

Performance Review Body Monitoring Report

Greece - 2022

This report is automatically generated from: sesperformance.eu

COPYRIGHT NOTICE AND DISCLAIMER	© European Union, 2025 This report has been prepared for the European Commission by the Performance Review Body of the Single European Sky (PRB). Reproduction is authorised provided the source is acknowledged. However, neither the European Commission, nor any person acting on its behalf, may be held responsible for the use which may be made of the information contained in this publication, or for any errors which may appear, despite careful preparation and checking.
--	---

TABLE OF CONTENTS

1	OVERVIEW	3
1.1	Contextual information	3
1.2	Traffic (En route traffic zone)	3
1.3	Safety (Main ANSP)	4
1.4	Environment (Member State)	4
1.5	Capacity (Member State)	5
1.6	Cost-efficiency (En route/Terminal charging zone(s))	6
2	SAFETY - GREECE	6
2.1	PRB monitoring	6
2.2	Effectiveness of Safety Management (EoSM) (KPI#1)	7
2.3	Safety occurrences	7
2.4	Use of automated safety data recording system (ASDRS) (PI#3)	8
3	ENVIRONMENT - GREECE	8
3.1	PRB monitoring	8
3.2	En route performance	9
3.3	Terminal performance	10
3.4	Civil-Military dimension	11
4	CAPACITY - GREECE	13
4.1	PRB monitoring	13
4.2	En route performance	13
4.3	Terminal performance	15
5	COST-EFFICIENCY - GREECE	17
5.1	PRB monitoring	17
5.2	En route charging zone	18
5.3	Terminal charging zone	21

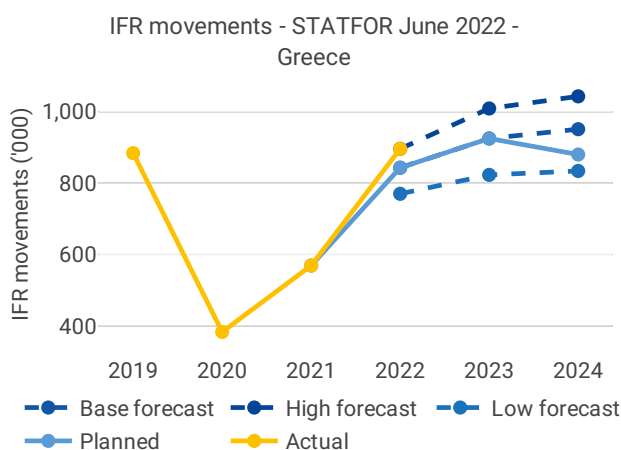
1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/2421 of 5 December 2022

List of ACCs 2	Exchange rate (1 EUR=)	Main ANSP
Athens ACC	2017: 1 EUR	• HASP
Makedonia ACC	2022: 1 EUR	
No of airports in the scope of the performance plan:	Share of Union-wide:	Other ANSPs
• ≥80'K 1	• traffic (TSUs) 2022 5.9%	—
• <80'K 0	• en route costs 2022 2.5%	MET Providers
	Share en route / terminal costs 2022 89% / 11%	• HNMS
	En route charging zone(s)	
	Greece	
	Terminal charging zone(s)	
	Greece	

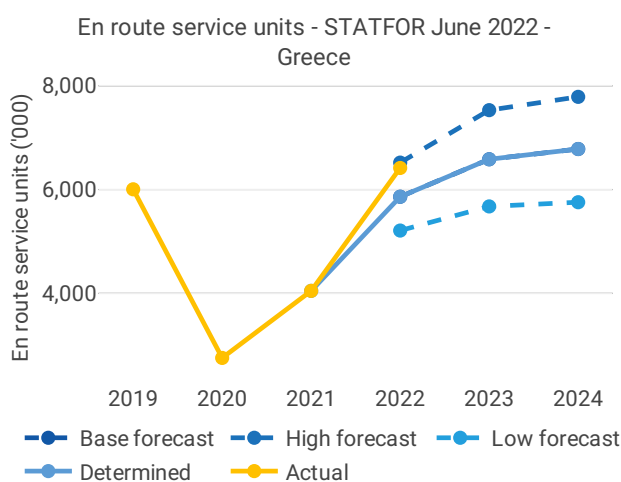
1.2 Traffic (En route traffic zone)



- Greece recorded 896K actual IFR movements in 2022, +57% compared to 2021 (569K).

- Actual 2022 IFR movements were +6.3% above the plan (843K).

- Actual 2022 IFR movements are +1.3% above the actual 2019 level (884K).



- Greece recorded 6,416K actual en route service units in 2022, +58% compared to 2021 (4,048K).

- Actual 2022 service units were +9.5% above the plan (5,861K).

- Actual 2022 service units are +6.9% above the actual 2019 level (6,005K).

1.3 Safety (Main ANSP)



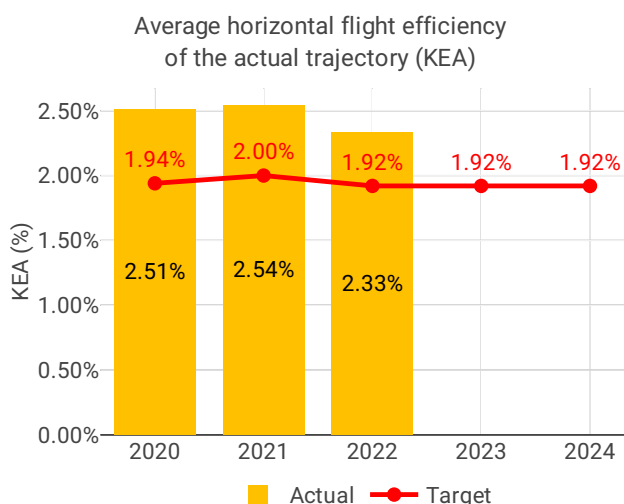
- HASP achieved RP3 EoS M targets in four management objectives and is required to improve only in the safety risk management area. This is in line with its planned maturity levels.

- Over 2022, HASP implemented some improvements to its Safety and Security Management System, focussing on Change Management and Occurrence Reporting Procedures.

- Greece recorded a decrease in the rate of runway incursions but an increase of the rate of separation minima infringements in 2022. The occurrences and the effectiveness of mitigations were closely monitored and analysed by the NSA.

- HASP could improve its safety management by implementing automated safety data recording systems for occurrences.

1.4 Environment (Member State)



- Greece achieved a KEA performance of 2.33% compared to its target of 1.92% and did not contribute positively towards achieving the Union-wide target. KEA has improved in comparison to 2021.

- The NSA states that the target was missed mainly due to military activity causing traffic to diverge from optimal routes. It is also mentioned that FRA is not yet applied 24 hours per day.

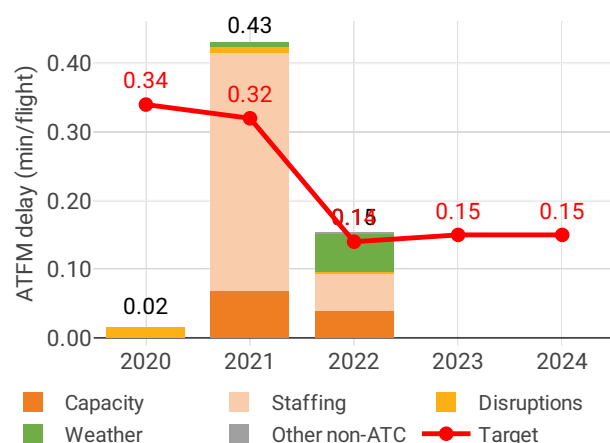
- Both KEP and SCR improved in comparison with 2021 and, according to the NSA, this is mainly because HASP implemented a new airway in 2022.

- The share of CDO flights remained stable in 2022 compared to 2021.

- During 2022, additional time in terminal airspace increased from 1.15 to 1.37 min/flight, while additional taxi out time increased from 2.12 to 3.18 min/flight.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



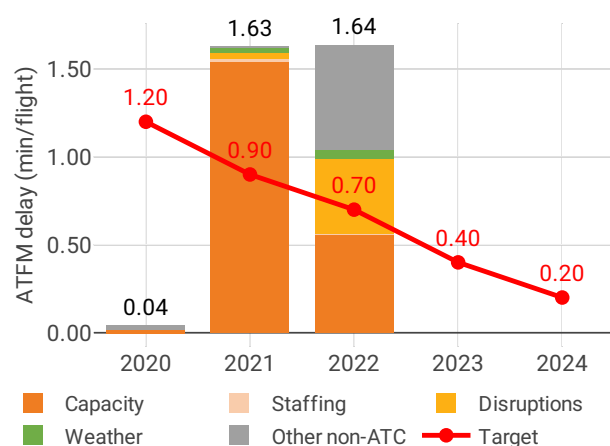
- Greece registered 0.15 minutes of average en route ATFM delay per flight during 2022, thus not achieving the local target value of 0.14.

- The average number of IFR movements was 1% above 2019 levels in Greece in 2022.

- Traffic is expected to grow dynamically in RP3. The number of ATCOs in OPS is expected to increase by 33% by the end of RP3, however, the actual number of ATCOs in OPS decreased and remained significantly below the 2022 plan.

- Delays were highest in August, mostly due to ATC Staffing issues and adverse weather conditions.

