

Performance Review Body Monitoring Report

Cyprus - 2023

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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))	5
2	SAFETY - CYPRUS	6
2.1	PRB monitoring	6
2.2	Effectiveness of Safety Management (EoSM) (KPI#1)	6
2.3	Safety occurrences	7
2.4	Use of automated safety data recording system (ASDRS) (PI#3)	8
3	ENVIRONMENT - CYPRUS	8
3.1	PRB monitoring	8
3.2	En route performance	8
3.3	Civil-Military dimension	9
4	CAPACITY - CYPRUS	11
4.1	PRB monitoring	11
4.2	En route performance	11
5	COST-EFFICIENCY - CYPRUS	13
5.1	PRB monitoring	13
5.2	En route charging zone	14

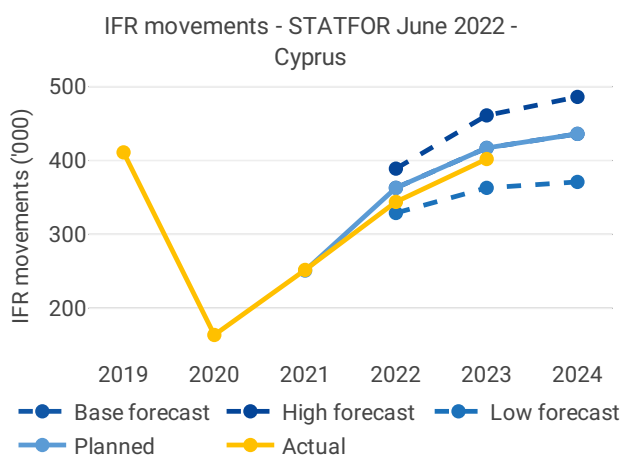
1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/2422 of 5 December 2022

List of ACCs 1 Nicosia ACC	Exchange rate (1 EUR=) 2017: 1 EUR 2023: 1 EUR	Main ANSP • DCAC Cyprus
No of airports in the scope of the performance plan: • ≥80'K 0 • <80'K 0	Share of Union-wide: • traffic (TSUs) 2023 1.7% • en route costs 2023 0.9%	Other ANSPs —
	Share en route / terminal costs 2023 100% / 0%	MET Providers • Department of Meteorology of the Ministry of Agriculture and Natural Resources
	En route charging zone(s) Cyprus	
	Terminal charging zone(s) —	

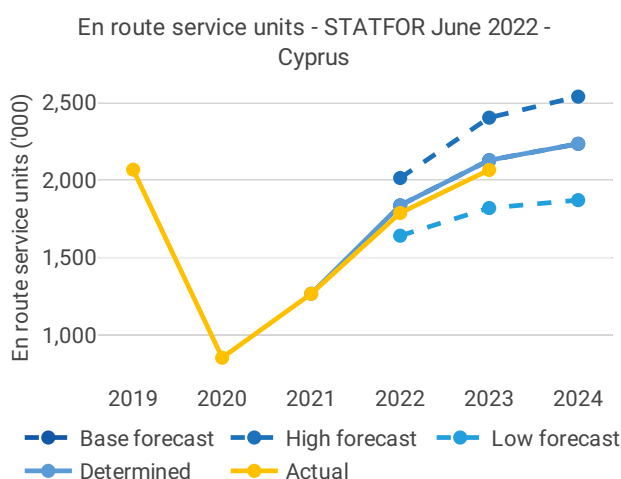
1.2 Traffic (En route traffic zone)



- Cyprus recorded 402K actual IFR movements in 2022, +17% compared to 2022 (344K).

- Actual 2023 IFR movements were -3.5% below the plan (417K).

- Actual 2023 IFR movements represent 98% of the actual 2019 level (411K).

