of the Polish Air Force, work has started on the implementation of the iOAT flight planning, which is expected to enhance Network Manager traffic planning. The implementation is planned for 2026.

2. If the performance target for the calendar year was not met

Identification and analysis by the NSA of the underlying reasons or circumstances having led to the performance target not being achieved
As mentioned above the non-achievement of the target set for 2025 was caused mainly by external factors: the geopolitical situation, violations of the Polish airspace, intensified military activity, airspace closures, weather conditions and airspace users' decisions, all of which are beyond the control of the ANSP and the NSA. Since the target set for 2025 (and RP4 generally) takes into account the impact of the war in Ukraine on the feasibility of achieving the HFE indicator's value, the margin of non-achievement in 2025 was significantly smaller than in the previous years, even though the final HFE value recorded was higher.

Recommendations to the ANSP to rectify the situation
Taking into account the circumstances and reasons described above, it must be borne in mind that the influence of PANSA and the Polish CAA on the KEA indicator is limited. The NSA recommends the timely implementation of the measures foreseen and dependent on the ANSP. Further recommendations can be issued once the war in Ukraine ends and the resulting geopolitical situation resolves.

Description of the remedial measures that have been / will be taken by the ANSP to rectify the situation. If no measures will be taken by the ANSP, please explain why
As the deviation from the target resulted from factors beyond the control of PANSA, this situation cannot be rectified by measures taken by PANSA. Although the target set for RP4 takes into account the geopolitical situation, including the effects of the war in Ukraine, the KEA indicator performance exceeded the 2025 target from February onwards. Consequently, the target set for 2025 was not achieved. Nevertheless, as stated above, PANSA continues to implement the measures foreseen in ERNIP and the adopted RP4 Performance Plan.

3. Follow-up of the measures relating to previous calendar years

Follow up of the remedial measures indicated in the previous monitoring report(s)
Previous monitoring reports did not identify any remedial measures. As indicated in the Annual Monitoring Reports for 2022, 2023 and 2024, following the outbreak of the war, PANSA implemented solutions aimed at minimising the negative impact of the outbreak of the war on ENV performance, especially in the south-eastern part of the Polish airspace. These measures include: level change of military areas, RAD and PTR to change EPRZ traffic profiles, new sector configurations in JR part since 17.06.2022, coordination with LZBB to unblock PODAN and KEFIR border points (above FL315), implementation of the 3rd layer of ACC Warszawa in sectors JR since 20.04.2023. In mid-2023 lifting some of flight planning restrictions by shifting more responsibility to ACC ATCOs to handle routings and MIL areas collisions tactically in order to ease flight planning process for airspace users. Further improvements were also implemented during 2025, as listed above (especially further verification of RAD restrictions, DRAD implementation, improvements related to CIV-MIL coordination (including improved tools for AMC/FMP)). Nevertheless, taking into account the KEA calculation methodology and the geographical location of Poland, the potential impact of PANSA on the value of KEA is considered negligible. As long as the Ukrainian airspace is closed and traffic flows restrictions beyond Poland's eastern border are in place, KEA value for Poland will remain high. It should be emphasised that although the RP4 targets take into account the geopolitical situation, the increase in the KEA indicator in 2025 does not result from actions of PANSA and is not related to the airspace structure or capacity in the FIR Warszawa. These are still external factors, outside PANSA's control, that impact the indicator's values. In the near future there is no possibility to improve the KEA indicator in FIR Warszawa without eliminating the above mentioned external, geopolitical factors that directly, negatively impact the indicator's value. There is a risk that – despite all measures foreseen in the RP4 Performance Plan – the KEA target will not be met in the remaining RP4 years. Particularly as long as the military conflict in Ukraine continues, the impact of sanctions affecting the traffic flows persists, and Ukrainian, Belarusian and Russian airspace is not unconditionally open for all GAT flights with similar reopening of EU airspace for Russian and Belarusian airspace users and the increased military presence of NATO in the Polish airspace is visible. The evolution of KEA in the Polish airspace over RP3 and 2025 proves that this indicator is not suitable for measuring ANSPs' contribution to the environmental performance. Measures to support the environmental area in RP4 have been listed above and in the RP4 PP for Poland.

2.2.2 - Performance Indicators

2.2.2.(a) - Environment PI #1: Horizontal en route flight efficiency of last filed flight plan trajectory (KEP)

Poland	2025	2026	2027	2028	2029
Actual values	6,73%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
For information on measures implemented before 2025, please refer to the respective Annual Monitoring Reports. In 2025, in order to support the minimisation of the KEP indicator, effective civil-military cooperation was maintained, particularly considering tactical operations resulting from activity related to the war in Ukraine. Implementation of the Dynamic RAD (Route Availability Document) tool took place, enabling usage of EPWW level capping restrictions only to minimum required level, thus allowing airspace users to plan more efficient cruising flight levels for certain traffic flows. Furthermore, preparations were underway for the implementation (completed in July 2025) and operational use of a three-layer airspace split in all sectors of the Polish airspace. The vertical split of the FIR Warszawa is expected to reduce the risk of negative impact of possible congestion in ACC sectors on KEP. In RP4 further development of the FRA is planned as part of cross-border FRA operations with Germany and petentially – should the war end – with Ukraine. Similarly, as KEA, KEP indicator is also impacted by the geopolitical factors, beyond control of PANSA. As indicated in chapter 2.2.1.(a) of this Report, HFE indicators are expected to remain high during the subsequent years due to the military conflict in Ukraine and related sanctions. The NSA receives the list of planned changes to the ATM functional system on a regular basis. Once a change is notified the relevant monitoring activities are implemented.

2.2.2.(b) - Environment PI #2: Horizontal en route flight efficiency of shortest constrained trajectory (KES)

Poland	2025	2026	2027	2028	2029
Actual values	6,21%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
For information on measures implemented before 2025, please refer to the respective Annual Monitoring Reports. In 2025, in order to support the minimisation of the KES indicator, effective civil-military cooperation was maintained, particularly taking into account tactical operations resulting from activity related to the war in Ukraine. Implementation of the Dynamic RAD (Route Availability Document) tool took place, enabling usage of EPWW level capping restrictions only to minimum required level thus allowing airspace users to plan more efficient cruising flight levels for certain traffic flows. Furthermore, preparations were underway for the implementation (completed in July 2025) and operational use of a three-layer airspace split in all sectors of the Polish airspace. The vertical split of the FIR Warszawa is expected to reduce the risk of negative impact of possible congestion in ACC sectors on KES. In RP4 further development of the FRA is planned as part of cross-border FRA operations with Germany and petentially – should the war end – with Ukraine. Similarly, as KEA, KES indicator is also impacted by the geopolitical factors, beyond control of PANSA. As indicated in chapter 2.2.1.(a) of this report, HFE indicators are expected to remain high over the subsequent years due to the military conflict in Ukraine and related sanctions. The NSA receives the list of planned changes to the ATM functional system on a regular basis. Once a change is notified the relevant monitoring activities are implemented.

2.2.2.(c) - Environment PI #3: Vertical flight efficiency of the actual trajectory (en-route)

Poland	2025	2026	2027	2028	2029
Actual values	74,75%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
There is no data to compare the indicator value for 2025. The measures implemented to improve environmental performance are presented in section 2.2.1.(a). Other improvements planned for RP4 are listed in the RP4 Performance Plan for Poland and are periodically updated in ERNIP.

2.2.2.(d) - Environment PI #4: Additional time in taxi-out phase

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland *only airports > 80k movements (2021-23)*		2025	2026	2027	2028	2029
EPWA (Lotnisko Chopina w Warszawie)	Actual	3,15				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
For information on measures implemented before 2025, please refer to the respective Annual Monitoring Reports. PANSA is currently cooperating with the airport authority in the tender process, which is expected to result in the procurement of a new A-CDM for EPWA. GND planner position concept has been established and is planned to be implemented in 2027 to increase effectiveness of GND operations. Low visibility procedures are planned to be updated in 2026, which may contribute to reducing taxi times in low visibility conditions. The NSA receives the list of planned changes in the ATM functional system on regular basis. Once a change is notified, the relevant monitoring activities are implemented.

If the data at airport level are not available, please explain the reasons why data is missing and describe the measures planned to resolve the situation
n/a

2.2.2.(e) - Environment PI #5: Additional time in taxi-in phase

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland *only airports > 80k movements (2021-23)*		2025	2026	2027	2028	2029
EPWA (Lotnisko Chopina w Warszawie)	Actual	1,36				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
GND planner position concept has been established and is planned to be implemented in 2027 to increase effectiveness of GND operations and reduce taxi times. Low visibility procedures are planned to be updated in 2026, which may contribute to reducing taxi times in low visibility conditions. The NSA receives the list of planned changes in the ATM functional system on regular basis. Once a change is notified, the relevant monitoring activities are implemented.

If the data at airport level are not available, please explain the reasons why data is missing and describe the measures planned to resolve the situation
n/a

2.2.2.(f) - Environment PI #6: Additional time in terminal airspace

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland *only airports > 80k movements (2021-23)*		2025	2026	2027	2028	2029
EPWA (Lotnisko Chopina w Warszawie)	Actual	2,98				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
For information on measures implemented before 2025, please refer to the respective Annual Monitoring Reports. In 2025 PANSA reduced radar separation minimum applicable in Warszawa TMA from 5 NM to 3 NM. This measure enables more efficient traffic flow within that airspace. Additionally, RRSM has been introduced at EPWA, alongside more efficient coordination methods between APP and TWR which aimed at reducing the additional time spent in the terminal airspace of that airport. One more initiative that was implemented is a special procedure regarding VFR Spec flights (more precisely rescue helicopters) in CTR, based on buffer zones, which minimises impact of such flights on scheduled traffic. Furthermore, more efficient coordination procedures are being validated for APP and TWR, including reduction of the spacing on final approach. The NSA receives the list of planned changes in the ATM functional system on regular basis. Once a change is notified, the relevant monitoring activities are implemented.

If the data at airport level are not available, please explain the reasons why data is missing and describe the measures planned to resolve the situation
n/a

2.2.2.(g) - Environment PI #7: Vertical flight efficiency of the descent

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland		2025	2026	2027	2028	2029
all airports included in the PP						
EPWA (Lotnisko Chopina w Warszawie)	Actual	56,91				
EPBY (Bydgoszcz)	Actual	166,66				
EPGD (Gdańsk im. Lecha Wałęsy)	Actual	53,51				
EPKK (Kraków-Balice)	Actual	99,62				
EPKT (Katowice-Pyrzowice)	Actual	106,86				
EPLB (Lublin)	Actual	85,02				
EPLL (Łódź)	Actual	121,38				
EPMO (Warszawa/Modlin)	Actual	50,59				
EPPO (Poznań-Ławica)	Actual	102,64				
EPRA (Lotnisko Warszawa-Radom)	Actual	247,19				
EPRZ (Rzeszów-Jasionka)	Actual	172,66				
EPSC (Szczecin-Goleniów)	Actual	110,82				
EPSY (Olsztyn-Mazury)	Actual	133,65				
EPWR (Wrocław-Strachowice)	Actual	132,86				
EPZG (Zielona Góra-Babimost)	Actual	90,22				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?

Maintaining the work technologies and procedures of air traffic control services enabling the use of CDO landing techniques by aircraft crews.
RNAV procedures and airspace allowing continuous descent operations are available for all airports where PANSA provides ATS.
In 2025 TMA Kraków was redesigned in the lower part in order to optimise CDA profile for flights which arrive to EPKK on tactically shortened horizontal trajectories. Implementation of the project was completed in April 2026.
TMA Poznań reorganisation project was initiated in 2025. The project aims at optimising continued descent approach profile for EPPO arrival to RWY10.
TMA Zielona Góra reorganisation project was initiated in 2025 with the following goals:
1. Implementation of separate arrival/departure point to/from east direction with linked separated SID/STAR procedures,
2. Redesign of terminal airspace.
Implementation will enable simultaneous departures and arrivals to/from EPZG reducing the risk of holding patterns in such situation.

The NSA receives the list of planned changes to the ATM functional system on a regular basis. Once a change is notified the relevant monitoring activities are implemented.

2.2.2.(h) - Environment PI #8: Vertical flight efficiency of the climb

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland		2025	2026	2027	2028	2029
all airports included in the PP						
EPWA (Lotnisko Chopina w Warszawie)	Actual	9,16				
EPBY (Bydgoszcz)	Actual	28,23				
EPGD (Gdańsk im. Lecha Wałęsy)	Actual	14,37				
EPKK (Kraków-Balice)	Actual	31,69				
EPKT (Katowice-Pyrzowice)	Actual	50,07				
EPLB (Lublin)	Actual	24,41				
EPLL (Łódź)	Actual	20,00				
EPMO (Warszawa/Modlin)	Actual	13,80				
EPPO (Poznań-Ławica)	Actual	23,25				
EPRA (Lotnisko Warszawa-Radom)	Actual	51,46				
EPRZ (Rzeszów-Jasionka)	Actual	43,89				
EPSC (Szczecin-Goleniów)	Actual	25,86				
EPSY (Olsztyn-Mazury)	Actual	44,96				
EPWR (Wrocław-Strachowice)	Actual	26,25				
EPZG (Zielona Góra-Babimost)	Actual	15,81				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?

Maintaining the work technologies and procedures of air traffic control services enabling the use of CCO take-off techniques by aircraft crews.
TMA Zielona Góra reorganisation project was initiated in 2025 with the following goals:
1. Implementation of separate arrival/departure point to/from east direction with linked separated SID/STAR procedures,
2. Redesign of terminal airspace.
Implementation will enable simultaneous departures and arrivals to/from EPZG reducing the risk of holding patterns in such situation.

The NSA receives the list of planned changes to the ATM functional system on a regular basis. Once a change is notified the relevant monitoring activities are implemented.

2.2.2.(i) - Environment PI #9: Effective use of reserved or segregated local airspace (per ACC)

Poland	2025	2026	2027	2028	2029
Total number of hours allocated & notified to NM					
Total number of hours used					
Ratio	89%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
Please refer to the description below for ACC.

Warsaw (EPWW ACC)	2025	2026	2027	2028	2029
Total number of hours allocated & notified to NM					
Total number of hours used					
Ratio	89%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
On strategic airspace management level all significant exercises and permanent areas are evaluated and analysed considering historic civil traffic flows and civil traffic predictions. The impact, depending on the scale, is consulted with the key stakeholders including neighboring states, aerodrome and aircraft operators, ATS, military, EUROCONTROL NM. The lateral and vertical limits of the published airspace elements are designated considering the actual needs of users and nature of activities. All airspace elements shall be planned only for the period necessary to perform the intended task. The user is required to precisely specify the period of activity of the selected element, as well as any temporary suspensions of activity between these periods. The locations of the activities are designed not to affect the main traffic flows, ATC routes, DCTs and FRA connectivity. Segmentation, time and level restrictions are imposed when necessary to mitigate the impact in high traffic periods of the day. If possible, class C TRA airspace is implemented to minimise the impact on civil routing. When the areas excess the defined scale they are always divided into smaller modules/segments. Each segment is designed to accommodate specific activities without the need to activate the entire area to perform specific assignments. The shape of these segments is always aligned with main civil traffic flows to minimise the horizontal flight inefficiency. Further measures include: • implementation of closer cooperation between AMC Poland and FMP Warszawa in order to minimise the negative impact of segregated areas on civil traffic as far as possible, • work on update of national aviation law to optimise the process for reserving segregated areas for military users.

2.2.2.(j) - Environment PI #10: Rate of planning via available airspace structures (per ACC)

Poland	2025	2026	2027	2028	2029
Number of aircraft filing flight plans via available restricted and segregated airspace					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures	30%				
Number of aircraft filing flight plans via available conditional routes					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures	69%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
The available flight planning options are continuously updated to allow Aircraft Operators (AOs) to plan the most horizontally efficient trajectory – even when the areas are active. Except for ATS network and DCTs, the AOs have the possibility to plan in the Free Route Airspace environment (FRA). Implementation of cross-border free route airspace operations within Lithuanian and Polish airspace (BALTIC FRA) and the cross-border operations between BALTIC FRA and South East Europe FRA were completed in 1Q 2022. This measures may further enhance the planning opportunities. Second step of cross-border FRA operation between Poland, Czechia and Sweden was implemented in November 2024, further enhancing benefits for AUs. The lateral and vertical limits of the published airspace elements are defined taking into consideration the actual needs of users and nature of activities. All airspace elements shall be planned only for the period necessary to perform the intended task. The user is required to precisely specify the period of activity of the selected element, as well as any temporary suspensions of activity between these periods. Segmentation, time and level restrictions are imposed when needed to mitigate the impact in high traffic periods of the day. If possible, class C TRA airspace is implemented to minimise the impact on civil routing. Special procedures are developed including dynamic changes of level or segment and creation of new temporary routings to avoid military traffic. Further measures include: • implementation of closer cooperation between AMC Poland and FMP Warszawa in order to reduce the negative impact of segregated areas on civil traffic as far as possible, • work on update of national aviation law to optimise segregated area booking process from military users. Due to the war in Ukraine and significantly increased number of NATO flights in the Polish airspace special procedures were implemented in order to facilitate flight planning process for AUs. For some areas FUA restrictions are dynamically managed and, when possible, are not activated on given days.

Warsaw (EPWW ACC)	2025	2026	2027	2028	2029
Number of aircraft filing flight plans via available restricted and segregated airspace					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures					

Number of aircraft filing flight plans via available conditional routes					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures					

2.2.2.(k) - Environment PI #11: Rate of using available airspace structures (per ACC)

Poland	2025	2026	2027	2028	2029
Number of aircraft flying via available restricted and segregated airspace					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures	46%				
Number of aircraft flying via available conditional routes					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures	77%				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
The lateral and vertical limits of the published airspace elements are defined considering the actual needs of users and nature of activities. All airspace elements shall be planned only for the period necessary to perform the intended task. The user is required to precisely specify the period of activity of the selected element, as well as any temporary suspensions of activity between these periods. Segmentation, time and level restrictions are imposed when needed to mitigate the impact in high traffic periods of the day. If possible, class C TRA airspace is implemented to minimise the impact on civil routing. Special procedures are developed including dynamic change of level or area segment. Further measures include: • implementation of closer cooperation between AMC Poland and FMP Warszawa in order to reduce the negative impact of segregated areas on civil traffic as far as possible, • work on update of national aviation law to optimise the process for reserving segregated areas for military users.

Warsaw (EPWW ACC)	2025	2026	2027	2028	2029
Number of aircraft flying via available restricted and segregated airspace					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures	46%				
Number of aircraft flying via available conditional routes					
Number of aircraft that could have planned through those airspace structures					
Ratio of planning via available airspace structures	77%				

2.2.3 - Additional Environment Indicators

Number of additional Environment Indicators	0

Name of additional indicator #1	
Details and description	

Name of additional indicator #2	
Details and description	

Name of additional indicator #3	
Details and description	

Name of additional indicator #4	
Details and description	

Name of additional indicator #5	
Details and description	

Name of additional indicator #6	
Details and description	

Name of additional indicator #7	
Details and description	

Name of additional indicator #8	
Details and description	

Name of additional indicator #9	
Details and description	

Name of additional indicator #10	
Details and description	

Name of additional indicator #11	
Details and description	

Name of additional indicator #12	
Details and description	

SECTION 2.3: CAPACITY KPA

2.3 - Capacity

2.3.1 - Key Performance Indicators

2.3.1.(a) - Capacity KPI #1: En route ATFM delay per flight

1. En-route ATFM delay per flight

Poland (PANSA)	2025	2026	2027	2028	2029
Targets as shown in PP	0,24	0,18	0,15	0,13	0,13
Actual values	0,17				
Difference	-0,07				

Identification and analysis of the reasons and circumstances resulting in the achieved level of actual performance of the en-route ATFM delay per flight KPI
The en-route delay target was achieved. The average en-route delay for flights operated by PANSA in 2025 was 0.17 min/flt, below the 2025 target of 0.24 min/flt established in RP4 PP. At the same time, en-route delays decreased compared to 2024. Since 2022 the geopolitical situation has been the primary factor affecting operational performance in the Polish airspace. Warfare, increased military activity, and sanctions, resulting in significant changes to traffic flows in the European airspace, have had a significant impact on air traffic structure, sector capacity and airspace organisation, thereby affecting the level of delays generated. The target set for 2025, within the new, fourth reference period (RP4), based on reference value for Poland which partially reflected the operational situation in the Network observed in 2024, created also a realistic prospect of its achieving. The detailed brakdown of en-route ATFM delays per causes in 2025, based on Network Manager data for airspace users with post-ops, shows that the main delays were assigned to: code "O" - 34%, ATC capacity - 21% and weather - 17,3%. At the same time 16 335 minutes of delays in 2025 were coded as Special event, and it constitutes 12% of all ATFM en-route delays. In 2025 the following actions were implemented on an ongoing basis to minimise en-route delays: • Use of Free Route Airspace (FRA) in traffic planning and cross-border FRA, • Use of dynamic capacity management, including tactical traffic scenarios at the network level, • Flexible use of all available ATFCM (Air Traffic Flow and Capacity Management) tools, including STAM (Short Term ATFCM Measures) procedures, in managing air traffic capacity and flow, • Operational use of a three-layer airspace division in the south-eastern sectors (sectors J and R), • Post-operational analyses, including traffic volume, delays, and sector configurations used, • Pre-tactical traffic analyses based on data sent by the Network Manager (NM) during the „Rolling NOP" (European Network Operations Plan) information exchange process, • Planning ATC (Air Traffic Control) staffing based on forecasted traffic volumes in the strategic and pre-tactical phases, • Dynamic management of ACC (Area Control Centre) sectorization and the layout of APP (Approach Control) and TWR (Aerodrome Control Tower) stations on the day of the operation, • Effective civil-military cooperation, particularly taking into account tactical activities resulting from the war in Ukraine. In 2025 PANSA participated in the Occupancy Regulation Trial, a project prepared and coordinated by the NM, which was designed and operationally tested to regulate air traffic flow while maintaining minimal delays. It is also worth noting that 2025 was another year in which PANSA actively participated in European-level initiatives aimed at minimizing delays across the entire network. Due to the apparent limitations in airspace capacity in some countries and the growing impact of adverse weather events, for the Summer 2025 season, the NM, in cooperation with PANSA and other air navigation service providers in Europe, introduced additional measures to relieve the most congested parts of the European network's airspace and avoid dangerous areas. In particular, traffic scenarios were prepared that redirected some traffic flows to less congested areas, including Poland.

