

Performance Review Board

Monitoring Report

Poland - 2025



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1 OVERVIEW

1.1 Contextual information

This document is based on the version of the Annual Monitoring Report file submitted by the state on 2026-07-23 (PL12521_Poland_AMR_2025_accepted_updated_13_July_2026.xlsx) and the accompanying submission of en route and terminal (if applicable) reporting tables.

National performance plan adopted following Commission Decision (EU) 2025/1051 of 19 May 2025

List of ACCs 1
Warsaw ACC

Exchange rate (1 EUR=)
2022: 4.67989 PLN
2025: 4.23444 PLN

Main ANSP

- PANSA

No of airports in the scope of the performance plan:

- $\geq 80^{\circ}\text{K}$ 1
- $< 80^{\circ}\text{K}$ 14

Share of Union-wide:

- **traffic (TSUs) 2025** 2.8%
- **en route costs 2025** 3.2%

Share en route / terminal costs 2025 79% / 21%

En route charging zone(s)
Poland

Terminal charging zone(s)
Poland Zone 1
Poland Zone 2

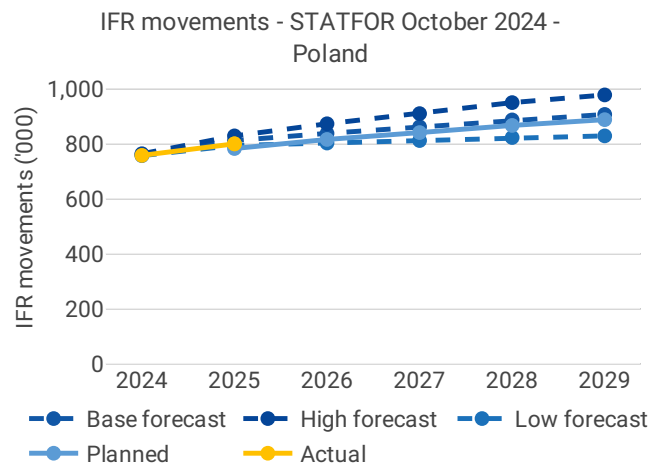
Other ANSPs

- Warmia i Mazury sp. z o.o.
- Port Lotniczy Bydgoszcz S.A.

MET Providers

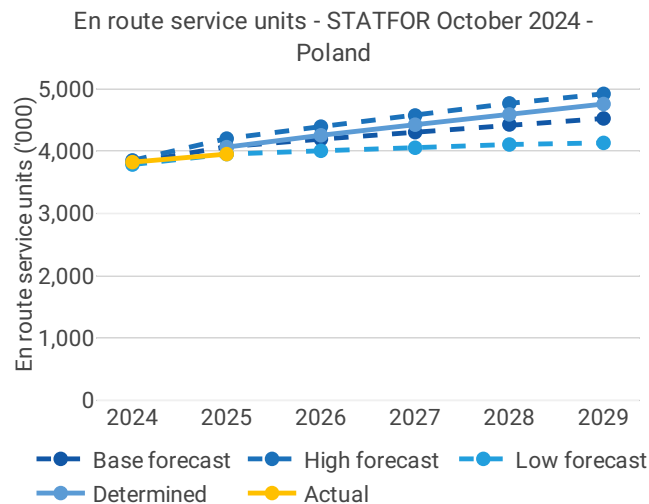
- IMWM
- Airport Meteo Sp. z o.o.
- Warmia i Mazury sp. z o.o.
- Port Lotniczy Bydgoszcz S.A.

1.2 Traffic (En route traffic zone)



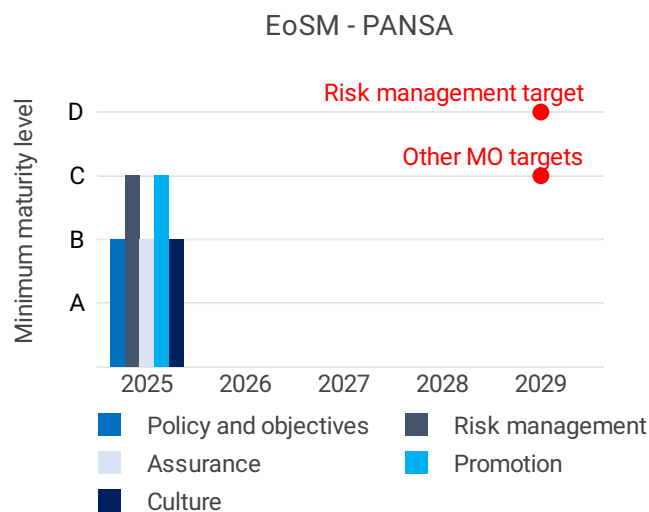
- Poland recorded 800K actual IFR movements in 2025, +5.5% compared to 2024 (758K).
- Actual 2025 IFR movements were +2.2% above the plan (783K).
- Actual 2025 IFR movements were -12.4% below the actual 2019 level (912K).





- Poland recorded 3,953K actual service units in 2025, +3.4% compared to 2024 (3,824K).
- Actual 2025 service units were -2.7% below the plan (4,065K).
- Actual 2025 service units are -20.5% below the actual 2019 level (4,972K).

1.3 Safety (Main ANSP)

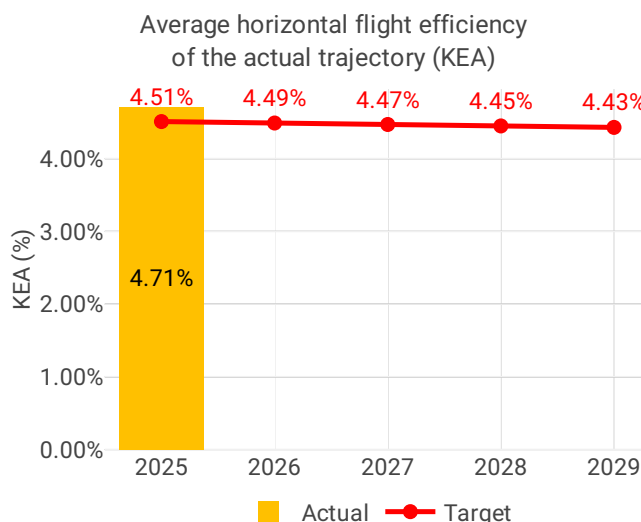


- In 2025, PANSA achieved the planned maturity levels set out in its performance plan for all five components of the EoSM.
- In 2025, Port Lotniczy Bydgoszcz S.A. met the planned maturity levels set out in its performance plan for all five components of the EoSM.
- In 2025, Warmia i Mazury Sp. z o.o. met the planned maturity levels set out in its performance plan for all five components of the EoSM. In Safety Promotion, the organisation exceeded their planned level.
- The rate of runway incursions (RI) was 1.70 and equal to the RIs with ANS contribution, with the former indicator below the Union-wide average while the latter above. The rate of RIs has decreased compared to 2024 at both levels.



- The rate of separation minima infringements (SMIs) at State level was 2.09, and equal to the rate of SMIs at ANSP level. Both indicators were below the Union-wide average and both indicators have decreased significantly compared to 2024.

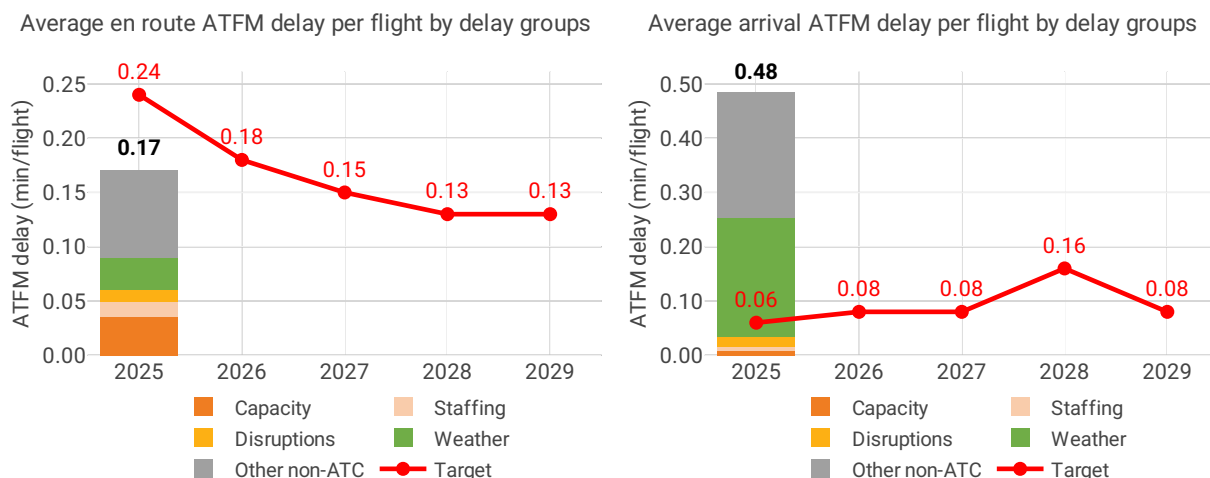
1.4 Environment (Member State)



- Poland registered a KEA performance of 4.71% compared to its target of 4.51% and contributed negatively towards achieving the Union-wide target. The NSA states that the main reason for not meeting the target is due to Russia's war of aggression against Ukraine, an increase in drone and balloon incursions in Polish airspace, weather and airspace users' decisions.
- KEP deteriorated and KES deteriorated marginally in comparison with 2024, and the levels are still significantly worse compared to previous years.
- VFE of the actual trajectory was at 74.75%, which was worse than the average Union-wide performance.
- The average time in level flight during descent deteriorated and during climb improved compared to 2024.
- Additional taxi-out time was 3.15 min/flight which deteriorated marginally compared to 3.0 min/flight in 2024, and additional taxi-in time was 1.36 min/flight which also deteriorated marginally compared to 1.30 min/flight in 2024.
- Additional time in the arrival sequencing and metering area deteriorated marginally to 2.98 min/flight.



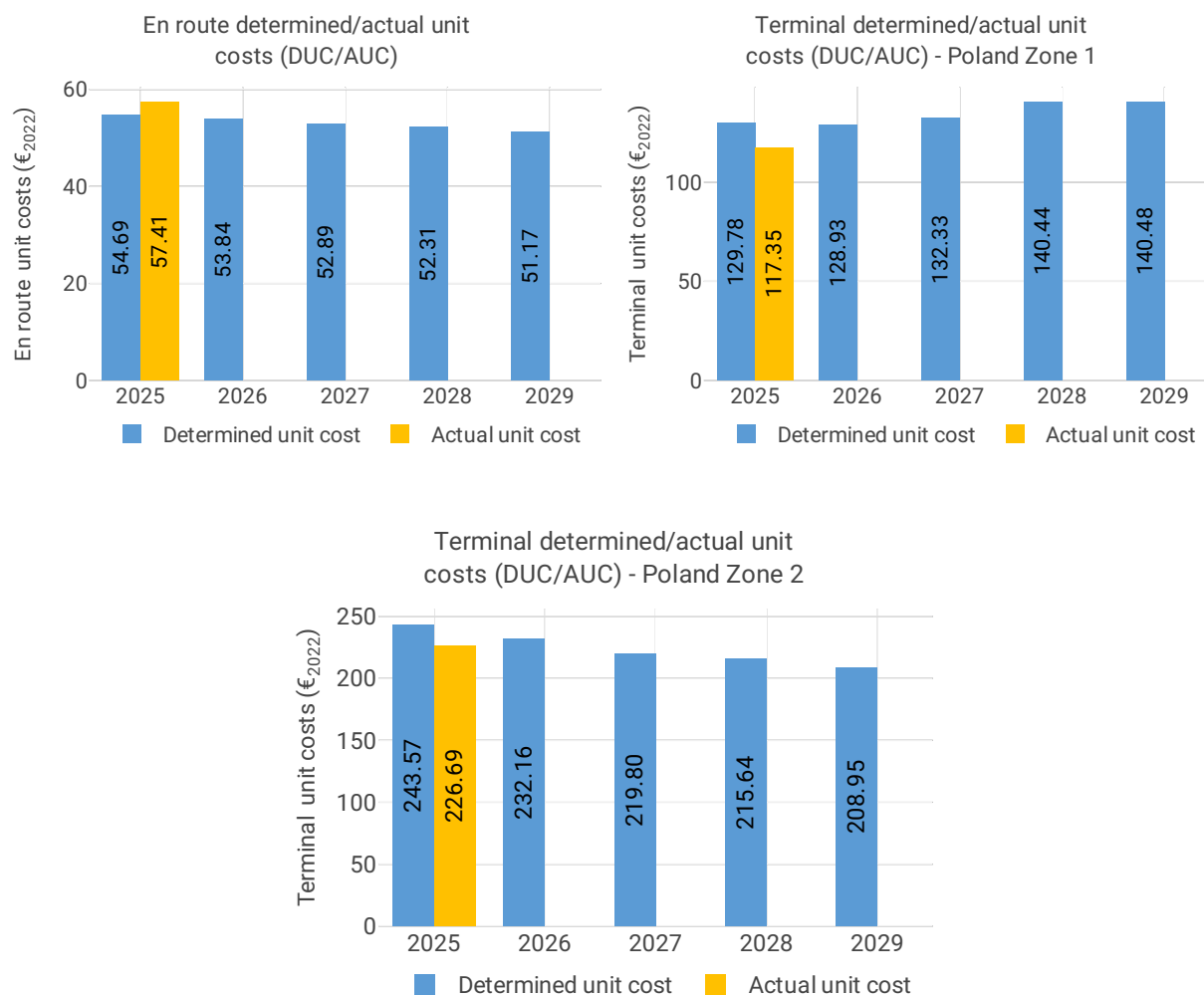
1.5 Capacity (Member State)



- Poland registered 0.17 minutes of average en route ATFM delay per flight during 2025, which remained 0.17 after the post-ops adjustment process, thus achieving the local target value of 0.24. Delays in Poland decreased by -0.06 minutes per flight year-on-year.
- Delays were highest in July, driven by a combination of weather and other non-ATC causes as well as ATC capacity and staffing.
- The share of delayed flights with delays longer than 15 minutes in Poland decreased by -3 percentage points compared to 2024.
- The number of ATCOs in OPS was 179 being below the 2025 plan in Warsaw ACC by -5 FTE.
- The yearly total of sector opening hours in Warsaw ACC was 28,447, showing a -20% decrease compared to 2024.
- Warsaw ACC registered 23.47 IFR movements per sector opening hour in 2025. This is +29% above the ratio recorded in 2024.
- Poland registered an average airport arrival ATFM delay of 0.48 minutes per flight in 2025, thus not achieving the local target of 0.06 minutes. Compared to 2024, average arrival ATFM delays in Poland were -0.01 minutes per flight lower in 2025.
- The main drivers of delays were other non-ATC causes, accounting for 0.23 of the total delays, and weather, responsible for 0.22.



1.6 Cost-efficiency (En route/Terminal charging zone(s))



- The en route 2025 actual unit cost of Poland was 57.41€2022, +5.0% higher than the determined unit cost (54.69€2022). The terminal zone 1 2025 actual unit cost was 117.35€2022, -9.6% lower than the determined unit cost (129.78€2022), while the terminal zone 2 2025 actual unit cost was 226.69€2022, -6.9% lower than the determined unit cost (243.57€2022).
- The en route 2025 actual service units (4.0M) were -2.7% lower than the determined service units (4.1M).
- The en route 2025 actual total costs were +4.6M€2022 (+2.1%) higher than determined. This is mainly due to higher staff costs for PANSA (+8.2M€2022, or +6.5%), partially compensated by lower other operating costs than planned (-3.7M€2022, or -11.5%). The NSA explained that the increase in staff costs is mainly caused by higher provisions than forecasted, while the decrease in other operating costs is mainly due to lower energy and repair services costs.
- PANSA spent 49.6M€2022 in 2025 related to costs of investments for both en route and terminal charging zones, +0.8% more than determined (49.2M€2022). The NSA explained that this difference reflects the actual evolution of the useful life and value of assets.