Average arrival ATFM delay per flight by delay groups

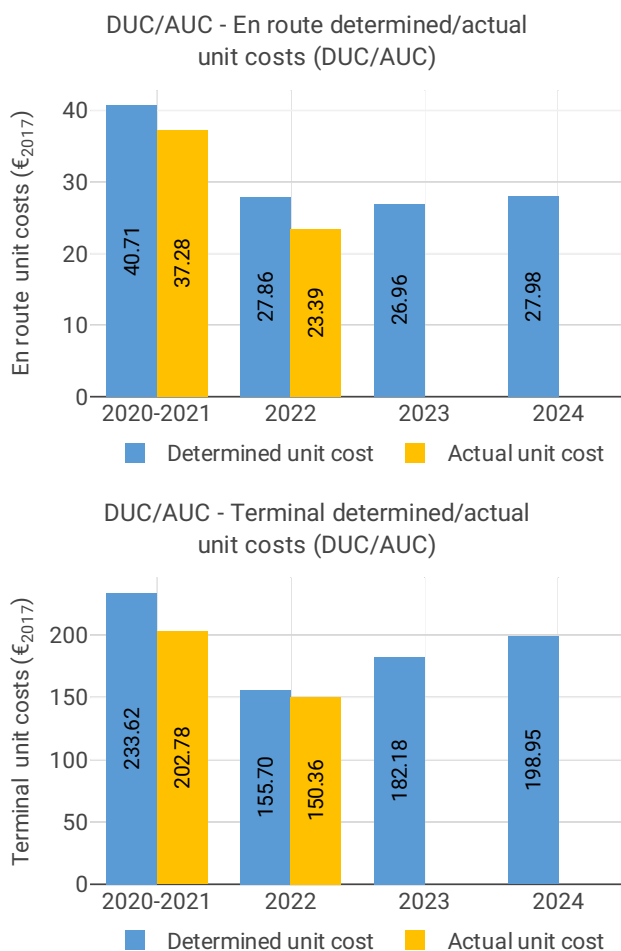


- The share of delayed flights with delays longer than 15 minutes in Greece increased by 14.12 p.p. compared to 2021 and was higher than 2019 values.

- The yearly total of sector opening hours in Athens ACC was 54,711 in 2022, showing an 10.6% increase compared to 2021. Sector opening hours are 4.2% below 2019 levels.

- Athens ACC registered 15.77 IFR movements per one sector opening hour in 2022, being 5.8% over 2019 levels.

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



- The en route 2022 actual unit cost of Greece was 23.38 €2017, -16% lower than the determined unit cost (27.86 €2017). The terminal 2022 actual unit cost was 150.36 €2017, -3.4% lower than the determined unit cost (155.70 €2017).

- The en route 2022 actual service units (6,416K) were +9.5% higher than the determined service units (5,861K).

- The en route 2022 actual total costs were 13 M€2017 lower (-8.1%) than determined, mainly due to lower staff cost (-9.8 M€2017, or -7.8%). The NSA only explained that HCCA is understaffed and that the staff compensation has not been fully implemented yet. Other operating costs also decreased significantly (-3.5 M€2017, or -11%), although no explanation was provided by the NSA.

- HASP spent 1.7 M€2017 in 2022 related to costs of investments, -19% less than determined (2.1 M€2017), the NSA noted that it is due to a slight delay in an investment project.

- As for the previous monitoring year, the discrepancies regarding cost of investments were significant. The PRB invites the NSA to analyse the discrepancies, identify their reasons, and request the Member State to take immediate, adequate, and

proportionate action to ensure the implementation of the investment plans to avoid future capacity gaps.

- The en route actual unit cost incurred by users in 2022 was 28.67€, while the terminal actual unit cost incurred by users was 144.44€.

2 SAFETY - GREECE

2.1 PRB monitoring

- HASP achieved RP3 EoS targets in four management objectives and is required to improve only in the safety risk management area. This is in line with its planned maturity levels.

- Over 2022, HASP implemented some improvements to its Safety and Security Management System, focussing on Change Management and Occurrence Reporting Procedures.

- Greece recorded a decrease in the rate of runway incursions but an increase of the rate of separation minima infringements in 2022. The occurrences and the effectiveness of mitigations were closely monitored and analysed by the NSA.

- HASP could improve its safety management by implementing automated safety data recording systems for occurrences.

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



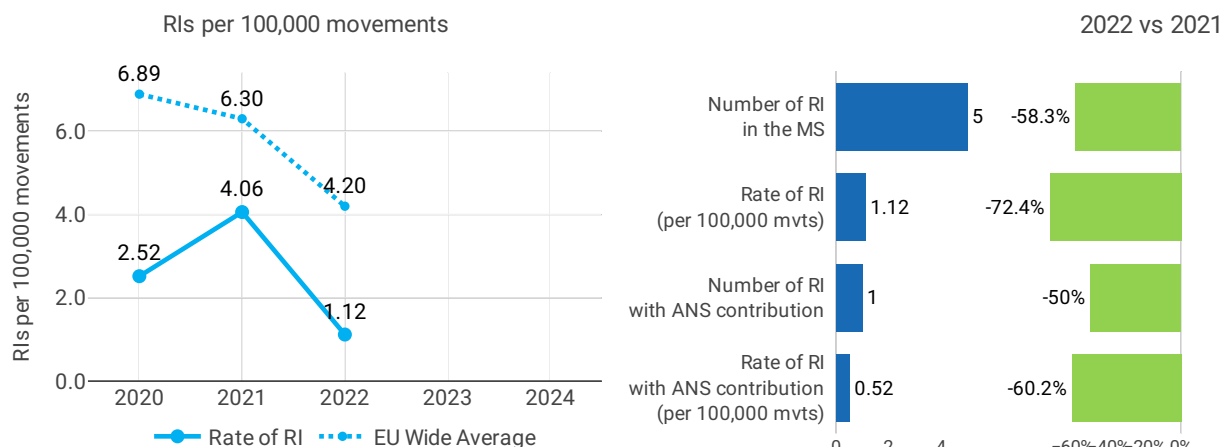
Focus on EoSM

Four out of five EoSM components of the ANSP meet already the RP3 target level. No improvements were observed over 2022, but only “Safety Risk Management” component is below 2024 target level. Three questions are to be improved to reach the RP3 target.

Detailed information on Safety performance monitoring for the year 2022 are included in Performance Review Body Monitoring Report 2022, Annex III – Safety report

2.3 Safety occurrences

2.3.1 Rate of runway incursions (RIs) (PI#1)



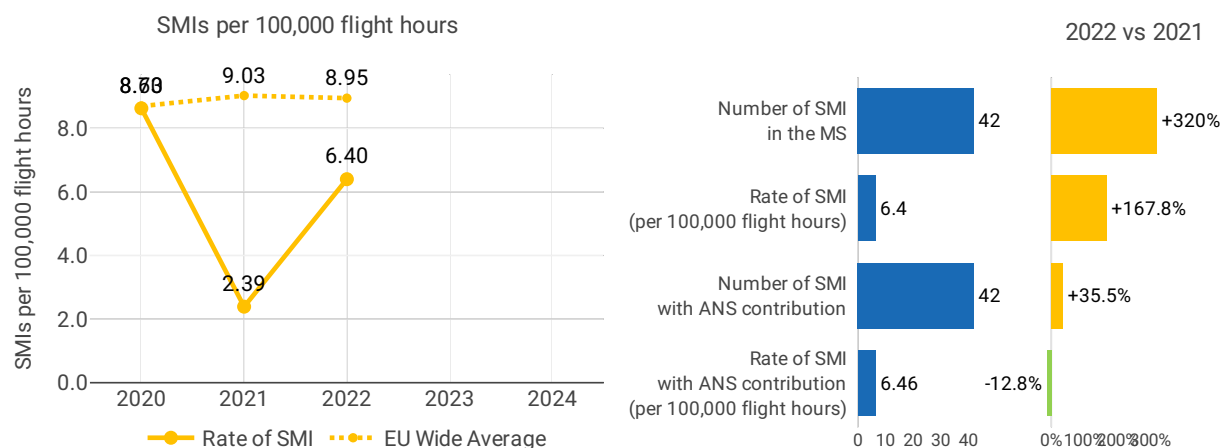
Rate of RIs per 100,000 airport movements - Greece

#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Athinaï-Eleftherios Venizelos	192,460	1	0.52

Focus on runway incursions

Detailed information on Safety performance monitoring for the year 2022 are included in Performance Review Body Monitoring Report 2022, Annex III – Safety report

2.3.2 Rate of separation minima infringements (SMIs) (PI#2)



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

#	ANSP	Flight hours					Number of SMIs				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	HASP	276,276	418,381	650,415	NA	NA	24	31	42	NA	NA

#	ANSP	Rate of SMI per 100,000 flight hours					% variation in rate of SMIs				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	HASP	8.7	2.4	6.5	NA	NA	NA	-72%	+170%	NA	NA

Focus on separation minima

Detailed information on Safety performance monitoring for the year 2022 are included in Performance Review Body Monitoring Report 2022, Annex III – Safety report

2.3.3 Quality of occurrences reporting

Detailed information on Safety performance monitoring for the year 2022 are included in Performance Review Body Monitoring Report 2022, Annex III – Safety report

2.4 Use of automated safety data recording system (ASDRS) (PI#3)

2022	
For RIs	For SMIs
X	X

Detailed information on Safety performance monitoring for the year 2022 are included in Performance Review Body Monitoring Report 2022, Annex III – Safety report