Description of the adjustments to the capacity plan included in adopted performance plan
No adjustments were made to the capacity plan included in adopted RP4 PP. PANSA continued implementing the initiatives listed in the RP4 PP, aimed at improving capacity in FIR Warszawa. These primarily included the following: • Preparation for the operational use of the three-layer airspace division in all sectors of Polish airspace in 2026. • Continuing the training of new air traffic controllers (with two new courses for new ATCOs launched in 2025, alongside the continuous training of trainees from the preceding years), as well as the process of acquiring and maintaining the competencies of ATC staff and other operational personnel to ensure the necessary staffing levels for the growing traffic volumes. • Preparation to implement changes to the vertical boundaries of ACC sectors aimed at more effective distribution of changing air traffic flows. • Developing, updating and preparing new solutions and functionalities within existing ATM-related systems (PEGASUS_21, Pandora), as well as deploying completely new platforms (iTEC, NMUI) in relation to RP5. • Utilising tools to support ATCOs and flow management optimisation (including use of NMP Flow as well as Arrival Manager for EPWA airport). • Continuing investments in infrastructure (CNS) and technology allowing for optimisation of airspace structures and enhance coverage across the Polish airspace, as well as supporting contingency. • Works on implementation of Radar Control in EPRZ TMA (implemented in January 2025). • Conducting traffic analyses under hypothetical scenarios assuming unblocking of Ukrainian and Belarussian airspace. Additionally: • CAPAN (capacity analysis) studies were carried out, allowing for flexible capacity determination depending on changing traffic flows. Taking into account the results, the current capacities of ACC sectors remained unchanged, and the data obtained in the study allowed PANSA to determine the capacities of new sectors created by the implementation of the third layer in the whole FIR Warszawa. When activating the analysed military zones, the possibility of reducing the declared capacities of the ACC sectors in which the military zones will be activated will be taken into account. • Preparations were underway to further develop the cross-border FRA in cooperation with other ANSPs. • Enhancing the civil-military cooperation taking into account the growing demand for airspace use by both sides. Further improvements are planned for RP4 as listed in the RP4 PP for Poland.

2. If the performance target for the calendar year was not met

Identification and analysis by the NSA of the underlying reasons or circumstances having led to the performance target not being
n/a

Recommendations to the ANSP to rectify the situation
n/a

Description of the remedial measures that have been / will be taken by the ANSP to rectify the situation. If no measures will be taken by the ANSP, please explain why
n/a

3. Follow-up of the measures relating to previous calendar years

Follow up of the remedial measures indicated in the previous monitoring report(s)
1. Improved sectorisation of ACC (until 2026) – new sector configurations in JR part since 17.06.2022, implementation of the first stage of three-layer vertical airspace split in April 2023 (JR sectors) – full FIR EPWW three layer vertical airspace split implemented in 2025 and operational from 2026. 2. Traffic flow management and development of sectorisation (ongoing process) – there are evaluations of traffic flows, carried out on a regular basis to modify flows and redirect traffic from congested areas to airspace volumes where spare capacity is available. Flexible use of ATFM regulations, including Dynamic RAD implemented (February 2025) and occupancy trials. Planned increase in the maximum number of sectors possible to be opened (number of sectors open will depend on traffic demand – traffic level and structure/flows) and flexible use of available sectors (over 2000 sector configurations possible to use). 3. Training of new ATCOs (ongoing process) – new ATCOs training aimed at increasing the number of ATCOs in line with the plan included in the RP4 PP. All the actions described in section 2.3.1.(a) to minimise en-route delays enabled the achievement of the en-route delay target for 2025. The results demonstrate that the actions taken were effective. However, a significant share of delays related to the war in Ukraine and weather factors is still visible, and PANSA's response and action capabilities remain limited.

2.3.1.(b) - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

Important note:
If the data at airport level are not available, the field will show "N/A"

1. Terminal and airport ANS ATFM arrival delay per flight

Poland			2025	2026	2027	2028	2029
National level *(all airports included in the PP)*		PP values	0,06	0,08	0,08	0,16	0,08
		Actual	0,48				
		Diff.	0,42				
Airport level	***EPWA (Lotnisko Chopina w Warszawie)***	PP values	0,06	0,06	0,12	0,34	0,14
		Actual	0,61				
	EPBY (Bydgoszcz)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,00				
	EPGD (Gdańsk im. Lecha Wałęsy)	PP values	0,13	0,11	0,10	0,05	0,02
		Actual	0,00				
	EPKK (Kraków-Balice)	PP values	0,06	0,04	0,04	0,04	0,04
		Actual	0,81				
	EPKT (Katowice-Pyrzowice)	PP values	0,01	0,01	0,01	0,01	0,01
		Actual	0,20				
	EPLB (Lublin)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,15				
	EPLL (Łódź)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,00				
	EPMO (Warszawa/Modlin)	PP values	0,02	0,02	0,02	0,02	0,02
		Actual	0,01				
	EPPO (Poznań-Ławica)	PP values	0,03	0,03	0,03	0,03	0,03
		Actual	0,00				
	EPRA (Lotnisko Warszawa-Radom)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,00				
	EPRZ (Rzeszów-Jasionka)	PP values	0,38	1,04	0,38	0,38	0,37
		Actual	0,19				
	EPSC (Szczecin-Goleniów)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,00				
	EPSY (Olsztyn-Mazury)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,00				
	EPWR (Wrocław-Strachowice)	PP values	0,01	0,01	0,01	0,01	0,01
		Actual	1,13				
	EPZG (Zielona Góra-Babimost)	PP values	0,00	0,00	0,00	0,00	0,00
		Actual	0,00				

Identification and analysis of the reasons and circumstances resulting in the achieved level of actual performance of the arrival ATFM delay per flight KPI
The target for the terminal delay indicator was not achieved. The average terminal delay for airports where PANSA provided ATC services in 2025 was 0.48 minutes/arrival, compared to the annual target set under RP4 PP of 0.06 minutes/arrival. The value of ATC only terminal delays (CRSTMP) was however lower than forecasted when drafting the RP4 PP (0.04 vs. 0.05 minute/arrival) – lower than the modulated pivot value based on ATC-related delays. The recovery of inbound traffic to Polish airports after the pandemic and since the outbreak of the war in Ukraine was much more dynamic than in overflights. Inbound IFR traffic in 2025 was 16% higher than in 2019 and increased by 8% compared to 2024. Most Polish airports exceeded 2019 levels in terms of aircraft movements handled. It should be noted that actual traffic (one way IFR MVS) at Polish airports (terminal zone I and II) in 2025 was almost 5% higher than the forecast underlying the adopted RP4 PP. Terminal delays in 2025 were generated at 9 of the 15 controlled airports (EPKK, EPKT, EPLB, EPLL, EPMO, EPPO, EPRZ, EPWA, EPWR). Higher delays than the target terminal delay indicator were due to factors unrelated to ATC. These included weather conditions (45,4% of all terminal delays recorded in 2025) and airport capacity constraints, including those related to airport infrastructure renovations (43,8%). ATC (CMPRST) related delays accounted for only 8,6% of all delays, while other non-ATC factors accounted for around 2%, including delays related to the war in Ukraine.

2. If the performance target for the calendar year was not met

Identification and analysis by the NSA of the underlying reasons or circumstances having led to the performance target not being achieved
The failure to achieve the 2025 target was due to factors beyond PANSA's control, including weather conditions and airport infrastructure renovation. The impact of those factors was much greater than anticipated at the stage of drafting the RP4 PP. Delays generated by ATC accounted for only 8,6% of all terminal delays, which translated into an indicator of 0.04 minutes/arrival, compared to the planned ATC reference value of 0.05 minutes/arrival in RP4 PP.

Recommendations to the ANSP to rectify the situation
As the average terminal delay due to ATC related causes (CRSTMP) is only 8,6% of all terminal delays recorded in 2025 and lower than the pivot value for year 2025 no strict recommendations to the ANSP (PANSA) are issued. However, the NSA continues to monitor the number of ATCOs on a regular basis, as well as other ANSP's initiatives aimed at meeting the targets related to ATC causes. Non-ATC delays remain beyond PANSA's control.

Description of the remedial measures that have been / will be taken by the ANSP to rectify the situation. If no measures will be taken by the ANSP, please explain why
As indicated above, terminal delays are significantly impacted by non-ATC elements that are beyond control of PANSA. However, PANSA is continuously implementing actions in line with RP4 PP which are aimed at reducing terminal delays and achieving the ATC terminal delay target. In 2025 these mainly included the following: • introduction of lower runway separation minima (EPWA), increasing operational efficiency, • launch of DCL – Digital Clearance – sending flight permits electronically instead of traditional voice communication (EPWA, EPWR, EPKK, EPKT, EPMO), • implementation (for testing at this stage) of D-ATIS – it allows crews to read weather and operational conditions at the airport directly from the Flight Management System computer installed in the aircraft (EPWA, EPGD, EPKK), • launch of the ground movement control service – GND (EPWR, EPKT, EPMO), • implementation of a full LVP procedure – it allows crews to read weather and operational conditions at the airport directly from the Flight Management System computer installed in the aircraft (EPKK), • introduction of Visual Departure – visual departures allow for a significant improvement in aircraft departures, having a significant impact on the traffic flow and increasing the number of movements per hour (EPKK). Planned measures to support achievement of the capacity targets in RP4 have been listed in the RP4 PP for Poland.

3. Follow-up of the measures relating to previous calendar years

Follow up of the remedial measures indicated in the previous monitoring report(s)
Remedial measures indicated in previous monitoring reports have been implemented. The target takes into account all delay causes – both ATC as well as non-ATC. As shown by the past years' data, terminal delays are significantly impacted by non-ATC elements that are beyond control of PANSA. This has been considered when defining the incentive scheme for RP4, however still due to this fact there is a significant risk that the actual delay indicator (based on all delay causes) might be different than the target – which was confirmed in 2025. Another element that can influence the actual performance over the coming years is the level of traffic. The RP4 traffic forecast is, in principle, based on STATFOR predictions. Past years' experience has shown that actual traffic can develop more dynamically than forecasted, what could also impact the delay indicator. Planned measures to support achievement of the capacity targets in RP4 have been listed in the RP4 PP for Poland.

1. Terminal and airport ANS ATFM arrival delay per flight

2.3.2 - Performance Indicators

2.3.2.(a) - Capacity PI #1: Adherence to ATFM slots

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland		2025	2026	2027	2028	2029
National level	Actual	97,3%				
EPWA (Lotnisko Chopina w Warszawie)	Actual	98,1%				
EPBY (Bydgoszcz)	Actual	98,9%				
EPGD (Gdańsk im. Lecha Wałęsy)	Actual	97,4%				
EPKK (Kraków-Balice)	Actual	98,6%				
EPKT (Katowice-Pyrzowice)	Actual	93,8%				
EPLB (Lublin)	Actual	98,4%				
EPLL (Łódź)	Actual	97,4%				
EPMO (Warszawa/Modlin)	Actual	98,4%				
EPPO (Poznań-Ławica)	Actual	97,7%				
EPRA (Lotnisko Warszawa-Radom)	Actual	98,2%				
EPRZ (Rzeszów-Jasionka)	Actual	95,8%				
EPSC (Szczecin-Goleniów)	Actual	95,6%				
EPSY (Olsztyn-Mazury)	Actual	96,3%				
EPWR (Wrocław-Strachowice)	Actual	95,5%				
EPZG (Zielona Góra-Babimost)	Actual	95,6%				

Please provide background information on the actual performance:
- If performance improved compared to previous years, please describe the measures that were implemented (if any),
- If performance deteriorated compared to previous years, please explain the reasons which lead to the deterioration, and describe the improvement measures which are planned to improve performance. How does the NSA intend on monitoring their effectiveness on performance

ATFCM cross-trainings for (Warsaw) Tower Supervisors have been performed in late 2024, which resulted in proper performance in 2025. Additionally, in 2025 dedicated ATFCM training sessions were conducted for TWR EPWR and EPKT, aimed at further improving performance parameters.
The results indicate that there were no airports in Poland where adherence to ATFM departure slots in year 2025 was less than 80%. The level of adherence to ATFM departure slots in 2025 was similar to that observed in 2024 with the highest percentage value of departures outside ATFM window noted at EPKT airport (6,2%), but still definitely not exceeding the 20% limit value.

2.3.2.(b) - Capacity PI #2: Air traffic control pre-departure delay

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland *only airports > 80k movements (2021-2023)*		2025	2026	2027	2028	2029
EPWA (Lotnisko Chopina w Warszawie)	Actual	0,99				

Please provide background information on the actual performance:
- If performance improved compared to previous years, please describe the measures that were implemented (if any),
- If performance deteriorated compared to previous years, please explain the reasons which lead to the deterioration, and describe the improvement measures which are planned to improve performance. How does the NSA intend on monitoring their effectiveness on performance

Pre-departure delays may be attributed to recovering or, in some cases, exceeding pre-COVID traffic volumes, which increases apron and terminal congestion. Ice-shedding procedures began to be utilized by some airlines, which in tight aerodromes like EPWA accounts for some delays.
GND planner position concept has been established and is now planned to be implemented in 2027 to increase effectiveness of GND operations and reduce delays. Low visibility procedures are planned to be updated in 2026, which can reduce queue times in low visibility conditions. Additional de-icing pad is planned to be open in 2027, which should reduce some of de-icing related congestions.
The NSA receives the list of planned changes to ATM functional system on a regular basis. Once the GND planner position is notified the relevant monitoring activities will be proceeded.

If the data at airport level are not available, please explain the reasons why data is missing and describe the measures planned to resolve the situation

n/a

2.3.2.(c) - Capacity PI #3: Average departure delay from all causes per flight

Important note:
If the data at airport level are not available, the field will show "N/A"

Poland *only airports > 80k movements (2021-2023)*		2025	2026	2027	2028	2029
EPWA (Lotnisko Chopina w Warszawie)	Actual	16,74				

Please provide background information on the actual performance:
- If performance improved compared to previous years, please describe the measures that were implemented (if any),
- If performance deteriorated compared to previous years, please explain the reasons which lead to the deterioration, and describe the improvement measures which are planned to improve performance. How does the NSA intend on monitoring their effectiveness on performance

2025 performance may be attributed to significant airside work-in progres (RWY closures). No significant actions were taken by PANSA to improve this indicator in 2025. Relevant monitoring activities will be implemented when necessary.

If the data at airport level are not available, please explain the reasons why data is missing and describe the measures planned to resolve the situation

n/a

2.3.2.(d) - Capacity PI #4: Percentage of total en route ATFM delay that occurred on days when the daily throughput was above the expected daily traffic (ACC)

Poland		2025	2026	2027	2028	2029
EPWW ACC	Actual	22,9%				

Please provide background information on the actual performance: - If performance improved compared to previous years, please describe the measures that were implemented (if any), - If performance deteriorated compared to previous years, please explain the reasons which lead to the deterioration, and describe the improvement measures which are planned to improve performance. How does the NSA intend on monitoring their effectiveness on performance
There is no data to compare the indicator value for 2025.

2.3.2.(e) - Capacity PI #5: Annual weighted average of the daily peak throughput (ACC)

Poland		2025	2026	2027	2028	2029
EPWW ACC	Actual	138,3				

Please provide background information on the actual performance: - If performance improved compared to previous years, please describe the measures that were implemented (if any), - If performance deteriorated compared to previous years, please explain the reasons which lead to the deterioration, and describe the improvement measures which are planned to improve performance. How does the NSA intend on monitoring their effectiveness on performance
There is no data to compare the indicator value for 2025. The measures implemented to improve capacity are presented in section 2.3.1.(a). Other improvements planned for RP4 are listed in the RP4 PP for Poland. The value of this indicator is influences by decision of Airspace Users as it is based on actual traffic performed by them.

2.3.3 - ATCO planning and training

PANSA

1. ATCOs in the scope of the performance scheme

ATCOs in the scope of the performance scheme		Planned				
		2025	2026	2027	2028	2029
Number of ATCO in OPS (year-end FTEs) employed by the ANSP (for services within the scope of the performance plan)	ACC	184,0	192,0	201,0	208,0	212,2
	APP	154,0	166,0	174,0	181,0	186,0
	TWR	287,0	296,1	308,1	322,1	329,1
Number of ATCOs in OPS (year-end FTEs) allocated to the en route cost base(s)		479,5	506,4	529,5	551,7	565,6
Number of ATCO on other duties (year-end FTEs) employed by the ANSP		24,5	24,5	24,5	24,5	24,5

ATCOs in the scope of the performance scheme		Actual				
		2025	2026	2027	2028	2029
Number of ATCO in OPS (year-end FTEs) employed by the ANSP (for services within the scope of the performance plan)	ACC	178,6				
	APP	154,0				
	TWR	285,1				
Number of ATCOs in OPS (year-end FTEs) allocated to the en route cost base(s)		467,2				
Number of ATCO on other duties (year-end FTEs) employed by the ANSP		26,5				

Additional comments
The numbers presented in the above tables “ATCOs in the scope of the performance scheme” (division into ACC, APP and TWR), for planned and actual values, represent the number of ATCOs (FTEs) who work in the given unit (ACC, APP and TWR respectively). They do not take into account the work performed by ATCO for a given service (e.g. when ATCO assigned to TWR unit performs APP service). PANSA does not allocate ATCO FTEs to types of services (ER, TNC, non-ANS). The element that is allocated to services are costs. Staff costs are allocated to resources, which then are allocated through a multistep approach, using the dedicated EPM tool, to types of services. Therefore, the values of ATCOs allocated to ER presented in lines “Number of ATCOs in OPS (year-end FTEs) allocated to the en route cost base(s)”, for planned and actual values, represent only estimates. It should be noted that in Poland at majority of airports APP service is performed from TWR unit – therefore the values in those lines include also those ATCOs who work in TWR units but perform APP service. What needs to be stressed here is that TMAs in Poland (especially those where radar approach is provided) are extensive, with upper limits even up to FL285 (TMAs dimensions, including upper limits, are based on individual operational requirements and therefore vary between various TMAs). They were established in such a way historically (in 2010) to improve airspace capacity until vertical split of the Polish airspace could be put in place – with the assumption that in fact they would cover lower airspace offloading ACC capacity. Those historically established upper limits have not been changed (lowered) until now. As a consequence, those TMAs serve not only approaching/departing flights but also transit flight (that do not land on or depart from an airport located under the given TMA). Thereby they largely perform a function similar to lower ACC sectors.

2. ATCO planning at ACC level

Warsaw (EPWW ACC)	Planned				
	2025	2026	2027	2028	2029
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	7,0	11,0	12,0	11,0	11,0
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	2,0	3,0	3,0	4,0	6,8
Number of ATCOs in OPS planned to be operational at year-end (FTEs)	184,0	192,0	201,0	208,0	212,2

Warsaw (EPWW ACC)	Actual				
	2025	2026	2027	2028	2029
Number of additional ATCOs in OPS that started working in the OPS room (FTEs)	11,5				
Number of ATCOs in OPS that stopped working in the OPS room (FTEs)	6,1				
Number of ATCOs in OPS operational at year-end (FTEs)	178,6	178,6			

Additional comments
Number of additional ACC ATCOs in OPS who have started working in the OPS room (FTEs) in 2025: 11.5166 consists of: • 8 - new licenses, • 3 - shifts from other PRU categories to PRU1 (ATCOs in OPS) category, • 0.5166 - increase of working time on the request of employee. Number of ACC ATCOs in OPS who have stopped working in the OPS room (FTEs): 6.0999 consists of: • 5 - shifts from PRU1 (ATCOs in OPS) category to other PRU categories, • 1.0999 - reduction of working time on the request of employee.

3. ATCO Training

ATCO trainees of the ANSP	Planned				
	2025	2026	2027	2028	2029
Number of trainees planned to enter the training program(s) during the year	89,0	96,0	94,0	68,0	80,0
Number of trainees expected to complete the training program(s) during the year based on statistical estimates	42,0	38,0	40,0	40,0	35,0
Number ATCO trainees at year end	151,0	159,0	163,0	135,0	128,0

ATCO trainees of the ANSP	Actual				
	2025	2026	2027	2028	2029
Number of trainees entering the training program(s) during the year	116,0				
Number of trainees completing the training program(s) during the year	43,0				
Number ATCO trainees at year end	179,0				

Description of the training process, including details on the effective failure rate and the process used to allocate newly qualified ATCOs between ACC, APP and TWR positions

Additional information for the above tables

The values in lines "Number ATCO trainees at year end", for planned and actual values, are totals (No of persons) at the given year's end of Staff categories 3 (Ab-initio trainees) and 4 (On-the-job trainees) as defined in EUROCONTROL Specification for Economic Information Disclosure.

The actual values in line “Number of trainees entering the training program(s) during the year” for 2025 include trainees starting the basic training (107 trainees) and trainees for whom training for APP or SUR APP rating was organized (9 On-the-job trainees who got ADC rating).

The actual value in line “Number of trainees completing the training program(s) during the year” for 2025 includes 43 new ATCOs, while the total number of new trainees completing the training program during 2025 was 45 (this value includes 2 endorsements of ATCOs who completed the training program in 2024, but they at once started another training; those ATCOs have been employed under PRU1 category only from 2025).

Description of the training process

In 2025 PANSA was the only organisation under the Performance Scheme involved in the ATCO training process.
Both, basic training and rating training were performed by PANSA in its dedicated training organisational unit - certified ATCO training centre (ATCO-TO). When possible and available, PANSA also employs candidates for the rating training who obtained student license (S-ATCL) during initial training at other certified ATCO-TO in Poland (eg. Lotnicza Akademia Wojskowa in Dęblin).
As it was described in RP4 PP, trainees participated in initial training, consisting of two courses: basic training and rating training. In 2025 two courses where launched – in May and November.

Basic training 2025:

Basic training launched in May 2025 was implemented in accordance with RP4 PP assumptions – theoretical part including 374 lessons (1 lesson unit = 45 min) and practical part including 12 to 15 exercises. However, in October 2025 there were some changes made in the training process, which were approved by CAA. Basic training launched in November 2025 was divided into a theoretical part, including 289 lessons (1 lesson unit = 45 min) and a practical part, which included 20 to 40 exercises. The level of knowledge of training participants was periodically monitored (tests), and after the theoretical part there was an oral knowledge test and exam.
During the practical training, students’ competence was monitored on an ongoing basis, during each training session on the simulator. After the practical part it was checked in the form of an assessment.

Rating training 2025:

The rating training was also divided into a theoretical and a practical part, as it was described in RP4 PP. Both rating trainings for May and November courses were executed in accordance with the new established training process of ATCOs, which was approved by CAA.

The duration of theoretical training (1 lesson = 45 min) depended on its type, as follows:
- aerodrome control rating (ADC): 72,5 lesson units,
- aerodrome control surveillance rating endorsement (SUR): 5 lesson units,
- approach control procedural rating (APP): 72,5 lesson units,
- approach control surveillance rating (APS): 73 lesson units,
- area control surveillance rating (ACS): 56 lesson units.

The practical part of qualification training depended on its type, in accordance with the below:

The practical part of qualification training depended on its type, in accordance with the below:
• aerodrome control rating (ADC): from 90 to 120 exercises,
• aerodrome control surveillance rating endorsement (SUR): from 10 to 13 exercises,
• approach control procedural rating (APP): from 35 to 47 exercises,
• approach control surveillance rating (APS): from 150 to 200 exercises,
• area control surveillance rating (ACS): from 170 to 220 exercises.