- The en route actual unit cost incurred by users in 2025 was 67.51€ (-4.2% below the 2025 DUC). The terminal actual unit cost incurred by users was 153.02€ (-10.1% below the 2025 DUC) for the terminal zone 1, and 296.95€ (-6.4% below the 2025 DUC) for the terminal zone 2. The difference between the AUCU and the DUC for the en route charging zone is mainly driven by other revenues. The difference between the AUCU and the DUC for the terminal charging zone 1 is mainly driven by the adjustment for traffic risk sharing and by the adjustment for inflation for the terminal charging zone 2.

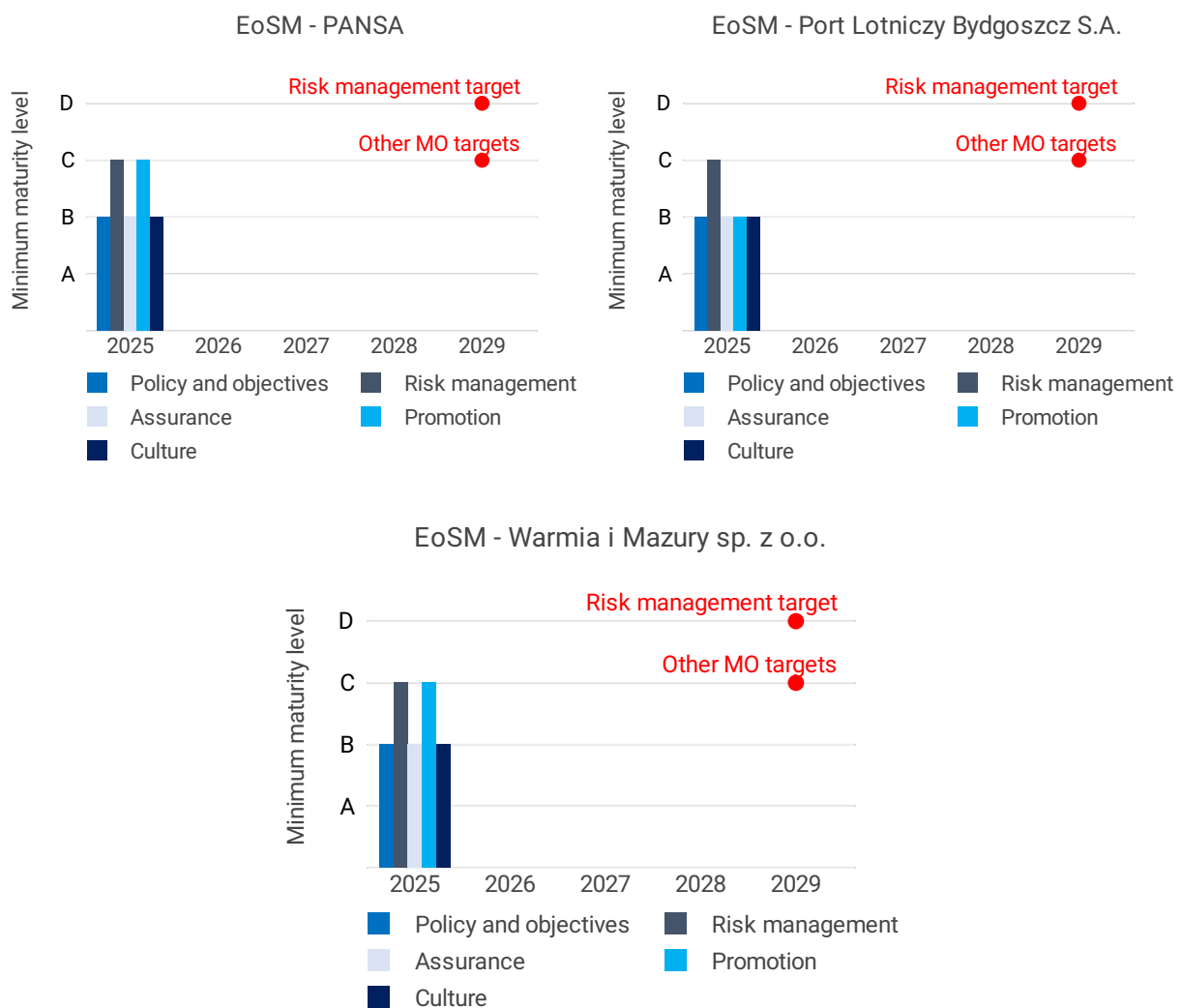


2 SAFETY - POLAND

2.1 PRB monitoring

- In 2025, PANSA achieved the planned maturity levels set out in its performance plan for all five components of the EoSM.
- In 2025, Port Lotniczy Bydgoszcz S.A. met the planned maturity levels set out in its performance plan for all five components of the EoSM.
- In 2025, Warmia i Mazury Sp. z o.o. met the planned maturity levels set out in its performance plan for all five components of the EoSM. In Safety Promotion, the organisation exceeded their planned level.
- The rate of runway incursions (RI) was 1.70 and equal to the RIs with ANS contribution, with the former indicator below the Union-wide average while the latter above. The rate of RIs has decreased compared to 2024 at both levels.
- The rate of separation minima infringements (SMIs) at State level was 2.09, and equal to the rate of SMIs at ANSP level. Both indicators were below the Union-wide average and both indicators have decreased significantly compared to 2024.

2.2 Effectiveness of Safety Management (EoSM) (KPI#1)



Focus on EoSM

PANSA

In 2025, PANSA achieved the planned maturity levels set out in its performance plan for all five components of the EoSM.

According to the monitoring report, 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. Moreover, 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.

In terms of main measures put in place to achieve the safety performance targets, the report defines the following elements:

- 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.

The Polish NSA notes in the monitoring report that 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 to 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).

Furthermore, as per the monitoring report, 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.

In 2025, Port Lotniczy Bydgoszcz S.A. met the planned maturity levels set out in its performance plan for all five components of the EoSM.

The NSA notes in the monitoring report, that 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.

In terms of main measures put in place to achieve the safety performance levels, the report defines that the ANSP introduced changes to internal procedures related to Safety Management System, including an expansion on the scope of its internal assessments.

According to the monitoring report, 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.

Furthermore, 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.

In 2025, Warmia i Mazury Sp. z o.o. met the planned maturity levels set out in its performance plan for all five components of the EoSM. In Safety Promotion, the organisation exceeded their planned level.

In terms of main measures put in place to achieve the planned safety performance levels, 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. Furthermore, 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 monitoring report notes that 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.

In terms of reaching the targets in future years of the reference period, according to the report, 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

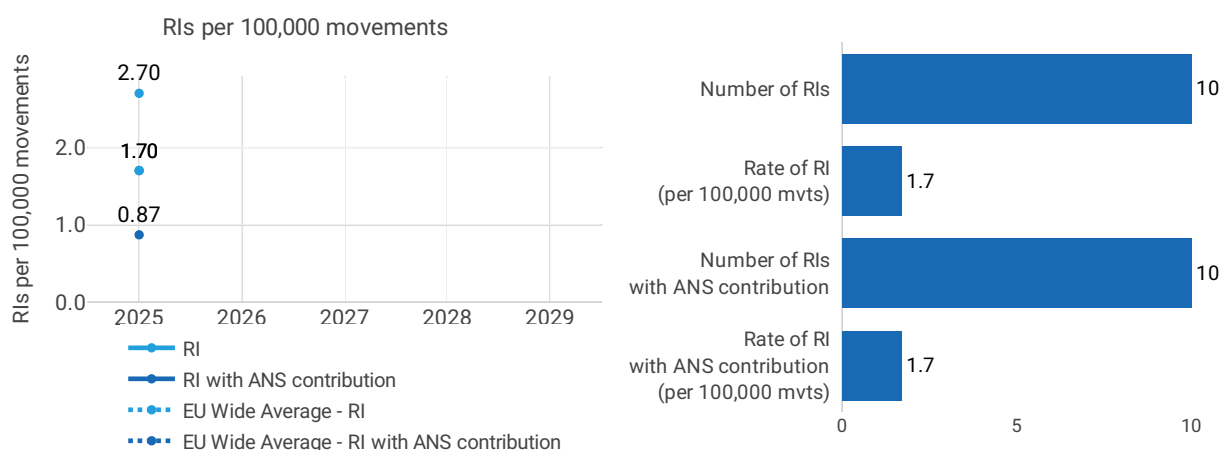


also expected in the integration of human performance principles into day-to-day operations, including the adoption and effective use of recognised good practices and the active involvement of Human Factors expertise across relevant organisational areas. In addition, the organisation should continue 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.

According to the report, 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.

2.3 Safety occurrences

2.3.1 Rate of runway incursions (RIs) (PI#1) and Rate of runway incursion with ANS contribution (PI#3)



Rate of RIs per 100,000 airport movements - Poland						
#	Airport name	APT movements	Number of RI	Rate RI per 100,000	Number of RI with ANS contribution	Rate RI per 100,000 with ANS contribution
1	Lotnisko Chopina w Warszawie	201,341	5	2.48	5	2.48
2	Kraków-Balice	91,359	2	2.19	2	2.19
3	Gdańsk im. Lecha Wałęsy	62,230	0	0.00	0	0.00
4	Katowice-Pyrzowice	50,395	0	0.00	0	0.00
5	Poznań-Ławica	46,775	1	2.14	1	2.14
6	Wrocław-Strachowice	40,219	0	0.00	0	0.00
7	Warszawa/Modlin	21,354	0	0.00	0	0.00
8	Rzeszów-Jasionka	18,760	0	0.00	0	0.00
9	Łódź	17,024	1	5.87	1	5.87
10	Bydgoszcz	15,109	1	6.62	1	6.62
11	Szczecin-Goleniów	8,635	0	0.00	0	0.00
12	Lublin	5,391	0	0.00	0	0.00
13	Lotnisko Warszawa-Radom	4,769	0	0.00	0	0.00
14	Olsztyn-Mazury	2,429	0	0.00	0	0.00
15	Zielona Góra-Babimost	1,651	0	0.00	0	0.00

Focus on runway incursions

Poland has reported 10 runway incursions (RI) during 2025 for all airports listed in the performance plans (15). In terms of ANS contribution, Poland reported 10 runway incursions.

When comparing the rate of RIs at airport level to Union-wide level, Poland was lower than Union-wide average (1.70 vs 2.70). The rate has decreased significantly compared to 2024 (1.70 vs 7.13).

When comparing the rate of RIs at airport level with ANS contribution, Poland was higher than Union-wide average (1.70 vs 0.87). The rate has decreased significantly compared to 2024 (1.70 vs 7.13).

According to the monitoring report, 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:

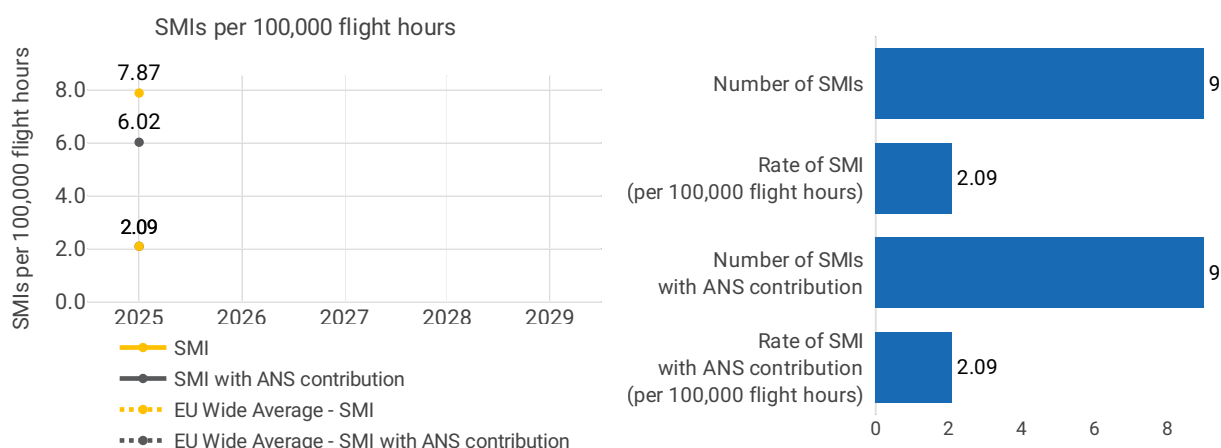
- Establishment by the CAA President of the internal CAA National Runway Safety Team aimed at enhancing the exchange of information between the CAA and aerodrome operators in the field of runway safety. The Team meets on a regular annual basis (with additional ad hoc meetings convened when necessary), 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.

Furthermore, 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 EC-CAIRS2 system and mandatory reporting by aerodrome operators. Effectiveness is assessed through trend analysis, the severity of occurrences, the percentage of events with ANS 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.

2.3.2 Rate of separation minima infringements (SMIs) (PI#2) and Rate of separation minima infringements with ANS contribution (PI#4)



Rate of SMI with ANS contribution per 100,000 flight hours

#	ANSP	Flight hours					Number of SMIs with ANS contribution				
		2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
1	PANSA	430,614	NA	NA	NA	NA	9	NA	NA	NA	NA
2	Port Lotniczy Bydgoszcz S.A.	0	NA	NA	NA	NA	0	NA	NA	NA	NA
3	Warmia i Mazury sp. z o.o.	0	NA	NA	NA	NA	0	NA	NA	NA	NA



		Rate of SMI with ANS contribution per 100,000 flight hours					% variation in rate of SMIs				
#	ANSP	2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
1	PANSA	2	NA	NA	NA	NA					
2	Port Lotniczy Bydgoszcz S.A.	NA	NA	NA	NA	NA					
3	Warmia i Mazury sp. z o.o.	NA	NA	NA	NA	NA					

Focus on separation minima

At State level, Poland reported 9 separation minima infringements (SMI) in their airspace during 2025. The rate of separation minima infringements was lower than the Union-wide average (2.09 vs 7.87). At ANSP level, Poland reported 9 SMIs with ANS contribution. The rate of separation minima infringements at ANSP level was lower than the Union-wide average (2.09 vs 6.02).

When comparing to 2024, the rate of separation minima infringements has decreased significantly at both State level (2.09 vs 14.08) and ANSP level (2.09 vs 14.68).

According to the monitoring report, 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. Furthermore, 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.

In addition, as described in the monitoring report, 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.