3 ENVIRONMENT - GREECE

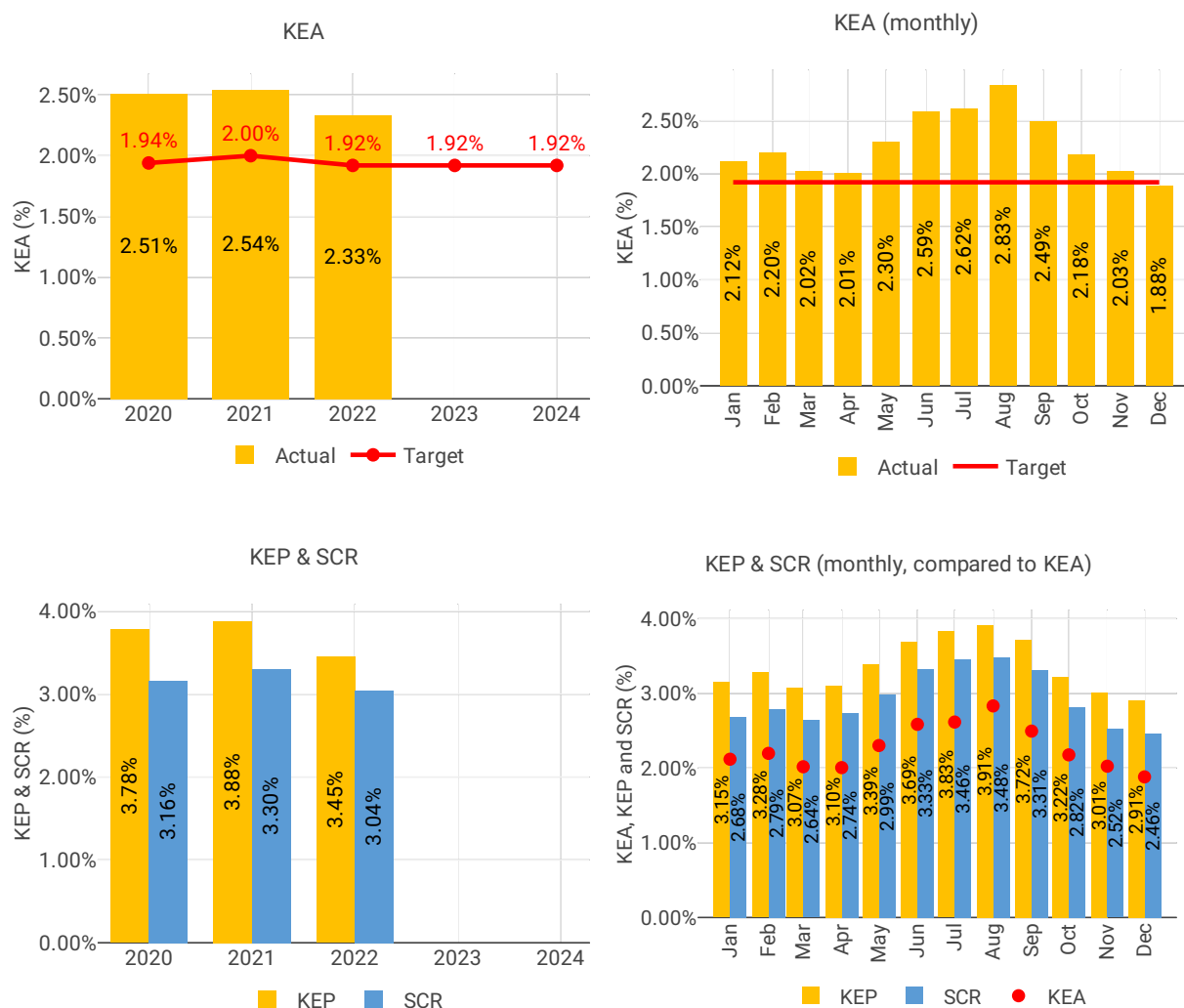
3.1 PRB monitoring

- Greece achieved a KEA performance of 2.33% compared to its target of 1.92% and did not contribute positively towards achieving the Union-wide target. KEA has improved in comparison to 2021.

- The NSA states that the target was missed mainly due to military activity causing traffic to diverge from optimal routes. It is also mentioned that FRA is not yet applied 24 hours per day.
- Both KEP and SCR improved in comparison with 2021 and, according to the NSA, this is mainly because HASP implemented a new airway in 2022.
- The share of CDO flights remained stable in 2022 compared to 2021.
- During 2022, additional time in terminal airspace increased from 1.15 to 1.37 min/flight, while additional taxi out time increased from 2.12 to 3.18 min/flight.

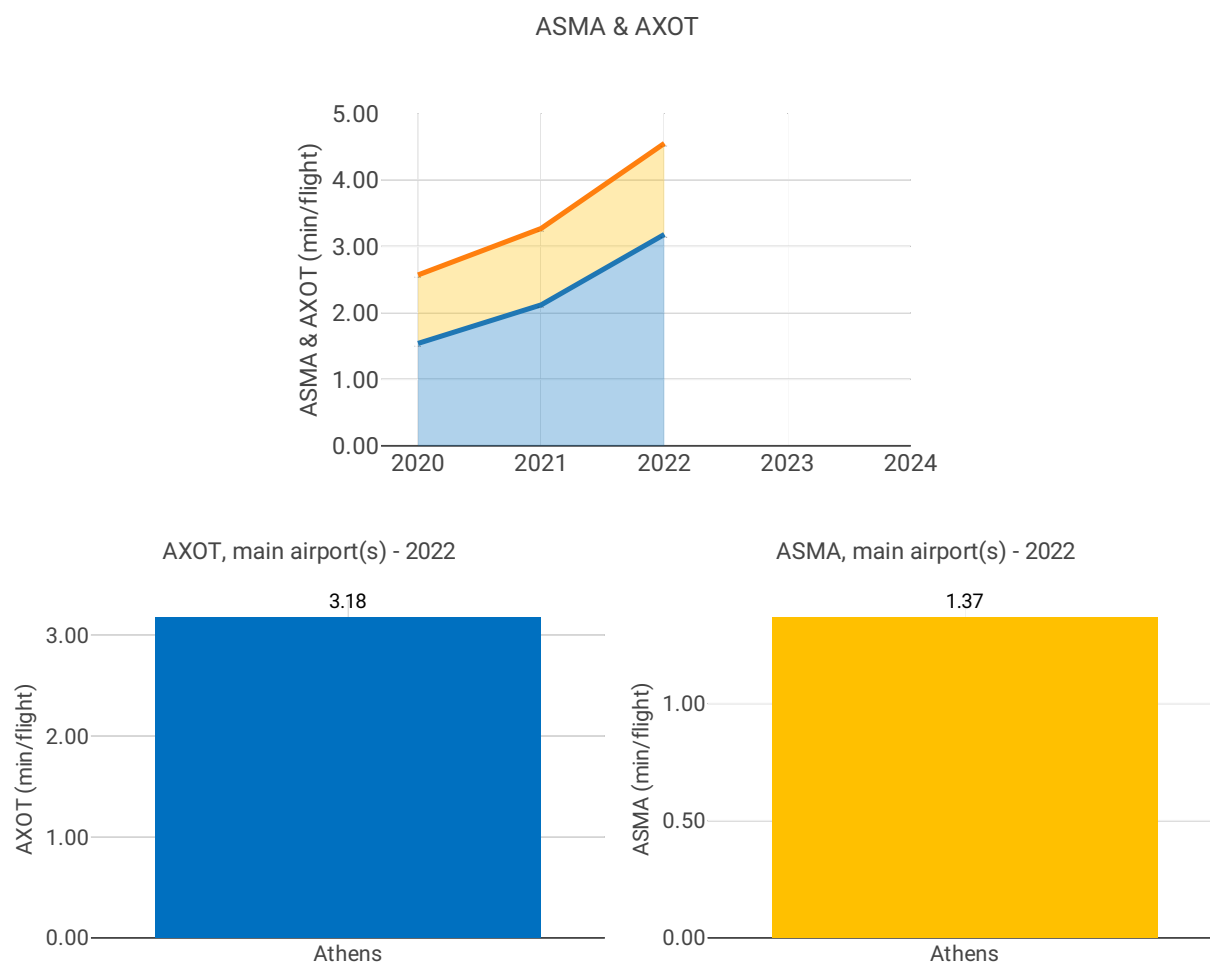
3.2 En route performance

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 (SCR) (PI#2)



3.3 Terminal performance

3.3.1 Additional taxi-out time (AXOT) (PI#3) & Arrival Sequencing and Metering Area (ASMA) time (PI#4)



Focus on ASMA & AXOT

AXOT

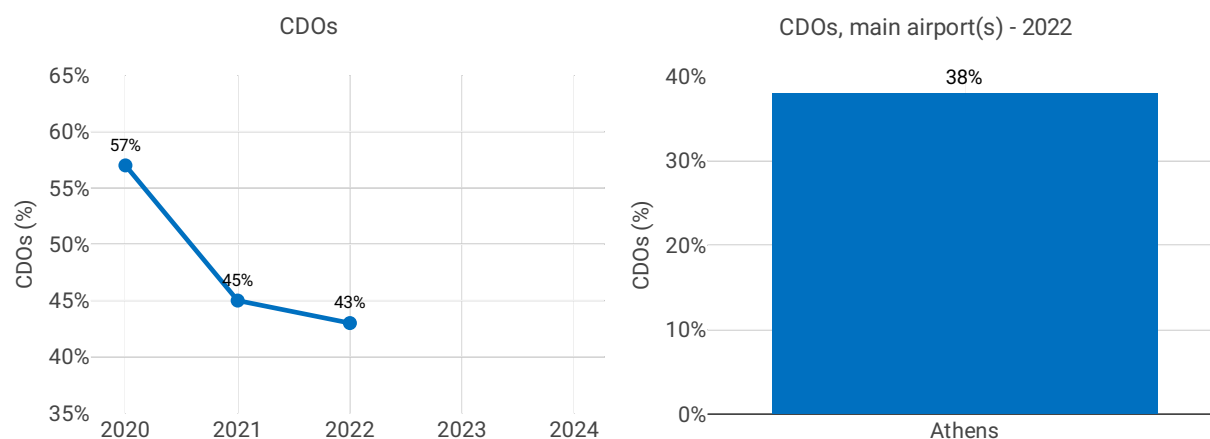
Additional taxi-out times at Athens (LGAV: 2019: 2.61 min/dep.; 2020: 1.54 min/dep.; 2021: 2.12 min/dep.; 2022: 3.18 min/dep.) have considerably increased in the last 3 years and were in 2022 22% higher than in 2019.