The level of knowledge and skills of trainees was monitored on an ongoing basis, during each simulator training session, and periodically (by analyzing training progress). After completing the practical part, an assessment was conducted, and after the theoretical part an exam took place.

The process of assigning candidates to units was a two-stage process. The first stage was the assignment of candidates to specific services (TWR, APP or ACC), which was carried out on the basis of predisposition testing during initial training - in accordance with the needs of the Operations Department of PANSA.

The second stage was the assignment to the specific units, which took place during the rating training based on the assessment of the candidates' training progress, in consultation with the Operations Department, took into account the needs and possibilities of training in the unit in terms of its effectiveness.

For 2025 PANSA planned to train 7 new ATCOs for ACC, 8 new ATCOs for APP and 27 new ATCOs for TWR, while the actual values were 8 new ATCL licences for ACC, 8 new ATCL licences for APP and 27 new ATCL licences for TWR.

2.3.4 - Additional Capacity Indicators

Number of additional Capacity Indicators	0

Name of additional indicator #1	
Details and description	

Name of additional indicator #2	
Details and description	

Name of additional indicator #3	
Details and description	

Name of additional indicator #4	
Details and description	

Name of additional indicator #5	
Details and description	

Name of additional indicator #6	
Details and description	

Name of additional indicator #7	
Details and description	

Name of additional indicator #8	
Details and description	

Name of additional indicator #9	
Details and description	

Name of additional indicator #10	
Details and description	

Name of additional indicator #11	
Details and description	

Name of additional indicator #12	
Details and description	

SECTION 2.4: COST-EFFICIENCY KPA

2.4 - Cost-efficiency

2.4.1 - Key Performance Indicators

1. List of En route Charging Zones and ETNA data references

	Reporting Tables ETNA Reference	Additional Information ETNA Reference
Poland	ep-ep-ert-jun2026.xlsx	ep-ep-ert-jun2026.doc

2. List of Terminal Charging Zones and ETNA data references

	Reporting Tables ETNA Reference	Additional Information ETNA Reference
Poland zone 1	ep-z1-tnc-june2026.xlsx	ep-z1-tnc-june2026.doc
Poland zone 2	ep-z2-tnc-june2026.xlsx	ep-z2-tnc-june2026.doc

2.4.1.(a) - Cost efficiency KPI: Determined unit cost (DUC) for en-route ANS

1. DUC for en route air navigation services

En route charging zone	RP4 cost-efficiency targets (determined 2025-2029)				
Poland	2025 D	2026 D	2027 D	2028 D	2029 D
Total en route costs in nominal terms (in national currency)	1 212 719 938	1 282 205 862	1 339 290 331	1 398 760 741	1 444 485 578
Total en route costs in real terms (in national currency at 2022 prices)	1 040 320 153	1 072 202 145	1 095 313 605	1 123 698 694	1 139 047 381
Total en route Service Units (TSU)	4 064 619	4 255 413	4 425 489	4 590 250	4 756 768
Real en route unit costs (in national currency at 2022 prices) - DUC	255,95	251,96	247,50	244,80	239,46

En route charging zone	RP4 actuals				
Poland	2025 A	2026 A	2027 A	2028 A	2029 A
Total en route costs in nominal terms (in national currency)	1 220 438 360				
Total en route costs in real terms (in national currency at 2022 prices)	1 069 326 238				
Total en route Service Units (TSU)	3 953 117				
Real en route unit costs (in national currency at 2022 prices)	270,50				

En route charging zone	Difference between actual and plan (in %)				
Poland	2025	2026	2027	2028	2029
Total en route costs in nominal terms (in national currency)	0,6%				
Total en route costs in real terms (in national currency at 2022 prices)	2,8%				
Total en route Service Units (TSU)	-2,7%				
Real en route unit costs (in national currency at 2022 prices)	5,7%				

Overall assessment of actual performance at charging zone level (actual unit cost vs. DUC)

PANSA:
AUC was 6.2% above DUC. The main reasons for this difference were lower number of actual service units than the forecast (-2.7%) and lower inflation index (-3.4 pp.) – factors beyond PANSA control. Actual costs in nominal terms were 1% above planned – the reasons for the difference are presented in additional information to ER charges' reporting tables.

IMWM:
The difference between the actual and planned costs of the en-route charges was 1.462.095 PLN and results from:
- lower other operating costs by 3,74%. The above situation is mainly caused by falling inflation. The plan took into account inflation at 4,97%, while the actual inflation level in 2025 according to EUROSTAT data was 3,30%.
- lower depreciation costs resulting above all from the postponement in the time of purchase process. Some of the planned investments for 2025 have been implemented as current costs and some have been postponed to 2026.
- higher cost of capital by 21,06% resulting from the recognition of costs related to interest on the balance in the cost of capital in connection with the settlement concluded with PANSA regarding the terms of repayment of the amount constituting the balance between the contractual remuneration and the regulatory remuneration, arising by December 31, 2024. The settlement was concluded on July 30, 2025 and was not planned in the PSD.

Airport Meteo:
The total actual costs in nominal terms were 5% higher than determined. As far as staff costs (-68%) and other operating costs (+119%) are concerned, these discrepancies should be analysed together, as the most important part of both of them are the costs of MET specialists, whose duties are realised by both own staff (employees) and external, self-employed contractors (B2B contracts). ANSP has introduced in the last months of 2024 the two-person MET shifts, which has been continued for the whole 2025, in order to increase the safety of ANS provisions, decrease the fatigue of MET specialists and apply to the standards of MET functioning at other airports in Poland. As CAA has not accepted the cost increase stemming from this development at the stage of PP RP4 preparation, AM has noted overspending and these additional costs have been funded by the Airport Meteo's savings (differences between actual and determined costs) from the RP3. This approach has been widely accepted and supported by the personnel, who also agreed to minimize the size of previously negotiated wage increases in order to provide safe and cost-efficient services in the existing environment. It is expected, that the costs of this nature will continue to be higher than determined, which will be reflected both in staff cost (employees) and other operating costs (B2B specialists contractors). Depreciation costs were significantly higher than expected (+84%, especially as a result of speeded-up purchase of company and service vehicles) and cost of capital was lower (-26%), mainly due to the fact that AM has signed the MET services agreement with PANSA, which is regulating the scope of financial settlements, with more favourable terms than previously expected.

Warmia i Mazury:
WiM's AUC was equal to 0.49 PLN2022 which was a higher value than DUC (0.44 PLN2022). This means that the target has not been met. The actual costs in nominal terms were slightly higher (5%) than planned.

PL Bydgoszcz:
AUC level (0.36 PLN) was lower than DUC level (0.43 PLN), which means that the ANSP has met the target, therefore no further comment has to be made.

Please explain the differences between actual and determined costs at charging zone level:
- If the actual costs are lower than the determined, please indicate the reasons and specify which measure, if any, has not been implemented as planned.
- If the actual costs are higher than the determined, please indicate the reasons and specify the cost elements driving this increase as well as the possible impact on the following years of the reference period.

PANSA:
information about differences between actual and determined costs for the en-route charging zone per cost category listed in the reporting tables is presented in additional information to ER charges' reporting tables.

Warmia i Mazury:
The staff costs were higher than planned (+29%), which was caused by the increase of the meteorologists renumeration expenses, as well as working hours due to increase in shifts' staffing.

PL Bydgoszcz:
ANSP has noted lower actual costs than determined, in all natures. In case of staff costs the difference was relatively small (-8%), while more significant changes were noted in other operating costs (-36%), which was the consequence of the fact that PL Bydgoszcz has changed the form of cooperation with MET personnel, from B2B contracts with external companies to its own specialists. What is more, PL Bydgoszcz was forced to postpone, due to external factors and the delivery issues, the purchase of the new AWOS sensors, which was finally realized in the 2026Q1. In case of depreciation (-41%), PL Bydgoszcz is still postponing the most significant investment (TWR EPBY modernization) due to issues linked with the military stakeholder. The other reason of significant discrepancy was the delay in purchasing the specialist vehicle due to the shorthages on market. Regarding CoC (-49%), the noted difference was the consequence, above all, of the lower investment activity and more favourable terms of agreement signed with PANSA than initially planned concerning the timeline of settlements of the navigation charges for MET services.
The level of actual other operating costs was similar to the determined (+4%), yet WiM has faced increase in equipment and energy costs, as well as external staffing (B2B contracts) and intangible services comparing to the planned values. At the same time, ANSP managed to find savings in network maintenance, cleaning services, taxes and fees and indirect costs.
In case of depreciation, its level of execution was below the projected values (-37%), mainly due to the delay in purchase of the lightning detector, which was finally executed in the first months of 2026.
As far as cost of capital is concerned, its values were lower than determined (-33%) due to delays in assets purchase and also due to lower net current assets, which was the consequence of signing agreement with PANSA resolving the settlements of navigation charges for MET services with improved terms comparing to the ones initially expected.

Following from above, recommendations formulated by the NSA to the ANSP to rectify the situation
Since the target was met, no corrective measures were required.

What has been done by the ANSP to rectify the situation. If no measures will be taken by the ANSP, please explain why
PANSA: The actual evolution of SU is beyond PANSA control. The same applies to inflation. What needs to be stressed is that the CPI used for the calculation of the inflation index does not directly correspond to increases of salaries in the Polish economy (for 2025 the increase of the average salary and wages in Poland was higher than inflation) and to increases of certain goods and services that are reflected in PANSA costs. PANSA follows the plan underlying the RP4 PP with the aim to deliver the operational changes foreseen therein and execute investments and other projects as planned – although there might be some changes to the schedules due to changed circumstances or other reasons. PANSA monitors on ongoing basis both, traffic and cost evolution. **Airport Meteo:** Apart from the conscious decision related to the increase of personnel working hours, ANSP is constantly looking for savings in other areas. The additional investment costs incurred in 2025, largerly linked to the speeded-up purchase of several assets should be leveled in the next years as the timeline of depreciation and cost of capital has been moved. **Warmia i Mazury:** WiM is aware of the lower results from the investment activity. These differences should be mitigated in the following years, as current internal estimations of the future purchases of assets indicate increase in investment costs that will allow ANSP to reach the levels of determined values for the whole RP4. **PL Bydgoszcz:** ANSP is constantly trying to implement its most significant investment, which is TWR EPBY modernization. Due to external factors (issues with the military stakeholder), PL Bydgoszcz is currently analyzing different approach, consisting of an alternative construction and solution, which will increase the safety of ANS provision.

2. Follow-up of the measures relating to previous calendar years

Follow up of the remedial measures indicated in the previous monitoring report(s)
Not applicable – no remedial measures were indicated in the previous monitoring report.

3. Further observations

Is the NSA aware of any significant risks which are likely to affect cost-efficiency performance during the ongoing calendar year or during the following calendar years of the reference period? If yes, please describe those risks.
The current geopolitical situation (esp. the conflict in the Middle East) may impact availability, and as a consequence costs, of certain goods, what can have impact on the execution of costs – both, OPEX as well as CAPEX (consequences for the costs of investments). Moreover, the above conflict is also impacting traffic figures in FIR Warszawa, which since the beginning of it, are lower (this is on top of lower traffic expressed in SU visible already in 2025). If this situation continues (or further deteriorates – e.g. as a consequence of availability/higher prices of aviation fuel or macroeconomic impacts), it may have a significant impact on the number of actual service units, which is the denominator of DUC/AUC calculation. Inflation for the period 2024-2025 was lower than assumed in the RP4 PP and if this trend continues, lower inflation index in the following years will impact actual costs expressed in real terms. Moreover, it is visible that the CPI used for the calculation of the inflation index does not directly correspond to increases of salaries in the Polish economy (for 2025 the increase of the average salary and wages in Poland was higher than inflation) and to increases in prices of certain goods and services that are reflected in PANSA costs. Therefore, lower cumulative inflation may not be reflected in actual costs in nominal terms. The combined impact of the above factors may lead to AUC being above the DUC for 2026+.

Following from above, recommendations formulated by the NSA to the ANSP to rectify the situation
Ongoing monitoring of executed contracts in order to limit the costs of external services and personnel expenses.

What has been done by the ANSP in order to address the identified performance issues?
PANSA monitors on ongoing basis both, traffic and cost evolution. If the risks listed above materialize, PANSA might be forced to verify its plans for the subsequent years.

4. Major operational or structural changes

Has the ANSP implemented any major operational or structural changes (incl. any new fixed assets put into operation) during the calendar year enabling current or future cost-efficiency gains? Please outline the relevant changes and their estimated impact on performance.
PANSA: No major operational or structural changes were implemented in 2025. In 2025 PANSA focused on implementing elements foreseen in the adopted RP4 PP. A close monitoring of the progress was implemented related to key areas – including employment, ATCO training, investments, costs. **Airport Meteo:** ANSP continued to follow-up to the delayed investment activity from previous years. AM has introduced in the late 2024 new company and specialist vehicles which allowed to note savings in terms of rent costs and increased the logistics of services and time-efficiency of maintenance. The other new assets consists of the first parts of larger initatives, such as synoptic software and IT equipment, and also other minor positions. **Warmia i Mazury:** No major changes have been implemented in 2025. **PL Bydgoszcz:** No major operational or structural changes has been performed in 2025. The new specialist vehicle has been introduced in the last month of 2025, which should diminish the time needed for the instant maintenance and repairs of the AWOS. Siginificant improvements are planned for 2026, concerning, above all, the AWOS modernization, after 10 years of its operational activity.

5. Verification of actual costs

Findings of the verification of actual costs by the NSA (in accordance with Art. 22(7), Art. 23 and Art. 28(7) of IR 2019/317), and where applicable identification of corrections applied to the reported actual costs as a result of this verification.
Due to the deadline for the submission of financial statements and annual report of activities by ANSPs, verification is ongoing. Up to now no inconsistency were found.

Has the NSA verified that the costs referring to non-ANS activities (U-space, drone detection, satellites,…) or ANS costs provided to third countries are presented separately in the ANSP accounts? If not, has the NSA verified that such costs are not included in the en route cost base?
Non-ANS activities costs are presented separetely.

2.4.1.(b) - Cost efficiency KPI: Determined unit cost (DUC) for terminal ANS

1. DUC for terminal air navigation services

Terminal charging zone	RP4 cost-efficiency targets (determined 2025-2029)				
Poland zone 1	2025 D	2026 D	2027 D	2028 D	2029 D
Total terminal costs in nominal terms (in national currency)	80 996 425	87 685 466	95 140 478	104 646 548	109 863 616
Total terminal costs in real terms (in national currency at 2022 prices)	68 278 847	71 820 028	76 416 955	83 699 362	86 421 622
Total terminal Service Units (TNSUs)	112 418	119 030	123 394	127 349	131 456
Real terminal unit costs (in national currency at 2022 prices) - DUC	607,37	603,38	619,29	657,25	657,42

Terminal charging zone	RP4 actuals				
Poland zone 1	2025 A	2026 A	2027 A	2028 A	2029 A
Total terminal costs in nominal terms (in national currency)	80 475 175				
Total terminal costs in real terms (in national currency at 2022 prices)	69 612 102				
Total terminal Service Units (TNSUs)	126 059				
Real terminal unit costs (in national currency at 2022 prices)	552,22				

Terminal charging zone	Difference between actual and plan (in %)				
Poland zone 1	2025	2026	2027	2028	2029
Total terminal costs in nominal terms (in national currency)	-0,6%				
Total terminal costs in real terms (in national currency at 2022 prices)	2,0%				
Total terminal Service Units (TNSUs)	12,1%				
Real terminal unit costs (in national currency at 2022 prices)	-9,1%				

Overall assessment of actual performance at charging zone level (actual unit cost vs. DUC)
PANSA: AUC was by 9.1% lower than DUC. The reason for this difference was significantly higher number of actual service units for EPWA than the forecast (+12.1%). This is a factor beyond PANSA control. Actual costs in real terms were slightly higher than determined (+1.9%) what resulted from lower inflation index (-3.4 pp.). Actual costs in nominal terms were 0.7% below planned – the reasons for the difference are presented in additional information to terminal charges' reporting tables for the charging zone 1 (EPWA). **IMWM:** The difference between the actual and planned costs of the en-route charges was 197.715 PLN and results from: - lower other operating costs by 7,22%. The above situation is mainly caused by falling inflation. The plan took into account inflation at 4,97%, while the actual inflation level in 2025 according to EUROSTAT data was 3,30%. - lower personnel costs by 10,26% resulting from the lack of filling the vacancies planed in PSD.

Please explain the differences between actual and determined costs at charging zone level: - If the actual costs are lower than the determined, please indicate the reasons and specify which measure, if any, has not been implemented as planned. - If the actual costs are higher than the determined, please indicate the reasons and specify the cost elements driving this increase as well as the possible impact on the following years of the reference period.

PANSA:
information about differences between actual and determined costs for the terminal charging zone 1 (EPWA) per cost category listed in the reporting tables is presented in additional information to terminal charges' reporting tables for the charging zone 1 (EPWA).

Following from above, recommendations formulated by the NSA to the ANSP to rectify the situation
Since the target was met, no corrective measures were required.

What has been done by the ANSP to rectify the situation. If no measures will be taken by the ANSP, please explain why
As the target was met there was no need to undertake any measures to rectify the situation. However, the comments presented in the ER sheet of this monitoring report related to inflation and cost evolution are also valid for terminal services.

2. Follow-up of the measures relating to previous calendar years

Follow up of the remedial measures indicated in the previous monitoring report(s)
Not applicable – no remedial measures were indicated in the previous monitoring report.

3. Further observations

Is the NSA aware of any significant risks which are likely to affect cost-efficiency performance during the ongoing calendar year or during the following calendar years of the reference period? If yes, please describe those risks.
According to the latest STATFOR forecast, terminal service units in the subsequent years of RP4 at EPWA are expected to continue to be above the forecast underlying the RP4 PP. However, the risks described in the ER part of this report are also considered valid for the terminal cost -efficiency.

Following from above, recommendations formulated by the NSA to the ANSP to rectify the situation
Ongoing monitoring of executed contracts in order to limit the costs of external services and personnel expenses.

What has been done by the ANSP in order to address the identified performance issues?
PANSA monitors on ongoing basis both, traffic and cost evolution. If the risks listed in the en-route part materialize, PANSA might be forced to verify its plans for the subsequent years, which would also impact terminal costs as certain costs are common or subject to the same factors determining their value.

4. Major operational or structural changes

Has the ANSP implemented any major operational or structural changes (incl. any new fixed assets put into operation) during the calendar year enabling current or future cost-efficiency gains? Please outline the relevant changes and their estimated impact on performance.
No major operational or structural changes were implemented in 2025. In 2025 PANSA focused on implementing elements foreseen in the adopted RP4 PP. A close monitoring of the progress was implemented related to key areas – including employment, ATCO training, investments, costs.

5. Verification of actual costs

Findings of the verification of actual costs by the NSA (in accordance with Art. 22(7), Art. 23 and Art. 28(7) of IR 2019/317), and where applicable identification of corrections applied to the reported actual costs as a result of this verification.
Due to the deadline for the submission of financial statements and annual report of activities by ANSPs, verification is ongoing. Up to now no inconsistency were found.

Has the NSA verified that the costs referring to non-ANS activities (U-space, drone detection, satellites,…) or ANS costs provided to third countries are presented separately in the ANSP accounts? If not, has the NSA verified that such costs are not included in the terminal cost base?
Non-ANS activities costs are presented separetely.

2.4.1.(b) - Cost efficiency KPI: Determined unit cost (DUC) for terminal ANS

1. DUC for terminal air navigation services

Terminal charging zone	RP4 cost-efficiency targets (determined 2025-2029)				
Poland zone 2	2025 D	2026 D	2027 D	2028 D	2029 D
Total terminal costs in nominal terms (in national currency)	250 483 926	260 980 898	264 579 728	275 881 594	283 430 604
Total terminal costs in real terms (in national currency at 2022 prices)	212 627 184	215 576 560	213 141 800	218 521 307	220 182 757
Total terminal Service Units (TNSUs)	186 533	198 418	207 212	216 533	225 172
Real terminal unit costs (in national currency at 2022 prices) - DUC	1 139,89	1 086,48	1 028,62	1 009,18	977,84

Terminal charging zone	RP4 actuals				
Poland zone 2	2025 A	2026 A	2027 A	2028 A	2029 A
Total terminal costs in nominal terms (in national currency)	240 160 186				
Total terminal costs in real terms (in national currency at 2022 prices)	208 717 343				
Total terminal Service Units (TNSUs)	195 530				
Real terminal unit costs (in national currency at 2022 prices)	1 067,45				

Terminal charging zone	Difference between actual and plan (in %)				
Poland zone 2	2025	2026	2027	2028	2029
Total terminal costs in nominal terms (in national currency)	-4,1%				
Total terminal costs in real terms (in national currency at 2022 prices)	-1,8%				
Total terminal Service Units (TNSUs)	4,8%				
Real terminal unit costs (in national currency at 2022 prices)	-6,4%				

Overall assessment of actual performance at charging zone level (actual unit cost vs. DUC)

PANSA:
AUC was by 5,5% lower than DUC. The main reason for this difference was higher number of actual service units for the regional airports than the forecast (+4.8%). This is a factor beyond PANSA control. Actual costs in real terms were slightly lower than determined (-0,9%) what resulted from lower actual costs in nominal terms (-3.3%) – the reasons for the difference are presented in additional information to terminal charges' reporting tables for the charging zone 2 (other airports). Inflation index was also lower than forecasted (-3.4 pp.).

IMWM:
The difference between the actual and planned costs of the en-route charges was 2.317.168 PLN and results from:
- lower personnel costs by 10,26% resulting from the lack of filling the vacancies planed in PSD.
- lower other operating costs by 7,22%. The above situation is mainly caused by falling inflation. The plan took into account inflation at 4,97%, while the actual inflation level in 2025 according to EUROSTAT data was 3,30%.
- lower depreciation costs resulting above all from the postponement in the time of purchase process. Some of the planned investments for 2025 have been implemented as current costs and some have been postponed to 2026.
- higher cost of capital by 39,69% resulting from the recognition of costs related to interest on the balance in the cost of capital in connection with the settlement concluded with PANSA regarding the terms of repayment of the amount constituting the balance between the contractual remuneration and the regulatory remuneration, arising by December 31, 2024. The settlement was concluded on July 30, 2025 and was not planned in the PSD.

Airport Meteo:
ANSP has noted AUC equal to 7.86 PLN (in 2022 prices), while the DUC was equal to 7.64 PLN (in 2022 prices), which resulted in not meeting the cost-efficiency target.

Warmia i Mazury:
WiM's AUC was equal to 18.22 PLN2022 which was a lower value than DUC (18.35 PLN2022). This means that the target has been met. The actual costs in nominal terms were slightly higher (3%) than planned.

PL Bydgoszcz:
AUC level (16.71 PLN) was lower than DUC level (25.68 PLN), which means that the ANSP has met the target, therefore no further comment has to be made.