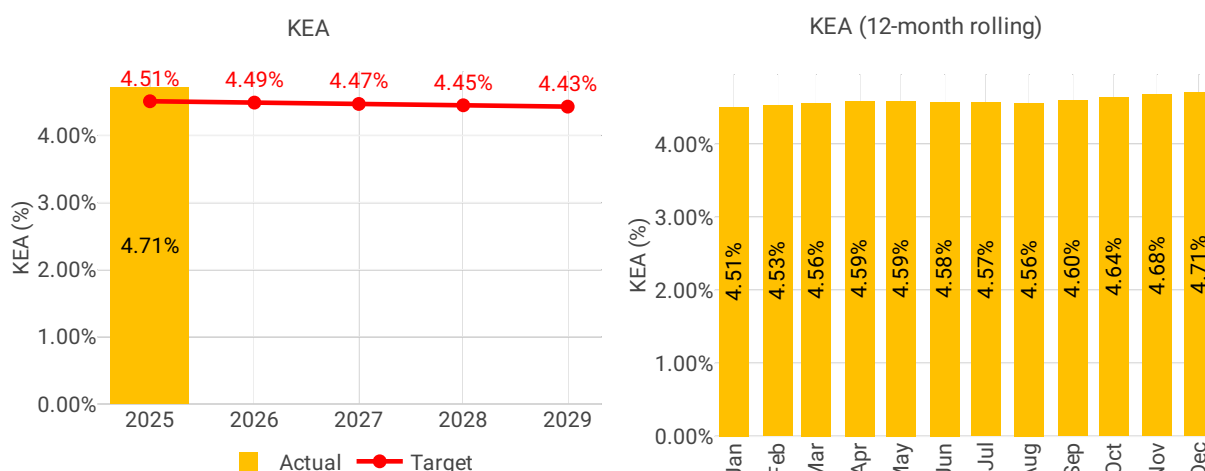
3 ENVIRONMENT - POLAND

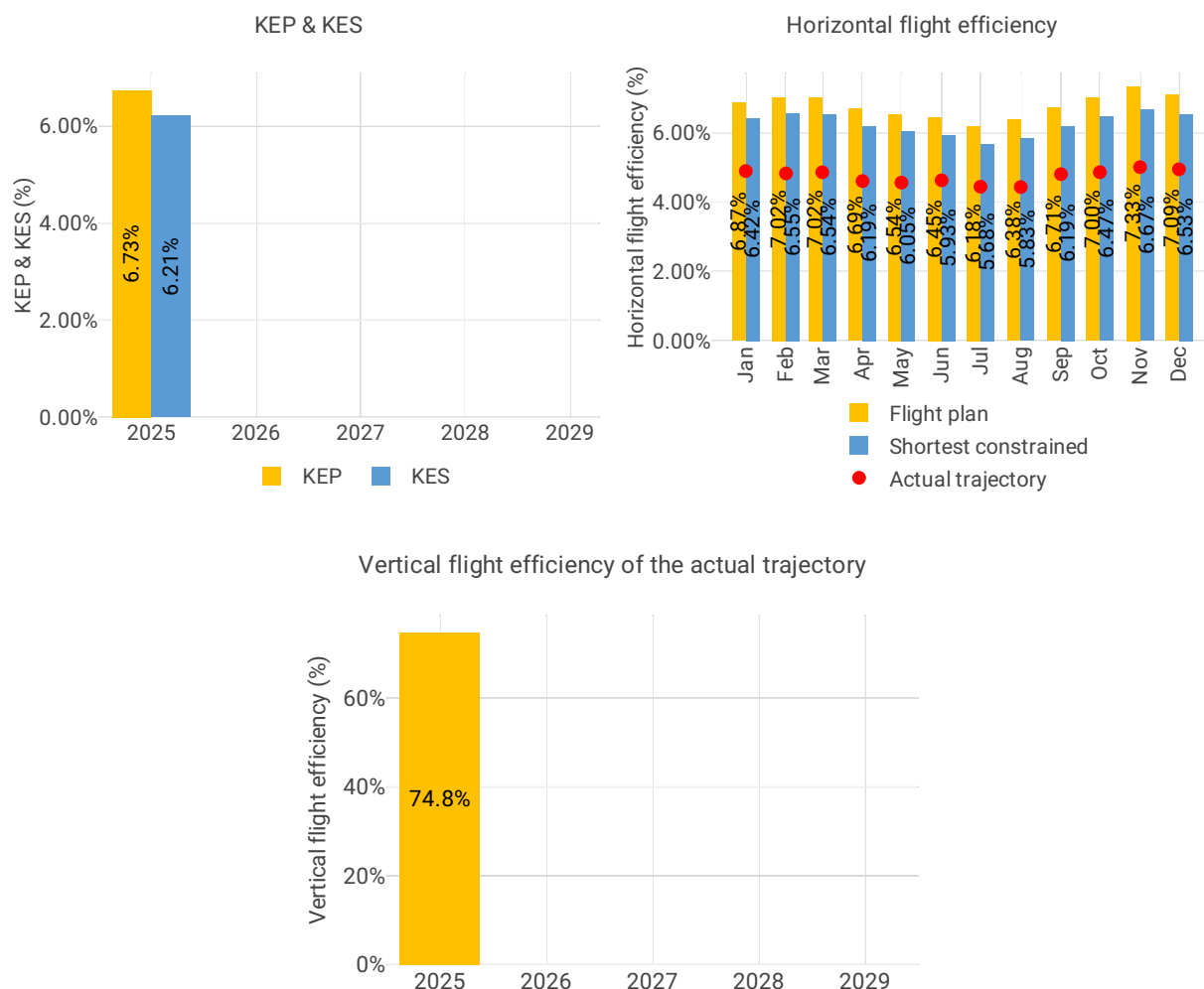
3.1 PRB monitoring

- Poland registered a KEA performance of 4.71% compared to its target of 4.51% and contributed negatively towards achieving the Union-wide target. The NSA states that the main reason for not meeting the target is due to Russia's war of aggression against Ukraine, an increase in drone and balloon incursions in Polish airspace, weather and airspace users' decisions.
- KEP deteriorated and KES deteriorated marginally in comparison with 2024, and the levels are still significantly worse compared to previous years.
- VFE of the actual trajectory was at 74.75%, which was worse than the average Union-wide performance.
- The average time in level flight during descent deteriorated and during climb improved compared to 2024.
- Additional taxi-out time was 3.15 min/flight which deteriorated marginally compared to 3.0 min/flight in 2024, and additional taxi-in time was 1.36 min/flight which also deteriorated marginally compared to 1.30 min/flight in 2024.
- Additional time in the arrival sequencing and metering area deteriorated marginally to 2.98 min/flight.

3.2 En route performance

3.2.1 Horizontal flight efficiency of the actual trajectory (KEA) (KPI#1), of the last filed flight plan (KEP) (PI#1) , shortest constrained route (KES) (PI#2) and vertical flight efficiency of the actual trajectory (VFE) (PI#3)





Focus on en route performance

KEA

Poland saw a deterioration with respect to 2024, both in terms of KEA and of the KEA corrected for the influence of the war in Ukraine. The values of KEA were 4.49% in 2024 and 4.71% for 2025; those of the corrected KEA were 2.12% in 2024 and 2.21% in 2025. For 2025, those values place Poland as 25th in terms of KEA and 18th in terms of corrected KEA.

In terms of contribution to the overall additional distance in the SES area, Poland is the 6th highest (23rd) with 4.49%.

Regarding the assessment of the achieved level of actual performance in the environment KPA, the NSA reports: *"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 differed 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."

Regarding the implementation of major operational or structural changes during the calendar year impacting performance in this key performance area, the NSA reports: "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 PANSO 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.”

Regarding progress on the implementation of the measures committed to in the ERNIP, the NSA reports: “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.”

Regarding the identification and analysis by the NSA of the underlying reasons or circumstances having led to the performance target not being achieved, the NSA reports: “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."

Regarding recommendations to the ANSP to rectify the situation, the NSA reports: "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."

Regarding remedial measures that have been / will be taken by the ANSP to rectify the situation, the NSA reports: "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."

Regarding the follow up of the remedial measures indicated in the previous monitoring report(s), the NSA reports: "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."

KEP

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *"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 co-operation 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 potentially – 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."

KES

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *"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 co-operation 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 potentially – 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.”

Vertical flight efficiency

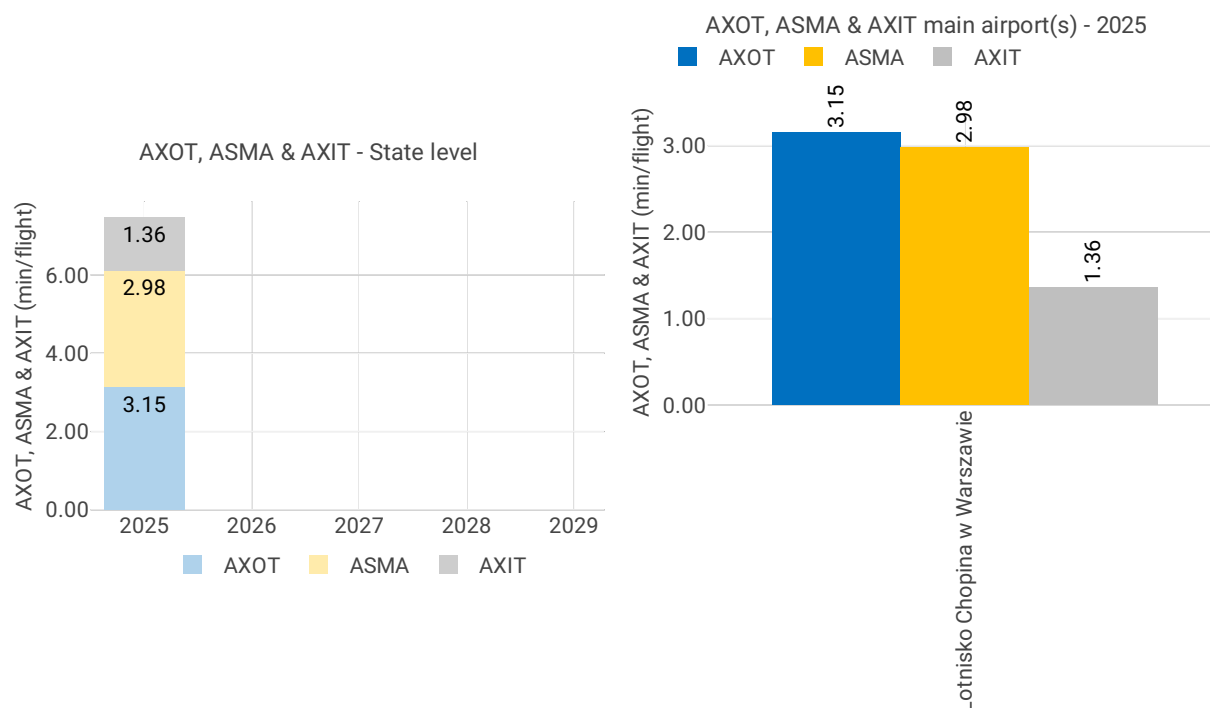
Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: “There is no data to compare the indicator value for 2025.

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.”

3.3 Terminal performance

3.3.1 Additional taxi-out time (AXOT) (PI#4), Additional taxi-in time (AXIT) (PI#5) & Arrival Sequencing and Metering Area (ASMA) time (PI#6)



Airport level															
	Additional taxi-out time (PI#4)					Additional ASMA time (PI#6)					Additional taxi-in time (PI#5)				
Airport	2025	2026	2027	2028	2029	2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
Lotnisko Chopina w Warszawie	3.15	NA	NA	NA	NA	2.98	NA	NA	NA	NA	1.36	NA	NA	NA	NA

Focus on AXOT, AXIT & ASMA

AXOT

Warsaw is the only Polish airport subject to the monitoring of this indicator. The additional time in 2025 increased to 3.15 min/dep, 5% above the 2024 value – last year of RP3 – of 3.00 min/dep (*using the new methodology*).

The average for RP4 airports subject to monitoring of this indicator across Member States in 2025 was 3.61 min/dep.

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *“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.”

AXIT

Warsaw is the only Polish airport subject to the monitoring of this indicator. The additional time in 2025 was equal to 1.36 min/arr.

The average for RP4 airports subject to monitoring of this indicator across Member States in 2025 was 1.71 min/arr.

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *“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.”



ASMA

Warsaw is the only Polish airport subject to the monitoring of this indicator. The additional time in 2025 resulted in 2.98 min/arr, 4% above the 2024 value – last year of RP3 – of 2.87 min/arr (*using the new methodology*).

The average for RP4 airports subject to monitoring of this indicator across Member States in 2025 was 2.98 min/arr.

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *“For information on measures implemented before 2025, please refer to the respective Annual Monitoring Reports.*

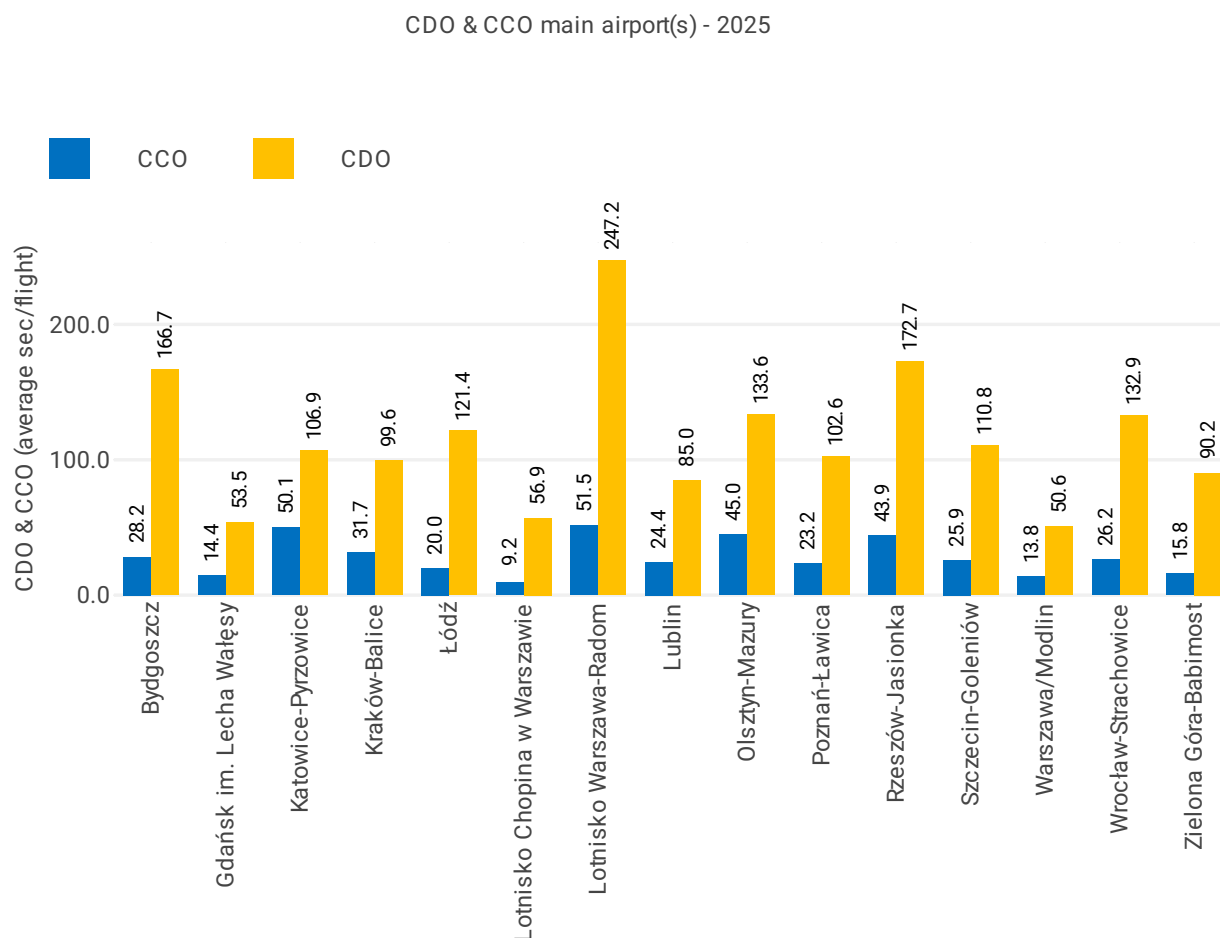
In 2025 PANSA reduced radar separation minimum applicable in Warszawa TMA from 5 NM to 3 NM. This measure enables more efficient traffic flow within that airspace. Additionally, RRSN has been introduced at EPWA, alongside more efficient coordination methods between APP and TWR which aimed at reducing 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.”