ASMA

The additional times in the terminal airspace (LGAV; 2019: 1.30 min/arr.; 2020: 1.03 min/arr.; 2021: 1.15 min/arr.; 2022: 1.37 min/arr.) observed a gradual increase during RP3, and in 2022 was also higher than in 2019.

According to the Greek monitoring report: *At Athens, the PBN Procedures Design & Implementation Project is under development.*

3.3.2 Share of arrivals applying continuous descent operations (CDOs) (PI#5)

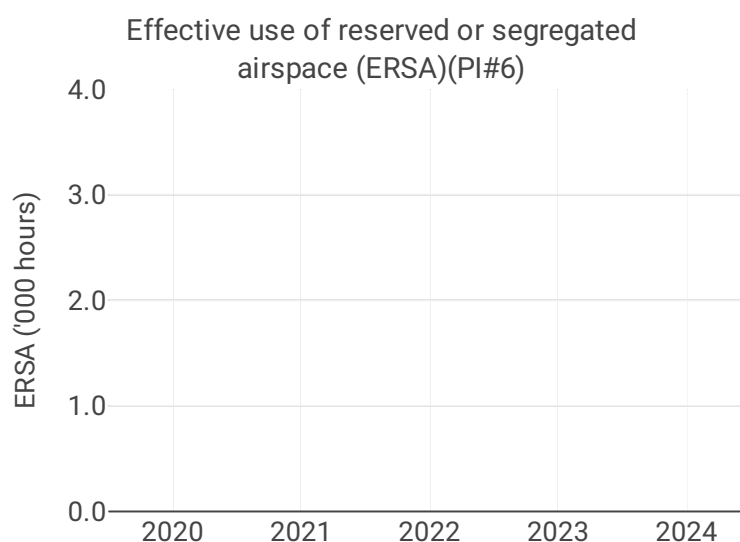


Focus CDOs

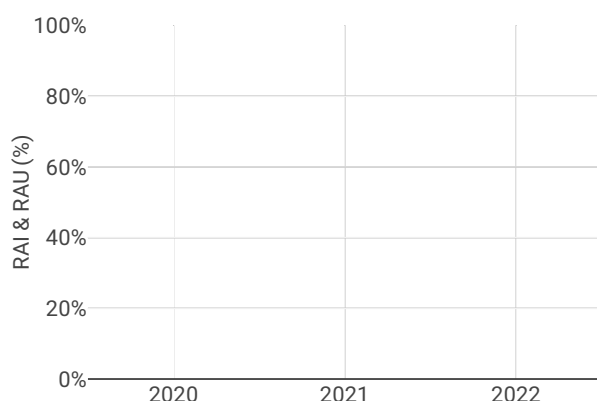
The share of CDO flights at Athens (LGAV) has stayed stable in 2022 at 38% which is above the overall RP3 value in 2022 (29.0%). The monthly values ranged from 34.6% in June and July to 40.2% in April and December.

Airport Name	Airport level														
	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Athens	1.54	2.12	3.18	NA	NA	1.03	1.15	1.37	NA	NA	41%	38%	38%	NA	NA

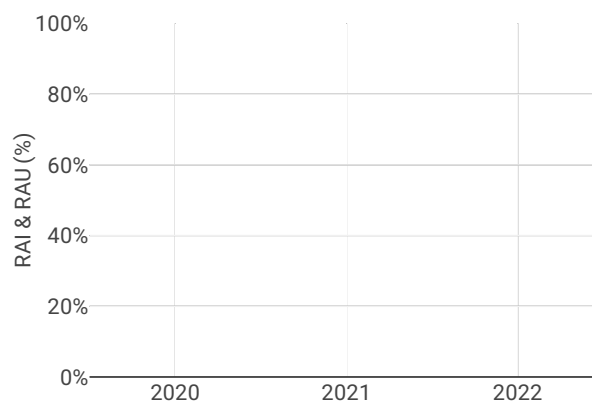
3.4 Civil-Military dimension



RAI & RAU via available conditional routes (PIs#7 & 8)



RAI & RAU via available restricted and segregated airspace (PIs#7 & 8)



Focus on Civil-Military dimension

Update on Military dimension of the plan

The activation of military areas obviously has impact on flight efficiency. Nevertheless, handling areas by AMC through EAUP/EUUP, could minimize the impact. Airspace designers could contribute decidedly on this effort.

Since the entry in NATO of neighbouring States, the increase of Greek State investments in military equipment and the beginning of war in Ukraine, military activity has augmented, MIL exercises, both national and multi, as well as NATO have become almost daily. This leads to ATS routes' frequent closures, to several RAD restrictions' amendments, suspensions, changes of several into dependently applicable, creations of temporarily new, in other words, changes of the routine mandatory and forbidden traffic flows. To this, the transfer of certain traffic load to other, often neighbouring sectors, due to the MIL activity, should be added. Taking into consideration that traffic complexity, the more familiar, increases the ATC throughput, each novelty reduces the capacity values, especially at the beginning of its implementation; and MIL activities are often planned and decided at short notice in the area. The activities' design, responsibility of a specific section, is described in the related NOTAM published, often resulting from lengthy preceding civil-MIL CDM; from then on, sometimes within short time limits, cooperation with parties affected from the necessary changes in the traffic flows/RAD TFRs is realized with the ACCs, neighbouring ANSPs, aerodromes' ATS units, depending on the case, and requests to the NM RAD Team addressed for the final uploads to CACD, targeting to the flight planning.

Military - related measures implemented or planned to improve capacity

HASP plans to extend time availability of HELLAS FRA H24 on 02 NOV 23. Within FRA all military areas 'll be transformed to AMA areas, activated by AMC through EAUP/EUUP process. The transformation 'll improve the airspace usage following FUA concept.

Initiatives implemented or planned to improve PI#6

No data available.

Initiatives implemented or planned to improve PI#7

No data available.

Initiatives implemented or planned to improve PI#8

No data available.

4 CAPACITY - GREECE

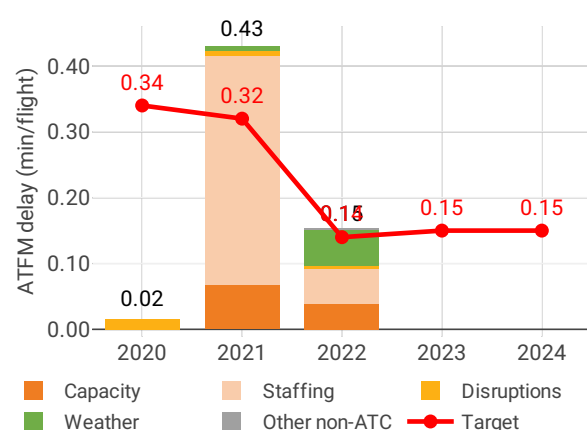
4.1 PRB monitoring

- Greece registered 0.15 minutes of average en route ATFM delay per flight during 2022, thus not achieving the local target value of 0.14.
- The average number of IFR movements was 1% above 2019 levels in Greece in 2022.
- Traffic is expected to grow dynamically in RP3. The number of ATCOs in OPS is expected to increase by 33% by the end of RP3, however, the actual number of ATCOs in OPS decreased and remained significantly below the 2022 plan.
- Delays were highest in August, mostly due to ATC Staffing issues and adverse weather conditions.
- The share of delayed flights with delays longer than 15 minutes in Greece increased by 14.12 p.p. compared to 2021 and was higher than 2019 values.
- The yearly total of sector opening hours in Athens ACC was 54,711 in 2022, showing an 10.6% increase compared to 2021. Sector opening hours are 4.2% below 2019 levels.
- Athens ACC registered 15.77 IFR movements per one sector opening hour in 2022, being 5.8% over 2019 levels.

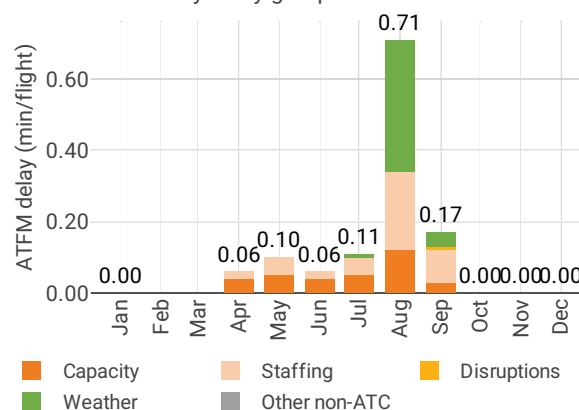
4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)

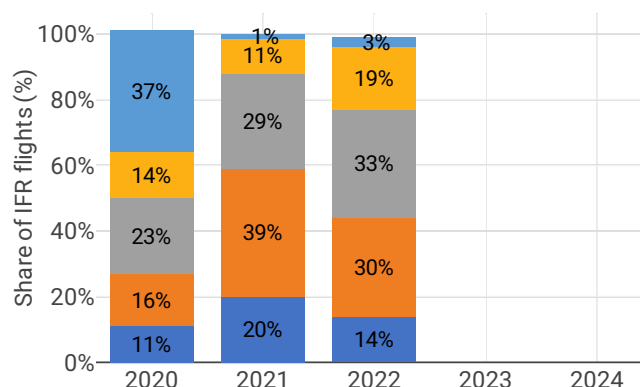
Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2022



Distribution of IFR flights per the duration of en route ATFM delay



Focus on en route ATFM delay

Summary of capacity performance

Greece experienced a large increase in traffic from 569k flights in 2021 to 896k flights in 2022 which was actually above the 884k flights in 2019.

In 2022 Greece had 138k minutes of en route ATFM delay for 896k flights. In comparison, for 884k flights in 2019, Greece had almost treble the delay: 375k minutes.

NSA's assessment of capacity performance

At the operational level, traffic in Greece rose in 2022 compared to 2021 and the planned in 2022, as presented in the Performance Plan.

The actual average en route ATFM delay per flight in 2022 was 0.15 minutes per flight, 0.01 minute per flight above the target (0.14).