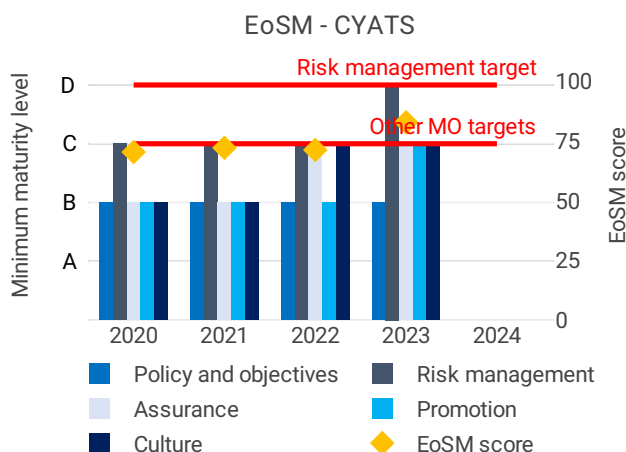


- Cyprus recorded 2,066K actual en route service units in 2023, +16% compared to 2022 (1,788K).

- Actual 2023 service units were -2.9% below the plan (2,129K).

- Actual 2023 service units are in line with the actual 2019 level (2,068K).

1.3 Safety (Main ANSP)



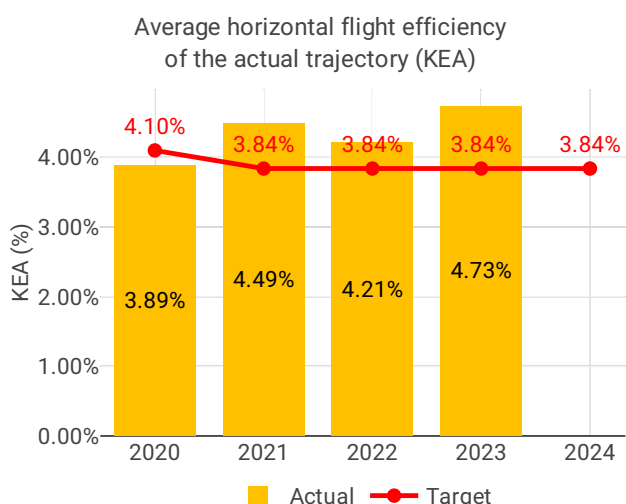
- Cyprus (DCAC Cyprus) improved its performance in safety risk management and safety promotion, reaching the RP3 target in 2023. Only safety policy and objectives require improvement. This management objective has not improved much over RP3.

- DCAC Cyprus maintains its safety action plan, which is regularly updated, detailing the measures put in place to achieve the safety targets.

- Cyprus recorded a stable performance with respect to the safety occurrences with a slight decrease in rate of separation minima infringements (SMIs) and no occurrences of runway incursions (RIs) in 2023.

- DCAC Cyprus do not use automated safety data recording systems.

1.4 Environment (Member State)



- Cyprus achieved a KEA performance of 4.73% compared to its target of 3.84% and did not contribute positively towards achieving the Union-wide target.

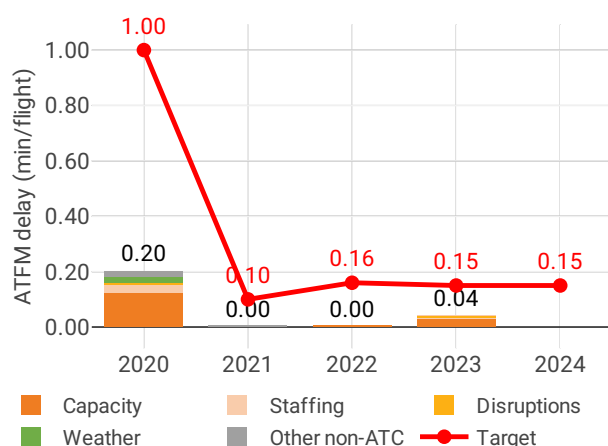
- The NSA states that the target was not met due to the inability to optimise traffic flows in the entirety of the Nicosia FIR.

- Both KEP and SCR improved in comparison to 2022. Despite the KEA target being missed, the improvement in SCR shows that Cyprus has improved the environmental efficiency of its airspace when accounting for impacts outside of its control.