3.3.2 Vertical flight efficiency of the descent (PI#7) and of the climb (PI#8)



Focus on vertical flight efficiency of the descent and of the climb

Vertical flight efficiency of the descent

Compared to the overall RP4 average value (149.2 seconds per flight), average times flown level during descent are on average 65.8 seconds per flight lower in Poland. The highest average time flown level during descent happens at Lotnisko Warszawa-Radom (EPRA) (247.2 seconds per flight), while the lowest happens at Warszawa/Modlin Airport (EPMO) (50.6 seconds per flight).

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *“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 PANSAT 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."

Vertical flight efficiency of the climb

Compared to the overall RP4 average value (34.8 seconds per flight), average times flown level during climb are on average 13.2 seconds per flight lower in Poland. The highest average time flown level during climb happens at Lotnisko Warszawa-Radom (EPRA) (51.5 seconds per flight), while the lowest happens at Lotnisko Chopina w Warszawie (EPWA) (9.2 seconds per flight).

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *"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.

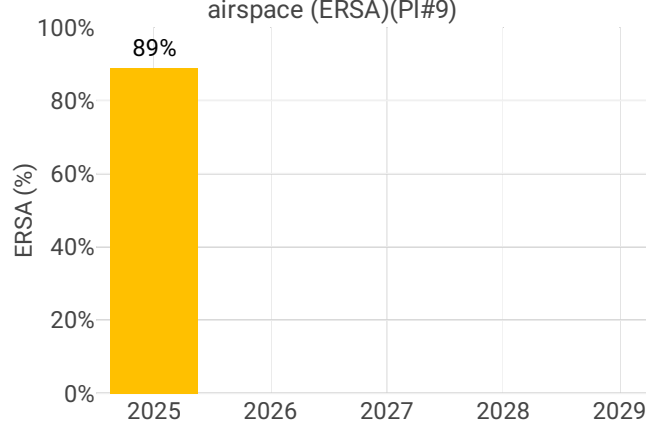
The NSA receives the list of planned changes to the ATM functional system on a regular basis. Once a change is notified the relevant monitoring activities are implemented."



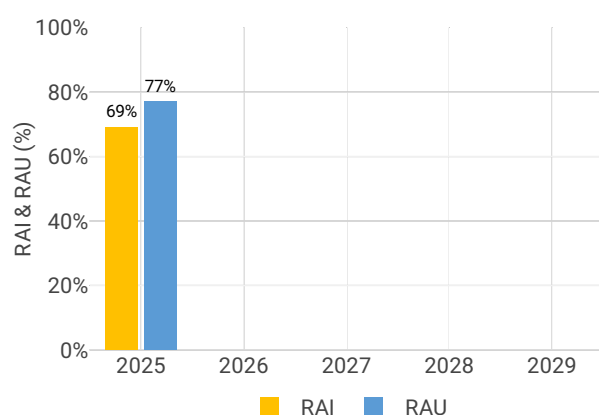
Airport level										
	Avg. duration in climb (PI#8)					Avg. duration in descent (PI#7)				
Airport	2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
Bydgoszcz	28.2	NA	NA	NA	NA	166.7	NA	NA	NA	NA
Gdańsk im. Lecha Wałęsy	14.4	NA	NA	NA	NA	53.5	NA	NA	NA	NA
Kraków-Balice	31.7	NA	NA	NA	NA	99.6	NA	NA	NA	NA
Katowice-Pyrzowice	50.1	NA	NA	NA	NA	106.9	NA	NA	NA	NA
Lublin	24.4	NA	NA	NA	NA	85.0	NA	NA	NA	NA
Łódź	20.0	NA	NA	NA	NA	121.4	NA	NA	NA	NA
Warszawa/Modlin	13.8	NA	NA	NA	NA	50.6	NA	NA	NA	NA
Poznań-Ławica	23.2	NA	NA	NA	NA	102.6	NA	NA	NA	NA
Lotnisko Warszawa-Radom	51.5	NA	NA	NA	NA	247.2	NA	NA	NA	NA
Rzeszów-Jasionka	43.9	NA	NA	NA	NA	172.7	NA	NA	NA	NA
Szczecin-Goleniów	25.9	NA	NA	NA	NA	110.8	NA	NA	NA	NA
Olsztyn-Mazury	45.0	NA	NA	NA	NA	133.6	NA	NA	NA	NA
Lotnisko Chopina w Warszawie	9.2	NA	NA	NA	NA	56.9	NA	NA	NA	NA
Wrocław-Strachowice	26.2	NA	NA	NA	NA	132.9	NA	NA	NA	NA
Zielona Góra-Babimost	15.8	NA	NA	NA	NA	90.2	NA	NA	NA	NA

3.4 Civil-Military dimension

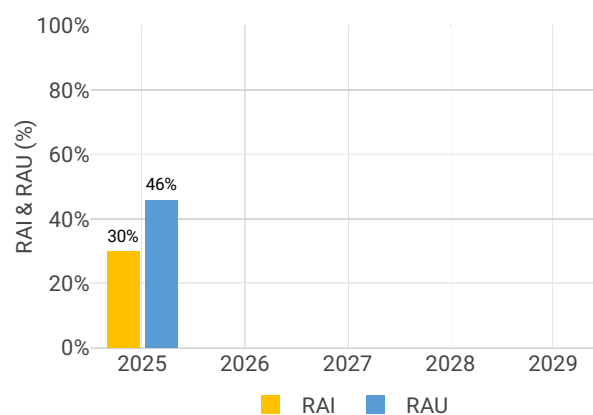
Effective use of reserved or segregated airspace (ERSA)(PI#9)



RAI & RAU via available conditional routes (PIs#10 & 11)



RAI & RAU via available restricted and segregated airspace (PIs#10 & 11)



Focus on Civil-Military dimension

Effective use of reserved or segregated local airspace

POLAND reports a ratio of **89%**

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *“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 exceed 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.”*

Rate of planning via available airspace structures

POLAND reports that:

- The ratio of planning via available airspace structures is **30%** (via available restricted and segregated airspaces)
- The ratio of planning via available airspace structures is **69%** (via available conditional routes – CDR)

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *“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."

Rate of using available airspace structures

POLAND reports that:

- The ratio of the use of the available airspace structures is **46%** (via available restricted and segregated airspaces)
- The ratio of use of the available airspace structures is **77%** (via available conditional routes – CDR)

Regarding initiatives implemented or planned that will improve this PI and how does the NSA intend on monitoring their effectiveness on performance, the NSA reports: *"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.”*



4 CAPACITY - POLAND

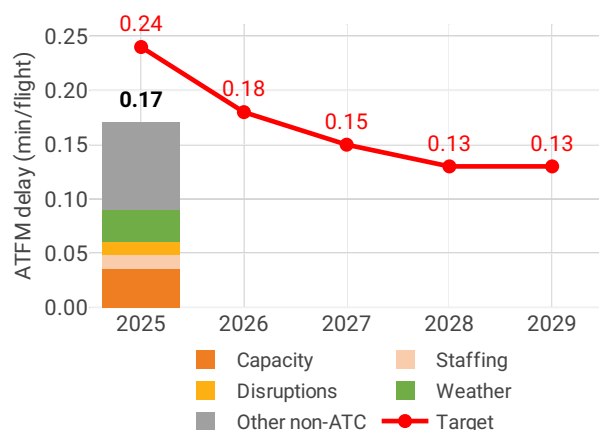
4.1 PRB monitoring

- Poland registered 0.17 minutes of average en route ATFM delay per flight during 2025, which remained 0.17 after the post-ops adjustment process, thus achieving the local target value of 0.24. Delays in Poland decreased by -0.06 minutes per flight year-on-year.
- Delays were highest in July, driven by a combination of weather and other non-ATC causes as well as ATC capacity and staffing.
- The share of delayed flights with delays longer than 15 minutes in Poland decreased by -3 percentage points compared to 2024.
- The number of ATCOs in OPS was 179 being below the 2025 plan in Warsaw ACC by -5 FTE.
- The yearly total of sector opening hours in Warsaw ACC was 28,447, showing a -20% decrease compared to 2024.
- Warsaw ACC registered 23.47 IFR movements per sector opening hour in 2025. This is +29% above the ratio recorded in 2024.
- Poland registered an average airport arrival ATFM delay of 0.48 minutes per flight in 2025, thus not achieving the local target of 0.06 minutes. Compared to 2024, average arrival ATFM delays in Poland were -0.01 minutes per flight lower in 2025.
- The main drivers of delays were other non-ATC causes, accounting for 0.23 of the total delays, and weather, responsible for 0.22.

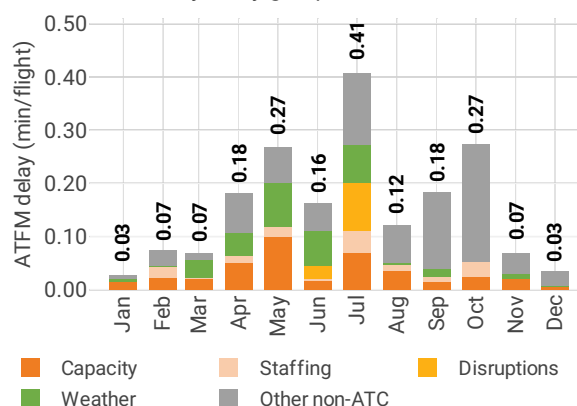
4.2 En route performance

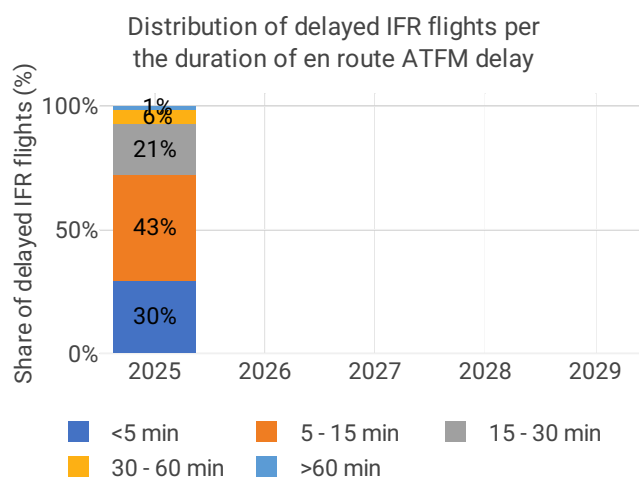
4.2.1 En route ATFM delay (KPI#1)

Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2025





Focus on en route ATFM delay

En route ATFM delay

- Poland had 800k flights in 2025, up from 759k flights in 2024.
- PANSA applied en route ATFM regulations resulting in 136k minutes of delay, a reduction from the 175k minutes in 2024.
- As part of the strategic traffic re-orientation programme (S25/NTDM) operated by the Network Manager, 2k minutes of delay originating in Poland were re-attributed to other ANSPs.
- When the above post-operations re-attribution is factored in, the total en route delay for PANSA in 2025 was 134k minutes in 2025 down from 172k minutes in 2024.

Regarding the reasons and circumstances resulting in the achieved level of actual performance of the en route ATFM delay per flight KPI, the NSA reports: *“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 breakdown 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.”

Regarding the description of the adjustments to the capacity plan included in adopted performance plan, the NSA reports: *“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."

Regarding follow up of the remedial measures indicated in the previous monitoring report(s), the NSA reports: "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."



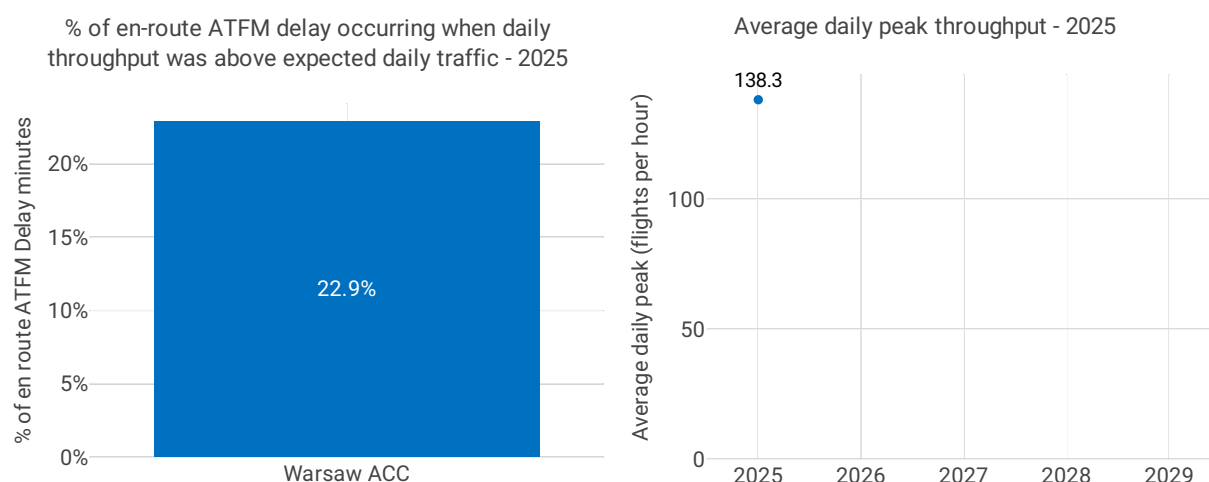
En route capacity incentive scheme

The Polish NSA reports a financial bonus of PLN 10,883,109 for the ANSP because of the 2025 performance.

The local incentive target for en route ATFM delays, due to CRSTMP causes only, was set at 0.22 mins/flight.

The NSA reports an achieved performance of 0.082 mins/flight but does not state how this was verified. [NB The attribution of original delay causes on the ansperformance.eu dashboard is unverified]

4.2.2 En route performance indicators at ACC level (PI#4-5)



Focus en route performance indicators at ACC level

Percentage of total en route ATFM delay that occurred on days when the daily throughput was above the expected daily traffic

As background information on actual performance, the NSA reports: *"There is no data to compare the indicator value for 2025."*

Annual weighted average of the daily peak throughput

As background information on actual performance, the NSA reports: *"There is no data to compare the indicator value for 2025."*

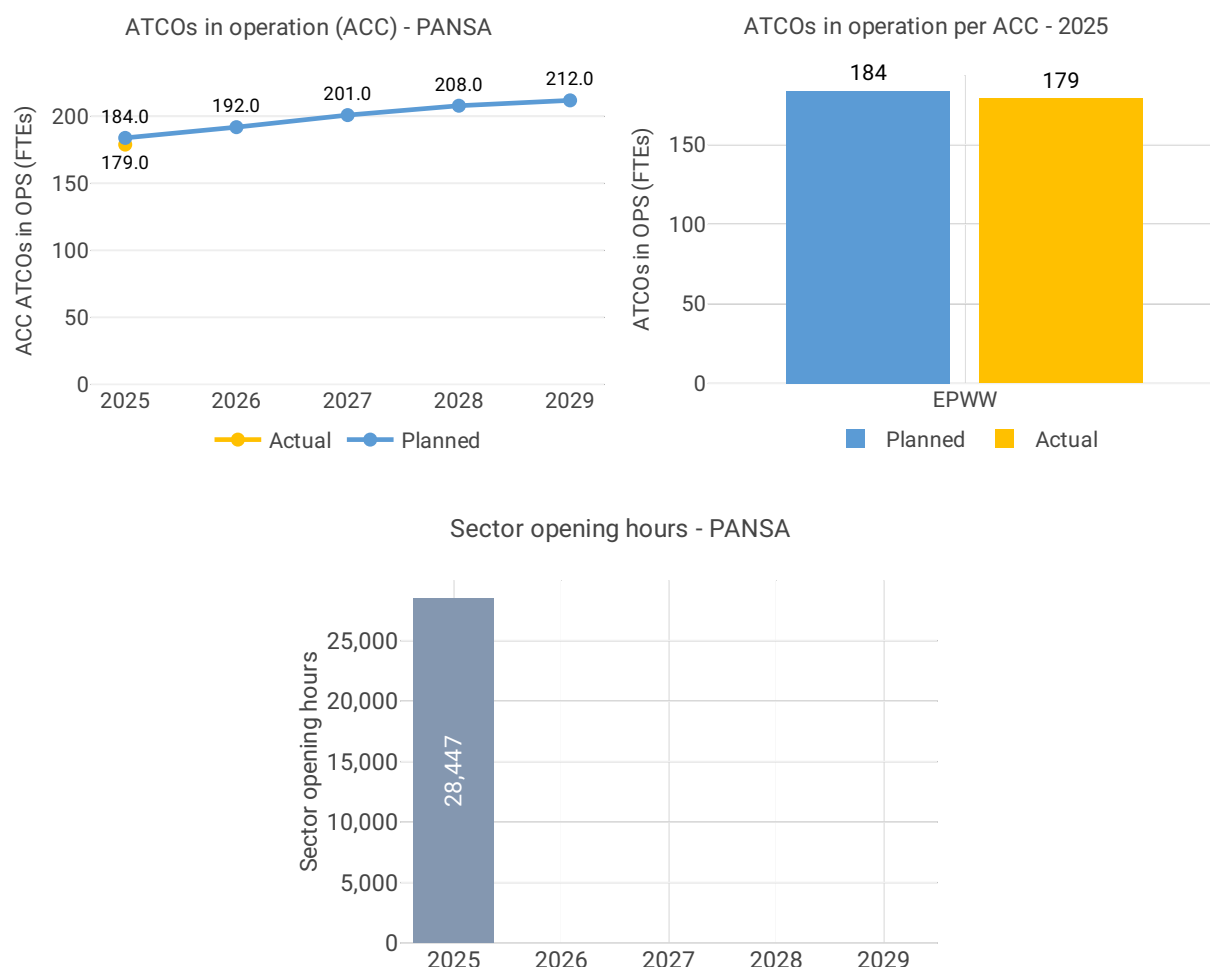
The measures implemented to improve capacity are presented in section 2.3.1.(a).