Please explain the differences between actual and determined costs at charging zone level:
- If the actual costs are lower than the determined, please indicate the reasons and specify which measure, if any, has not been implemented as planned.
- If the actual costs are higher than the determined, please indicate the reasons and specify the cost elements driving this increase as well as the possible impact on the following years of the reference period.

PANSA:
information about differences between actual and determined costs for the terminal charging zone 2 (other airports) per cost category listed in the reporting tables is presented in additional information to terminal charges' reporting tables for the charging zone 2 (other airports).

Airport Meteo:
The total actual costs in nominal terms were 5% higher than determined. As far as staff costs (-68%) and other operating costs (+119%) are concerned, these discrepancies should be analysed together, as the most important part of both of them are the costs of MET specialists, whose duties are realised by both own staff (employees) and external, self-employed contractors (B2B contracts). ANSP has introduced in the last months of 2024 the two-person MET shifts, which has been continued for the whole 2025, in order to increase the safety of ANS provisions, decrease the fatigue of MET specialists and apply to the standards of MET functioning at other airports in Poland. As CAA has not accepted the cost increase stemming from this development at the stage of PP RP4 preparation, AM has noted overspending and these additional costs have been funded by the Airport Meteo's savings (differences between actual and determined costs) from the RP3. This approach has been widely accepted and supported by the personnel, who also agreed to minimize the size of previously negotiated wage increases in order to provide safe and cost-efficient services in the existing environment. It is expected, that the costs of this nature will continue to be higher than determined, which will be reflected both in staff cost (employees) and other operating costs (B2B specialists contractors). Depreciation costs were significantly higher than expected (+84%, especially as a result of speeded-up purchase of company and service vehicles) and cost of capital was lower (-26%), mainly due to the fact that AM has signed the MET services agreement with PANSA, which is regulating the scope of financial settlements, with more favourable terms than previously expected.

Warmia i Mazury:
The staff costs were similar to the plan (+6%), which was caused by the increase of the meteorologists renumeration expenses, as well as working hours due to increase in shifts' staffing and in the same time slight decrease in the AFIS personnel expenses, due to lower amount of shifts.
The level of actual other operating costs was slightly higher than the determined values (+10%), yet WiM has faced increase in equipment and energy costs, as well as external staffing (B2B contracts) comparing to the plan. At the same time, ANSP managed to find savings in network maintenance services, cleaning services, taxes and fees, trainings and indirect costs.
In case of depreciation, its level of execution was below the projected values (-42%), mainly due to the delay in purchase of the lightning detector, which was finally executed in the first months of 2026. What is more, the COM investments that were planned initially for the last months of 2024 were either delayed or reduced in expenses.
As far as cost of capital is concerned, its values were lower than determined (-17%) due to delays in assets purchase and also due to lower net current assets, which was the consequence of signing agreement with PANSA resolving the settlements of navigation charges for MET services with improved terms comparing to the ones initially expected.

PL Bydgoszcz:
ANSP has noted lower actual costs than determined, in all natures. In case of staff costs, the difference was equal to -22% and mainly due to AFIS. The number of duties performered by this service was lower than planned, due to timeshifts of main ATS provider at EPBY (PANSA) and lower than expected level of operations at this airport. Similair level of changes were noted in other operating costs (-20%), which was the consequence of the fact that PL Bydgoszcz has changed the form of cooperation with MET personnel, from B2B contracts with external companies to its own specialists and also lower activity of AFIS (described above) and therefore lesser usage of the B2B contractors. What is more, PL Bydgoszcz was forced to postpone, due to external factors and the delivery issues, the purchase of the new AWOS sensors, which was finally realized in the 2026Q1. In case of depreciation (-61%), PL Bydgoszcz is still postponing the most significant investment (TWR EPBY modernization) due to issues linked with the military stakeholder. The other reason of significant discrepancy was the delay in purchasing the specialist vehicle due to the shorthages on market. Regarding CoC (-85%), the noted difference was the consequence, above all, of the lower investment activity and more favourable terms of agreement signed with PANSA than initially planned concerning the timeline of settlements of the navigation charges for MET services.

Following from above, recommendations formulated by the NSA to the ANSP to rectify the situation
Since the target was met, no corrective measures were required.

What has been done by the ANSP to rectify the situation. If no measures will be taken by the ANSP, please explain why
PANSA: As the target was met there was no need to undertake any measures to rectify the situation. However, the comments presented in the ER sheet of this monitoring report related to inflation and cost evolution are also valid for terminal services. **Airport Meteo:** Apart from the conscious decision related to the increase of personnel working hours, ANSP is constantly looking for savings in other areas. The additional investment costs incurred in 2025, largerly linked to the speeded-up purchase of several assets should be leveled in the next years as the timeline of depreciation and cost of capital has been moved. **Warmia i Mazury:** WiM is aware of the lower results from the investment activity. These differences should be mitigated in the following years, as current internal estimations of the future purchases of assets indicate increase in investment costs that will allow ANSP to reach the levels of determined values for the whole RP4. **PL Bydgoszcz:** ANSP is constantly trying to implement its most significant investment, which is TWR EPBY modernization. Due to external factors (issues with the military stakeholder), PL Bydgoszcz is currently analyzing different approach, consisting of an alternative construction and solution, which will increase the safety of ANS provision.

2. Follow-up of the measures relating to previous calendar years

Follow up of the remedial measures indicated in the previous monitoring report(s)
Not applicable – no remedial measures were indicated in the previous monitoring report.

3. Further observations

Is the NSA aware of any significant risks which are likely to affect cost-efficiency performance during the ongoing calendar year or during the following calendar years of the reference period? If yes, please describe those risks.
According to the latest STATFOR forecast, terminal service units are expected to continue to be above the forecast underlying the RP4 PP. However, the risks described in the ER part of this report are also considered valid for the terminal cost-efficiency.

Following from above, recommendations formulated by the NSA to the ANSP to rectify the situation
Ongoing monitoring of executed contracts in order to limit the costs of external services and personnel expenses.

What has been done by the ANSP in order to address the identified performance issues?
PANSA: PANSA monitors on ongoing basis both, traffic and cost evolution. If the risks listed in the en-route part materialize, PANSA might be forced to verify its plans for the subsequent years, which would also impact terminal costs as certain costs are common or subject to the same factors determining their value. **Airport Meteo:** As presented above. **Warmia i Mazury:** As listed in the previous sections. **PL Bydgoszcz:** As mentioned in the previous section.

4. Major operational or structural changes

Has the ANSP implemented any major operational or structural changes (incl. any new fixed assets put into operation) during the calendar year enabling current or future cost-efficiency gains? Please outline the relevant changes and their estimated impact on performance.
PANSA: No major operational or structural changes were implemented in 2025. In 2025 PANSA focused on implementing elements foreseen in the adopted RP4 PP. A close monitoring of the progress was implemented related to key areas – including employment, ATCO training, investments, costs. **Airport Meteo:** ANSP continued to follow-up to the delayed investment activity from previous years. AM has introduced in the late 2024 new company and specialist vehicles which allowed to note savings in terms of rent costs and increased the logistics of services and time-efficiency of maintenance. The other new assets consists of the first parts of larger initatives, such as synoptic software and IT equipment, and also other minor positions. **Warmia i Mazury:** No major changes have been implemented in 2025. The most significant one was the purchase of delayed from RP3 specialist technical vehicle for COM services, which allowed to increase the efficiency of maintenance services and logistics. **PL Bydgoszcz:** No major operational or structural changes has been performed in 2025. The new specialist vehicle has been introduced in the last month of 2025, which should diminish the time needed for the instant maintenance and repairs of the AWOS. Siginificant improvements are planned for 2026, concerning, above all, the AWOS modernization, after 10 years of its operational activity.

5. Verification of actual costs

Findings of the verification of actual costs by the NSA (in accordance with Art. 22(7), Art. 23 and Art. 28(7) of IR 2019/317), and where applicable identification of corrections applied to the reported actual costs as a result of this verification.
Due to the deadline for the submission of financial statements and annual report of activities by ANSPs, verification is ongoing. Up to now no inconsistency were found.

Has the NSA verified that the costs referring to non-ANS activities (U-space, drone detection, satellites,…) or ANS costs provided to third countries are presented separately in the ANSP accounts? If not, has the NSA verified that such costs are not included in the terminal cost base?
Non-ANS activities costs are presented separetely.

2.4.2 - Performance Indicators

2.4.2.(a) - Cost-efficiency PI #1: Actual unit cost incurred by users for en route ANS

En route charging zone					
Poland	2025	2026	2027	2028	2029
En route unit costs (in national currency) - DUC	298,36	301,31	302,63	304,72	303,67

Adjustments stemming from the year (in national currency)	2025	2026	2027	2028	2029
Inflation adjustment (Art. 26)	-26 704 402				
Cost exempt from cost-sharing (Art. 28(4) to 28(6))	-462 041				
Traffic risk sharing adjustment (Art. 27(2) to 27(5))	5 662 075				
Traffic adjustment (Art. 27(8))	3 412 830				
Financial incentives (Art. 11(3) and 11 (4))	10 883 109				
Adjustment for modulation of charges (Art. 32(1))	0				
Difference in revenue from temporary application of unit rate (Art. 29(4) and 29(5))					
Cross-financing to (-) / from (+) other charging zone(s) (Art. 25(2)(j))	0				
Total other revenues (Art. 25(3))	-41 775 681				
Loss of revenue from application of a lower unit rate (Art. 29(6))	0				
Total adjustments stemming from year n (in nat. currency)	**-48 984 111**				

Actual service units	3 953 117				
Total adjustments per actual service unit (in nat. Currency)	-12,39				
Actual unit cost incurred by users (in nat. Currency)	285,97				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
The value of this indicator derives directly from adjustment mechanisms defined in the EU Performance and Charging Regulation. Poland does not apply modulation of charges or the provisions of Article 29(6). There is a single ER charging zone in Poland, therefore cross-financing between charging zones is not applicable. Detailed data on the calculation of the adjustments is presented in ER charges' reporting tables.

2.4.2.(b) - Cost-efficiency PI #2: Actual unit cost incurred by users for terminal ANS

Terminal charging zone					
Poland zone 1	2025	2026	2027	2028	2029
Terminal unit costs (in national currency) - DUC	720,50	736,67	771,03	821,73	835,74

Adjustments stemming from the year (in national currency)	2025	2026	2027	2028	2029
Inflation adjustment (Art. 26)	-1 969 929				
Cost exempt from cost-sharing (Art. 28(4) to 28(6))	356 857				
Traffic risk sharing adjustment (Art. 27(2) to 27(5))	-5 887 090				
Traffic adjustment (Art. 27(8))	-591 974				
Financial incentives (Art. 11(3) and 11 (4))	0				
Adjustment for modulation of charges (Art. 32(1))	0				
Difference in revenue from temporary application of unit rate (Art. 29(4) and 29(5))					
Cross-financing to (-) / from (+) other charging zone(s) (Art. 25(2)(j))	0				
Total other revenues (Art. 25(3))	-1 051 954				
Loss of revenue from application of a lower unit rate (Art. 29(6))	0				
Total adjustments stemming from year n (in nat. currency)	**-9 144 089**				

Actual service units	126 059				

Total adjustments per actual service unit (in nat. Currency)	-72,54				

Actual unit cost incurred by users (in nat. Currency)	647,96				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
The value of this indicator derives directly from adjustment mechanisms defined in the EU Performance and Charging Regulation. Poland does not apply modulation of charges, the provisions of Article 29(6), or cross-financing between charging zones. Detailed data on the calculation of the adjustments is presented in TNC1 charges' reporting tables.

2.4.2.(b) - Cost-efficiency PI #2: Actual unit cost incurred by users for terminal ANS

Terminal charging zone					
Poland zone 2	2025	2026	2027	2028	2029
Terminal unit costs (in national currency) - DUC	1 342,84	1 315,31	1 276,86	1 274,09	1 258,73

Adjustments stemming from the year (in national currency)	2025	2026	2027	2028	2029
Inflation adjustment (Art. 26)	-5 863 938				
Cost exempt from cost-sharing (Art. 28(4) to 28(6))	328 294				
Traffic risk sharing adjustment (Art. 27(2) to 27(5))	-4 088 106				
Traffic adjustment (Art. 27(8))	-2 104 579				
Financial incentives (Art. 11(3) and 11 (4))	0				
Adjustment for modulation of charges (Art. 32(1))	0				
Difference in revenue from temporary application of unit rate (Art. 29(4) and 29(5))					
Cross-financing to (-) / from (+) other charging zone(s) (Art. 25(2)(j))	0				
Total other revenues (Art. 25(3))	-4 897 932				
Loss of revenue from application of a lower unit rate (Art. 29(6))	0				
Total adjustments stemming from year n (in nat. currency)	**-16 626 260**				

Actual service units	195 530				

Total adjustments per actual service unit (in nat. Currency)	-85,03				

Actual unit cost incurred by users (in nat. Currency)	1 257,81				

What initiatives were implemented or are planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance?
The value of this indicator derives directly from adjustment mechanisms defined in the EU Performance and Charging Regulation. Poland does not apply modulation of charges, the provisions of Article 29(6) or cross-financing between charging zones. Detailed data on the calculation of the adjustments is presented in TNC2 charges' reporting tables.

2.4.3 - Additional Cost-efficiency Indicators

Number of additional Cost-Efficiency Indicators	0

Name of additional indicator #1	
Details and description	

Name of additional indicator #2	
Details and description	

Name of additional indicator #3	
Details and description	

Name of additional indicator #4	
Details and description	

Name of additional indicator #5	
Details and description	

Name of additional indicator #6	
Details and description	

Name of additional indicator #7	

Details and description	

Name of additional indicator #8	
Details and description	

Name of additional indicator #9	
Details and description	

Name of additional indicator #10	
Details and description	

Name of additional indicator #11	
Details and description	

Name of additional indicator #12	
Details and description	

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

1) Actual evolution of the additional costs of measures necessary to achieve the capacity targets included in the RP4 performance plan

a) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP4

Number of capacity measures, which induce additional costs	2

PANSA	Determined costs					Actual costs				
Measure #1	2025D	2026D	2027D	2028D	2029D	2025A	2026A	2027A	2028A	2029A
Associated additional costs (nominal terms in '000 national currency)	4 304	10 299	15 445	23 519	35 106					
Description of the evolution of the actual costs related to the measure and the factors contributing to their variation as compared to the determined costs included in the performance plan										

PANSA	Determined costs					Actual costs				
Measure #2	2025D	2026D	2027D	2028D	2029D	2025A	2026A	2027A	2028A	2029A
Associated additional costs (nominal terms in '000 national currency)	29 275	49 394	70 831	83 712	94 240					
Description of the evolution of the actual costs related to the measure and the factors contributing to their variation as compared to the determined costs included in the performance plan										

b) Summary information on the additional costs of measures necessary to achieve the capacity targets for RP4 by nature by ANSP

Additional costs of measures necessary to achieve the capacity targets for RP4 (nominal terms in '000 national currency)

Poland	2025D	2026D	2027D	2028D	2029D	2025A	2026A	2027A	2028A	2029A
Staff	4 304	10 299	15 445	23 519	35 106					
of which, pension costs	627	1 402	2 090	3 144	4 523					
Other operating costs										
Depreciation	7 341	20 962	36 350	43 361	50 540					
Cost of capital	21 933	28 432	34 480	40 351	43 699					
Exceptional items										
Total additional costs of measures	33 579	59 693	86 275	107 230	129 346	-				

	2025D	2026D	2027D	2028D	2029D	2025A	2026A	2027A	2028A	2029A
Total additional costs of measures ('000 national currency)	33 579	59 693	86 275	107 230	129 346	-				

Should capacity measures not have been implemented as planned, please indicate the impact on capacity and ATFM delays and indicate if any reimbursement to airspace users is foreseen for the amounts charged in respect of the measures which are not implemented.

Additional comments
According to the „Guidance material for the development of RP4 monitoring reports" in case of Poland, where a Member State presented, in the adopted performance plan, justifications for a deviation from the cost efficiency trends based on additional measures to achieve the capacity targets, but these were deemed not necessary to achieve consistency with the cost-efficiency targets, NSAs are not required to provide information concerning the actual evolution of these measures in the Monitoring Report.

SECTION 3: INCENTIVE SCHEMES

3 - INCENTIVE SCHEMES

3.1 - Capacity

3.1.1 - Capacity (En route)

STATE / FAB	**Poland**
Calendar year	2025

Pivot value for the calendar year (minutes of ATFM delay per flight)	0,22
Basis for the annual setting of pivot values	Modulated
If modulated: modulation mechanism of pivot values	Both A) and B)
Additional comments on the definition of the pivot value for the calendar year	Pivot value modulated in accordance with the Network Operations Plan (mechanism A) and limited to CRSTMP delay causes (mechanism B).

Dead band Δ (symmetric range)	%	20%
Max bonus (≤2%)	*% of DC*	1,00%
Max penalty (≥ Max bonus)	*% of DC*	1,00%
Alert threshold (Δ Ref. value)	*fraction of min*	0,052
Total determined cost on which the incentives are calculated	*nominal/national currency*	1 088 310 873,66 PLN
Financial advantages / disadvantages	Dead band range	[0,176 - 0,264]
	Bonus sliding range	[0,168 - 0,176]
	Penalty sliding range	[0,264 - 0,272]

Verified actual value achieved for the calendar year (minutes of ATFM delay per flight)	0,082	
Methodology used to compute the actual value achieve, if modulated or any correction was made	n/a	
Financial incentive computed by the NSA (+bonus/-penalty)	*nominal/national currency*	10 883 108,74 PLN
Automatically computed financial incentive value for verification purposes (+bonus/-penalty)	*nominal/national currency*	10883108,74

3.1.2 - Capacity (Terminal)

State	Poland
Calendar year	2025

Pivot value for the calendar year (minutes of ATFM delay per flight)	0,05
Basis for the annual setting of pivot values	Modulated
If modulated: modulation mechanism of pivot values	B) Limited to CRSTMP delay causes
Additional comments on the definition of the pivot value for the calendar year	Pivot value modulated - limited to CRSTMP delay causes (mechanism B).

Dead band Δ	%	20%
Bonus/penalty range (% of pivot value)	*%*	±50%
Max bonus (≤2%)	*% of DC*	1%
Max penalty (≥ Max bonus)	*% of DC*	1%
Total determined cost on which the incentives are calculated	*nominal/national currency*	278 508 389,82 PLN
Financial advantages / disadvantages	Dead band range	[0,04 - 0,06]
	Bonus sliding range	[0,025 - 0,04]
	Penalty sliding range	[0,06 - 0,075]

Verified actual value achieved for the calendar year (minutes of ATFM delay per flight)	0,042	
Methodology used to compute the actual value achieve, if modulated or any correction was made	n/a	
Financial incentive computed by the NSA (+bonus/-penalty)	*nominal/national currency*	0
Automatically computed financial incentive value for verification purposes (+bonus/-penalty)	*nominal/national currency*	0

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

3.2 - Additional Incentive Schemes

Number of additional incentives included in the adopted performance plan	0

Additional incentive 1	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 2	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 3	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 4	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	

NSA verification	

Please provide details at Annex

Additional incentive 5	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 6	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 7	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 8	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 9	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

Additional incentive 10	
Scope of incentive scheme (National/FAB level)	
ANSP concerned	
Link with KPAs	
Description of the incentive scheme	
Definition of required target level	
Definition of verified actual level	
Methodology used to compute the actual value achieve	
Financial incentive computed by the NSA (+bonus/-penalty)	
NSA verification	

Please provide details at Annex

SECTION 4: INVESTMENTS

4 - Investments

4.0 - Summary of investments

PANSA

	Total value of the asset (capex or contractual leasing value) (in **national currency**)	Value of the assets allocated to ANS in the scope of the performance plan (in **national currency**)	Elements for the calculation of the determined costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)					Elements for the calculation of the actual costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)				
				2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
New major investments for RP4 (Table A)	377 201 433	275 473 000	Average NBV	12 610 092	77 966 089	177 755 652	232 888 889	235 219 191	13 928 063				
			Depreciation	161 932	1 619 074	3 701 800	17 936 726	22 682 672	31 453				
			Cost of leasing	0	0	0	0	0	0				
Other new investments for RP4 (below 5M€) (Table B)	286 072 659	266 288 127	Average NBV	19 829 748	67 450 217	133 281 297	191 831 734	213 509 691	0				
			Depreciation	344 083	3 622 980	9 243 760	16 534 825	22 041 546	0				
			Cost of leasing	0	0	0	0	0	0				
Major investments from RP3	1 419 070 992	646 417 856	Average NBV	453 948 963	524 484 280	619 011 001	745 707 566	830 215 756	449 468 827				
			Depreciation	31 759 865	40 976 903	46 988 219	48 731 190	53 734 295	30 970 227				
			Cost of leasing	0	0	0	0	0	0				
Existing investments from previous reference periods (Table D)	292 596 383	139 431 998	Average NBV	836 852 249	788 940 261	730 790 063	664 188 451	595 005 185	834 000 112				
			Depreciation	101 535 882	102 040 417	91 076 544	89 252 933	84 691 702	105 417 866				
			Cost of leasing	11 867 581	12 772 019	12 222 370	11 511 178	11 362 156	11 780 851				
Additional new major investments for RP4	25 000 000	24 582 600	Average NBV						24 603				
			Depreciation						0				
			Cost of leasing						0				
Total for the ANSP in RP4	**2 399 941 467**	**1 352 193 581**	Average NBV	**1 323 241 053**	**1 458 840 846**	**1 660 838 013**	**1 834 616 639**	**1 873 949 823**	**1 297 421 606**				
			Depreciation	**133 801 761**	**148 259 373**	**151 010 323**	**172 455 674**	**183 150 215**	**136 419 546**				
			Cost of leasing	**11 867 581**	**12 772 019**	**12 222 370**	**11 511 178**	**11 362 156**	**11 780 851**				

IMWM

	Total value of the asset (capex or contractual leasing value) (in **national currency**)	Value of the assets allocated to ANS in the scope of the performance plan (in **national currency**)	Elements for the calculation of the determined costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)					Elements for the calculation of the actual costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)				
				2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
New major investments for RP4 (Table A)	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Other new investments for RP4 (below 5M€) (Table B)	26 361 000	26 361 000	Average NBV	0	2 988 225	6 887 175	9 123 125	11 129 075	1 600 649				
			Depreciation	0	1 524 550	2 048 550	3 204 550	4 043 550	40 717				
			Cost of leasing	0	0	0	0	0	166 718				
Major investments from RP3	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Existing investments from previous reference periods (Table D)	24 135 942	24 135 942	Average NBV	6 415 613	5 093 318	3 232 306	1 850 350	906 409	4 761 043				
			Depreciation	3 137 562	2 197 028	1 524 996	1 238 917	648 964	2 608 196				
			Cost of leasing	0	0	0	0	0	0				

Additional new major investments for RP4	0	0	Average NBV						0				
			Depreciation						0				
			Cost of leasing						0				
Total for the ANSP in RP4	**50 496 942**	**50 496 942**	Average NBV	**6 415 613**	**8 081 543**	**10 119 481**	**10 973 475**	**12 035 484**	**6 361 691**				
			Depreciation	**3 137 562**	**3 721 578**	**3 573 546**	**4 443 467**	**4 692 514**	**2 648 914**				
			Cost of leasing	**0**	**0**	**0**	**0**	**0**	**166 718**				

Airport Meteo Sp. z o.o.