The performance was great and gained the plaudits of NM and the State that established a financial bonus from incoming unit rates, but relied solely on it and neglected the planned and promised recruitment of ATCOs, or the replacement /updating of ATM system, leading to the dive of the capacity potential.

Monitoring process for capacity performance

Continuous consultation with relevant division of HASP and exploitation of relevant Eurocontrol data through appropriate tools such as NMIR, NOP, MIRROR ect.

Capacity planning

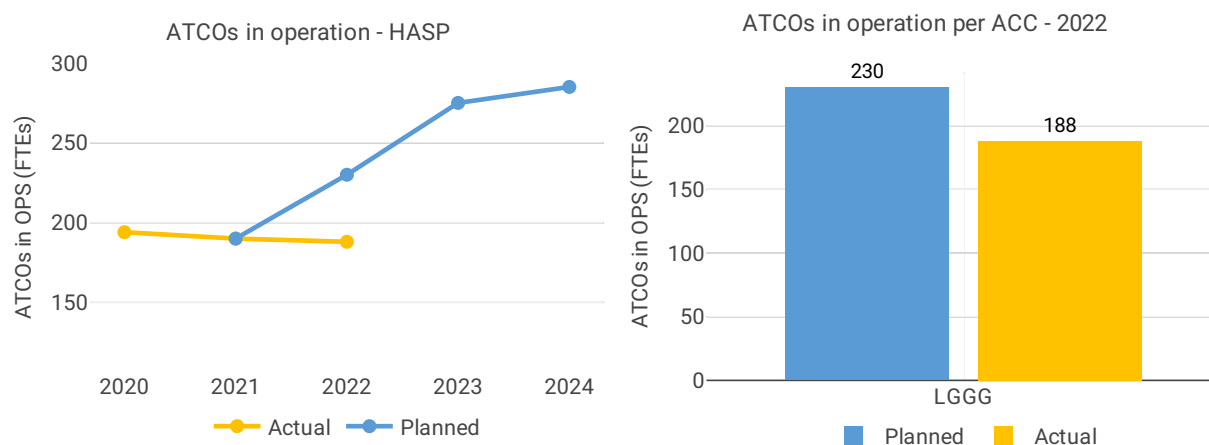
Application of Corrective Measures for Capacity (if applicable)

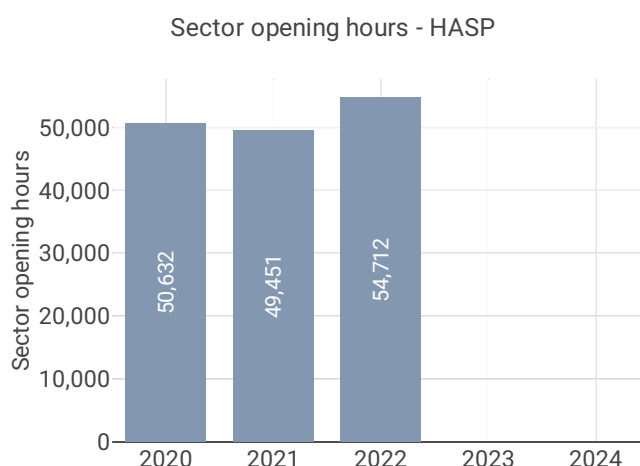
Additional Information Related to Russia's War of Aggression Against UkraineAs a result of the banning by NOTAM of the DEP flights from Greece to Russia and vice versa, plus the closure of the Ukrainian airspace, the respective flows mainly to Greek touristic destinations have ceased, their load alleviated, their incoming service units, too.

What was felt during summer period, when the traffic in Greece is heavier, was some shift of flows to/from Scandinavia and the Baltics to the west sectors, moreover when trying to avoid Polish airspace, heavily impacted by the crisis and producing heavy delays.

Also, some overflights picked Hellas UIR to/from the far East, because of Ukrainian closure, as they flew more southern trajectories.

4.2.2 Other indicators





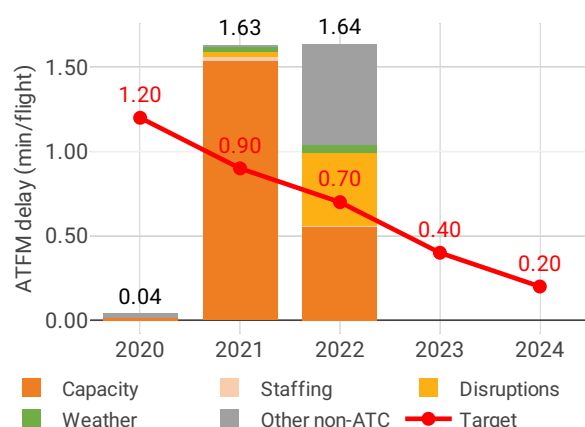
Focus on ATCOs in operations

Athens ACC: This includes figures for Makedonia ACC which uses the same system and personnel. Planned recruitment targets have not been met so far, modernisation of infrastructure still pending.

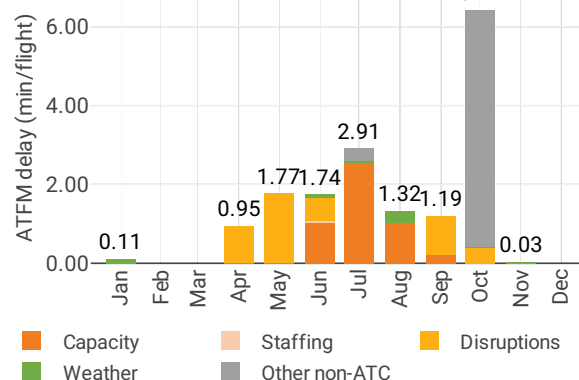
4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)

Average arrival ATFM delay per flight by delay groups



Monthly distribution of arrival ATFM delay by delay groups - 2022



Focus on arrival ATFM delay

Operational ANS performance at airports is monitored for one airport in Greece (i.e. Athens (LGAV)), the only airport subject to RP3 monitoring. The Airport Operator Data Flow is fully established and the monitoring of all capacity indicators can be performed. Nevertheless, the quality of the reporting does not allow for the calculation of the ATC pre-departure delay, with more than 60% of the reported delay not allocated to any cause. Traffic at Athens in 2022 was only 6% lower than in 2019 and 36% higher than in 2021.

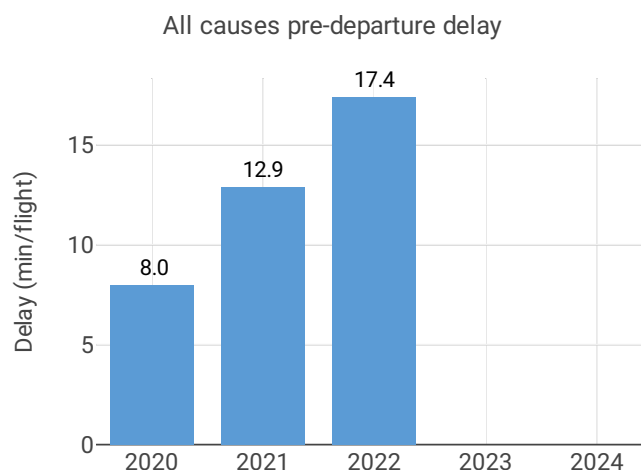
Average arrival ATFM delays in 2022 was 1.64 min/arr, compared to 1.63 min/arr in 2021. ATFM slot adherence has improved (2022: 94.7%; 2021: 93.9%).

Average arrival ATFM delays at Athens (LGAV: 2019: 3.57 min/arr.; 2020: 0.04 min/arr.; 2021: 1.63 min/arr.; 2021: 1.67 min/arr.) were attributed to ATC Capacity (34%, during the Summer), Aerodrome Capacity (34%, concentrated in October) and ATC Equipment (26%). The aerodrome is neither CDM, nor advanced tower.3. Arrival ATFM Delay – National TargetThe national target on arrival ATFM delay in 2022 was met.

Athens's ATFM slot compliance was 94.7%, slightly better than in 2021 (93.9%). With regard to the 5.3% of flights that did not adhere, 2.7% was early and 2.6% was late.

Greek NSA reports *the use at a larger scale of the electronic facilities ref. the slot values' updating, offered by NM to Tower ATC & FMPs.*

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



Airport level

Airport name	Avg arrival ATFM delay (KPI#2)					Slot adherence (PI#1)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Athens	0.04	1.63	1.64	NA	NA	94.5%	93.9%	94.7%	NA%	NA%

Airport name	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Athens	0.03	0.15	NA	NA	NA	8.0	12.9	17.4	NA	NA

Focus on performance indicators at airport level

ATFM slot adherence

The quality of the airport data reported by Athens airport is too low, preventing the calculation of this indicator.

The calculation of the ATC pre-departure delay is based on the data provided by the airport operators through the Airport Operator Data Flow (APDF) which is properly implemented at Athens. However, there are several quality checks before EUROCONTROL can produce the final value which is established as the average minutes of pre-departure delay (delay in the actual off block time) associated to the IATA delay code 89 (through the APDF, for each delayed flight, the reasons for that delay have to be transmitted and coded according to IATA delay codes).

However, sometimes the airport operator has no information concerning the reasons for the delay in the off block, or they cannot convert the reasons to the IATA delay codes. In those cases, the airport operator might:

- Not report any information about the reasons for the delay for that flight (unreported delay)
- Report a special code to indicate they do not have the information (code ZZZ)
- Report a special code to indicate they do not have the means to collect and/or translate the information (code 999)

To be able to calculate with a minimum of accuracy the PI for a given month, the minutes of delay that are not attributed to any IATA code reason should not exceed 40% of the total minutes of pre-departure delay observed at the airport. Finally, to be able to produce the annual figure, at least 10 months of valid data is requested by EUROCONTROL.