Other improvements planned for RP4 are listed in the RP4 PP for Poland.

The value of this indicator is influenced by decision of Airspace Users as it is based on actual traffic performed by them."



4.2.3 Other en route information



Focus on other en route information

As additional comments to ATCOs in the scope of the performance scheme, the NSA reports: *“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.”

“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.”*

Regarding 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, the NSA reports: *“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 were 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:

- 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.

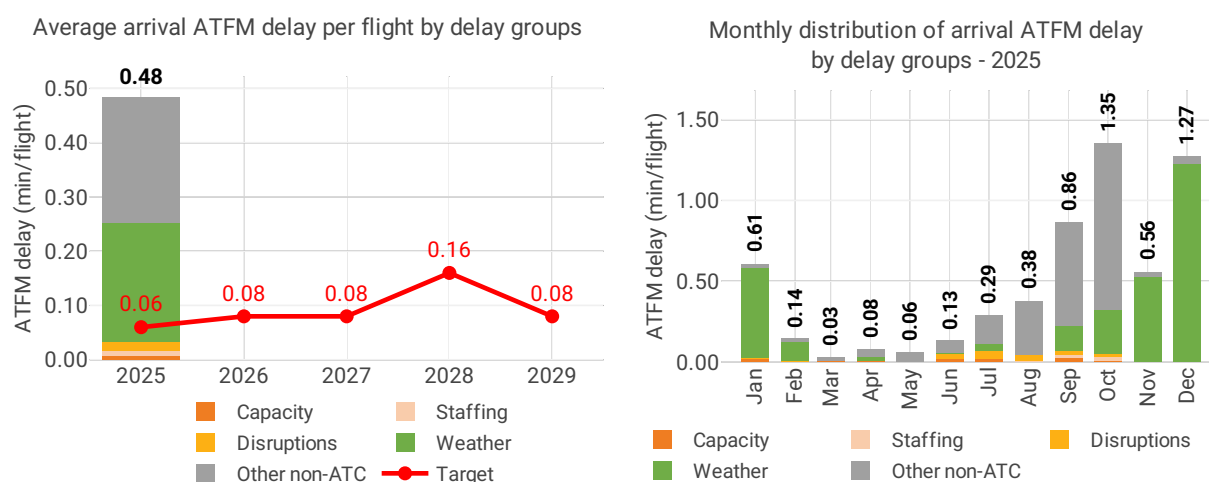


The second stage was the assignment to the specific units, which took place during the rating training based on the assessment of the candidates' training progress, in consultation with the Operations Department, took into account the needs and possibilities of training in the unit in terms of its effectiveness.

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."

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)



Focus on arrival ATFM delay

Arrival ATFM delay

Average ATFM arrival delay in Poland was 0.48 min/arr in 2025, the first year of RP4. The performance remains almost equal to 2024, last year of RP3, when there were 0.49 min/arr. The figures are mostly driven by Wrocław (1.13 min/arr), Kraków (0.81 min/arr) and Warsaw (0.61 min/arr). In general, these were due to infrastructure renovations and unfavourable weather conditions.

The average for RP4 airports subject to monitoring of ATFM Arrival delay across Member States in 2025 was 0.97 min/arr.

Regarding the reasons and circumstances resulting in the achieved level of actual performance of the arrival ATFM delay per flight KPI, the NSA reports: "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."

Regarding the identification and analysis by the NSA of the underlying reasons or circumstances having led to the performance target not being achieved, the NSA reports: "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."

Regarding recommendations to the ANSP to rectify the situation, the NSA reports: "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."

Regarding remedial measures that have been / will be taken by the ANSP to rectify the situation, the NSA reports: "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.”

Regarding follow up of the remedial measures indicated in the previous monitoring report(s), the NSA reports: *“Remedial measures indicated in previous monitoring reports have been implemented.*

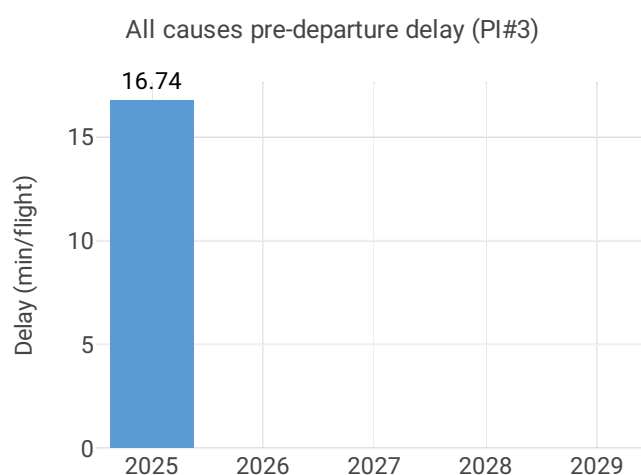
The target takes into account all delay causes – both ATC as well as non-ATC. As shown by the past years’ data, terminal delays are significantly impacted by non-ATC elements that are beyond control of PANSA. This has been considered when defining the incentive scheme for RP4, however still due to this 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.”

Terminal capacity incentive scheme

In the first year of RP4, with an ATFM Arr delay of 0.48 min/arr, Poland did not achieve the national target of 0.06 min/arr. However, the pivot value for incentives (0.05 min/arr) is limited to CRSTMP delay causes. As CRSTMP delay of 0.042 min/arr falls within the deadband for the incentive scheme, no bonus or penalty applies.

4.3.2 Other terminal performance indicators (PI#1-3)



Airport level										
	Avg arrival ATFM delay (KPI#2)					Slot adherence (PI#1)				
Airport name	2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
Bydgoszcz	0.00	NA	NA	NA	NA	98.9%	NA	NA	NA	NA
Gdańsk im. Lecha Wałęsy	0.00	NA	NA	NA	NA	97.4%	NA	NA	NA	NA
Katowice-Pyrzowice	0.20	NA	NA	NA	NA	93.8%	NA	NA	NA	NA
Kraków-Balice	0.81	NA	NA	NA	NA	98.6%	NA	NA	NA	NA
Lotnisko Chopina w Warszawie	0.61	NA	NA	NA	NA	98.1%	NA	NA	NA	NA
Lotnisko Warszawa-Radom	0.00	NA	NA	NA	NA	98.2%	NA	NA	NA	NA
Lublin	0.15	NA	NA	NA	NA	98.4%	NA	NA	NA	NA
Olsztyn-Mazury	0.00	NA	NA	NA	NA	96.3%	NA	NA	NA	NA
Poznań-Ławica	0.00	NA	NA	NA	NA	97.7%	NA	NA	NA	NA
Rzeszów-Jasionka	0.19	NA	NA	NA	NA	95.8%	NA	NA	NA	NA
Szczecin-Goleniów	0.00	NA	NA	NA	NA	95.6%	NA	NA	NA	NA
Warszawa/Modlin	0.01	NA	NA	NA	NA	98.4%	NA	NA	NA	NA
Wrocław-Strachowice	1.13	NA	NA	NA	NA	95.5%	NA	NA	NA	NA
Zielona Góra-Babimost	0.00	NA	NA	NA	NA	95.6%	NA	NA	NA	NA
Łódź	0.00	NA	NA	NA	NA	97.4%	NA	NA	NA	NA

	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
Airport name	2025	2026	2027	2028	2029	2025	2026	2027	2028	2029
Lotnisko Chopina w Warszawie	0.99	NA	NA	NA	NA	16.7	NA	NA	NA	NA

Focus on other terminal performance indicators

ATFM slot adherence

ATFM slot adherence in 2025 was equal to 97.3%, very close to the 2024 value – last year of RP3 – of 96.8%. All airports except Katowice-Pyrzowice (93.8%) were above 95.0%.

With regard to the 2.7% of flights that did not adhere, 1.6% were early and 1.1% were late.

The average for RP4 airports subject to monitoring of ATFM slot adherence across Member States in 2025 was 96.3%.

As background information on actual performance, the NSA reports: *“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.”



ATC pre-departure delay

Warsaw is the only Polish airport subject to the monitoring of this indicator. Delay in 2025 increased to 0.99 min/dep, 34% above the value of 2024 – last year of RP3 – of 0.74 min/dep.

The average for RP4 airports subject to monitoring of ATC pre-departure delay across Member States and for which enough data is available in 2025 was 0.74 min/dep.

As background information on actual performance, the NSA reports: *“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.”

All causes pre-departure delay

Warsaw is the only Polish airport subject to the monitoring of this indicator. Delay in 2025 decreased to 16.74 min/dep, 15% below the value of 2024 – last year of RP3 – of 19.76 min/dep.

The average for RP4 airports subject to monitoring of all causes pre-departure delay across Member States in 2025 was 16.47 min/dep.

As background information on actual performance, the NSA reports: *“2025 performance may be attributed to significant airside work-in progress (RWY closures). No significant actions were taken by PANSa to improve this indicator in 2025. Relevant monitoring activities will be implemented when necessary.”*



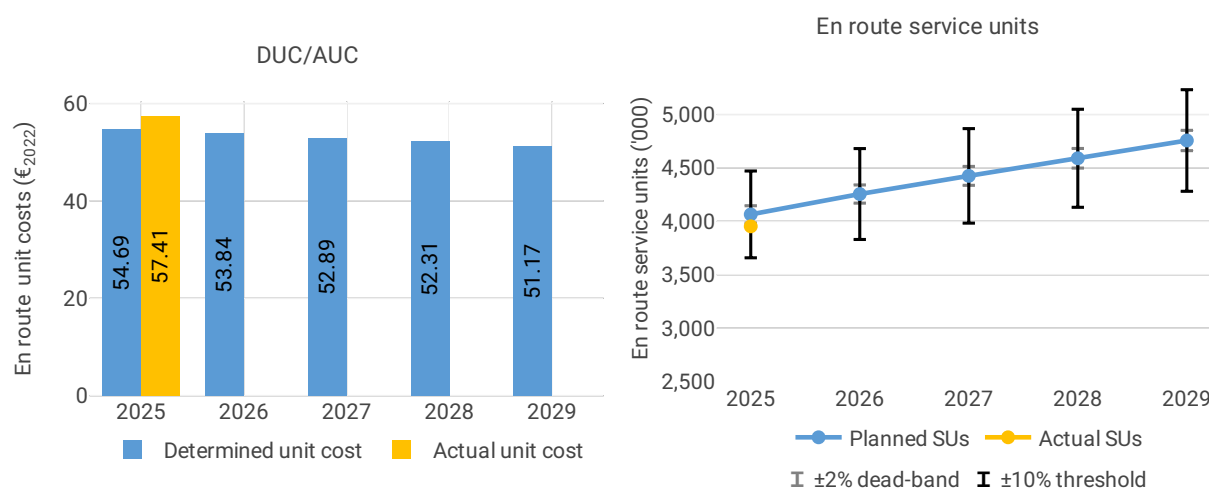
5 COST-EFFICIENCY - POLAND

5.1 PRB monitoring

- The en route 2025 actual unit cost of Poland was 57.41€2022, +5.0% higher than the determined unit cost (54.69€2022). The terminal zone 1 2025 actual unit cost was 117.35€2022, -9.6% lower than the determined unit cost (129.78€2022), while the terminal zone 2 2025 actual unit cost was 226.69€2022, -6.9% lower than the determined unit cost (243.57€2022).
- The en route 2025 actual service units (4.0M) were -2.7% lower than the determined service units (4.1M).
- The en route 2025 actual total costs were +4.6M€2022 (+2.1%) higher than determined. This is mainly due to higher staff costs for PANSA (+8.2M€2022, or +6.5%), partially compensated by lower other operating costs than planned (-3.7M€2022, or -11.5%). The NSA explained that the increase in staff costs is mainly caused by higher provisions than forecasted, while the decrease in other operating costs is mainly due to lower energy and repair services costs.
- PANSA spent 49.6M€2022 in 2025 related to costs of investments for both en route and terminal charging zones, +0.8% more than determined (49.2M€2022). The NSA explained that this difference reflects the actual evolution of the useful life and value of assets.
- The en route actual unit cost incurred by users in 2025 was 67.51€ (-4.2% below the 2025 DUC). The terminal actual unit cost incurred by users was 153.02€ (-10.1% below the 2025 DUC) for the terminal zone 1, and 296.95€ (-6.4% below the 2025 DUC) for the terminal zone 2. The difference between the AUCU and the DUC for the en route charging zone is mainly driven by other revenues. The difference between the AUCU and the DUC for the terminal charging zone 1 is mainly driven by the adjustment for traffic risk sharing and by the adjustment for inflation for the terminal charging zone 2.