	Total value of the asset (capex or contractual leasing value) (in **national currency**)	Value of the assets allocated to ANS in the scope of the performance plan (in **national currency**)	Elements for the calculation of the determined costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)						Elements for the calculation of the actual costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)				
				2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
New major investments for RP4 (Table A)	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Other new investments for RP4 (below 5M€) (Table B)	2 244 208	2 170 490	Average NBV	119 377	464 727	1 330 327	1 727 628	1 415 400	69 222				
			Depreciation	10 355	80 808	195 584	312 228	312 228	34 186				
			Cost of leasing	0	0	0	0	0	0				
Major investments from RP3	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Existing investments from previous reference periods (Table D)	655 042	633 526	Average NBV	464 011	341 469	219 820	105 825	12 159	574 745				
			Depreciation	122 543	122 543	118 251	112 242	49 704	210 205				
			Cost of leasing	0	0	0	0	0	0				
Additional new major investments for RP4	0	0	Average NBV						0				
			Depreciation						0				
			Cost of leasing						0				
Total for the ANSP in RP4	**2 899 250**	**2 804 016**	Average NBV	**583 388**	**806 196**	**1 550 148**	**1 833 454**	**1 427 559**	**643 967**				
			Depreciation	**132 897**	**203 351**	**313 835**	**424 471**	**361 932**	**244 391**				
			Cost of leasing	**0**	**0**	**0**	**0**	**0**	**0**				

Warmia i Mazury Sp. z o.o.

	Total value of the asset (capex or contractual leasing value) (in **national currency**)	Value of the assets allocated to ANS in the scope of the performance plan (in **national currency**)	Elements for the calculation of the determined costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)						Elements for the calculation of the actual costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)				
				2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
New major investments for RP4 (Table A)	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Other new investments for RP4 (below 5M€) (Table B)	2 625 000	1 571 786	Average NBV	327 302	270 990	231 835	202 969	1 137 381	88 404				
			Depreciation	93 216	105 746	90 423	92 083	105 874	15 608				
			Cost of leasing	0	0	0	0	0	0				
Major investments from RP3	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				

Existing investments from previous reference periods (Table D)	5 913 238	4 131 506	Average NBV	2 315 227	1 910 671	2 758 617	2 031 590	1 386 730	2 394 618				
			Depreciation	476 493	456 596	743 875	715 098	531 559	322 309				
			Cost of leasing	0	0	0	0	0	0				
Additional new major investments for RP4	0	0	Average NBV						0				
			Depreciation						0				
			Cost of leasing						0				
Total for the ANSP in RP4	**8 538 238**	**5 703 292**	Average NBV	**2 642 529**	**2 181 661**	**2 990 452**	**2 234 559**	**2 524 111**	**2 483 021**				
			Depreciation	**569 709**	**562 342**	**834 298**	**807 182**	**637 432**	**337 917**				
			Cost of leasing	**0**	**0**	**0**	**0**	**0**	**0**				

Port Lotniczy Bydgoszcz S.A.

	Total value of the asset (capex or contractual leasing value) (in **national currency**)	Value of the assets allocated to ANS in the scope of the performance plan (in **national currency**)	Elements for the calculation of the determined costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)						Elements for the calculation of the actual costs of investments (net book value (NBV), depreciation and cost of leasing) (in **national currency**)				
				2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
New major investments for RP4 (Table A)	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Other new investments for RP4 (below 5M€) (Table B)	3 520 709	0	Average NBV	291 814	354 359	244 634	173 361	137 157	65 801				
			Depreciation	74 704	130 619	125 290	63 926	43 345	13 344				
			Cost of leasing	0	0	0	0	0	0				
Major investments from RP3	0	0	Average NBV	0	0	0	0	0	0				
			Depreciation	0	0	0	0	0	0				
			Cost of leasing	0	0	0	0	0	0				
Existing investments from previous reference periods (Table D)	73 957 415	0	Average NBV	6 923 287	6 170 803	5 636 981	5 209 959	4 793 288	1 767 677				
			Depreciation	772 622	689 257	431 801	420 743	414 484	363 019				
			Cost of leasing	0	0	0	0	0	0				
Additional new major investments for RP4	0	0	Average NBV						0				
			Depreciation						0				
			Cost of leasing						0				
Total for the ANSP in RP4	**77 478 124**	**0**	Average NBV	**7 215 102**	**6 525 162**	**5 881 615**	**5 383 321**	**4 930 445**	**1 833 478**				
			Depreciation	**847 326**	**819 876**	**557 091**	**484 670**	**457 829**	**376 363**				
			Cost of leasing	**0**	**0**	**0**	**0**	**0**	**0**				

4.1- Investments - ANSP

PANSA

Currency	PLN

1. Investment plan as per RP4 performance plan

a) - Major investment from RP4 performance plan (Table A)

A - Number of new major investments (PP)	5

#	Name of new major investment (i.e. above 5 M€ equivalent in national currency)	Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
A1	*IL430502_Integrated_TWR_System*	109 180 000	20 580 000	Average NBV	0	0	0	4 673 292	14 316 542	10	33%	67%	2028,2029, after RP4	0				
				Depreciation	0	0	0	158 417	1 135 083					0				
				Cost of leasing	0	0	0	0	0					0				
A2	*IR470208_Virtualisation_of_ANS*	43 000 000	43 000 000	Average NBV	4 000 000	23 500 000	41 000 000	41 612 500	38 375 000	10-20	34%	66%	2028	1 681 518				
				Depreciation	0	0	0	2 775 000	3 700 000					0				
				Cost of leasing	0	0	0	0	0					0				
A3	*IT480904_AV_Recording*	38 121 433	24 993 000	Average NBV	8 610 092	16 366 089	18 445 652	20 085 102	17 585 802	10	75%	25%	2025, 2026, 2027, after RP4	9 342 758				
				Depreciation	161 932	1 619 074	1 921 800	2 499 300	2 499 300					31 453				
				Cost of leasing	0	0	0	0	0					0				
A4	*IZ440609_Replacement_VCS_System_Warszawa*	88 000 000	88 000 000	Average NBV	0	33 000 000	77 000 000	85 800 000	80 666 667	15	89%	11%	2028	0				
				Depreciation	0	0	0	4 400 000	5 866 667					0				
				Cost of leasing	0	0	0	0	0					0				
A5	*IL440512_New_Warsaw_Tower_Solutions*	98 900 000	98 900 000	Average NBV	0	5 100 000	41 310 000	80 717 995	84 275 180	10/12/15/20	30%	70%	2027, 2028	2 903 787				
				Depreciation	0	0	1 780 000	8 104 009	9 481 622					0				
				Cost of leasing	0	0	0	0	0					0				
Sub-total of **new major investments** above 5 M€ (1)		377 201 433	275 473 000	Average NBV	12 610 092	77 966 089	177 755 652	232 888 889	235 219 191					13 928 063				
				Depreciation	161 932	1 619 074	3 701 800	17 936 726	22 682 672					31 453				
				Cost of leasing	0	0	0	0	0					0				

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

Justification of the difference between the determined and the actual costs of new 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.
The information below presents status as of 31.12.2025 (unless explicitly indicated otherwise) and refers to the PANSA major investments included in RP4 PP as new major investments. **1. IL430502_Integrated_TWR_System** – no change of scope and schedule - In 2025 the preliminary work began on the development of a harmonised operational concept covering 14 locations (all TWRs except Warsaw TWR). **2. IR470208_Virtualisation_of_ANS** – no change of scope, minor change of schedule without influence on the final planned date of entry into operation - In July 2025, a contract for the delivery of the rTWR system was signed. In 4Q 2025, the signed contract was under implementation – among others the detailed design documentation necessary for the building permit application was delivered and formally accepted and site visits were carried out at Modlin Airport and at the ATM OPS Centre in Warsaw. In addition, in July 2025, a separate contract for the modernisation of the RTC rooms was concluded. The modernisation works were completed in December 2025. **3. IT480904_AV_Recording** – no change of scope and schedule - In January 2025, a contract for the implementation of the investment in the current ATC units (Stage I) was signed and in December 2025 this stage of AV Recording System implementation was completed and entered into operational use in Kraków, Katowice, Gdańsk, Poznań ACC, Poznań TWR, Zielona Góra, Wrocław, Łódź, Modlin, Radom, Szczecin, Rzeszów, Bydgoszcz, Lublin. Furthermore, an amendment to the contract was signed covering the acceptance of the SNMP server software (Zabbix system). Stage II – AV Recording system implementation in ATM OPS Centre in Poznań - and Stage III - new ATM OPS Centre in Warsaw - are planned to be carried out as part of future implementation phases. For Stage II some preparatory actions were carried out in 2025. **4. IZ440609_Replacement_VCS_System_Warszawa** – no change of scope, change of schedule (which was implemented in Q1 2026) - In 2025 the concept of investment implementation and schedule were subject to verification. Finaly (1Q 2026) the concept of project implementation was clarified and in consequence the planned CAPEX schedule was revised. The changes took into account PANSA's technical capabilities and operational needs, especially the need to implement VCS VoIP for TWR Warszawa (New Warsaw Tower Solutions) in the first stage in order to ensure the operational implementation of the TWR on time. The signature of the contract, originally planned for Q4 2025, has been postponed (for 2026) as a consequence of the revised investment concept and the decision to align the project schedule with the construction timeline of the New Warsaw Tower Solutions. **5. IL440512_New_Warsaw_Tower_Solutions** – As it was explained in RP4 PP, due to the timing of works on the RP4 PP input, in RP4 PP (in terms of financial calculations) the assumption of implementation of Digital Tower solution was included. However, the final solution subject to the lowest implementation risk (considering also the timing of the implementation) which is implemented is conventional new TWR building. The contract was signed in July 2025. Construction and installation works are currently ongoing. In parallel, preparatory activities for the technical and operational equipment for TWR were conducted, including the preparation of tender documentation. For the Integrated TWR System for Warsaw, the operational concept and technical requirements were developed in 2025.

b) - Other new investments from RP4 performance plan (Table B)

B - Number of other new investments (below 5M€) (PP)	2

		Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
B1	*IR470212_Development of EFES PL System (Upgrade EFES System)*	10 000 000	10 000 000	Average NBV	3 000 000	7 750 000	9 033 333	8 066 667	7 066 667					0				
				Depreciation	0	500 000	933 333	1 000 000	1 000 000					0				
				Cost of leasing	0	0	0	0	0					0				
B2	*IR470213_TCT upgrade*	5 300 000	5 300 000	Average NBV	400 000	1 550 000	3 050 000	4 425 000	4 550 000					0				
				Depreciation	0	0	0	250 000	1 000 000					0				
				Cost of leasing	0	0	0	0	0					0				
Sub-total of **other new investments** below 5 M€ (2)		286 072 659	266 288 127	Average NBV	19 829 748	67 450 217	133 281 297	191 831 734	213 509 691		80%	20%		0				
				Depreciation	344 083	3 622 980	9 243 760	16 534 825	22 041 546					0				
				Cost of leasing	0	0	0	0	0					0				

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

2. Investment plan from RP3 performance plan or added during the RP3 period

a) - Major investments from RP3 period (Table C)

C - Number of major investments (i.e. above 5 M€) from RP3	13

#	Name of major investment from RP3 PP (i.e. above 5 M€ equivalent in national currency)	Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**					
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
C1	*01440701_Campus*	404 311 177	379 022 254	Average NBV	28 881 324	56 469 926	144 285 910	273 100 351	369 841 020	40	93%	7%	2028, 2029, after RP4	28 555 190				
				Depreciation	0	0	0	200 310	1 945 990					0				
				Cost of leasing	0	0	0	0	0					0				
C2	*02440701_Communication_systems*	70 816 240	0	Average NBV	25 451 788	22 243 394	19 030 875	16 055 116	13 297 005	00/10/15/20	98%	2%	2025, after RP4	25 929 529				
				Depreciation	3 185 284	3 232 995	3 193 573	2 758 189	2 758 223					3 212 642				
				Cost of leasing	0	0	0	0	0					0				
C3	*03440701_iTEC*	297 462 863	100 790 400	Average NBV	143 622 469	165 269 090	175 175 758	170 635 330	166 844 902	10-15	100%	0%	2026, after RP4	150 377 110				
				Depreciation	5 136 065	8 861 094	18 540 428	18 540 428	18 540 428					5 136 297				
				Cost of leasing	0	0	0	0	0					0				
C4	*06440701_VCS_system*	65 648 810	20 000 000	Average NBV	15 001 995	23 875 544	22 140 459	20 411 040	18 701 591	15	99%	1%	2025, after RP4	11 774 682				
				Depreciation	515 340	1 737 562	1 732 607	1 726 231	1 692 667					1 070 384				
				Cost of leasing	0	0	0	0	0					0				
C5	*21440701_ATM_OPS_Centre_Poznan*	92 738 115	0	Average NBV	75 475 968	71 030 606	66 588 249	62 153 608	57 724 161	5-40	100%	0%	2021 - 2023	75 471 787				
				Depreciation	4 445 394	4 445 410	4 439 363	4 429 922	4 428 973					4 445 161				
				Cost of leasing	0	0	0	0	0									
C6	*IP470701_U-Space_Program*	36 172 440	4 309 256	Average NBV	7 984 915	9 097 035	9 693 652	10 189 712	10 556 283	5-10	0%	100%	2024-2029, after RP4	6 066 640				
				Depreciation	671 843	983 752	1 136 240	1 313 132	1 465 920					252 978				
				Cost of leasing	0	0	0	0	0									

C7	*IT170202_Tower_at_the_Central_Hub_Airport*	65 625 000	0	Average NBV	0	0	0	0	0	5-10	0%	0%	after RP4	0					
				Depreciation	0	0	0	0	0					0					
				Cost of leasing	0	0	0	0	0										
C8	*IT430803_Radar_PSR/MSSR_Gdańsk*	36 151 324	16 784 976	Average NBV	27 672 884	34 947 998	32 885 154	30 822 309	28 759 465	15/20	100%	0%	2025	22 290 561					
				Depreciation	171 904	2 062 844	2 062 844	2 062 844	2 062 844					0					
				Cost of leasing	0	0	0	0	0										
C9	*IT430900_Modernization_of_the_ATM_system_2*	191 389 499	54 974 952	Average NBV	72 644 535	72 258 285	76 096 368	80 427 153	79 343 899	10-15	78%	22%	2022, 2024-2029	72 314 727					
				Depreciation	11 492 924	12 254 529	8 739 611	9 598 819	10 567 689					10 738 271					
				Cost of leasing	0	0	0	0	0										
C10	*IT440732_MLAT_system_for_FIR_Warsaw*	57 710 507	42 107 707	Average NBV	13 824 503	19 366 014	27 202 054	37 930 898	43 316 786	10	73%	27%	2024, 2026, 2028, 2029	13 308 239					
				Depreciation	1 378 425	1 746 263	2 789 364	3 652 949	5 475 273					1 022 420					
				Cost of leasing	0	0	0	0	0										
C11	*IR470209_CWP_TWR*	10 380 867	6 332 000	Average NBV	5 759 686	8 278 169	7 401 318	6 548 682	5 696 110	10, 15	43%	57%	2025	5 546 506					
				Depreciation	393 992	901 153	852 630	852 630	852 496					866 744					
				Cost of leasing	0	0	0	0	0										
C12	*IT430404_Server_Business_Infrastructure*	57 342 556	6 916 017	Average NBV	11 976 914	9 439 146	8 209 309	9 038 651	9 646 998	7	88%	12%	2022, 2023, recurring (2027,	11 993 625					
				Depreciation	4 209 762	2 844 121	1 594 380	1 688 556	2 036 613					4 225 330					
				Cost of leasing	0	0	0	0	0										
D1	*IT430804_Radar_PSR/MSSR_Katowice*	33 321 596	15 180 293	Average NBV	25 651 983	32 209 074	30 301 894	28 394 715	26 487 535	15/20	100%	0%	2025	25 840 231					
				Depreciation	158 932	1 907 180	1 907 180	1 907 180	1 907 180					0					
				Cost of leasing	0	0	0	0	0										
Sub-total of **major investments** (3)		1 419 070 992	646 417 856	Average NBV	453 948 963	524 484 280	619 011 001	745 707 566	830 215 756					449 468 827					
				Depreciation	31 759 865	40 976 903	46 988 219	48 731 190	53 734 295					30 970 227					
				Cost of leasing	0	0	0	0	0					0					

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

Justification of the difference between the determined and the actual costs of 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.

The information below presents status as of 31.12.2025 (unless explicitly indicated otherwise) and refers to the PANSA major investments from RP3 PP (and added during the RP3) in the scope planned and included in RP4 PP (the scope of the investment included in the RP3 PP and in the RP4 PP could be different, but the name of the investment was not changed).

1. 01440701_Campus – no change of scope, change of schedule - In April 2025, a procurement procedure was launched, as foreseen in the RP4 PP, for the design and construction of the new ATM OPS Centre in Warsaw under a Design and Build delivery model. However, because the offers did not fully comply with the requirements, the procedure had to be cancelled and the procurement process had to be relaunched. A new tender was published in December 2025. As a direct consequence, the selection of the contractor, originally planned for Q4 2025, was postponed and is now expected in 2026. The signature of the contract, initially planned for Q4 2025, has been delayed accordingly (currently forecasted for 2026). The above does not change the strategic scope of the investment but results from procurement-related constraints and legal procedures. PANSA mitigates identified delays by trying to adopt subsequent steps related to investment implementation in a way that the final date of entry into operations underlying the RP4 PP is maintained.

2. 02440701_Communication_systems – The implementation of active network infrastructure system equipment at the ATM OPS Centre in Poznań has been completed. Communication systems for the new OPS room is planned to be delivered after 2029, in line with the current schedule of the ATM OPS Centre in Warsaw (Campus) project.

3. 03440701_iTEC – no change of scope and schedule for iTEC implementation - For the P_21/iTEC system for ATM OPS Centre Poznań, in 2025, a Train the Trainers Pre SAT2 (Site Acceptance Test2) training session was conducted, and a contract for the purchase of iSNEX C#1 licences was concluded. LabCheck SWB6E was performed and the P_21/iTEC platform at ATM OPS Centre Poznań was prepared for operational mission integration and SAT2. Subsequently, the P_21 Poznań / P_21/iTEC SAT2 platform tests were prepared and executed, followed by a post SAT review. Train the Trainers P_21/iTEC Post SAT2 operational and technical training sessions were organized and OSM familiarisation activities were prepared in Warsaw. Checkpoint Cycle#1 was held in Madrid.

Within Stage IV, the P_21 /iTEC SAT3 system for ATM OPS Centre Poznań was prepared and conducted and the Final Acceptance Certificate was signed. For Stage III (the area of cybersecurity, stability tests and LTO) the annex agreement and the Final Acceptance Certificate were signed in December 2025.

For the new ISNEX system (including purchase of licences for the iTEC Sky Nex System version 2.0), Acceptance Protocols for Iteration #1 were signed, and work on Iteration #2 was initiated.

Within the scope of the DSD DEVICE CINEA, a contract with the Contractor for the installation and configuration of iTEC software was signed in November 2025. By the end of December, procurement procedures for computer equipment for the installation platform for ATM OPS Centre Poznań were ongoing, including the purchase of hardware and software for the platform. Servers, network equipment, and licences were received and installed, COM solutions for connectivity between PANSA and Oro Navigacija were developed, DATA solutions for data transfer were prepared, and use case test scenarios were developed for the validation of the DEVICE project.

Updating the DEVICE component influence the schedule of whole investment project, but the planned final entry date for the new iTEC (ISNEX) system remains unchanged (2032).

4. 06440701_VCS_system – no change in scope, change of schedule - The contract for the implementation of the VCS system at Poznań ACC was signed in December 2024. In 2025 the project was implemented under the signed contract with negligible delays (no more than 1Q) of organisational and scheduling nature, which did not affect the scope, functionality or safety of the implemented system. In 2Q 2025 structural cabling works were completed in Poznań ACC building and PANSA's facilities in Warsaw. In 4Q 2025 the task for ATC OPS Centre Poznań was completed, as confirmed by the signature of the final acceptance protocol. Further implementation of the investment, including the extension of the VCS system for the new ATC OPS Centre in Warsaw (Campus), is planned after 2029.

5. 21440701_ATM OPS Centre Poznań – The investment was completed in 2023.

6. IP470701_UAV environment development (U-Space Programme) – no change of scope and schedule – Geozones module: continuation of warranty and the implementation of updates with their validation. The activation of the payment functionality and the geographical zone application process was slightly delayed due to the limited availability of internal resources and the fact that the system remains under warranty with the contractor, who was implementing parallel corrective actions.

UAV: a contract for the delivery of an unmanned aerial vehicle for the inspection of radio-navigation systems was signed in April 2025. In December 2025 further procurement of UAV was contracted and completed.

PANSA UTM: dATS ANSP and SupUTM ANSP modules were developed in 2025. The dATS ANSP module was delivered to the servers in December 2025.

DroneTower software was still under development in order to support system integration and ensure compliance with evolving national and European regulatory requirements.

DroneTower: software was still under development in order to support system integration and ensure compliance with evolving national and European regulatory requirements.
Delays affecting selected components (dATS 2.0, SupUTM 2.0, DroneTower 2.0 and the payment functionality of the Geozones module) are of a technical and organisational nature. They resulted primarily from the postponed operational deployment of dATS 2.0, on which subsequent developments are dependent, as well as from the limited availability of internal software development resources. These delays do not affect the final completion date of the project.
It should be noted that this investment is only partly financed under the PP (the rest is financed via non-ANS sources).

7. IT170202_Tower at the Central Hub Airport – investment is to be implemented by the Agency after 2029 (subject to CPK (Port Polska) implementation schedule).

8. IT430803_Radar PSR/MSSR Gdańsk – no change of scope, change of schedule with influence on the planned date of entry into operation: 2025 – changed to 2026 - The implementation of the investment was not completed within the original contractual deadline (June 2025). New date for the final acceptance of the investment was agreed with the contractor for February 2026 (based on a court settlement). The delays in the implementation of the investment resulted primarily from prolonged procedures related to obtaining the permanent power supply for the facility. An additional factor affecting the implementation schedule was the fact that a single contract covers the delivery of three radar facilities (Katowice, Gdańsk and Pułtusk), which required coordination of the scope of works, contractor resources and implementation timelines across the different locations. The delays are of a technical and organisational nature and have been formally regulated through a contract amendment. They do not affect the final functional scope or technical parameters of the investment. The delay described above is the reason for differences in financial figures between the plan and actual.