- Cyprus has no airports that are regulated under the performance and charging scheme.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



- Cyprus registered 0.04 minutes of average en route ATFM delay per flight during 2023, thus achieving the local target value of 0.15. Delays in Cyprus increased by 0.04 minutes per flight year-on-year.

- Delays were highest in February and March, mostly due to ATC Capacity reasons.

- The share of delayed flights with delays longer than 15 minutes in Cyprus decreased by 1 percentage point compared to 2022 and was lower than 2019 values.

- The average number of IFR movements was 2%

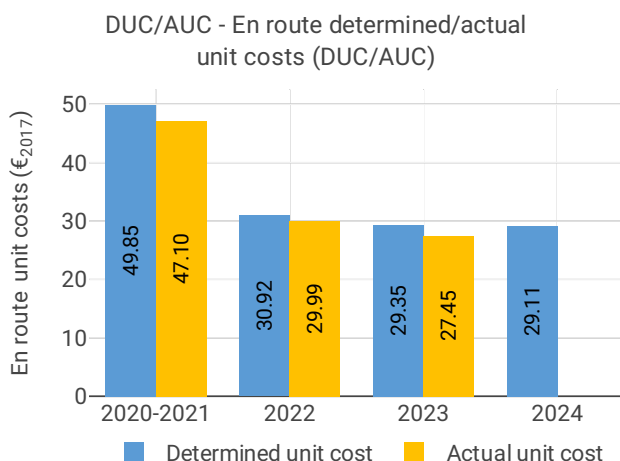
below 2019 levels in Cyprus in 2023.

- The number of ATCOs in OPS is expected to increase by 28% by 2024, with the actual value meeting the 2023 plan in Nicosia.

- The yearly total of sector opening hours in Nicosia ACC was 26,886, showing an 11.9% increase compared to 2022. Sector opening hours are 9.1% below 2019 levels.

- Nicosia ACC registered 14.95 IFR movements per one sector opening hour in 2023, being 7.4% above 2019 levels.

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



- The en route 2023 actual unit cost of Cyprus was 27.43 €2017, -6.5% lower than the determined unit cost (29.35 €2017). Cyprus does not have a terminal charging zone.

- The en route 2023 actual service units (2.07M) were -2.9% lower than the determined service units (2.13M).

- The en route 2023 actual total costs were -5.8 M€2017 (-9.3%) lower than determined, as all categories registered lower-than-planned costs. According to the NSA, this difference was largely due to a reduction in other operating costs (-2.7

M€2017, or -8.8%), primarily because of “a delay in the operation of the new ACC building in Kokkinotrimithia (for which additional operating costs had been forecast)”.

- DCAC Cyprus spent 4.8 M€2017 in 2023 related to costs of investments, -15% less than determined (5.7 M€2017), mainly due to the partial implementation of two key investment projects.

- The en route actual unit cost incurred by users in 2023 was 32.72€ (+3.7% above the 2023 DUC).

- The en route regulatory result for DCAC Cyprus amounted to +6.3 M€, or 14% of the 2023 revenue. This may indicate that the airspace users are charged for costs which have not materialised in 2023.

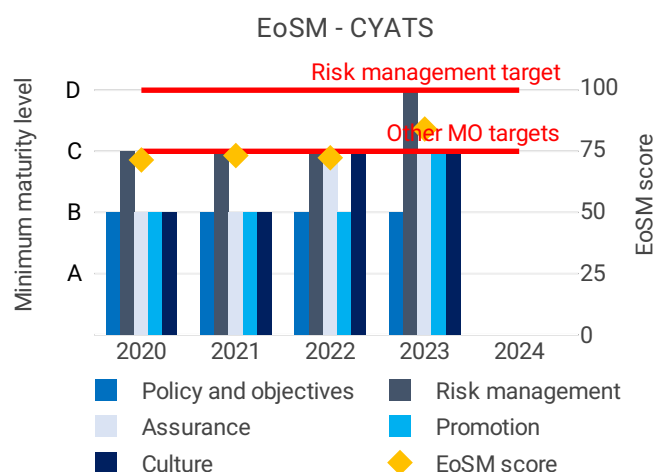
- The PRB will take into consideration the implementation of the RP3 performance plan when assessing the RP4 cost-efficiency targets.