The share of unidentified delay reported by Athens has been above 40% since April 2020, preventing the calculation of this indicator. Even with the traffic recovery the reporting has not improved, although Athens had proper reporting before the pandemic.

The Greek NSA reported two years ago that this issue was under consultation with the Provider and that further information would be provided in due time, after the collection and evaluation of all relevant data. However the Greek monitoring report of this year does not provide any information nor comment about this.

ATC pre-departure delay

The total (all causes) delay in the actual off block time at Athens increased in 2021 (LGAV: 2020: 8 min/dep.; 2021: 12.90 min/dep.; 2022: 17.44 min/dep.). The highest delays per flight were observed from June to August.

The Greek NSA reports that *since LGAV is not CDM or advanced, the AOs file their EOBt without taking into consideration the capacity throughput, causing increased demand during certain time periods of the day. ATCOs in their turn, sequence DEPs so that the global aerodrome capacity is not violated. All the above in relation to the big increase of demand and the increase of the heavy acft arrivals.*

All causes pre-departure delay

No data available: airport operator data flow not established, or more than two months of missing / non-validated data

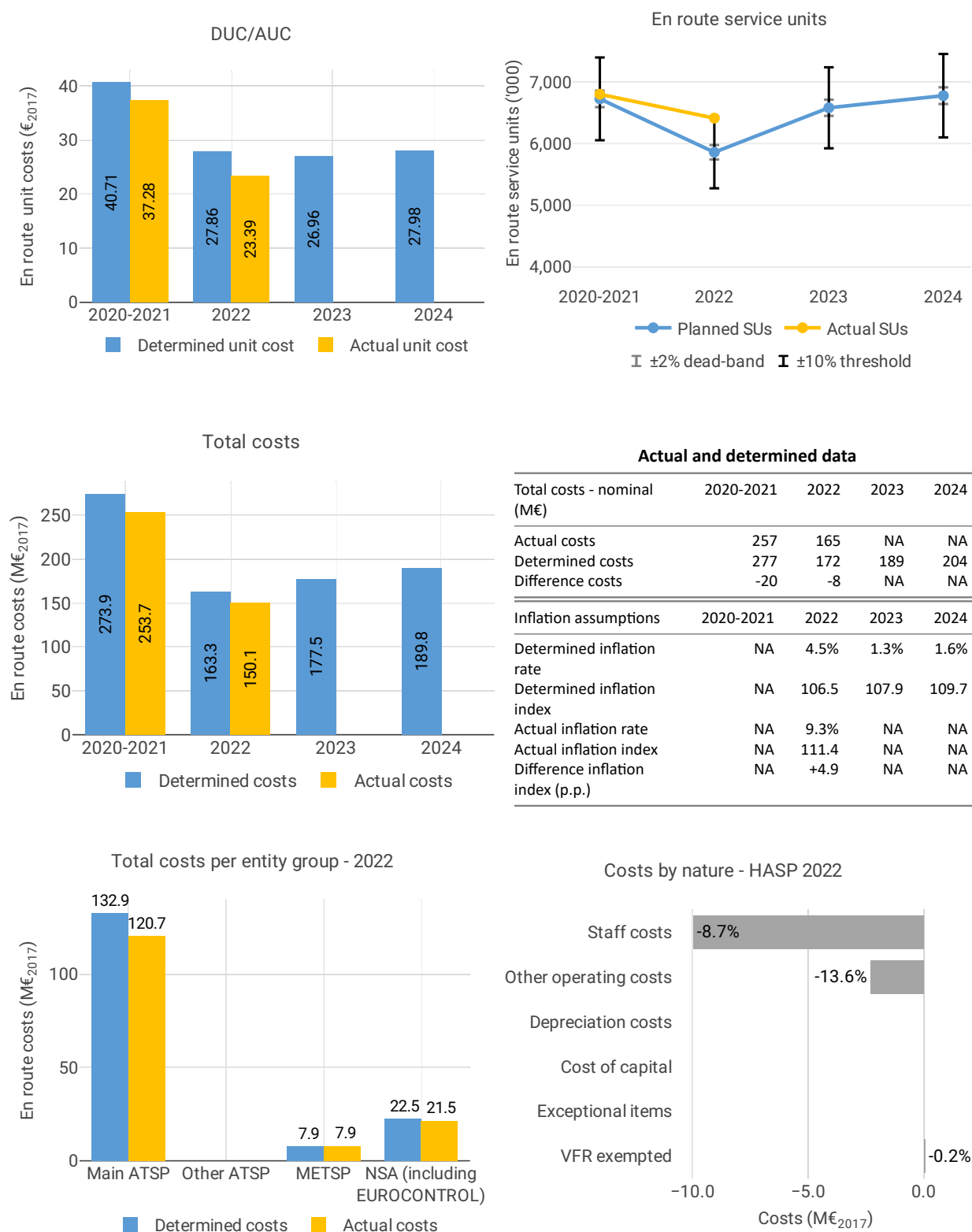
5 COST-EFFICIENCY - GREECE

5.1 PRB monitoring

- The en route 2022 actual unit cost of Greece was 23.38 €2017, -16% lower than the determined unit cost (27.86 €2017). The terminal 2022 actual unit cost was 150.36 €2017, -3.4% lower than the determined unit cost (155.70 €2017).
- The en route 2022 actual service units (6,416K) were +9.5% higher than the determined service units (5,861K).
- The en route 2022 actual total costs were 13 M€2017 lower (-8.1%) than determined, mainly due to lower staff cost (-9.8 M€2017, or -7.8%). The NSA only explained that HCCA is understaffed and that the staff compensation has not been fully implemented yet. Other operating costs also decreased significantly (-3.5 M€2017, or -11%), although no explanation was provided by the NSA.
- HASP spent 1.7 M€2017 in 2022 related to costs of investments, -19% less than determined (2.1 M€2017), the NSA noted that it is due to a slight delay in an investment project.
- As for the previous monitoring year, the discrepancies regarding cost of investments were significant. The PRB invites the NSA to analyse the discrepancies, identify their reasons, and request the Member State to take immediate, adequate, and proportionate action to ensure the implementation of the investment plans to avoid future capacity gaps.
- The en route actual unit cost incurred by users in 2022 was 28.67€, while the terminal actual unit cost incurred by users was 144.44€.

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)



Focus on unit cost

AUC vs. DUC

In 2022, the en route AUC was -16.1% (or -4.48 €2017) lower than the planned DUC. This results from the combination of significantly higher than planned TSUs (+9.5%) and significantly lower than planned en route costs in real terms (-8.1%, or -13.3 M€2017). It should be noted that actual inflation index in 2022 was +4.9 p.p. higher than planned.

En route service units

The difference between actual and planned TSUs (+9.5%) falls outside the $\pm 2\%$ dead band, but does not exceed the $\pm 10\%$ threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional en route revenues is therefore shared between the ANSP and the airspace users, with the main ANSP (HASP) retaining an amount of +5.4 M€2017.

En route costs by entity

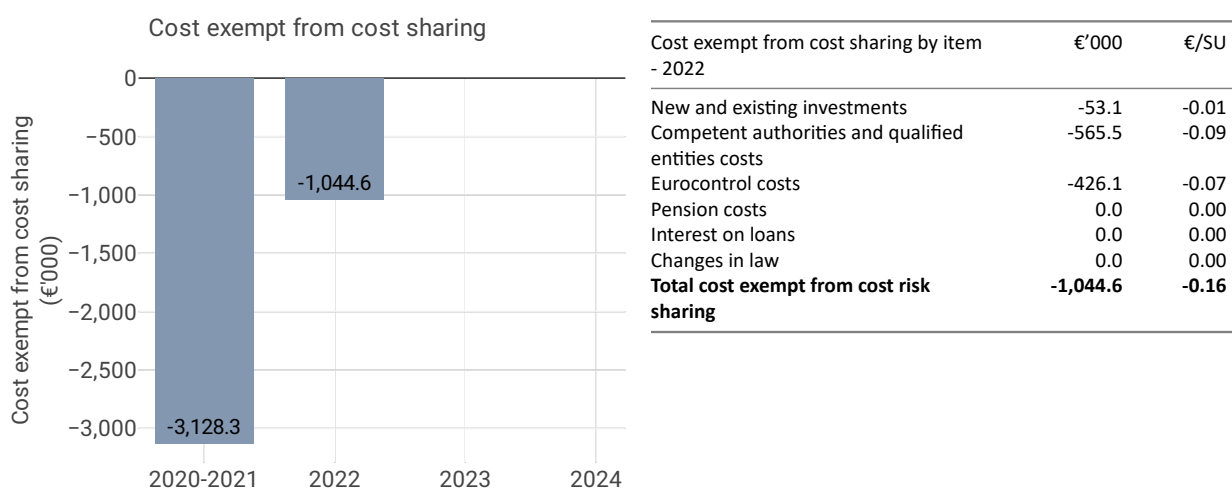
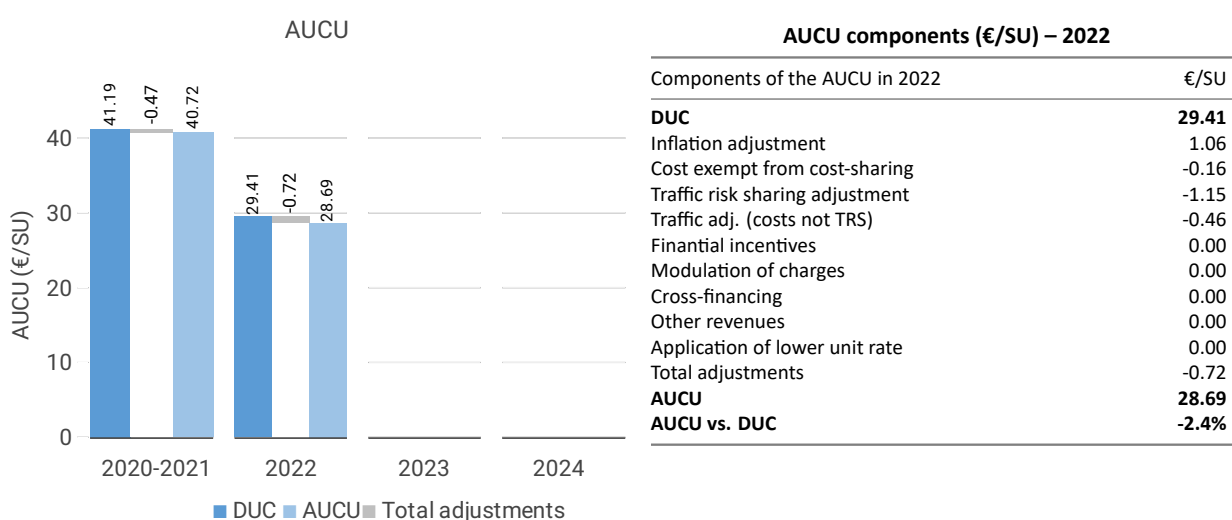
Actual real en route costs are -8.1% (-13.3 M€2017) lower than planned. This is the result of lower costs for the main ANSP, HASP (-9.2%, or -12.3 M€2017) and the NSA/EUROCONTROL (-4.8%, or -1.1 M€2017) and higher costs for the MET service provider (+0.7%, or +0.1 M€2017).