5.2 En route charging zone

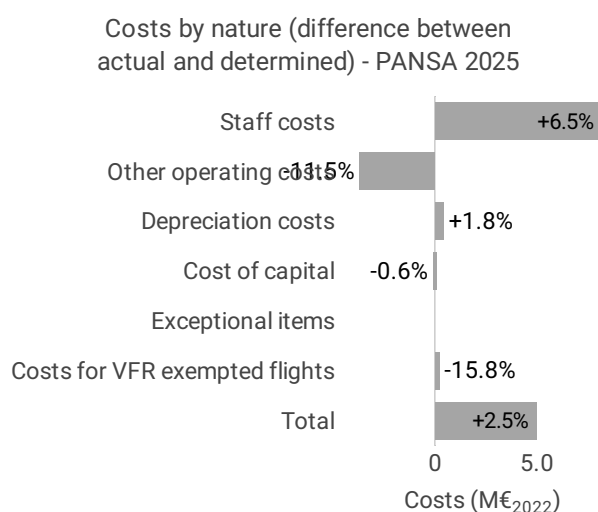
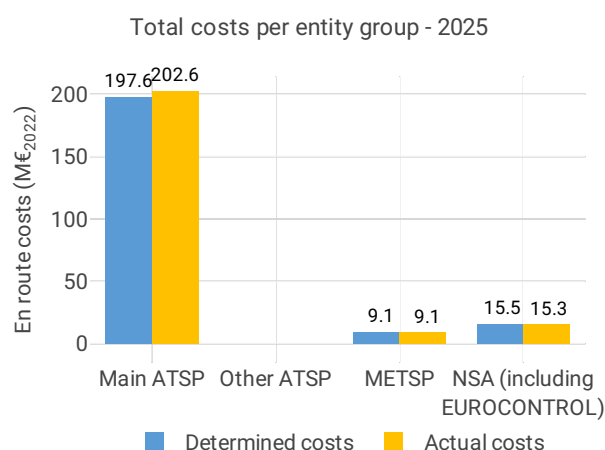
5.2.1 Unit cost (KPI#1)



Actual and determined data					
Total costs - nominal (M€)	2025	2026	2027	2028	2029
Determined costs	259.1	274.0	286.2	298.9	308.7
Actual costs	259.0	NA	NA	NA	NA
Difference costs	-0.2	NA	NA	NA	NA

Inflation assumptions	2025	2026	2027	2028	2029
Determined inflation rate	5.0%	3.6%	2.9%	2.5%	2.5%
Determined inflation index*	122.2	126.6	130.3	133.6	136.9
Actual inflation rate	3.3%	NA	NA	NA	NA
Actual inflation index*	118.8	NA	NA	NA	NA
Difference inflation index (p.p.)	-3.4	NA	NA	NA	NA

*100 = 2022



Focus on unit cost

AUC vs. DUC

In 2025, the en route AUC was +5.0% (or +12.71 PLN₂₀₂₂, +2.72 €₂₀₂₂) higher than the planned DUC. This results from the combination of higher than planned en route costs in real terms (+2.1%, or +21.7 MPLN₂₀₂₂, +4.6 M€₂₀₂₂) and lower than planned TSUs (-2.7%). It should be noted that the actual inflation index in 2025 was -3.4 p.p. lower than planned.

En route service units

The difference between actual and planned TSUs (-2.7%) falls outside the ±2% dead-band but does not exceed the ±10% threshold foreseen in the traffic risk sharing mechanism. The resulting loss of en route revenues is therefore shared between the ANSP and the airspace users (see the main ANSP regulatory result).

En route costs by entity

Actual real en route costs are +2.1% (+4.6 M€₂₀₂₂) higher than planned. This is the result of higher costs for the main ANSP, PANSA (+2.5%, or +5.0 M€₂₀₂₂) and lower costs for the MET service providers (-0.9%, or -0.1 M€₂₀₂₂) and the NSA/EUROCONTROL (-1.7%, or -0.3 M€₂₀₂₂).



En route costs for the main ANSP (PANSa) at charging zone level

Based on the additional information to the en route reporting tables, the higher than planned en route costs in real terms for PANSa in 2025 (+2.5%, or +5.0 M€2022) result from:

- Significantly higher than planned staff costs (+6.5%), mainly due to the evolution of costs related to provisions, including; 1) the fact that *“determined ER costs for 2025 included forecasted net change in the value of accounting provisions related to court cases of -28 MPLN [some 6.6 M€] for PANSa overall, which did not materialise”*, as well as 2) higher than forecast net change in provisions for pensions and related benefits and 3) additional costs stemming from revaluation of provisions for unused employee holidays.
- Significantly lower than planned other operating costs (-11.5%) linked to lower than planned costs for electricity, repairs, maintenance and support of IT systems, lower than planned expenses for meetings as well as *“some works initially planned to be financed under opex executed as capex”*.
- Higher than planned depreciation (+1.8%), explained by *“higher depreciation recorded in 2024, [...] which had an impact also on actual depreciation costs in 2025”* and *“differences in the useful life of some assets as compared to standard periods assumed in plan.”*
- Slightly lower than planned cost of capital (-0.6%), resulting from a combination of slightly lower asset base and slightly higher weighted average cost of capital (WACC) rate reflecting effective interest rate of debt.
- Significantly lower than planned deduction for VFR exempted flights (-15.8%).

Assessment of the actual performance in the charging zone reported by the NSA

The NSA of Poland provides the following overall assessment of the actual performance in 2025 at charging zone level:

“PANSa:

AUC was 5.4% 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 0.2% 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."

Explanation of the differences between actual and determined costs at charging zone level reported by the NSA

The NSA provides the following explanation for the differences between actual and determined costs in the charging zone:

"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 remuneration 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 shortages 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."

Recommendations formulated by the NSA to the ANSP (PANSA) to rectify the situation and actions taken by the ANSP

The NSA 2025 monitoring report indicates the following recommendations formulated by the NSA:

"Since the target was met, no corrective measures were required."

ANSPs report the implementation of the following actions:

"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, largely 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.

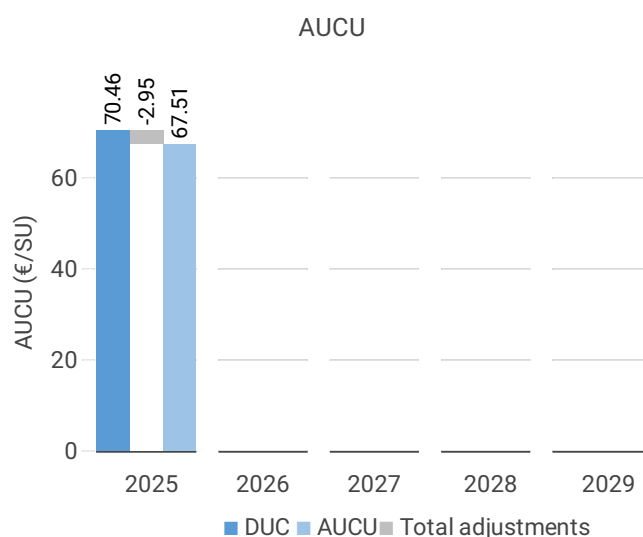
Warmia i Mazury:

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:

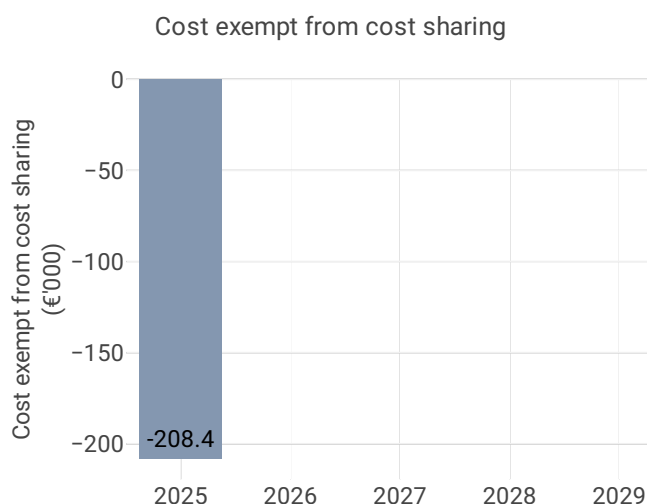
ANSP is constantly trying to implement its most significant investment, which is TWR EPBY modernization. Due to external factors (issues with the military stakeholder), PL Bydgoszcz is currently analyzing different approach, consisting of an alternative construction and solution, which will increase the safety of ANS provision."

5.2.2 Actual unit cost incurred by the users (AUCU) (PI#1)



AUCU components (€/SU) – 2025	
Components of the AUCU in 2025	€/SU
DUC	70.46
Inflation adjustment	-1.60
Cost exempt from cost sharing	-0.05
Traffic risk sharing adjustment	0.34
Traffic adjustment (costs not TRS)	0.20
Financial incentives	0.65
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-2.50
Application of lower unit rate	0.00
Total adjustments	-2.95
AUCU	67.51
AUCU vs. DUC	-4.2%





Cost exempt from cost sharing – 2025

Cost exempt from cost sharing by item - 2025	€'000	€/SU
New and existing investments	50.4	0.01
Competent authorities and qualified entities costs	70.8	0.02
Eurocontrol costs	-364.6	-0.09
Pension costs	0.0	0.00
Interest on loans	35.0	0.01
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	-208.4	-0.05

Focus on AUCU

En route AUCU monitoring at charging zone level

The actual en route unit cost incurred by airspace users (AUCU) in respect of activities performed in 2025 (285.86 PLN or 67.51 €) is -4.2% lower than the nominal DUC (298.36 PLN or 70.46 €). The difference between the AUCU and the nominal DUC (-12.50 PLN/SU or -2.95 €/SU) is due to:

- the negative inflation adjustment resulting from lower than planned inflation (-6.76 PLN/SU or -1.60 €/SU);
- the impact of adjustments resulting from the costs exempted from cost sharing mechanism (-0.22 PLN/SU or -0.05 €/SU);
- the addition of the traffic risk sharing adjustments (+1.43 PLN/SU or +0.34 €/SU);
- the addition of the traffic adjustment (+0.86 PLN/SU or +0.20 €/SU) for the costs not subject to traffic risk sharing;
- the impact of financial incentives (+2.75 PLN/SU or +0.65 €/SU); and,
- the deduction of other revenues (-10.57 PLN/SU or -2.50 €/SU).

The share of the regulatory result (see next sub-section) in the AUCU (before the deduction of other revenues) is 1.6%.

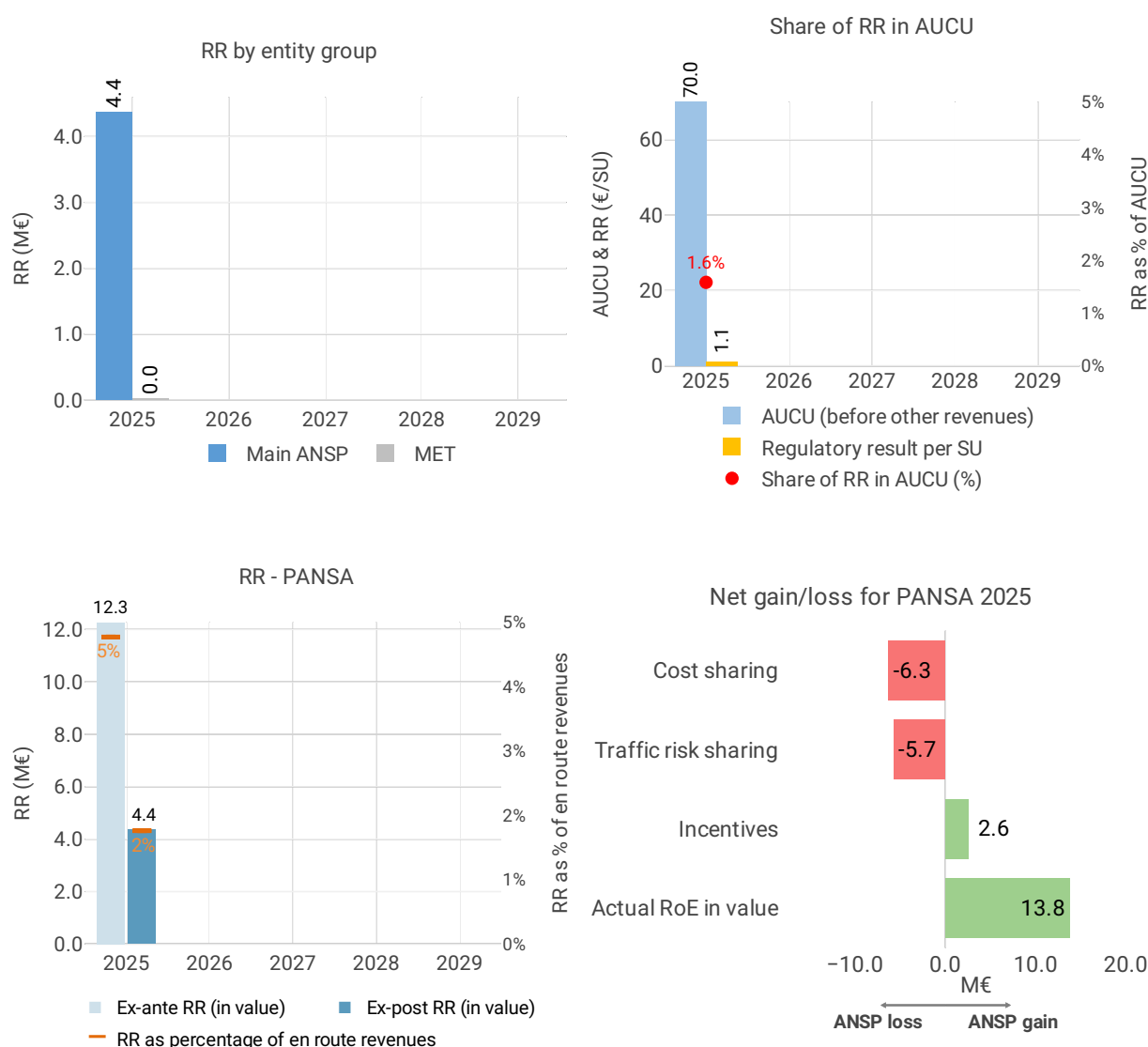


Initiatives implemented or planned that will improve this PI reported by the NSA

The NSA of Poland provides the following information regarding the initiatives:

“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.”

5.2.3 Regulatory result (RR)



Focus on regulatory result

PANSA net gain/loss on activity in the Poland en route charging zone in 2025

PANSA reported a net loss of -9.4 M€, as a combination of a loss of -6.3 M€ arising from the cost sharing mechanism, with a loss of -5.7 M€ arising from the traffic risk sharing mechanism and a gain of +2.6 M€ relating to financial incentives.

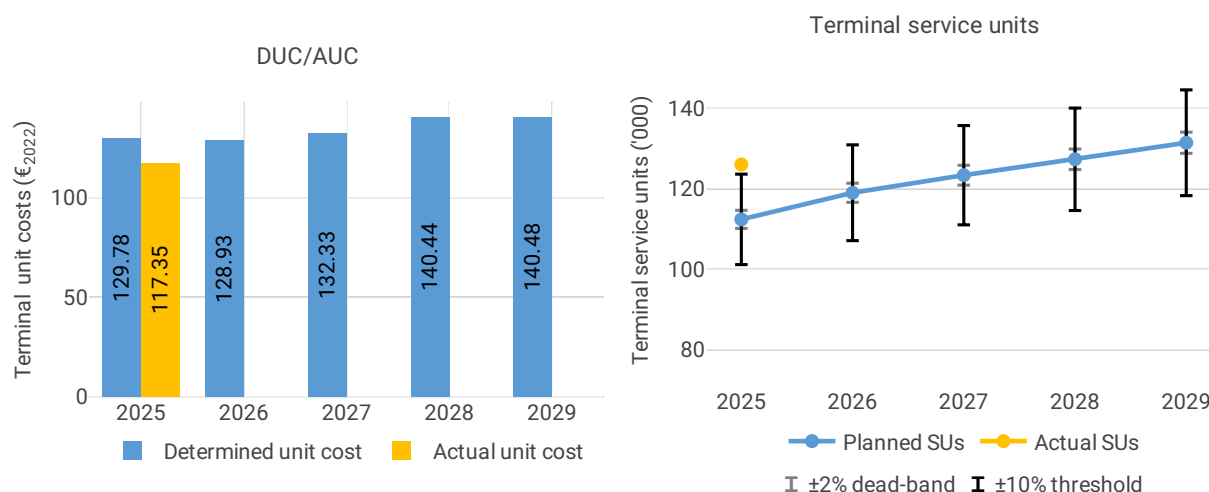


PANSA overall regulatory result (RR) for the en route activity

Ex-post, the overall RR, taking into account the net loss from the en route activity mentioned above (-9.4 M€) and the actual RoE (+13.8 M€), amounts to +4.4 M€ (1.8% of the en route revenues). The resulting ex-post rate of return on equity is 2.0%, which is lower than the 6.5% planned in the PP.