2 SAFETY - CYPRUS

2.1 PRB monitoring

- Cyprus (DCAC Cyprus) improved its performance in safety risk management and safety promotion, reaching the RP3 target in 2023. Only safety policy and objectives require improvement. This management objective has not improved much over RP3.
- DCAC Cyprus maintains its safety action plan, which is regularly updated, detailing the measures put in place to achieve the safety targets.
- Cyprus recorded a stable performance with respect to the safety occurrences with a slight decrease in rate of separation minima infringements (SMIs) and no occurrences of runway incursions (RIs) in 2023.
- DCAC Cyprus do not use automated safety data recording systems.

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



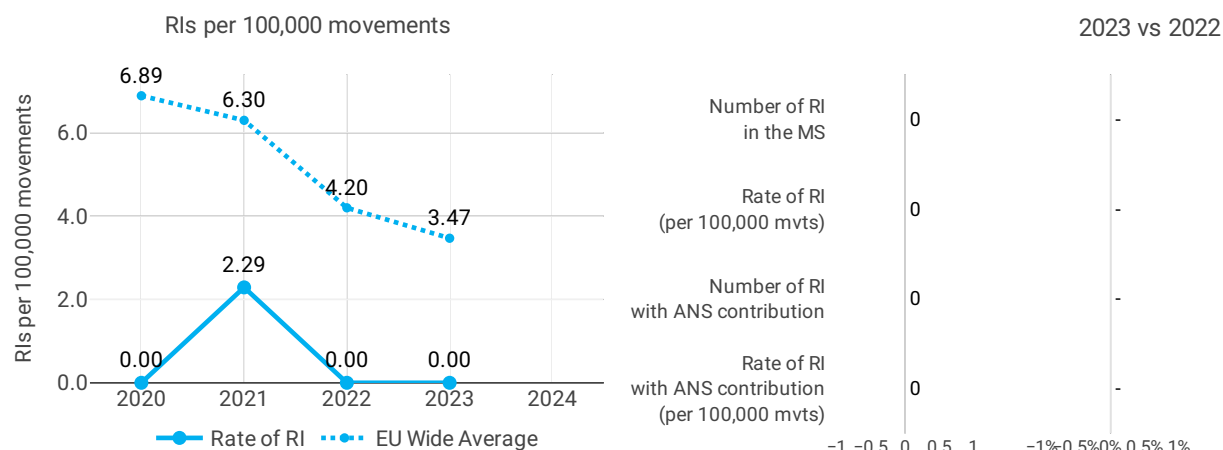
Focus on EoSM

Only “Safety Policy and Objectives” component is still below RP3 EoSM target level with four questions to be improved. Over 2023, “Safety Risk Management” and “Safety Promotion” were improved and reached the target levels.

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

2.3 Safety occurrences

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



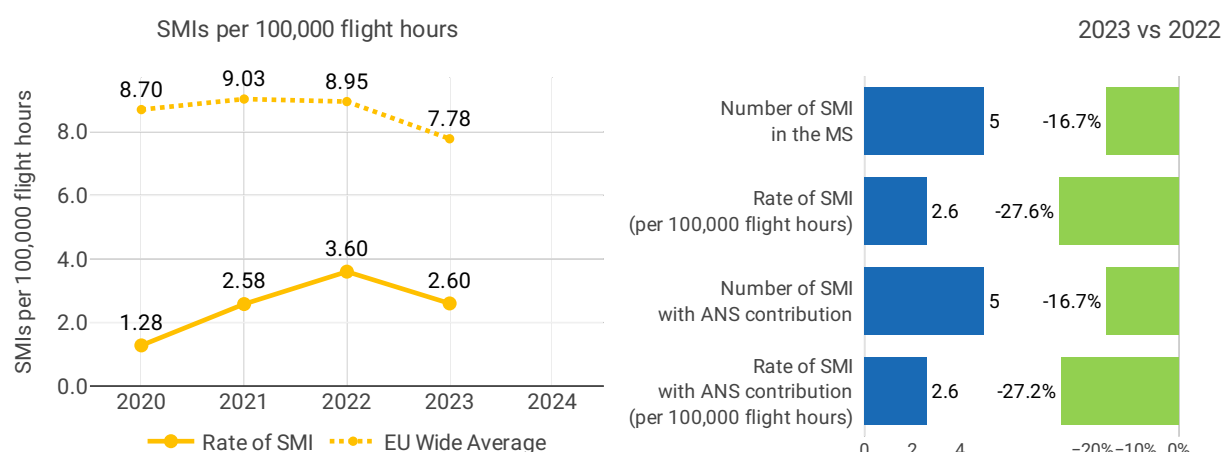
Rate of RIs per 100,000 airport movements - Cyprus