9. IT430900_Modernization_of_the_ATM_system_2 – change of scope, no change of schedule - The scope foreseen under the RP3 PP was finalised in 2022. In 2025 the contract signed in 2023 covering the deployment of new and modified ATM system functionalities continued to be implemented. Cooperation with the contractor focused on addressing identified defects and issues. Multiple software releases were tested, and the operational deployment of Stage IV (delivery of targeted software improvements to increase operational efficiency, safety, and system usability across core ATM modules) was completed in June 2025. Stage V (implementation and enhancement of selected software functionalities across operational systems, with a focus on safety, HMI and trajectory processing) was completed, including DCL training, implementation of new functionalities (ACC layer improvements, SUA-related separation, CPDLC extensions and HMI enhancements) and finally accepted in Q3 2025. For Stage VI (new and modified software functionalities, in particular DBM (Database Manager), SDD (Situation Display), TDB (Tower Display / Tools), TP (Trajectory Prediction) and OS (Operational Services)), workshops were conducted in September 2025, mock-ups were accepted in December 2025, and development activities are ongoing; the training protocol has been postponed to Q1 2026. In parallel, Upgrade 3.5 (AWALON, RECAT, SDD workstations for rTWR and FD OAT) entered the procurement phase, with the contract signed in Q4 2025 (SDD workstations for rTWR and FD OAT parts are the elements which extend the scope of the project – not planned in RP4 PP). Deviations are limited to schedule adjustments and do not affect the scope or functionality of the ATM modernisation as well as the final date of delivery of the investment.

10. IT440732_MLAT system for FIR Warsaw – no change of scope, change of schedule with influence on planned date of entry into operation: 2029 – changed to 2030 (for the last stage) - As part of RP3 PP, the implementation of 3 stages was assumed: West, South and Centre. Stage I West was completed in July 2024 (operational implementation). Under RP4 PP the implementation of Stage II South, Stage III Centre and Stage IV Expansion of Stage I West was assumed.
In 2025, the process of competitive dialogue procedure was continued for Stage II South. Documentation for the call for tenders (ToR, draft contract, tender specifications), three SLA variants and non-price award criteria were finalised. The competitive dialogue phase was extended following feedback from participants indicating the need for a longer implementation period (18–20 months instead of 13–15 months). Tender offers were opened in November 2025 and evaluated until February 2026. The contract signature has been rescheduled to 2026 (from 2025) - the selection of the contractor took place in April 2026. PANSA tried to mitigate the project delays resulting from the duration of the tender procedures through timely execution of all activities for which PANSA was responsible during the whole process, as well as ongoing monitoring of the process in close cooperation between the project team and the public procurement unit.
In March 2025 the decision about implementation of Stage IV Expansion of Stage I West was made to ensure Mode S coverage redundancy. Project documentation was approved in July 2025, system deliveries were completed and confirmed in December 2025. Installation, integration and testing activities have commenced.
The initiation of the Stage III Centre implementation is planned for 2027.

11. IR470209_CWP_TWR – change of scope, no change of schedule - In October 2024 the contract for the purchase and installation of consoles with cabling for 4 locations was signed (Szczecin, Gdańsk, Wrocław, Łódź). In 2025, the procurement and installation of consoles together with cabling were completed at four locations: Szczecin, Gdańsk, Wrocław and Łódź. The scope of the task planned for implementation in 2025 was fully completed in line with the plan. The scope of the investment was slightly extended to include equipping controller working positions (assistant and delivery TWR) with a height-adjustment option, ensuring the ability to reconfigure role layouts at operator's positions in the event of operational requirements or system failures.

12. IT430404_Server_Business_Infrastructure – recurring investment task - In 2025 the procurement procedure documentation was being developed. Some delays are identified at the preliminary stage of investment execution (documentation development). The delays result from objective factors beyond PANSA control, in particular a sudden and difficult-to-predict increase in prices of IT components on the global markets. Due to this price increase, it was necessary to re-analyse and adjust the scope of the planned procurement, in order to ensure cost efficiency and alignment with current market conditions.

13. IT430804 RADAR Katowice – no change of scope, change of schedule with influence on planned date of entry into operation: 2025- changed to 2026 - New major investment added during RP3. The implementation of the investment was not completed within the original contractual deadline (June 2025). New date for the final acceptance of the investment was agreed with the contractor for February 2026 (based on a court settlement). The delays in the implementation of the investment resulted primarily from the need to develop and implement a remedial programme related to changes introduced to the elevator shaft structure, which required additional analyses and corrective works. An additional factor affecting the implementation schedule was the fact that a single contract covers the delivery of three radar facilities (Katowice, Gdańsk and Pułtusk), necessitating coordination of work scope, contractor resources and timelines across multiple sites. The delays are of a technical and organisational nature and have been formally regulated through a contract amendment. They do not affect the final functional scope or technical parameters of the investment. The investment was successfully completed in 2026.

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

3. Existing investments

a) - Existing investments from previous RPs (Table D)

D - Existing investments from previous RPs

	Total value of the asset (capex or contractual leasing value) (in national	Value of the assets allocated to ANS in the scope of the PP (in national	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
				2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
Sub-total of **existing investments** below 5 M€ (2)	292 596 383	139 431 998	Average NBV	836 852 249	788 940 261	730 790 063	664 188 451	595 005 185		81%	19%		834 000 112				
			Depreciation	101 535 882	102 040 417	91 076 544	89 252 933	84 691 702					105 417 866				
			Cost of leasing	11 867 581	12 772 019	12 222 370	11 511 178	11 362 156					11 780 851				

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

4. Additional major investments added during the RP4 period

a) - Additional major investments not foreseen as part of the performance plan and requested by the ANSP in accordance with Art. 28(4) of IR 2019/317 (Table E)

Number of additional new major investments	1

#	Name of additional new major investment (i.e. above 5 M€ equivalent in national currency)	Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	Year of addition	**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	**Actual costs** of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)				
						2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
1	*IZ440610_Replacement of Technical Security Systems in Warsaw*	25 000 000	24 582 600	2026	Average NBV	0	3 441 668	15 133 645	22 151 207	19 694 106	10	80%	20%	2 027	24 603				
					Depreciation	0	0	1 230 378	2 461 245	2 461 763					0				
					Cost of leasing	0	0	0	0	0					0				
Sub-total of **additional new major investments** above (1)		25 000 000	24 582 600		Average NBV	0	3 441 668	15 133 645	22 151 207	19 694 106					24 603				
					Depreciation	0	0	1 230 378	2 461 245	2 461 763					0				
					Cost of leasing	0	0	0	0	0					0				

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

Name of new major investment 1	***IZ440610_Replacement of Technical Security Systems in Warsaw***	Reference #	***1***	Total value of the asset		***25 000 000***
Main category of the investment	New ATM system	Overhaul of existing ATM system	Other ATM	CNS	Infrastructure	Ancillary	Other
					x		
Description of the asset	The investment involves replacing outdated technical security systems in Warsaw facilities, including access control, video surveillance, and alarm systems. This will result in a comprehensive security infrastructure that meets modern standards and regulations. The aim of this investment is to enhance the security of PANSA facilities. The existing systems are outdated and offer limited capabilities for security management, which may lead to challenges in access control, video surveillance and intrusion detection in the future. The goals of this initiative are to: • Standardize security measures for the authorization of equipment and personnel; • Ensure the highest level of protection for PANSA facilities; • Establish a central management hub for technical security systems that can be replicated across other facilities nationwide. The task was included in the RP4 PP (under other new investments) with CAPEX of PLN 25 million for the period 2026-2027. The value was an initial estimate based on general evaluation of Warsaw's systems and infrastructure performed by external company. Based on the 2025 estimates, the CAPEX is to increase to PLN 32.8 million. This estimate takes into account detailed project and investor's cost estimate, which includes the precise scope of work.						
Is the investment mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? If yes please provide description/reference	No	n/a					
For investments in new ATM systems and major overhauls of ATM systems, information on the consistency of the investment with the European ATM Master Plan	none						
Level of impact of the investment	Network level	no					
	Local level	yes					

Quantitative impact per KPA		Safety	Environment	Capacity	Cost Efficiency
		Major	Negligeable	Negligeable	N/A
Results of the consultation of airspace users' representatives		The justification for the investment and the scope of the task was presented to AUs during the annual consultation meeting on the actual costs incurred in 2024 and proposed unit rates for 2026, which was held on July 10th, 2025. No specific comments with respect to this investment were made.			
Joint investment / partnership	No	If yes, please provide reference to joint project and/or indicate reference to cross-border initiatives		n/a	

Description and justification of the costs nature and benefits of additional other new investments in fixed assets planned over the reference period
Over 2025 only minor additional (not planned under the RP4 PP) other (non-major) new investments were executed, including server infrastructure extension, modernization of the aircraft used for the calibration services, infrastructure for physical security of employees working in OPS units at airports located in the Eastern part of Poland or D-ATIS. These investments were mainly aimed at supporting service continuity and/or safety.

4.1- Investments - ANSP

IMWM

Currency	PLN

1. Investment plan as per RP4 performance plan

a) - Major investment from RP4 performance plan (Table A)

A - Number of new major investments (PP)	0

b) - Other new investments from RP4 performance plan (Table B)

B - Number of other new investments (below 5M€) (PP)	6

		Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
B1	*Modernization of AWOS, purchase of visibility sensors with current weather sensors*	1 000 000	1 000 000	Average NBV	0	400 000	700 000	500 000	300 000									
				Depreciation	0	200 000	200 000	200 000	200 000									
				Cost of leasing	0	0	0	0	0									
B2	*AWOS modernization purchase of ceilometers*	2 500 000	2 500 000	Average NBV	0	1 000 000	1 750 000	1 250 000	750 000									
				Depreciation	0	500 000	500 000	500 000	500 000									
				Cost of leasing	0	0	0	0	0									
B3	*Construction and commissioning of automated weather obserwation systems AWOS at EPKK*	2 500 000	2 500 000	Average NBV	0	0	1 125 000	2 125 000	1 875 000									
				Depreciation	0	0	250 000	250 000	250 000									
				Cost of leasing	0	0	0	0	0									
B4	*AWOS modernization purchase of visibility meters with current weather sensors*	4 500 000	4 500 000	Average NBV	0	0	0	1 800 000	3 150 000									
				Depreciation	0	0	0	900 000	900 000									
				Cost of leasing	0	0	0	0	0									
B5	*AWOS modernization purchase of visibility meters with current weather sensors + background luminance*	4 500 000	4 500 000	Average NBV	0	0	0	0	1 800 000									
				Depreciation	0	0	0	0	900 000									
				Cost of leasing	0	0	0	0	0									
B6	*Purchase of AWOS system in Katowice*	2 500 000	2 500 000	Average NBV	0	0	0	0	0									
				Depreciation	0	0	0	0	0									
				Cost of leasing	0	0	0	0	0									
B7	*Other new inwestments*			Average NBV										1 600 649				
				Depreciation										40 717				
				Cost of leasing										166 718				
Sub-total of **other new investments** below 5 M€ (2)		26 361 000	26 361 000	Average NBV	0	2 988 225	6 887 175	9 123 125	11 129 075		54%	46%		1 600 649				
				Depreciation	0	1 524 550	2 048 550	3 204 550	4 043 550					40 717				
				Cost of leasing	0	0	0	0	0					166 718				

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

2. Investment plan from RP3 performance plan or added during the RP3 period

a) - Major investments from RP3 period (Table C)

C - Number of major investments (i.e. above 5 M€) from RP3	0

3. Existing investments

a) - Existing investments from previous RPs (Table D)

D - Existing investments from previous RPs

	Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
				2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
Sub-total of **existing investments** below 5 M€ (2)	24 135 942	24 135 942	Average NBV	6 415 613	5 093 318	3 232 306	1 850 350	906 409		51%	49%		4 761 043				
			Depreciation	3 137 562	2 197 028	1 524 996	1 238 917	648 964					2 608 196				
			Cost of leasing	0	0	0	0	0					0				

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

4. Additional major investments added during the RP4 period

a) - Additional major investments not foreseen as part of the performance plan and requested by the ANSP in accordance with Art. 28(4) of IR 2019/317 (Table E)

Number of additional new major investments	0

Description and justification of the costs nature and benefits of additional other new investments in fixed assets planned over the reference period
According to the IMGW investment plan, the final completion date for each investment was December 2025. Therefore, the depreciation cost for these investments in the plan was calculated starting from 2026. However, in 2025, before the designated deadline, the following items from the investment plan were completed: Purchase of ceilometers, which are a component of automatic systems for measuring meteorological parameters (AWOS). Purchase of a vehicle for the mobile station. Installation of fiber-optic infrastructure for the airport meteorological station in Katowice. Purchase of servers to support SWIM (System Wide Information Management) – a modern data exchange environment in aviation meteorology, enabling fast access to weather information. Additionally, currently, MET service is co-financing the leasing costs of IMGW company vehicles, as it does not have a sufficient number of its own cars. These vehicles are primarily used by AWOS system service technicians. Originally, these costs were not included in the budget, but they will continue to be incurred until the implementation of MET investment plan—namely, the purchase of its own vehicles for operational and administrative staff in 2026, and vehicles with specialized equipment for AWOS technicians in 2027.

4.1- Investments - ANSP

Airport Meteo Sp. z o.o.

Currency	PLN

1. Investment plan as per RP4 performance plan

a) - Major investment from RP4 performance plan (Table A)

A - Number of new major investments (PP)	0

b) - Other new investments from RP4 performance plan (Table B)

B - Number of other new investments (below 5M€) (PP)	9

		Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
B1	*Office equipment for Aerodrome Meteorological Office*	102 867	99 488	Average NBV	75 963	87 052	77 103	67 154	57 205					439				
				Depreciation	7 462	9 949	9 949	9 949	9 949					8 515				
				Cost of leasing	0	0	0	0	0					0				
B2	*AWOS - Backup sensors (Emergency system)*	39 887	38 577	Average NBV	29 455	33 755	29 897	26 039	22 182					17 109				
				Depreciation	2 893	3 858	3 858	3 858	3 858					3 540				
				Cost of leasing	0	0	0	0	0					0				
B3	*IT Equipment (Computers for measurment and diagnosis)*	157 449	152 277	Average NBV	6 345	137 049	106 594	76 139	45 683					21 456				
				Depreciation	0	30 455	30 455	30 455	30 455					6 959				
				Cost of leasing	0	0	0	0	0					0				
B4	*Service car for AWOS at EPRA maintenance*	104 966	101 518	Average NBV	4 230	91 366	71 063	50 759	30 455					0				
				Depreciation	0	20 304	20 304	20 304	20 304					0				
				Cost of leasing	0	0	0	0	0					0				
B5	*Company car for moving at the EPRA airport restricted areas*	83 973	81 214	Average NBV	3 384	73 093	56 850	40 607	24 364					0				
				Depreciation	0	16 243	16 243	16 243	16 243					0				
				Cost of leasing	0	0	0	0	0					0				
B6	*AWOS - Sensors replacement*	918 190	888 029	Average NBV	0	37 001	843 628	754 825	666 022					0				
				Depreciation	0	0	88 803	88 803	88 803					0				
				Cost of leasing	0	0	0	0	0					0				
B7	*Arrays and network equipment*	134 276	129 866	Average NBV	0	5 411	116 879	90 906	64 933					0				
				Depreciation	0	0	25 973	25 973	25 973					0				
				Cost of leasing	0	0	0	0	0					0				
B8	*Software (Synoptic support software, Data analysis and meteorological processing software)*	503 455	486 918	Average NBV	0	0	20 288	438 226	340 842					30 218				
				Depreciation	0	0	0	97 384	97 384					15 172				
				Cost of leasing	0	0	0	0	0					0				
B9	*Lightning discharge detector*	199 145	192 603	Average NBV	0	0	8 025	182 973	163 713					0				
				Depreciation	0	0	0	19 260	19 260					0				
				Cost of leasing	0	0	0	0	0					0				
Sub-total of **other new investments** below 5 M€ (2)		2 244 208	2 170 490	Average NBV	119 377	464 727	1 330 327	1 727 628	1 415 400		41%	59%		69 222				
				Depreciation	10 355	80 808	195 584	312 228	312 228					34 186				
				Cost of leasing	0	0	0	0	0					0				

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

2. Investment plan from RP3 performance plan or added during the RP3 period

a) - Major investments from RP3 period (Table C)

C - Number of major investments (i.e. above 5 M€) from RP3	0

3. Existing investments

a) - Existing investments from previous RPs (Table D)

D - Existing investments from previous RPs

	Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
				2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
Sub-total of **existing investments** below 5 M€ (2)	655 042	633 526	Average NBV	464 011	341 469	219 820	105 825	12 159		41%	59%		574 745				
			Depreciation	122 543	122 543	118 251	112 242	49 704					210 205				
			Cost of leasing	0	0	0	0	0					0				

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

4. Additional major investments added during the RP4 period

a) - Additional major investments not foreseen as part of the performance plan and requested by the ANSP in accordance with Art. 28(4) of IR 2019/317 (Table E)

Number of additional new major investments	0

Description and justification of the costs nature and benefits of additional other new investments in fixed assets planned over the reference period
Not applicable to Airport Meteo.

4.1- Investments - ANSP

Warmia i Mazury Sp. z o.o.

Currency	PLN

1. Investment plan as per RP4 performance plan

a) - Major investment from RP4 performance plan (Table A)

A - Number of new major investments (PP)	0

b) - Other new investments from RP4 performance plan (Table B)

B - Number of other new investments (below 5M€) (PP)	3

		Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
B1	*New MET investments*	695 000	688 453	Average NBV	250 775	192 337	148 561	107 519	387 853					23 711				
				Depreciation	75 119	79 246	56 339	56 958	65 874					3 832				
				Cost of leasing	0	0	0	0	0					0				
B2	*New AFIS investments*	360 000	360 000	Average NBV	0	0	0	15 000	355 500					599				
				Depreciation	0	0	0	0	9 000					116				
				Cost of leasing	0	0	0	0	0					0				
B3	*New COM investments*	1 570 000	523 333	Average NBV	76 527	78 653	83 274	80 450	394 028					64 093				
				Depreciation	18 097	26 500	34 083	35 125	31 000					11 660				
				Cost of leasing	0	0	0	0	0					0				
Sub-total of **other new investments** below 5 M€ (2)		2 625 000	1 571 786	Average NBV	327 302	270 990	231 835	202 969	1 137 381					88 404				
				Depreciation	93 216	105 746	90 423	92 083	105 874		MET: 49.2% AFIS: 0% COM: 0%	MET: 50.8% AFIS: 100% COM: 100%		15 608				
				Cost of leasing	0	0	0	0	0					0				

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

2. Investment plan from RP3 performance plan or added during the RP3 period

a) - Major investments from RP3 period (Table C)

C - Number of major investments (i.e. above 5 M€) from RP3 performance plan (PP)	0

3. Existing investments

a) - Existing investments from previous RPs (Table D)

D - Existing investments from previous RPs

	Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
				2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
Sub-total of **existing investments** below 5 M€ (2)	5 913 238	4 131 506	Average NBV	2 315 227	1 910 671	2 758 617	2 031 590	1 386 730					2 394 618				
			Depreciation	476 493	456 596	743 875	715 098	531 559		MET: 49.2% AFIS: 0% COM: 0%	MET: 50.8% AFIS: 100% COM: 100%		322 309				
			Cost of leasing	0	0	0	0	0					0				

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

4. Additional major investments added during the RP4 period

a) - Additional major investments not foreseen as part of the performance plan and requested by the ANSP in accordance with Art. 28(4) of IR 2019/317 (Table E)

Number of additional new major investments	0

Description and justification of the costs nature and benefits of additional other new investments in fixed assets planned over the reference period
No significant new, unplanned investments has been recorded - only minor, such as UPS cover and SafeKey depositor. Particular investments, such as COM special vehicle, are consider now as new as its first costs were incurred in 2025, yet were initially included in ANSP's Business plan consistent with PP RP4 to be realised in the last months of 2024 (RP3).

4.1- Investments - ANSP

Port Lotniczy Bydgoszcz S.A.

Currency	PLN

1. Investment plan as per RP4 performance plan

a) - Major investment from RP4 performance plan (Table A)

A - Number of new major investments (PP)	0

b) - Other new investments from RP4 performance plan (Table B)

B - Number of other new investments (below 5M€) (PP)	3

		Total value of the asset (capex or contractual leasing value) (in national currency)	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
					2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
B1	*AWOS modernization (MET)*	184 000	179 676	Average NBV	149 279	103 197	49 294	4 651	0					0				
				Depreciation	49 411	53 903	53 903	22 460	0					0				
				Cost of leasing	0	0	0	0	0					0				
B2	*Other minor investments (MET)*	3 336 709,08 (as a total B2+B3)	*Various - PL Bydgoszcz uses i.a. dynamic allocation keys*	Average NBV	102 409	185 516	134 671	112 976	93 544					63 751				
				Depreciation	20 411	66 676	59 552	27 318	28 778					12 705				
				Cost of leasing	0	0	0	0	0					0				
B3	*Other minor investments (AFIS)*	3 336 709,08 (as a total B2+B3)	Various - PL Bydgoszcz uses i.a. dynamic allocation keys	Average NBV	40 126	65 646	60 669	55 734	43 613					2 050				
				Depreciation	4 882	10 040	11 835	14 148	14 567					639				
				Cost of leasing	0	0	0	0	0					0				
Sub-total of **other new investments** below 5 M€ (2)		3 520 709	Various - PL Bydgoszcz uses i.a. dynamic allocation keys	Average NBV	291 814	354 359	244 634	173 361	137 157		0.00%	100.00%		65 801				
				Depreciation	74 704	130 619	125 290	63 926	43 345		40.19%	59.81%		13 344				
				Cost of leasing	0	0	0	0	0					0				

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

2. Investment plan from RP3 performance plan or added during the RP3 period

a) - Major investments from RP3 period (Table C)

C - Number of major investments (i.e. above 5 M€) from RP3 performance plan (PP)	0

3. Existing investments

a) - Existing investments from previous RPs (Table D)

D - Existing investments from previous RPs

	Total value of the asset (capex or contractual leasing value) (in national	Value of the assets allocated to ANS in the scope of the PP (in national currency)	**Determined costs** of investment (i.e. average NBV, depreciation and cost of leasing) (in national currency)						Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation	**Actual costs of investment (i.e. net book value, depreciation and cost of leasing) (in national currency)**				
				2025	2026	2027	2028	2029		Enroute	Terminal		2025	2026	2027	2028	2029
Sub-total of **existing investments** below 5 M€ (2)	73 957 415	Various - PL Bydgoszcz uses i.a. dynamic allocation keys	Average NBV	6 923 287	6 170 803	5 636 981	5 209 959	4 793 288		0.00%	100.00%		1 767 677				
			Depreciation	772 622	689 257	431 801	420 743	414 484		40.19%	59.81%		363 019				
			Cost of leasing	0	0	0	0	0					0				

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

4. Additional major investments added during the RP4 period

a) - Additional major investments not foreseen as part of the performance plan and requested by the ANSP in accordance with Art. 28(4) of IR 2019/317 (Table E)

Number of additional new major investments	0

Description and justification of the costs nature and benefits of additional other new investments in fixed assets planned over the reference period
Not attributable to PL Bydgoszcz.