En route costs for the main ANSP at charging zone level

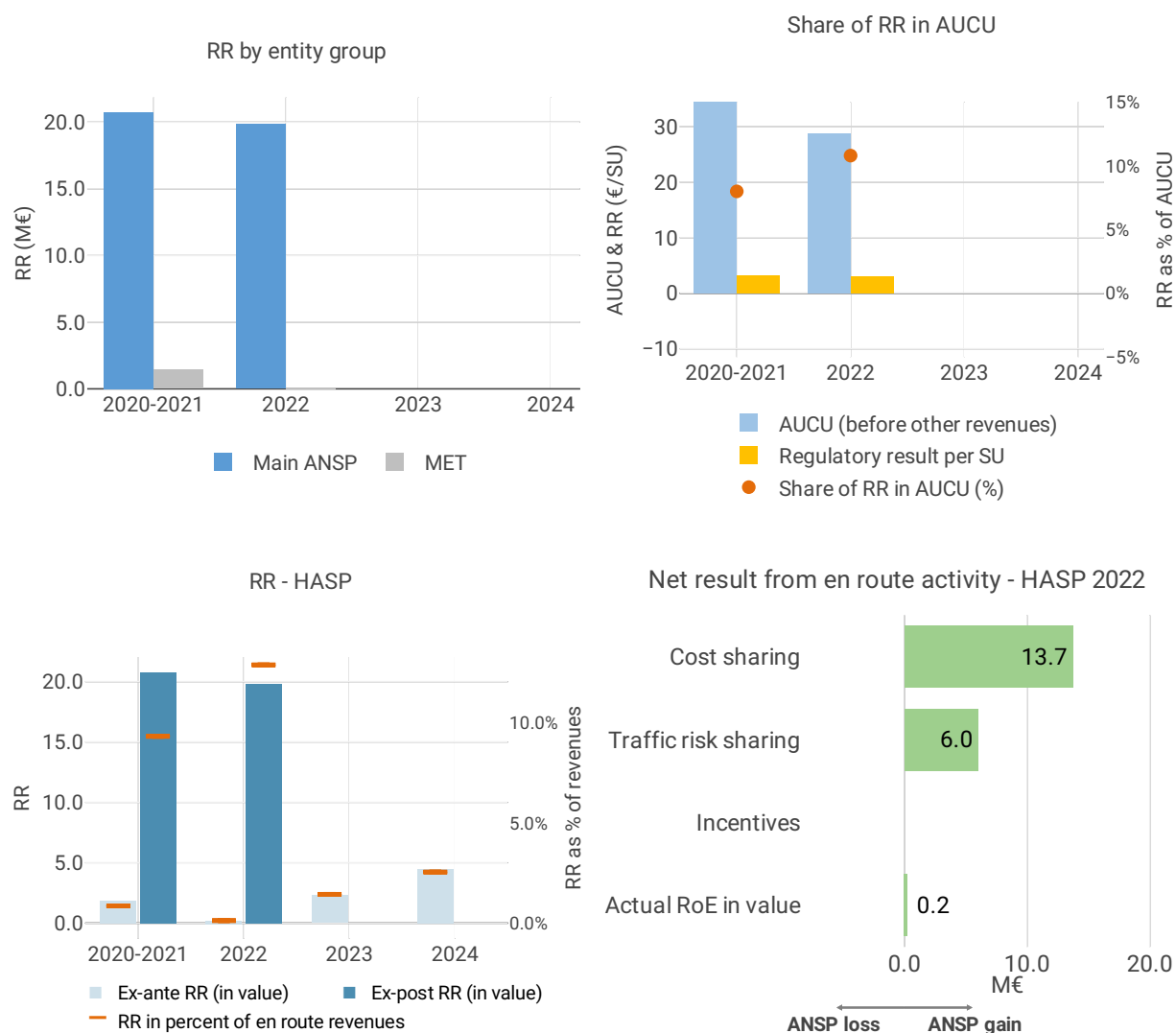
Significantly lower than planned en route costs in real terms for HASP in 2022 (-9.2%, or -12.3 M€2017) result from:

- Significantly lower staff costs in real terms (-8.7%), partially due to the inflation index impact (+4.9 p.p.). No explanation of drivers for the difference between actual and determined staff costs was provided by Greece.
- Significantly lower other operating costs in real terms (-13.6%), partially due to the inflation index impact (+4.9 p.p.). No explanation of drivers for the difference between actual and determined other operating costs was provided by Greece.
- Equal with the plan depreciation and cost of capital.
- Slightly lower deduction for VFR exempted flights (-0.2%).

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



5.2.3 Regulatory result (RR)



Focus on regulatory result

HASP net gain on activity in the Greece en route charging zone in the year 2022

HASP reported a net gain of +19.7 M€, as a combination of a gain of +13.7 M€ arising from the cost sharing mechanism, with a gain of +6.0 M€ arising from the traffic risk sharing mechanism.

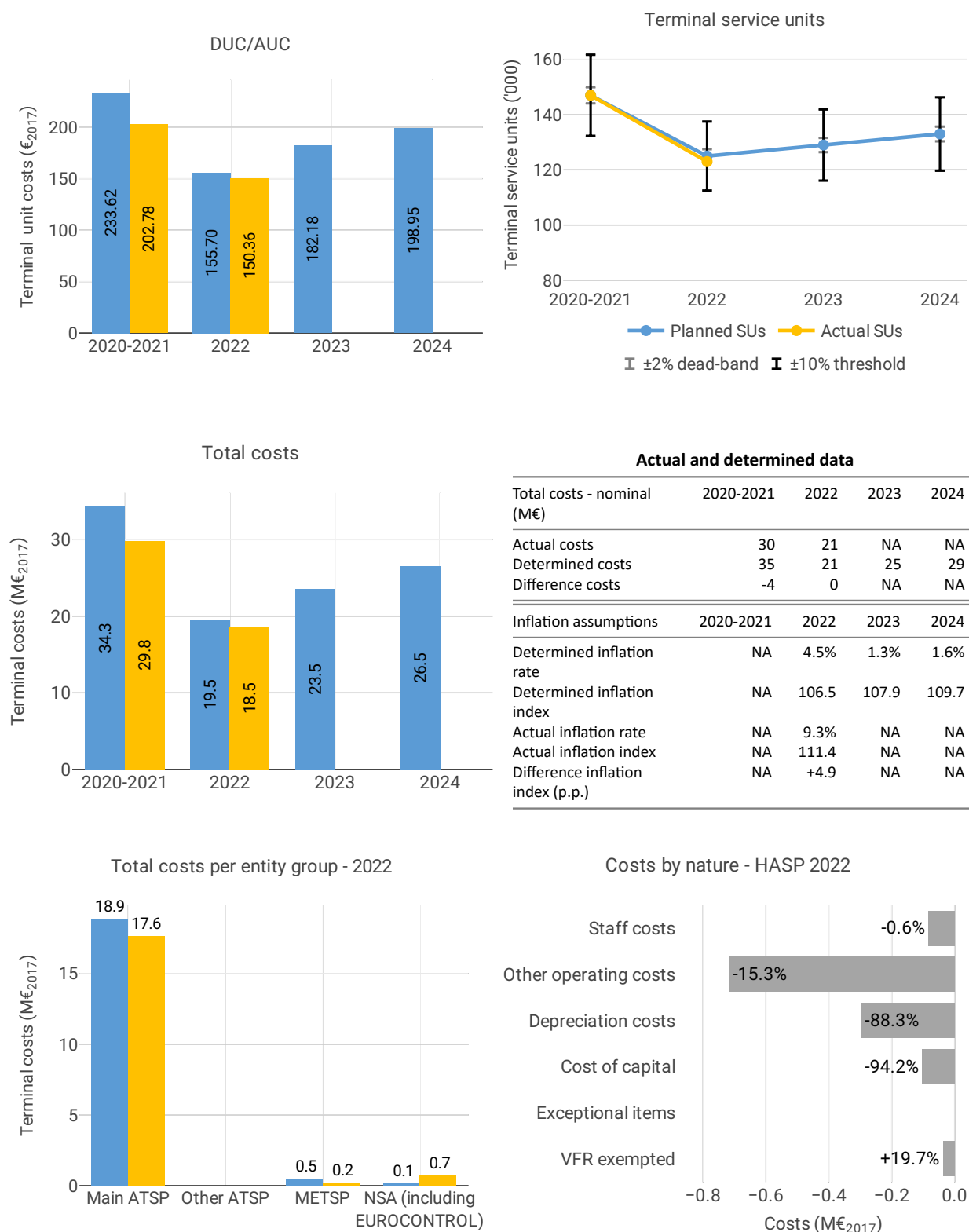
HASP overall regulatory result (RR) for the en route activity

Ex-post, the overall RR taking into account the net gain from the en route activity mentioned above (+19.7 M€) and the actual RoE (+0.2 M€) amounts to +19.8 M€ (12.9% of the en route revenues).