#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Larnaca	NA	NA	NA
2	Papho	NA	NA	NA

Focus on runway incursions

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – 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	CYATS	78,614	116,453	167,670	191,955	NA	0	3	6	5	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	CYATS	0.0	2.6	3.6	2.6	NA	NA	0%	+39%	-27%	NA

Focus on separation minima

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

2.3.3 Quality of occurrences reporting

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

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

2023	
For RIs	For SMIs
X	X

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

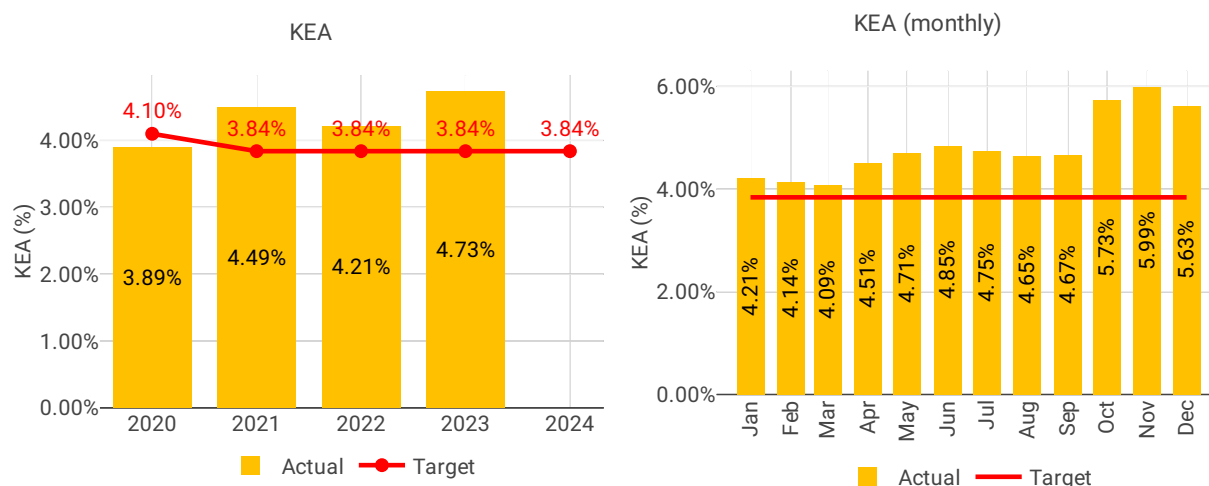
3 ENVIRONMENT - CYPRUS

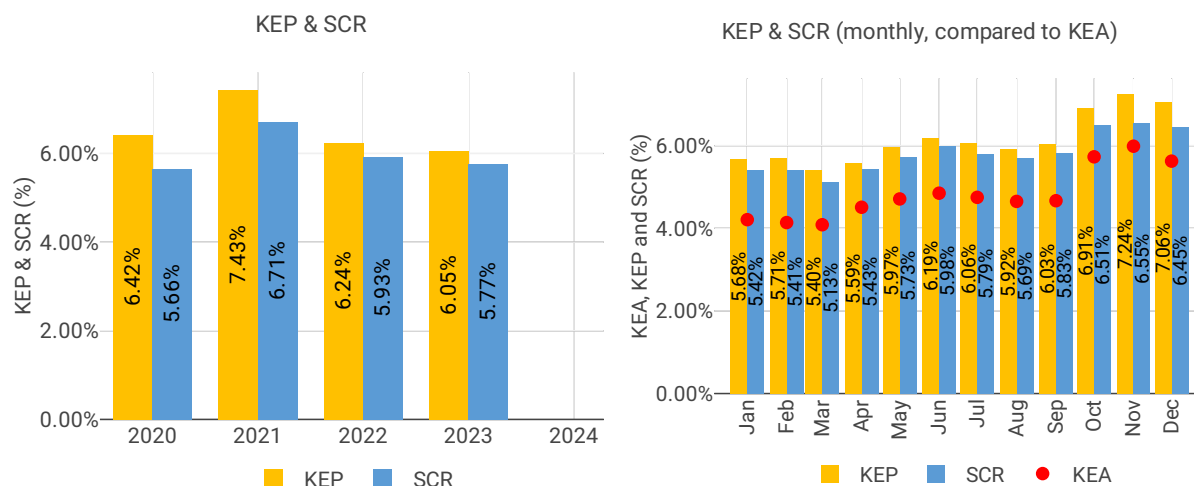