4.2 - Deployment of SESAR Common Projects (CP1)

Poland

CP1 ATM Functionality (CP1-AF)/ Sub-functionality (CP1-s-AF)	Target date of implementation	Date of actual/expected deployment of s-AF	Description of realised and/or planned investment(s) related to the deployment of s-AF	Relevant investments (Ref. # as per section 2)	RP4 determined costs related to the sub-AF (in national currency and in nominal terms)					RP4 actual costs related to the sub-AF (in national currency and in nominal terms)				
					2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
CP1-AF1 - Extended AMAN and Integrated AMAN/DMAN in High-Density TMAs														
CP1-s-AF1.1 AMAN extended to en-route airspace	*31.12.2024*	Poland outside of CP1 geographical scope of this s-AF; as per CP1, there is a number of directly mandated airports obliged to implement Extended AMAN. For additional information concerning implementation of CP1-s-AF1.1 please see annex 2.	**CWP is updated and displays operational data from En-route AMAN system (TTL and TTG) - functionality supporting the AMAN / IMPLEMENTING: PANSA**	-	0	0	0	0	0	0				
CP1-s-AF1.2 AMAN/DMAN Integration	*31.12.2027*	Poland outside of CP1 geographical scope of this s-AF.	**CWP is updated and displays operational data from En-route AMAN system (TTL and TTG)- functionality supporting the AMAN / IMPLEMENTING: PANSA**	-	0	0	0	0	0	0				
CP1-AF2 - Airport Integration and Throughput														
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	*31.12.2022*	Poland outside of CP1 geographical scope of this s-AF.	**PLANNED (partly already implemented)** **Poland is not obliged to implement this sub-functionality but PANSA carries out the tasks within this scope.**	E	166 416	257 307	268 956	253 673	241 881	130 928				
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	*31.12.2023*	Poland outside of CP1 geographical scope of this s-AF.	**Not applicable**	-	0	0	0	0	0	0				
CP1-s-AF2.2.2 Airport operations plan (AOP)	*31.12.2027*	31.12.2027 - the planned implementation date concerning Extended AOP.	**ONGOING** **PANSA and Polish Airports carry out their tasks - initial stage**	A1; E	2 566 403	1 590 344	1 520 800	1 836 112	3 211 528	2 556 845				
CP1-s-AF2.3 Airport safety nets	*31.12.2025*	Poland outside of CP1 geographical scope of this s-AF.	**PLANNED**	B1; E	255 612	380 582	410 903	390 901	372 657	218 636				
CP1-AF3 - Flexible Airspace Management and Free Route Airspace														
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	*31.12.2022*	Completed (date of deployment: 2016 - 3.1.2., 2022 - 3.1.1.)	**COMPLETED** **PANSA is using local ASM system (CAT) together with CIAM NM system (as a complementary tool) to fulfill all the requirements and ASM needs. The project planned for RP4 is to develop a new CAT system that will take into account the requirements of the ATM Master Plan and business needs.** **IMPLEMENTING: PANSA**	C3; C9; E	1 893 117	2 171 625	2 469 008	2 451 826	2 448 345	1 033 567				
CP1-s-AF3.2 Free route airspace	*31.12.2025*	Completed (date of deployment: 2019 - 3.2.1., 2022 - 3.2.2.)	**COMPLETED** **Full FRA (ACC Warszawa FL 95 - FL660) including connection with TMAs implemented since FEB 2019. Cross-border FRA operations implementated with Lithuania and Slovakia since 24.02.2022. Cross Border FRA operations with Lithuania were implemented as one common cross-border FRA area named "Baltic FRA". Baltic FRA as a project is coordinated under umbrella of Baltic FAB. Cross-border operations between Poland and Slovakia allowed to start cross-border FRA Operations between Baltic FRA and SEE FRA (FABCE). This activity allowed to fill in cross border FPLs within the area of 7 countries. IMPLEMENTING: PANSA**	C3; C9; E	7 161 839	6 789 624	2 469 413	2 341 749	2 228 981	6 834 344				
CP1-AF4 - Network Collaborative Management														
CP1-s-AF4.1 Enhanced short-term ATFCM measures	*31.12.2022*	Completed (date of deployment: 2022)	**COMPLETED** **PANSA is using STAM measures via NM tool. IMPLEMENTING: PANSA**	-	0	0	0	0	0	0				
CP1-s-AF4.2 Collaborative NOP	*31.12.2023*	Completed (date of deployment: 2023)	**COMPLETED** **The technical NM platform from which downloading the Target Times is in use, the operational personnel is fully trained and the safety assessment has been performed. Both, the NM application (NMP Flow) and the local traffic complexity tool are used by PANSA. In particular, the local Traffic Complexity tool is used to process the Target Times, SAM and SRM messages and the NMP Flow is used to exchange all the other information.** **IMPLEMENTING: PANSA**	-	0	0	0	0	0	0				
CP1-s-AF4.3 Automated support for traffic complexity assessment	*31.12.2022*	Completed (date of deployment: 2021)	**COMPLETED** **TCT is implemented. Simultaneously it works operationally with CHMI. TCT is not treated as a primary tool/system. It is a support tool. IMPLEMENTING: PANSA**	B2; E	2 595 829	2 508 296	2 118 951	1 632 170	1 443 359	1 576 845				

CP1-s-AF4.4 AOP/NOP integration	*31.12.2027*	Ongoing, expected date of deployment: end of 2027	**NOT YET PLANNED** **In the evolution of processes and procedures new data elements will be shared and also negotiated between AOP and NOP. These will have to be integrated in addition to the information that is shared in the iAOP-NOP exchange. The processes,procedures and underlying concepts for the creation and integration will have to be agreed upon and/or adapted.** **This will apply to arrival planning information (e.g., TTO/TTA via API), as well as departure information (e.g., P-DPI based on airport capacity information), and also enhanced management of capacities (e.g., diversion capabilities). For Family 4.4.1 - AOP-NOP Integration there will be documents available to provide guidance to the CP1 (IR2021/116) for the extended AOP and integration of the extended AOP with the network operations plan, and the implementation guide in similar fashion as to Family 4.2.2 Initial AOP/NOP Information Sharing. ALL ABOVE - IMPLEMENTING: PANSA (define AOP/NOP integration data and procedures), PPL**	Costs not yet planned	0	0	0	0	0	0					
CP1-AF5 - SWIM															
CP1-s-AF5.1 Common infrastructure components	*31.12.2024*	Completed (date of deployment: 2024)	**GOVERNANCE** **Project has been managed by EUROCONTROL, drafting and implementing of the common framework both for local PKI integration implementation in an operational way and delivering the digital interoperational certificates to the SWIM users.**	-	0	0	0	0	0	0					
CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	*31.12.2025*	Completed (date of deployment: 2025)	**ONGOING** **Cybersecurity -Polish Air Navigation Agency (PANSA) being as an Operator of Key Services according to the Act of 5 July 2018 on the national cybersecurity system (UKSC) implements Directive (EU) of the European Parliament and of the Council on measures for a high common level of security of network and information systems within the European Union (Directive 2016/1148), the so-called NIS Directive. PANSA systematically assesses the risk of systems affecting the key services and performs the obligation to conduct a cyclical audit of compliance with in the UKSC, as part of the obligations according to the UKSC. PANSA as an Operator of Key conducts constant monitoring and controls cyber security of systems.** **PANSA has decided to develop its own PKI. IMPLEMENTING: PANSA, PPL, IMWM**	C9; E	2 607 946	3 318 996	3 419 288	3 297 638	3 475 237	1 813 839					
CP1-s-AF5.3 Aeronautical information exchange	*31.12.2024*	SDP 5.3.1 / INF10.3 Aeronautical Information Exchange - Airspace structure service - completed (date of deployment: 2018) SDP 5.3.1 / INF10.4 Aeronautical Information Exchange - Airspace Availability Service - completed (date of deployment: 2018) SDP 5.3.1 / INF10.5 Aeronautical Information Exchange - Airspace Reservation (ARES) - Ongoing; Q4 2025 - concerning provision of data regarding airspace and its utilization in local ASM system (CAT); 4Q 2026 - concerning consumption of data in local ASM system (CAT); 2032 - concerning consumption of data in ATC system (implementation of iSNEX system) SDP 5.3.1 / INF10.6 Aeronautical Information Exchange – Digital NOTAM service - ongoing, expected date of deployment: 1Q 2026 SDP 5.3.1 / INF10.7 Aeronautical Information Exchange - Aerodrome mapping service - completed (date of deployment: 2025) SDP 5.3.1 / INF10.8 Aeronautical Information Exchange - Aeronautical Information Features service - ongoing, expected date of deployment: 1Q 2026	**COMPLETED/ONGOING** **1.SDP 5.3.1 / INF10.3 Aeronautical Information Exchange - Airspace structure service - Objective is completed.** **2.SDP 5.3.1 / INF10.4 Aeronautical Information Exchange - Airspace Availability Service - Objective is completed.** **3. SDP 5.3.1 / INF10.5 Aeronautical Information Exchange - Airspace Reservation (ARES) - Planned** **4. SDP 5.3.1 / INF10.6 Aeronautical Information Exchange – Digital NOTAM service - PANSA investment plans up to 2025 cover the implementation of Digital NOTAM Service systems. Digital NOTAM project is kicked-off - since begining of 2023.** **5.SDP 5.3.1 / INF10.7 Aeronautical Information Exchange - Aerodrome mapping service - AMDB (for 6 airports) project is kicked-off - since begining of 2023. PANSA is planning to launch the public procurement for some systems needed for AMDB in 1st Q 2024. AMDB is also supported by CEF IP ACADIA.** **6.SDP 5.3.1 / INF10.8 Aeronautical Information Exchange - Aeronautical Information Features service - PANSA has defined and signed the agreement with the provider. PANSA also started the migration to EAD SDD system. The AIFS services, also supported by CEF IP ACADIA, should be ready in 2025. ALL ABOVE - IMPLEMENTING: PANSA**	C9; E	1 060 822	1 611 946	1 939 724	1 940 286	1 957 638	673 146					

CP1-s-AF5.4 Meteorological information exchange	*31.12.2025*	SDP 5.4.1 / INF10.9 Meteorological Information Exchange - Volcanic Ash Mass Concentration information service - completed (date of deployment: 1Q 2026) SDP 5.4.1 / INF10.10 Meteorological Information Exchange - Aerodrome Meteorological information Service - completed (date of deployment: 1Q 2026) SDP 5.4.1 / INF10.11 Meteorological Information Exchange - En-Route and Approach Meteorological information service - completed (date of deployment: 1Q 2026) SDP 5.4.1 / INF10.12 Meteorological Information Exchange - Network Meteorological Information - completed (date of deployment: 2025)	**PLANNED/ONGOING** **SDP 5.4.1 / INF10.9 Meteorological Information Exchange - Volcanic Ash Mass Concentration information service - The main goal is to consume Volcanic Ash Mass Concentration Service. PANSA is waiting for Toulouse and London when they will start the operational service in 2025. PANSA cooperate with IMGW and with other three met providers for three regional airports. VAAC London announces the delivery date of the product as a SWIM-compliant service as November 2024.** **SDP 5.4.1 / INF10.10 Meteorological Information Exchange - Aerodrome Meteorological information Service - Meteorological services in Europe are in the process of agreeing service templates so that service producers can issue services in accordance with user requirements and each user can be integrated with SWIM.** **SDP 5.4.1 / INF10.11 Meteorological Information Exchange - En-Route and Approach Meteorological information service - Meteorological services in Europe are in the process of agreeing service templates so that service producers can issue services in accordance with user requirements and each user can be integrated with SWIM.** **SDP 5.4.1 / INF10.12 Meteorological Information Exchange - Network Meteorological Information - PANSA Integrated data-lake (internal tool) will be capable to consume NETWORK MET information services. IMWM-PIB participates in the SUMMER CROSS Border forecast project for Netwok Manager. ALL ABOVE - IMPLEMENTING: PANSA, IMWM**	C9; E	207 606	279 677	360 895	343 094	329 753	76 313				
CP1-s-AF5.5 Cooperative network information exchange	*31.12.2024*	Not applicable - This s-AFs are not applicable to PANSA as the following set of information, including ATFCM Tactical Updates Service, Measures Service, Counts Service, is already exchanged by PANSA via B2C through existing official tools provided by the NM (e.g. eHelpdesk, NMP Flow). For actual information about implementation CP1-s-AF5.5 please see annex 2.	**SDP 5.5.1 / INF10.13 Cooperative Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute) - PANSA provides the ATFCM tactical and pre-tactical updates to NM via the NM Services (eHelpdesk, NMP Flow).ONGOING IMPLEMENTING: PANSA** **SDP 5.5.1 / INF10.14 Cooperative Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration) - (NOT APPLICABLE) PANSA systems are capable to consume NM flight update information: - in the scope of A-CDM for EPWA; - TCT Pansa uses eHelpdesk and NMP Flow applications in daily operations. IMPLEMENTING: PANSA, PPL** **SDP 5.5.1 / INF10.15 Cooperative Network Information Exchange – Measures Service (Traffic Regulation) - PANSA uses the measures service via the NM Services (eHelpdesk, NMP Flow) ONGOING IMPLEMENTING: PANSA** **SDP 5.5.1 / INF10.16 Cooperative Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures) - PANSA uses the Short Term ATFCM Measures service via the NM Services (eHelpdesk, NMP Flow) ONGOING IMPLEMENTING: PANSA** **SDP 5.5.1 / INF10.17 Cooperative Network Information Exchange – Counts service (ATFCM Congestion Points) - PLANNED IMPLEMENTING: PANSA**	B2	5 114	18 709	33 699	132 616	283 306	0				
CP1-s-AF5.6 Flight information exchange (yellow profile)	*31.12.2025*	SDP 5.6.1 / INF10.19 Flight Information Exchange - Flight Data Request Service - expected deployment: end of 2032) SDP 5.6.1 / INF10.20 Flight Information Exchange - Notification Service - expected deployment: end of 2032) SDP 5.6.1 / INF10.21 Flight Information Exchange - Data Publication Service - expected deployment: end of 2032) SDP 5.6.1 / INF10.23 Flight Information Exchange (Yellow Profile) - Extended AMAN SWIM Service - expected deployment: end of 2032 For actual information about implementation CP1-s-AF5.6 please see annex 2.	**SDP 5.6.1 / INF10.19 Flight Information Exchange (Yellow Profile) - Flight Data Request Service - PANSA will be able to consume these three services by the end of 2025 and will translate data to be used operationally in the current ATM system. A new (planned) ATM system (iTEC) provided by Indra will be able to work with FF-ICE in near future (ongoing development within iTEC Project). It is envisaged that the new ATM system will be available around 2030. SDM and ECTL are working on a set of operational use cases for the Operational Stakeholders in the frame of FF-ICE supportive initiative. Within this common initiative a realistic roadmap is being elaborated in collaboration with the operational stakeholders. PLANNED IMPLEMENTING: PANSA** **SDP 5.6.1 / INF10.20 Flight Information Exchange (Yellow Profile) - Notification Service; SDP 5.6.1 / INF10.21 Flight Information Exchange (Yellow Profile) - Data Publication Service - PANSA will be able to consume these three services by the end of 2025 and will translate data to be used operationally in the current ATM system. Extended AMAN is not yet planned. The current ATM system will not be able to work with FF-ICE. A new (planned) ATM system (iTEC) provided by Indra will be able to work with FF-ICE in near future (ongoing development within iTEC Project). It is envisaged that the new ATM system will be available around 2030. PLANNED IMPLEMENTING: PANSA** **SDP 5.6.1 / INF10.23 Flight Information Exchange (Yellow Profile) - Extended AMAN SWIM Service - Extended AMAN is not yet planned. The current ATM system will not be able to work with FF-ICE. A new (planned) ATM system (iTEC) provided by Indra will be able to work with FF-ICE in near future (ongoing development within iTEC Project). It is envisaged that the new ATM system will be available around 2030. NOT YET PLANNED IMPLEMENTING: PANSA**	C9	137 486	190 199	276 854	263 589	254 093	6 083				
CP1-AF6 - Initial Trajectory Information Sharing															

CP1-s-AF6.1 Initial air-ground trajectory information sharing	*31.12.2027*	Ongoing. Expected deployment: 2029 or end of 2032. For actual information about implementation CP1-s-AF5.6 please see annex 2.	**SDP 6.1.2 / ATC23 Initial Air-Ground Trajectory Information Sharing (Ground Domain)** **PANSA is a member of ACDLS.** **In order to pool datalink expertise, ensure a common prioritisation, share service delivery costs and enable CP1/AF6 deployment is organised ACDLS (ATS Common DLS procurement) to increase the performance of the datalink network for 26 air navigation service providers.**	-	1 919 175	1 804 109	0	0	0	1 896 762					
CP1-s-AF6.2 Network Manager trajectory information enhancement	*31.12.2027*	Not applicable	**NOT APPLICABLE** **Upgrade of NM systems**	-	0	0	0	0	0	0					
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	*31.12.2027*	Ongoing. Expected deployment: 2029 or end of 2032. For actual information about implementation CP1-s-AF5.6 please see annex 2.	**NOT YET PLANNED** **SDP 6.3.1 / ATC25 Initial Trajectory Information Sharing ground distribution** **IMPLEMENTING: PANSA**	Costs not yet planned	0	0	0	0	0	0					
Total RP4 determined costs for common project related to the sub-functionalities across charging zones for the concerned entity					20 577 366	20 921 413	15 288 491	14 883 655	16 246 778	16 817 307					

4.3 Deployment of Strategic Deployment Objectives (SDOs) set out in the ATM Master Plan

Annex V to RP4 performance plan

Strategic Deployment Objectives (SDOs)	Specific deployment action linked with the implementation of the SDO as defined in the ATM MP	Description of planned investment(s) related to the SDO including the relevant supporting SESAR solutions (if applicable)	Relevant investments (Ref. # as per section 2 of the performance plan)	RP4 determined costs related to the deployment of the SDOs (in nominal terms and in national currency)					RP4 actual costs related to the deployment of the SDOs (in nominal terms and in national currency)				
				2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
SDO #1 Alerts for reduction of collision risks on taxiways and runways	*1.1*	*Description of each of major investment is provided in chapter 2.1 of the RP4 PP. Other investments (part E of chapter 2.1) related to the SDO include video monitoring system for ATS. SESAR solutions: PJ.02-W2-21.1*	*A1; A2; A5; E*	520 727	675 381	2 048 618	5 416 913	6 600 396	**401 357**				
			Total costs SDO - 1	**520 727**	**675 381**	**2 048 618**	**5 416 913**	**6 600 396**	**401 357**				
SDO #2 Optimising airport and TMA environmental footprint	*2.1*	*Description of new other investment is provided in chapter 2.1 of the RP4 PP.*	*B1*	52 504	209 290	301 638	298 304	304 297	-				
	2.4	*Other investments (part E of chapter 2.1) related to the SDO include implementation of Collaborative Decision Making Process. SESAR solutions: PJ.25-01; PJ.25-02*	*E*	221 680	303 793	363 919	151 965	151 374	**38 331**				
	2.6	*Other investments (part E of chapter 2.1) related to the SDO include Operational implementation of AWALON - Optimised Approach Spacing Management (OASM) at Warsaw airport (EPWA) and video monitoring system for ATS SESAR solutions: CEF-HERON, PJ.02-01-01*	*E*	895 443	881 535	978 009	926 233	936 562	**372 223**				
	2.1 & 2.6	*Description of each of major investment is provided in chaper 2.1 of the RP4 PP.*	*A1; A2; A5*	235 463	225 252	683 414	1 827 349	2 315 926	**175 142**				
			Total costs SDO - 2	**1 405 090**	**1 619 870**	**2 326 979**	**3 203 850**	**3 708 159**	**585 697**				

SDO #3 Dynamic airspace configuration	*3.1*	*Description of new other investments is provided in chapter 2.1 of the RP4 PP. New and existing other investments not listed under part 2.1.5 of the RP4 PP related to the SDO include replacement of radiostations for ATC, construction of radio navigation aids (DME) and software development.*	*B; B2; E*	1 994 572	5 045 638	7 703 131	9 458 969	11 877 810	**1 184 817**				
	3.1 & 3.2	*Other investments (part E of chapter 2.1) related to the SDO include harmonised Airspace Management support system. SESAR solutions: HARMONIC Sol 1, MITRANO Sol 1, PJ.07-03, PJ.07-W2-40, PJ.09-W2-44*	*E*	6 896 384	5 326 556	4 243 263	4 164 575	3 891 288	**7 159 819**				
	3.2	*Other investments (part E of chapter 2.1) related to the SDO include update of system used for processing data from flight plans.*	*E*	298 464	388 403	334 750	381 394	371 322	**194 166**				
			Total costs SDO - 3	**9 189 419**	**10 760 597**	**12 281 144**	**14 004 937**	**16 140 420**	**8 538 802**				
SDO #4 Increased automation support	*4.1*	*Major investments (part C of chapter 2.1) - for further details please see RP3 PP.*	*C9*	234 528	230 923	173 263	184 773	200 040	**258 265**				
	4.2	*Description of each of major investment is provided in chapter 2.1 of the RP4 PP. Description of new other investment is provided in chapter 2.1 of the RP4 PP. Other investments (part E of chapter 2.1) related to the SDO include implementation of Collaborative Decision Making Process.*	*A1; B1; E*	660 529	788 960	952 077	767 294	1 205 039	**247 884**				
	4.1 & 4.2	*Major investment (part C of chapter 2.1) - for further details please see RP3 PP. SESAR solutions: PJ.10-01a1; PJ.10-W2-96*	*C3*	6 052 877	7 505 934	10 804 393	10 583 863	10 721 765	**8 027 528**				
			Total costs SDO - 4	**6 947 934**	**8 525 817**	**11 929 733**	**11 535 929**	**12 126 844**	**8 533 677**				
	5.2	*Major investments (part C of chapter 2.1) - for further details please see RP3 PP.*	*C9*	234 049	232 016	173 631	184 937	200 702	**255 167**				