5.3 Terminal charging zone - Poland Zone 1

5.3.1 Unit cost (KPI#1)

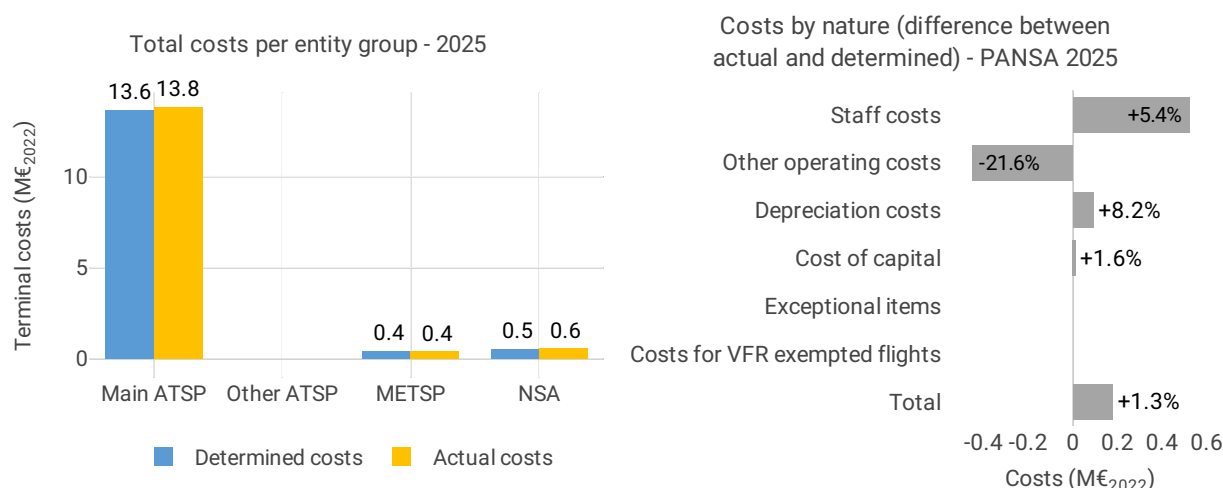


Actual and determined data					
Total costs - nominal (M€)	2025	2026	2027	2028	2029
Determined costs	17.3	18.7	20.3	22.4	23.5
Actual costs	17.1	NA	NA	NA	NA
Difference costs	-0.2	NA	NA	NA	NA

Inflation assumptions	2025	2026	2027	2028	2029
Determined inflation rate	5.0%	3.6%	2.9%	2.5%	2.5%
Determined inflation index*	122.2	126.6	130.3	133.6	136.9
Actual inflation rate	3.3%	NA	NA	NA	NA
Actual inflation index*	118.8	NA	NA	NA	NA
Difference inflation index (p.p.)	-3.4	NA	NA	NA	NA

*100 = 2022





Focus on unit cost

AUC vs. DUC

In 2025, the terminal AUC was -9.6% (or -58.17 PLN₂₀₂₂, -12.43 €₂₀₂₂) lower than the planned DUC. This results from the combination of significantly higher than planned TNSUs (+12.1%) and higher than planned terminal costs in real terms (+1.4%, or +1.0 MPLN₂₀₂₂, +0.2 M€₂₀₂₂). It should be noted that the actual inflation index in 2025 was -3.4 p.p. lower than planned.

Terminal service units

The difference between actual and planned TNSUs (+12.1%) falls outside the $\pm 10\%$ threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional terminal revenues is therefore shared between the ANSP and the airspace users (see the main ANSP regulatory result).

Terminal costs by entity

Actual real terminal costs are +1.4% (+0.2 M€₂₀₂₂) higher than planned. This is the result of higher costs, in real terms, for the main ANSP, PANSA (+1.3%, or +0.2 M€₂₀₂₂) and the NSA (+9.1%, or +0.1 M€₂₀₂₂) and lower costs for the MET service provider (-5.5%).

Terminal costs for the main ANSP (PANSA) at charging zone level

The slightly higher than planned terminal costs in real terms for PANSA in 2025 (+1.3%, or +0.2 M€₂₀₂₂) are mainly due to lower than planned actual inflation index (-3.4 p.p.), since, in nominal terms, the costs were slightly below plan (-1.3%). Based on the additional information to the terminal reporting tables, this results from:

- Significantly higher than planned staff costs (+5.4%), mainly due to the evolution of costs related to provisions, including; 1) the fact that “*determined costs for 2025 included forecasted net change in the value of accounting provisions related to court cases of -28 MPLN [some 6.6 M€] for PANSA overall which did not materialise*”, as well as 2) higher than forecast net change in provisions for pensions and related benefits and 3) additional costs stemming from revaluation of provisions for unused employee holidays.



- Significantly lower than planned other operating costs (-21.6%) mainly due to lower than planned costs for electricity, repairs, maintenance and support of IT systems as well as lower than planned expenses for meetings as well as *“some works initially planned to be financed under opex executed as capex due to either expanded scope of the necessary works or higher unit value”*.
- Significantly higher than planned depreciation (+8.2%) which *“reflects actual evolutions of useful life of assets and value of assets”*.
- Slightly higher than planned cost of capital (+1.6%) due to the use of slightly higher weighted average cost of capital (WACC) rate reflecting effective interest rate of debt.

Assessment of the actual performance in the charging zone reported by the NSA

The NSA of Poland provides the following overall assessment of the actual performance in 2025 at charging zone level:

“PANSA:

AUC was by 9.7% 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 (+1.3%) what resulted from lower inflation index (-3.4 pp.). Actual costs in nominal terms were 1.3% 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 terminal charging zone 1 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.”*

Explanation of the differences between actual and determined costs at charging zone level reported by the NSA

The NSA provides the following explanation for the differences between actual and determined costs in the charging zone:

“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).”



Recommendations formulated by the NSA to the ANSP (PANSA) to rectify the situation and actions taken by the ANSP

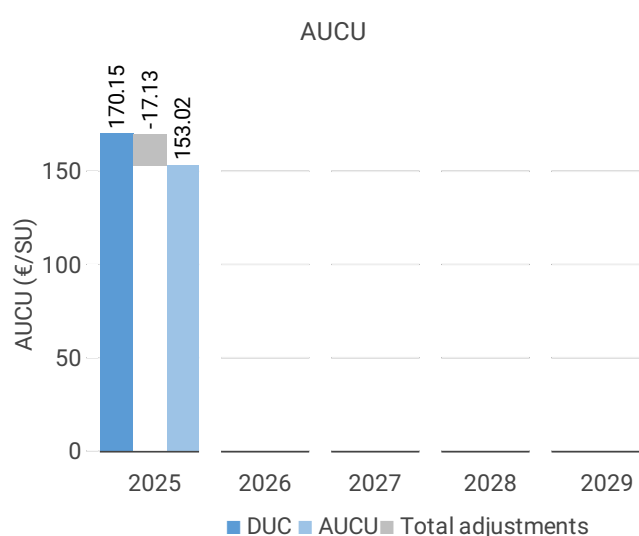
The NSA 2025 monitoring report indicates the following recommendations formulated by the NSA:

“Since the target was met, no corrective measures were required.”

PANSA reports the implementation of the following actions:

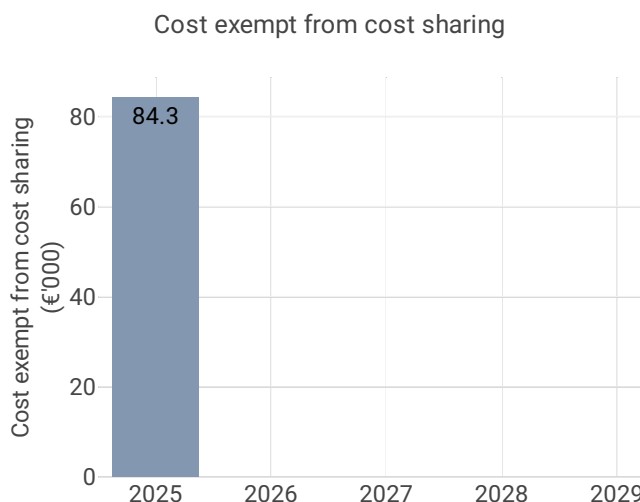
“As the target was met there was no need to undertake any measures to rectify the situation. However, the comments presented in the ER sheet of this monitoring report related to inflation and cost evolution are also valid for terminal services.”

5.3.2 Actual unit cost incurred by the users (AUCU) (PI#1)



AUCU components (€/SU) – 2025	
Components of the AUCU in 2025	€/SU
DUC	170.15
Inflation adjustment	-3.69
Cost exempt from cost sharing	0.67
Traffic risk sharing adjustment	-11.03
Traffic adjustment (costs not TRS)	-1.11
Financial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-1.97
Application of lower unit rate	0.00
Total adjustments	-17.13
AUCU	153.02
AUCU vs. DUC	-10.1%





Cost exempt from cost sharing – 2025

Cost exempt from cost sharing by item - 2025	€'000	€/SU
New and existing investments	29.0	0.23
Competent authorities and qualified entities costs	52.8	0.42
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	2.4	0.02
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	84.3	0.67

Focus on AUCU

Terminal AUCU monitoring at charging zone level

The actual terminal unit cost incurred by airspace users (AUCU) in respect of activities performed in 2025 (647.96 PLN or 153.02 €) is -10.1% lower than the nominal DUC (720.50 PLN or 170.15 €). The difference between the AUCU and the nominal DUC (-72.54 PLN/SU or -17.13 €/SU) is due to:

- the negative inflation adjustment resulting from lower than planned inflation (-15.63 PLN/SU or -3.69 €/SU);
- the impact of adjustments resulting from the costs exempted from cost sharing mechanism (+2.83 PLN/SU or +0.67 €/SU);
- the deduction of the traffic risk sharing adjustments (-46.70 PLN/SU or -11.03 €/SU);
- the deduction of the traffic adjustment (-4.70 PLN/SU or -1.11 €/SU) for the costs not subject to traffic risk sharing; and,
- the deduction of other revenues (-8.34 PLN/SU or -1.97 €/SU).

The share of the regulatory result (see next sub-section) in the AUCU (before the deduction of other revenues) is 6.2%.

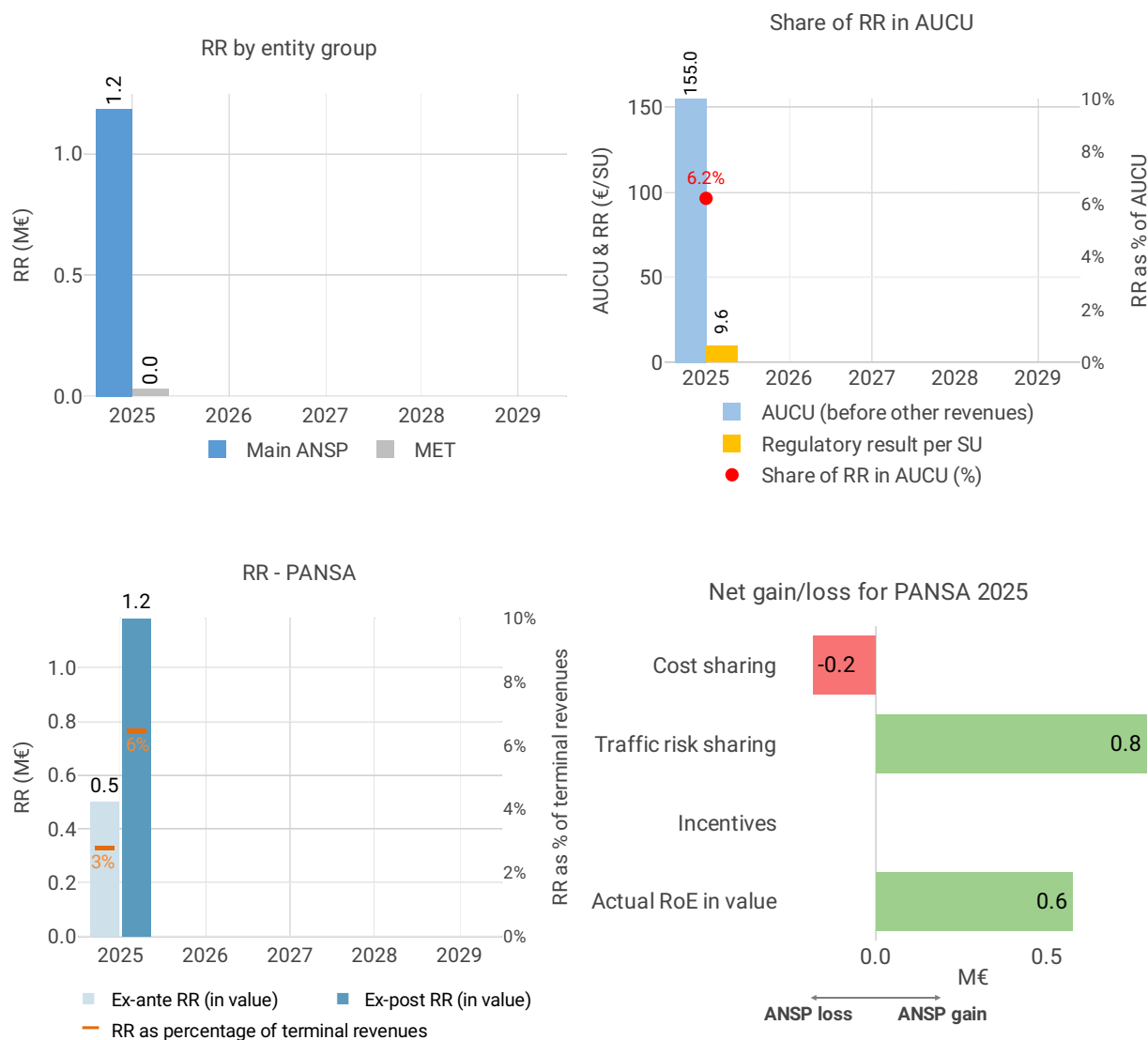


Initiatives implemented or planned that will improve this PI reported by the NSA

The NSA of Poland provides the following information regarding the initiatives:

“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.”

5.3.3 Regulatory result (RR)



Focus on regulatory result

PANSA net gain/loss on activity in the Poland Zone 1 terminal charging zone in 2025

PANSA reported a net gain of +0.6 M€, as a combination of a loss of -0.2 M€ arising from the cost sharing mechanism, with a gain of +0.8 M€ arising from the traffic risk sharing mechanism.