Note 1: Ex-post RoE cannot be correctly calculated due to a very low total asset base, due to: 1) the exclusion of net current assets from the calculation of the total asset base starting from 2021, 2) a very low net book value of fixed assets (as these are nearly fully depreciated).

5.3 Terminal charging zone

5.3.1 Unit cost (KPI#1)



Focus on unit cost

AUC vs. DUC

In 2022, the terminal AUC was -3.4% (or -5.34 €2017) lower than the planned DUC. This results from the combination of lower than planned terminal costs in real terms (-4.8%, or -0.9 M€2017) and lower than planned TNSUs (-1.4%). It should be noted that actual inflation index in 2022 was +4.9 p.p. higher than planned.

Terminal service units

The difference between actual and planned TNSUs (-1.4%) falls inside the $\pm 2\%$ dead band. Hence loss of terminal revenues is borne by the main ANSP (HASP).

Terminal costs by entity

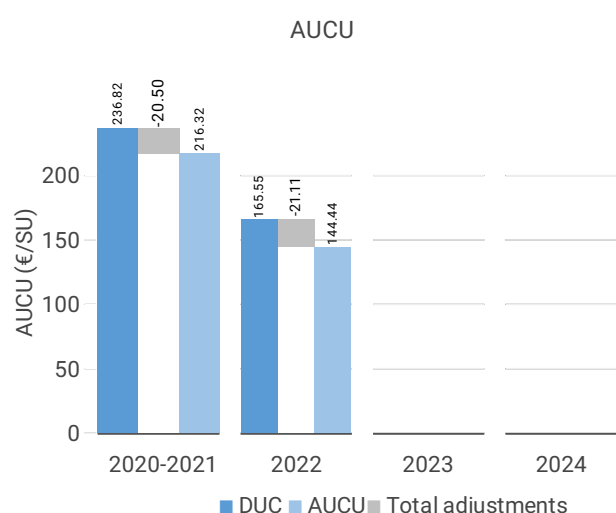
Actual real terminal costs are -4.8% (-0.9 M€2017) lower than planned. This is the result of lower costs for the main ANSP, HASP (-6.6%, or -1.2 M€2017) and the MET service provider (-62.8%, or -0.3 M€2017) and higher costs for the NSA (+510.0%, or +0.6 M€2017).

Terminal costs for the main ANSP at charging zone level

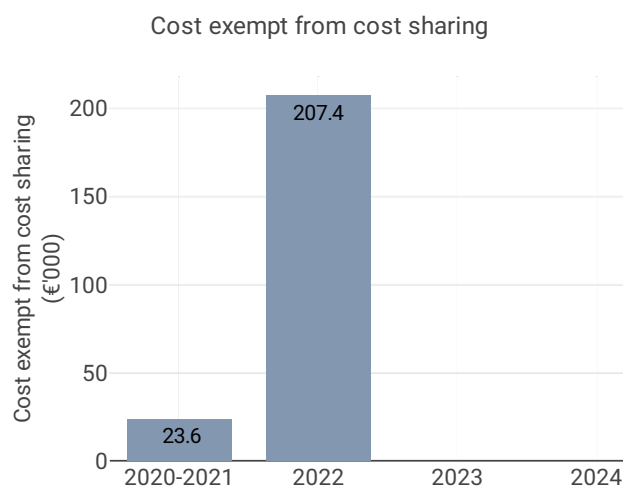
Lower than planned terminal costs in real terms for HASP in 2022 (-6.6%, or -1.2 M€2017) result from:

- Slightly lower staff costs (-0.6%), mainly due to the inflation index impact (+4.9 p.p.) since in nominal terms costs are higher than planned, by +4.0%.
- Significantly lower other operating costs (-15.3%), partially due to the inflation index impact (+4.9 p.p.). No explanation of drivers for the difference between actual and determined other operating costs was provided by Greece.
- Significantly lower depreciation (-88.3%) and cost of capital (-94.2%), due to the delay in the projects implementation.
- Significantly higher deduction for VFR exempted flights (+19.7%).

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

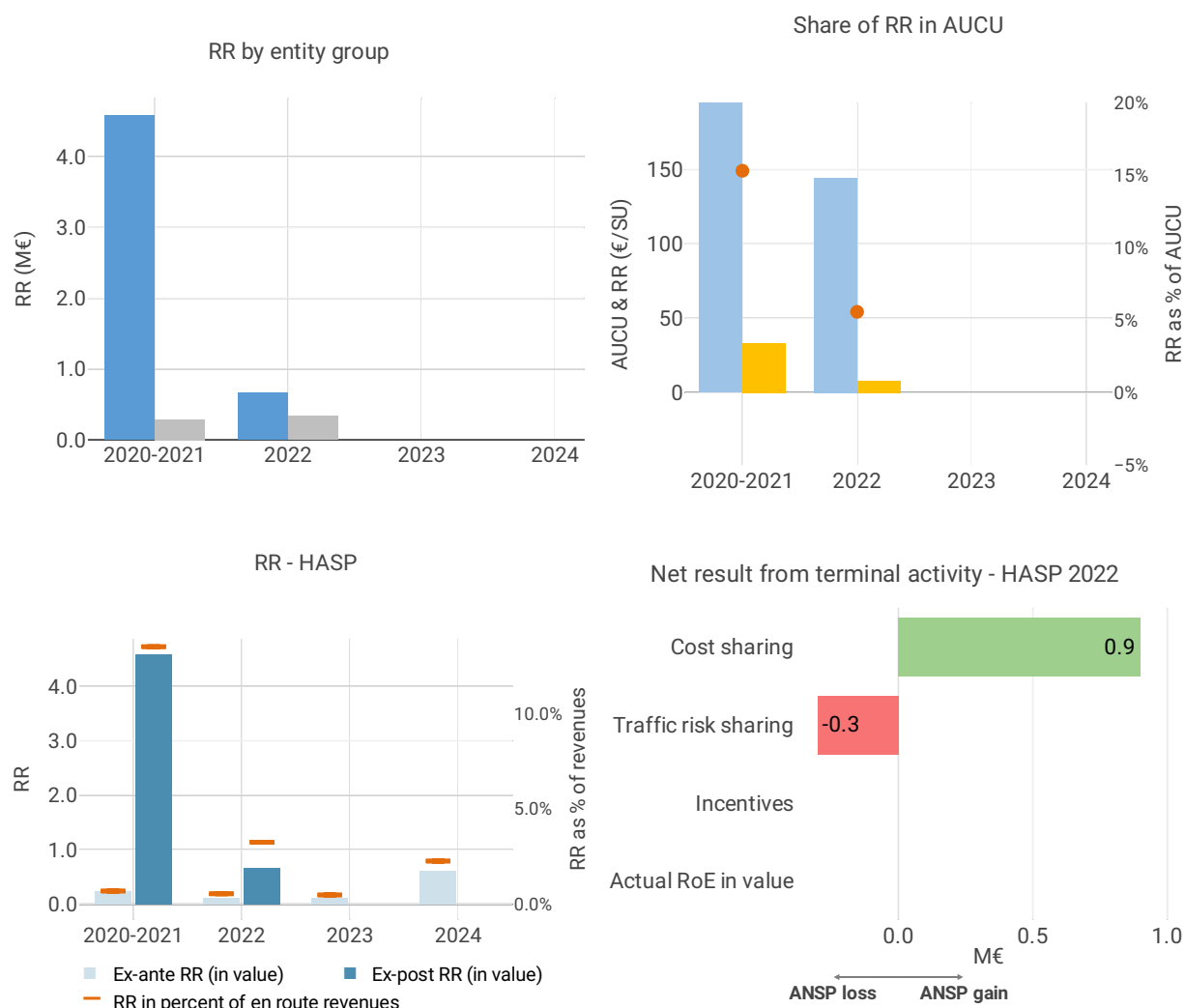


AUCU components (€/SU) – 2022	
Components of the AUCU in 2022	€/SU
DUC	165.55
Inflation adjustment	7.47
Cost exempt from cost-sharing	1.68
Traffic risk sharing adjustment	0.00
Traffic adj. (costs not TRS)	0.07
Financial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	0.00
Application of lower unit rate	-30.34
Total adjustments	-21.11
AUCU	144.44
AUCU vs. DUC	-12.8%



Cost exempt from cost sharing by item - 2022	€'000	€/SU
New and existing investments	-399.5	-3.24
Competent authorities and qualified entities costs	606.9	4.92
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	207.4	1.68

5.3.3 Regulatory result (RR)



Focus on regulatory result

HASP net gain on activity in the Greece terminal charging zone in the year 2022

HASP reported a net gain of +0.7 M€, as a combination of a gain of +0.93 M€ arising from the cost sharing mechanism, with a loss of -0.28 M€ arising from the traffic risk sharing mechanism.

HASP overall regulatory results (RR) for the terminal activity

Ex-post, the overall RR taking into account the net gain from the terminal activity mentioned above (+0.7 M€) and the actual RoE (+0.006 M€) amounts to +0.7 M€ (3.3% of the terminal revenues).

Note 1: Ex-post RR does not take into account the application of the lower unit rate as per Art. 29.6 (loss in revenues corresponds to -3.7 M€ for 2022). **Note 2:** Ex-post RoE cannot be correctly calculated due to a very low total asset base, due to: 1) the exclusion of net current assets from the calculation of the total asset base starting from 2021, 2) a very low net book value of fixed assets (as these are nearly fully depreciated).