SDO #5 Transformation to trajectory-based operations (TBO)	*5.3*	*Other investments (part E of chapter 2.1) related to the SDO include harmonised Airspace Management support system. SESAR solutions within: CEF-HERON, #201*	*E*	377 542	433 702	472 818	531 195	596 055	**302 244**				
	5.6	*New other investments (part B of chapter 2.1) related to the SDO include implementation of data integration system. Other investments (part E of chapter 2.1) related to the SDO include operational implementation of FF-ICE/R1 and FF-ICE/R2 into system used for processing flight plan data. SESAR solutions: NETWORK-TBO SOL#1*	*B, E*	74 596	148 130	258 804	394 318	527 332	**149 582**				
	5.1, 5.2, 5.3, 5.6 & 5.7	*Major investment (part C of chapter 2.1) - for further details please see RP3 PP. SESAR solutions: ATC-TBO SOL#4; ATC-TBO SOL#5; PJ.18-W2-53B*	*C3*	6 040 151	7 543 054	10 828 420	10 593 669	10 758 430	**7 938 288**				
			Total costs SDO - 5	**6 726 338**	**8 356 901**	**11 733 673**	**11 704 120**	**12 082 519**	**8 645 281**				
SDO #6 Virtualisation of operations	*6.1*	*Major investment from RP3 are presented under part C of chapter 2.1 - for further details please see RP3 PP. New and existing other investments (part B and E of chapter 2.1) related to the SDO include harmonised Airspace Management support system, modernisation of LAN WAN network, CNS SDDC access network, teletransmission node and PBX network, as well as update of system used for processing flight plan data and implementation of data integration system. SESAR solutions: iSNAP, CEF DEVICE; PJ.10-W2-93*	*B; C3; E*	9 454 093	13 198 805	16 779 370	18 346 240	20 496 928	**12 839 156**				

	6.2	*Description of each of major investment is provided in chapter 2.1 of the RP4 PP. SESAR solutions: PJ.05-02; PJ.05-W2-35; PJ.14-W2-84b*	*A2; A5*	243 134	1 407 403	4 673 470	11 921 951	13 231 929	**309 483**				
			Total costs SDO - 6	**9 697 226**	**14 606 207**	**21 452 840**	**30 268 191**	**33 728 857**	**13 148 639**				
SDO #7 Transition towards high performance of air-ground connectivity (multilink)													
			Total costs SDO - 7	**0**	**0**	**0**	**0**	**0**	**0**				
SDO #8 Service-oriented delivery model (data driven and cloud based)	*8.1*	*Description of each of major investment is provided in chapter 2.1 of the RP4 PP. Major investment from RP3 are presented under part C of chapter 2.1 - for further details please see RP3 PP. New and existing other invesments (part B and E of chapter 2.1) related to the SDO include harmonised Airspace Management support system, update of system used for processing flight plana data, implementation of data integration system, software development, modernization of telephone communication systems, implementation of cental backup system and relocation of FIS.*	*A1; A4; B; C4; E*						**8 956 054**				
			Total costs SDO - 8	**0**	**0**	**0**	**0**	**0**	**8 956 054**				
	9.2	*No planned investments under SDO 9.2. Only operating costs related to ongoing maintenance of CNS infrastructure are presented.*							**5 947 192**				

SDO #9 CNS optimisation, modernisation and resilience	*9.3*	*Description of each of major investment is provided in chapter 2.1 of the RP4 PP. Major investments from RP3 are presented under part C and D of chapter 2.1 (for further information on those investments see RP3 PP and annual monitoring reports). New and existing other investments (part B and E of chapter 2.1) related to the SDO include construction of radio navigation aids (radio communication centres and DME) and radio navigation systems (ILS DME), purchase of ATIS systems, modernization of PSR MSSR radars, modernization of network security systems, replacement of radiostations for ATC and implementation of Data Service Provision for Surveillance and GNSS ATM data.*	*A4; B; C4; C8; C10; D1; E*						**41 201 601**				
	9.4	*New and existing other invesments (part B and E of chapter 2.1) related to the SDO include construction of radio navigation systems (ILS DME).*	*B, E*						**6 866 933**				
	9.5	*Major investments from RP3 are presented under part C and D of chapter 2.1 - for further information on those investments see RP3 PP and annual monitoring reports. New and existing other investments (part B and E of chapter 2.1) related to the SDO include construction and modernization of MSSR radars.*	*B; C8; C10; D1; E*						**13 733 867**				
			Total costs SDO - 9	**0**	**0**	**0**	**0**	**0**	**67 749 593**				

SDO #10 Enable innovative air mobility (IAM) & drone operations *** Investments related to U-space in this SDO are outside the scope of the performance plan ***	*10.2*	*Major investment from RP3 are presented under part C of chapter 2.1 - - for further information on those investments see RP3 PP. SESAR solutions: CEF U-ELCOME U1 Services U2 Services*	*C6*						**1 526 886**				
			Total costs SDO - 10	**0**	**0**	**0**	**0**	**0**	**1 526 886**				
Total RP4 determined capital related and operating costs for project related to the deployment of SDOs across charging zones for the concerned entity (in nominal terms and in national currency)				**34 486 735**	**44 544 774**	**61 772 988**	**76 133 940**	**84 387 194**	**118 085 986**				

SECTION5: MILITARY DIMENSION OF THE PLAN

5 - MILITARY DIMENSION OF THE PLAN

Environment

Provide analysis and evaluate the scale of the impact of military dimension on the environment KPA. Please highlight the role of airspace design, procedures used in airspace reservation, interoperability of systems, information management, and specific local circumstances.
There are over 65 permanent military areas extending over FL95 in FIR EPWW that have the impact on civil traffic flows and thereby can influence the horizontal flight efficiency indicator. Additionally, in FIR EPWW recurring significant multinational NATO military exercises are held including: Anakonda, AV-DET Rotation, Baltops, Defender, Dragon, Iron Defender, Fearless Eagle, Neptun Strike, Rammstein Guard, Tobruq Legacy. In consequence addidional temporary areas are needed. Due to large scale of those exercises there are aircraft stopovers and regroupings on military aerodromes in FIR EPWW, which increases the load on ACC Warszawa that might impact the route efficiency of civil aircraft. Military aerodromes, including EPLK, EPKS, EPPW, EPMM, are located nearby the main civil aerodromes. There are agreed procedures and LoA signed between PANSA and the Military side describing the process of airspace management at pre-tactical and tactical level aimed at optimisation of its use. The procedures are continuously updated according to the current needs of both the civil and military sides. The local ASM system (CAT) automatically exchanges the data with the Network Manager system. ASM information is available in ATM system, additionally published on PANSA website. At the same time, the military's need to conduct training, which is not subject to the same coordination as exercises, may have a significant impact on delays in civil aviation. The change in the Polish Aviation Law act in 2025 regarding RPAS should have a positive impact on the fluidity of air traffic.

What measures have been implemented or planned to improve the situation?
On strategic airspace management level, all significant military exercises and permanent military areas are evaluated and analysed considering historic civil traffic flows and civil traffic predictions. The impact is consulted with the key stakeholders including neighbouring states, aerodrome operators, aircraft operators, ATS, the military, EUROCONTROL NM. The locations of the military activities are, whenever possible, designed to not affect the main traffic flows, ATC routes, DCTs and BALTIC FRA/CB-FRA connectivity. Segmentation, time and level restrictions are imposed when needed to mitigate the impact in location in heavy traffic periods of the day. If possible, class C TRA airspace is implemented to minimize the impact on civil routing. Military areas are always divided into smaller modules/segments. Each of these segments is designed in order to fit particular military activities without necessity to activate the whole area to perform specific military training assignments. The shape of these segments is always aligned with main civil traffic flows to minimize the horizontal flight inefficiency. Special procedures are prepared including dynamic change of level or segment and creation of new temporary routings for avoidance of military traffic. Special coordination points are prepared in advance to improve the cooperation between ATC and military aircrafts arriving/departing to/from military areas. Additional limitations on other areas activations are implemented when high impact military areas are activated. Time limitations on activation on areas are imposed if necessary. In case of some areas the implementation of 3rd layer in ACC Warszawa provides benefit in improved civil traffic occupancy in the airspace volume. The information flow is guaranteed by internal procedures and Supporting Self Check-in Documents System. Further measures include: • implementation of closer cooperation between AMC Poland and FMP Warszawa to reduce the negative influence of segregated areas on civil traffic as much as possible, • work on update of national aviation law to optimise segregated area booking process from military users.

Capacity

Provide analysis and evaluate the scale of the impact of military dimension on the capacity KPA. Please highlight the role of airspace design, procedures used in airspace reservation, interoperability of systems, information management, and specific local circumstances.
There are over 65 permanent military areas extending over FL95 in FIR EPWW that have an impact on civil traffic flows and available airspace for civil traffic. Additionally, in FIR EPWW recurring significant multinational military exercises are held including: Anakonda, AV-DET Rotation, Baltops, Defender, Dragon, Iron Defender, Fearless Eagle, Neptun Strike, Rammstein Guard, Tobruq Legacy. Due to large scale of those exercises there are aircraft stopovers and regroupings on military aerodromes in FIR EPWW, which increases the load on ACC GAT and OAT Warszawa that might impact the route efficiency of civil aircrafts and airspace capacity. Military aerodromes, including EPLK, EPKS, EPPW, EPMM, are located nearby the main civil aerodromes. There are agreed procedures and LoA signed between PANSA and the Military side describing the process of airspace management at pre-tactical and tactical level in order to optimise its use. The procedures are continuously updated according to the current needs of both the civil and military sides. The local ASM system (CAT) automatically exchanges the data with the Network Manager system. ASM information is available in ATM system, additionally published on PANSA website.

What measures have been implemented or planned to improve the situation?
On strategic airspace management level, all significant military exercises and permanent military areas are evaluated and analysed taking into account historic civil traffic flows and civil traffic predictions taking into account both entry count and occupancy. The locations of the military activities are, whenever possible, designed not to affect the main traffic flows, ATC routes, DCTs and BALTIC FAB connectivity and to have minimal or even no impact on capacity. Segmentation, time and level restrictions are imposed when needed to mitigate the impact in location in heavy traffic periods of the day. If possible, class C TRA airspace is implemented to minimize the impact on civil operations. Further measures include new functionalities, that were implemented in the local ASM system (CAT) supporting CDM process between FMP and AMC. They allow to manage dynamically the new ASM solutions, under A-FUA Concept: “Non standard Planning Zones” and “ASM scenarios”. These were aimed at reduction (to the possible extent) of the restrictive influence of segregated areas on civil traffic.

Cost-efficiency

Provide analysis and evaluate the scale of the impact of military dimension on the cost-efficiency KPA. Please highlight what type of commercial/financial agreements exist between the ANSP(s) and the Military (if any).
There are no commercial/financial agreements between PANSA and the Military – cooperation and agreements focus on operational issues. However, as indicated in the RP4 PP, in 2024 close cooperation with military authorities (Cyber Command) was initiated, which enables limiting costs related to cybersecurity (without this cooperation the costs incurred by PANSA in relation to cybersecurity would need to be higher) and especially enhance PANSA ability to be cyber-secure. Further information on civil-military cooperation was provided in dedicated questionnaire submitted to the PRB in April 2022.

Additional information related to Russia's war of aggression against Ukraine

Please describe the changes in military operations directly related to Russia's war of aggression against Ukraine.
Since the beginning of Russia's war of aggression against Ukraine the level of military traffic in the Polish airspace has increased significantly. Since then, Polish and allied air forces are constantly active in both segregated military zones and controlled airspace. In the controlled airspace, military traffic stays for hours, according to the OAT flight plan and any other GAT traffic must be separated. Because of the operational needs of the military side, many segregated areas were created ad hoc, from day to day. Since the start of the war, the newly created zones were in constant change due to the need of their fine tuning to both military and civil needs and rapidly changing situation in Ukraine. It should be noted that the military side reacts to the activities observed in the countries neighbouring Poland and defines its needs on a continuous basis, which serves to protect the borders of Poland, the EU and NATO.

Please describe if/how significant changes occurred in the definition/use of military airspaces.
In 2022 about 100 new military airspaces were created in FIR Warszawa only for military activities caused by the war (not counting in exercises and other planned activities). Additionally, zones published in the AIP Poland are now in constant use, some of them are active almost 24/7 since the beginning of the war. The ad-hoc areas are used for operational use of combined Polish and NATO forces every time there is escalation of air military activity in Ukraine. Significant part of airspace near the boundary can be excluded from civilian use in case of crisis situations. Additional restrictions imposing similar restrictions as RMZ, TMZ, MFPA are implemented on eastern boundary of FIR Warszawa.

Please describe if significant airspace blocks are/have been reserved for continuous military operations (i.e. being restricted from civilian traffic). Please describe the geographical location and volume of these airspace blocks (i.e. horizontal and vertical boundaries).
The entire FIR Warszawa is covered by a huge number of military zones active every day (the new ones and solid structures of the airspace). These zones are used not only for the defence of Poland, the EU's and NATO borders, but also for exercises aimed at maintaining competence and cooperation between allied forces at the highest level at the same time. The biggest concentration of those zones is near the border with Ukraine. The activity of the 6 largest zones (first restricted areas, then converted into TRA's), located on the eastern border and covering about one third of the Polish territory (see also the maps in Annex 1) from FL195 to FL315 (can be activated on request up to FL 380), significantly limited civil traffic throughout 2022-2025 both vertically and horizontally. It can also be assumed that after the end of the war in Ukraine, most of the zones will continue to be used to monitor the ended conflict. Some areas for UAV's were created as class C airspace to allow the civil traffic to pass through zones after coordination with the military. With the change in aviation law in Poland, military UAVs can only fly outside TSA and TRA on a flight plan within Class C airspace, in accordance with an agreement between PANSA and the military – UAV flights conducted in this manner create more capacity for GAT aviation. Number of lower airspaces restrictions were also limiting operations on airports (mainly EPRZ) for short periods of time. There are also areas introduced in higher airspace above FL315 up to FL365 along the Polish-Belarusian boundary, which could also influence traffic at cruising level. Additionally, areas located in the north-east part of FIR Warszawa influence the optimal vertical profile for Warsaw Chopin airport and Modlin airport departures and arrivals to/from the north and north-east direction forcing traffic to delay further climb or start the descent earlier to be clear with military areas when active. Since these areas are active very often, AOs must plan extra fuel in case the intermediate level off is needed. However, PANSA tries to ease AOs planning process and conducting operations in east part of FIR Warszawa as much as possible. For this purpose, PANSA dynamically manages RAD restrictions. Another important element is the need to accommodate not only Polish military assets in the airspace, but also those from allied countries belonging to the NATO alliance. Because of this, AAR missions (Air to Air Refueling) take place in the central and north part of Poland (to reduce aircraft movement across Europe and beyond) and this activity impacts the access to the airspace for civil traffic.

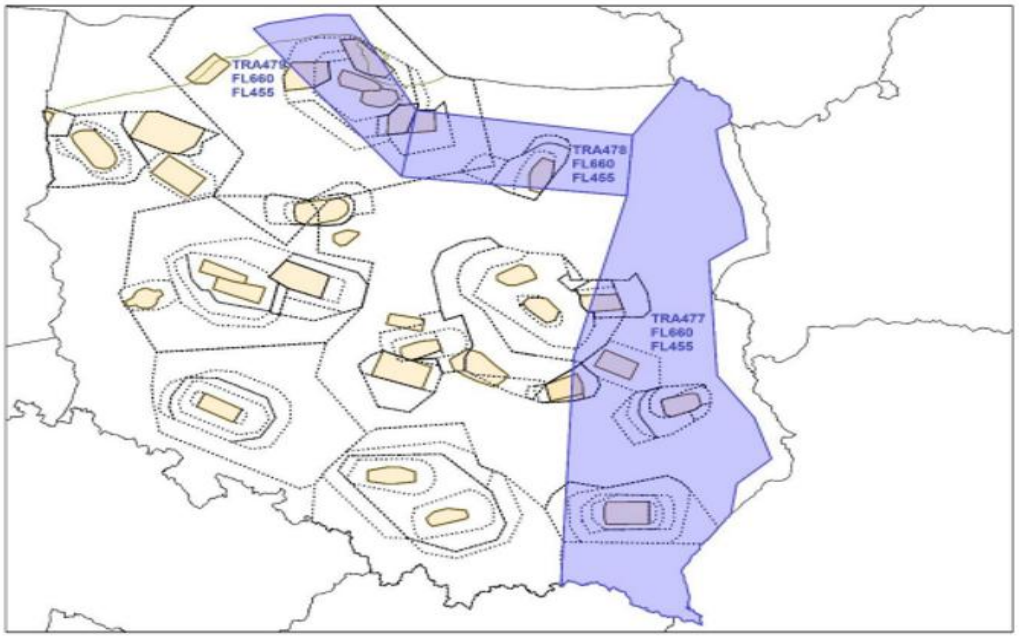
SECTION 6: ANNEXES

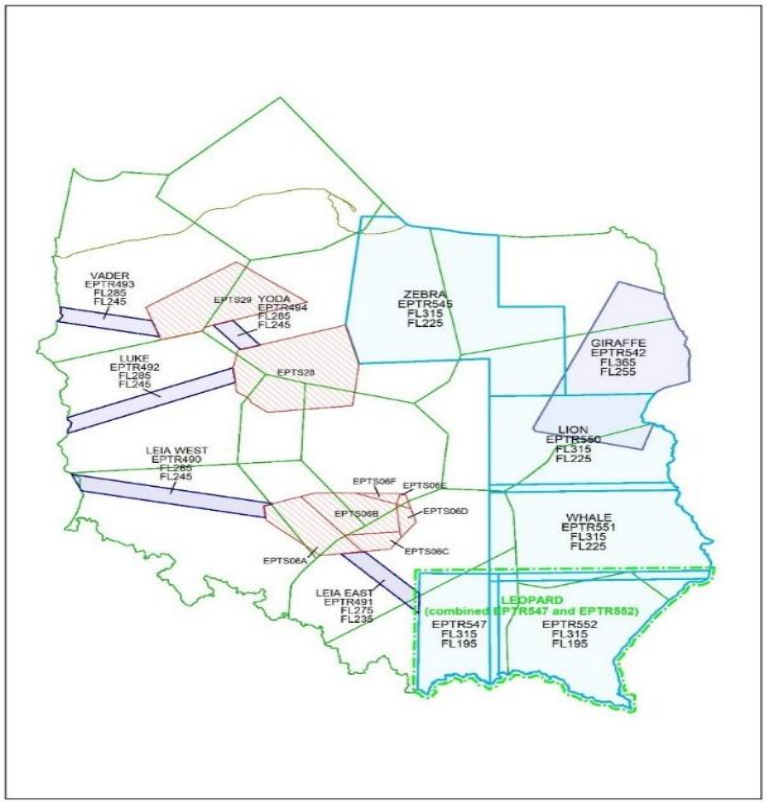
6 - ANNEXES

List of annexes
Annex 1: Maps showing possible restrictions on airspace availability. Annex 2: Description of actual (as at 31.12.2025) implementation of some of CP1 ATM Funcionalities and Sub-functionalities.

Annex 1: *Maps showing possible restrictions on airspace availability.*

The whole FIR Warszawa is covered with a huge number of military zones active every day (the new ones and solid structures of the airspace). These zones are used not only for the defence of Poland, the EU's and NATO borders, but also for exercises aimed at maintaining competence and cooperation between allied forces at the highest level at the same time. The biggest concentration of those zones is near the border with Ukraine. The activity of the 6 largest zones (first restricted areas, then converted into TRA's), located on the eastern border and covering about one third of the Polish territory (maps below) from FL195 to FL315 (can be activated on request up to FL 380) significantly limited civil traffic throughout 2022-2025 both vertically and horizontally. It can also be assumed that after the end of the war in Ukraine, most of the zones will continue to be used to monitor the ended conflict.





Annex 2: *Description of actual (as at 31.12.2025) implementation of some of CP1 ATM Funcionalities and Sub-functionalities.*

CP1 ATM Functionality (CP1-AF)/ Sub-functionality (CP1-s-AF)	**Description of status of implementation of CP1 ATM**
CP1-AF1 - Extended AMAN and Integrated AMAN/DMAN in High-Density TMAs	
CP1-s-AF1.1 AMAN extended to en-route airspace	The Arrival Manager extended to en-route airspace requires an extension of AMAN advisories up to a minimum of 180 nautical miles from the arrival airport. CP1 regulation lists a number of airports that are mandated to implement Extended AMAN. SESAR Deployment Programme (Annex) provides a table listing ACCs, associated to and residing within the 180NM horizon of airports mandated to implement Extended AMAN, that should implement extended AMAN operations. In case of PANSA, Extended AMAN operations should be implemented in relation with Berlin Brandenburg airport only. Stakeholders (Berlin Brandenburg airport) implementing extended AMAN operations shall coordinate with Air Traffic Services units responsible for adjacent and up-stream en-route sectors (PANSA). An ATSU operating an Extended AMAN shall be able to communicate with the relevant sectors by SWIM service when it is available. Until SWIM is available, ATSUs may send and receive the OLDI AMA message. OLDI tests between PANSA and the German counterpart took place in February 2026. The task is ongoing.

CP1-AF5 - SWIM	
CP1-s-AF5.5 Cooperative network information exchange	In 2025, consultation meetings were held with the SESAR Deployment Manager to address issues related to the interpretation of compliance with Family 5.5.1 requirements from the CP1 perspective. In September 2025, during a meeting with the SESAR Deployment Manager regarding CP1 risk management and in subsequent correspondence, the SDM confirmed that, due to PANSA providing tactical and pre-tactical ATFCM updates for NM via NM services (eHelpdesk, NMP Flow), Family 5.5.1 should be reported by PANSA as "not applicable". The interpretation regarding "not applicable" status is also confirmed in SESAR Deployment Programme (SDP) and SDP Monitoring View 2025.
CP1-s-AF5.6 Flight information exchange (yellow profile)	**SDP 5.6.1 / INF10.19 Flight Information Exchange (Yellow Profile) - Flight Data Request Service -** partial completion by end of May 2026; full completion with the implementation of iSNEX system (end of 2032); the partial completion includes: support for SWIM NM B2B FF-ICE Flight Data Request Service, enabling the submission of a request for the current version of the flight plan, supplementary data of the flight plan and the status of its submission or processing, in the FF-ICE/FIXM standard - ongoing. **SDP 5.6.1 / INF10.20 Flight Information Exchange (Yellow Profile) - Notification Service;** partial completion by end of May 2026; full completion with the implementation of iSNEX system (end of 2032); the partial completion includes: integration with currently used ATM systems, sending take-off and landing notifications to the SWIM NM B2B FF-ICE Notification Service and data translation from FIXM format to ICAO 2012 - ongoing. **SDP 5.6.1 / INF10.21 Flight Information Exchange (Yellow Profile) - Data Publication Service -** partial completion by end of May 2026; full completion with the implementation of iSNEX system (end of 2032); the partial completion includes: receiving aeronautical data from the SWIM NM B2B FF-ICE Publication Service, pre-processing and local storage in the FIXM format, as well as making this data available to other PANSA systems upon request - ongoing **SDP 5.6.1 / INF10.23 Flight Information Exchange (Yellow Profile) - Extended AMAN SWIM Service -** Full implementation of FF-ICE will occur upon the implementation of the new ATM system (iSNEX). The current ATM system is technologically incapable of supporting the AF5 CP1 functionality of FF-ICE. Analyses conducted at PANSA indicate that modernizing the P_21 system (until the iSNEX system is fully implemented) with FF-ICE components would be overly complex, expensive, and at high risk of infeasibility. PANSA plans to fully implement the new iSNEX system by the end of 2032 - planned.