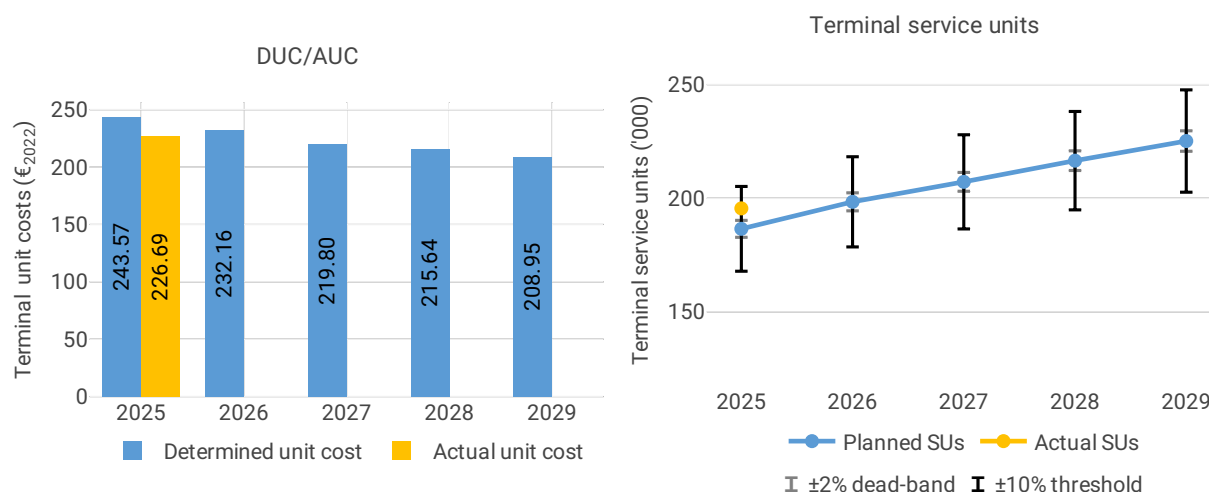


PANSA overall regulatory result (RR) for the terminal activity

Ex-post, the overall RR, taking into account the net gain from the terminal activity mentioned above (+0.6 M€) and the actual RoE (+0.6 M€), amounts to +1.2 M€ (6.5% of the terminal revenues). The resulting ex-post rate of return on equity is 13.3%, which is higher than the 6.5% planned in the PP.

5.4 Terminal charging zone - Poland Zone 2

5.4.1 Unit cost (KPI#1)

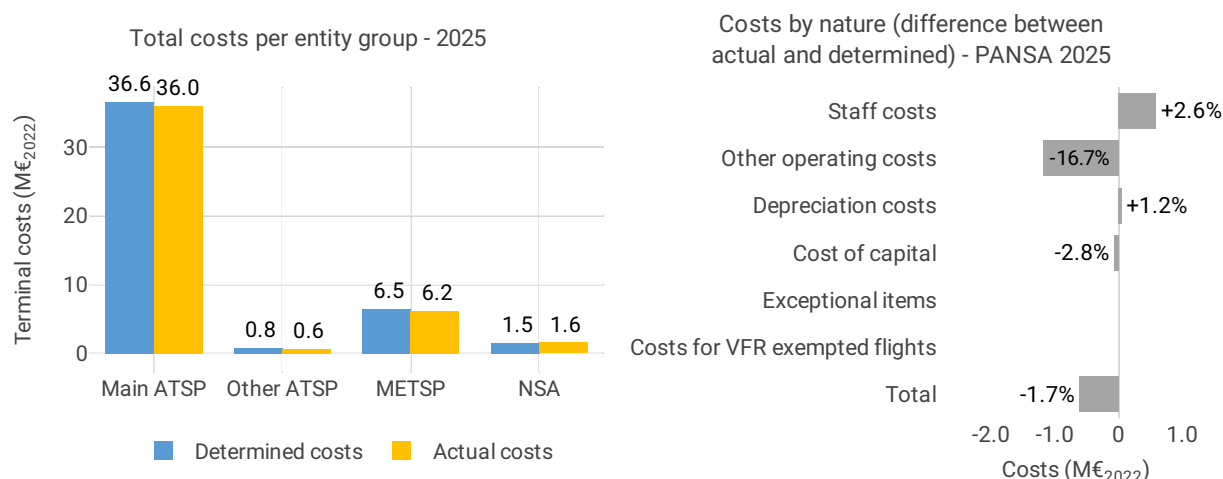


Actual and determined data					
Total costs - nominal (M€)	2025	2026	2027	2028	2029
Determined costs	53.5	55.8	56.5	59.0	60.6
Actual costs	51.0	NA	NA	NA	NA
Difference costs	-2.5	NA	NA	NA	NA

Inflation assumptions	2025	2026	2027	2028	2029
Determined inflation rate	5.0%	3.6%	2.9%	2.5%	2.5%
Determined inflation index*	122.2	126.6	130.3	133.6	136.9
Actual inflation rate	3.3%	NA	NA	NA	NA
Actual inflation index*	118.8	NA	NA	NA	NA
Difference inflation index (p.p.)	-3.4	NA	NA	NA	NA

*100 = 2022





Focus on unit cost

AUC vs. DUC

In 2025, the terminal AUC was -6.9% (or -79.02 PLN₂₀₂₂, -16.89 €₂₀₂₂) lower than the planned DUC. This results from the combination of higher than planned TNSUs (+4.8%) and lower than planned terminal costs in real terms (-2.4%, or -5.2 MPLN₂₀₂₂, -1.1 M€₂₀₂₂). It should be noted that the actual inflation index in 2025 was -3.4 p.p. lower than planned.

Terminal service units

The difference between actual and planned TNSUs (+4.8%) falls outside the ±2% dead-band, but does not exceed the ±10% threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional terminal revenues is therefore shared between the ANSP and the airspace users (see the main ANSP regulatory result).

Terminal costs by entity

Actual real terminal costs are -2.4% (-1.1 M€₂₀₂₂) lower than planned. This is the result of lower costs for the main ANSP, PANSA (-1.7%, or -0.6 M€₂₀₂₂), the MET service providers (-4.9%, or -0.3 M€₂₀₂₂) and the other ANSPs (Bydgoszcz and Warmia-Mazury, -28.1%, or -0.2 M€₂₀₂₂) and higher costs for the NSA (+3.6%, or +0.1 M€₂₀₂₂).

Terminal costs for the main ANSP (PANSA) at charging zone level

Based on the additional information to the terminal reporting tables, the slightly lower than planned terminal costs in real terms for PANSA in 2025 (-1.7%, or -0.6 M€₂₀₂₂) result from:

- Higher than planned staff costs (+2.6%), mainly reflecting the impact of lower than planned inflation index (-3.4 p.p.) since staff costs were mostly consistent with the plan in nominal terms (-0.3%).
- Significantly lower than planned other operating costs (-16.7%), mainly due to lower than planned costs for electricity, repairs, maintenance and support of IT systems as well as lower than planned expenses for meetings as well as *“some works initially planned to be financed under opex were executed as capex”*.
- Slightly higher than planned depreciation (+1.2%).



- Lower than planned cost of capital (-2.8%) resulting from a combination of lower total asset base and slightly higher weighted average cost of capital (WACC) rate reflecting effective interest rate of debt.

Assessment of the actual performance in the charging zone reported by the NSA

The NSA of Poland provides the following overall assessment of the actual performance in 2025 at charging zone level:

"PANSA:

AUC was by 6.2% 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 (-1.7%) what resulted from lower actual costs in nominal terms (-4.1%) – 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 terminal charging zone 2 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."



Explanation of the differences between actual and determined costs at charging zone level reported by the NSA

The NSA provides the following explanation for the differences between actual and determined costs in the charging zone:

“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 remuneration 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 performed 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. Similar 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 shortages 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."

Recommendations formulated by the NSA to the ANSP (PANSa) to rectify the situation and actions taken by the ANSP

The NSA 2025 monitoring report indicates the following recommendations formulated by the NSA:

"Since the target was met, no corrective measures were required."

ANSPs report the implementation of the following actions:

"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, largely 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.

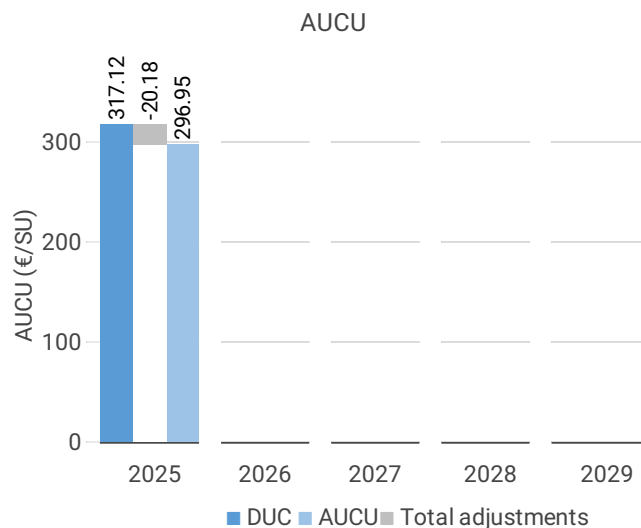
PL Bydgoszcz:

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



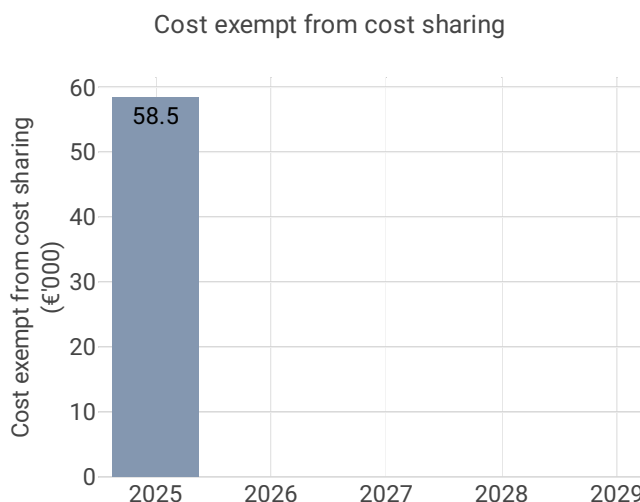
currently analyzing different approach, consisting of an alternative construction and solution, which will increase the safety of ANS provision.”

5.4.2 Actual unit cost incurred by the users (AUCU) (PI#1)



AUCU components (€/SU) – 2025	
Components of the AUCU in 2025	€/SU
DUC	317.12
Inflation adjustment	-7.08
Cost exempt from cost sharing	0.30
Traffic risk sharing adjustment	-4.94
Traffic adjustment (costs not TRS)	-2.54
Financial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-5.92
Application of lower unit rate	0.00
Total adjustments	-20.18
AUCU	296.95
AUCU vs. DUC	-6.4%





Cost exempt from cost sharing – 2025

Cost exempt from cost sharing by item - 2025	€'000	€/SU
New and existing investments	-6.9	-0.04
Competent authorities and qualified entities costs	60.7	0.31
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	4.6	0.02
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	58.5	0.30

Focus on AUCU

Terminal AUCU monitoring at charging zone level

The actual terminal unit cost incurred by airspace users (AUCU) in respect of activities performed in 2025 (1 257.40 PLN or 296.95 €) is -6.4% lower than the nominal DUC (1 342.84 PLN or 317.12 €). The difference between the AUCU and the nominal DUC (-85.44 PLN/SU or -20.18 €/SU) is due to:

- the negative inflation adjustment resulting from lower than planned inflation (-29.99 PLN/SU or -7.08 €/SU);
- the impact of adjustments resulting from the costs exempted from cost sharing mechanism (+1.27 PLN/SU or +0.30 €/SU);
- the deduction of the traffic risk sharing adjustment (-20.91 PLN/SU or -4.94 €/SU);
- the deduction of the traffic adjustment (-10.76 PLN/SU or -2.54 €/SU) for the costs not subject to traffic risk sharing; and,
- the deduction of other revenues (-25.05 PLN/SU or -5.92 €/SU).

The share of the regulatory result (see next sub-section) in the AUCU (before the deduction of other revenues) is 8.5%.

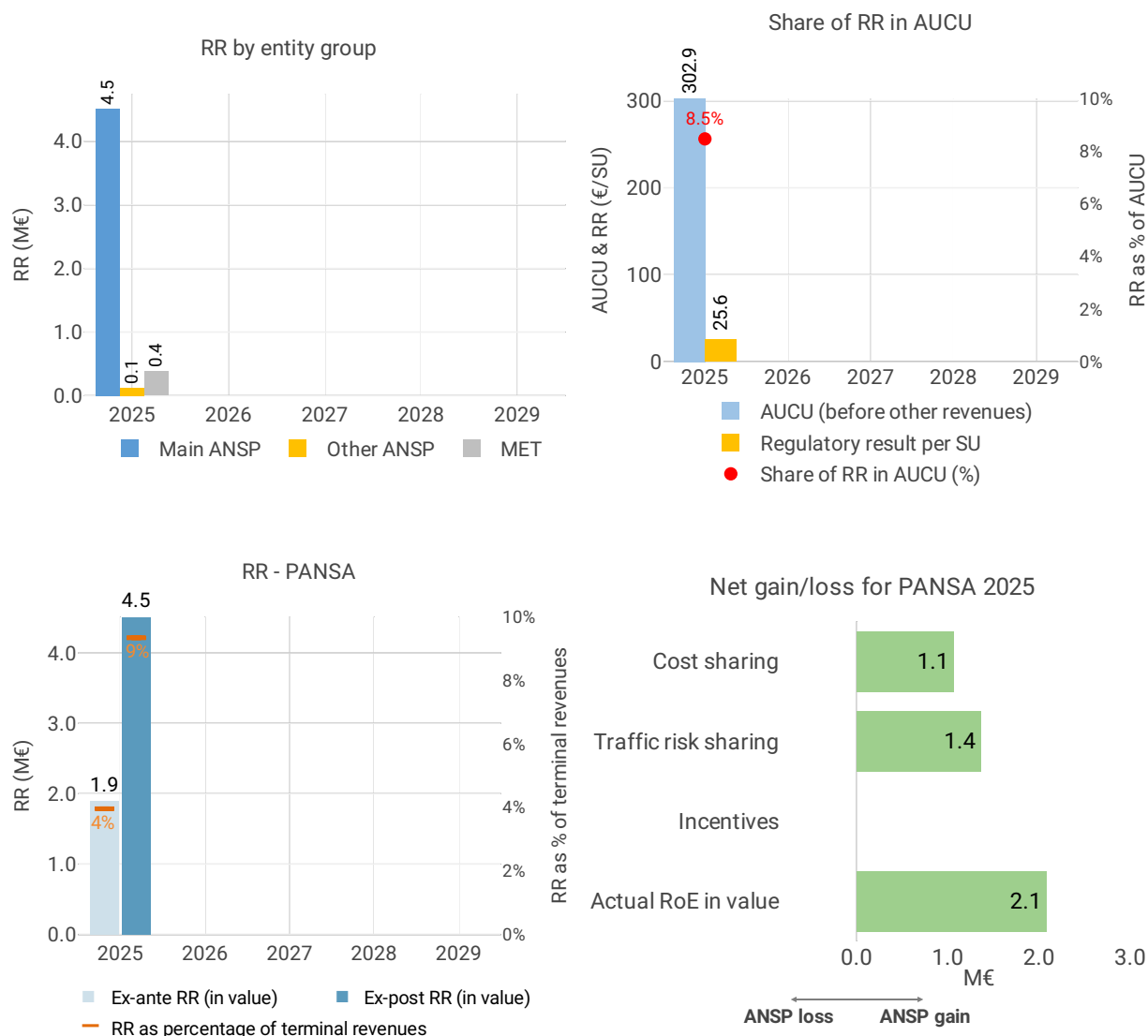


Initiatives implemented or planned that will improve this PI reported by the NSA

The NSA of Poland provides the following information regarding the initiatives:

“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.”

5.4.3 Regulatory result (RR)



Focus on regulatory result

PANSA net gain/loss on activity in the Poland Zone 2 terminal charging zone in 2025

PANSA reported a net gain of +2.4 M€, as a combination of a gain of +1.1 M€ arising from the cost sharing mechanism, with a gain of +1.4 M€ arising from the traffic risk sharing mechanism.



PANSA overall regulatory result (RR) for the terminal activity

Ex-post, the overall RR, taking into account the net gain from the terminal activity mentioned above (+2.4 M€) and the actual RoE (+2.1 M€), amounts to +4.5 M€ (9.3% of the terminal revenues). The resulting ex-post rate of return on equity is 14.0%, which is higher than the 6.5% planned in the PP.