3.1 PRB monitoring

- Cyprus achieved a KEA performance of 4.73% compared to its target of 3.84% and did not contribute positively towards achieving the Union-wide target.
- The NSA states that the target was not met due to the inability to optimise traffic flows in the entirety of the Nicosia FIR.
- Both KEP and SCR improved in comparison to 2022. Despite the KEA target being missed, the improvement in SCR shows that Cyprus has improved the environmental efficiency of its airspace when accounting for impacts outside of its control.
- Cyprus has no airports that are regulated under the performance and charging scheme.

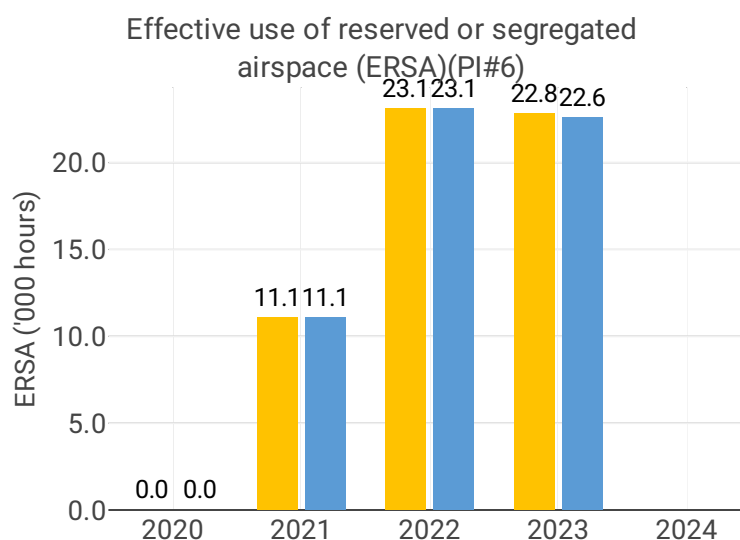
3.2 En route performance

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)

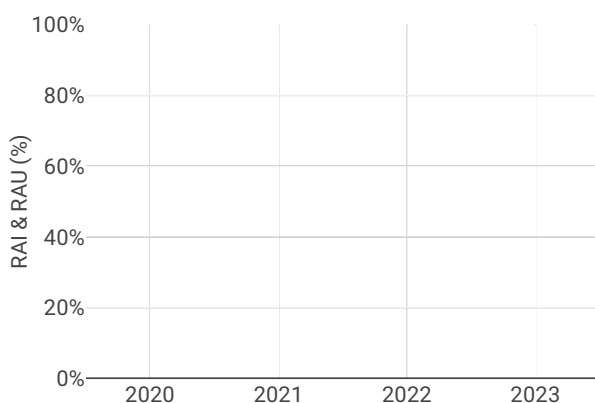




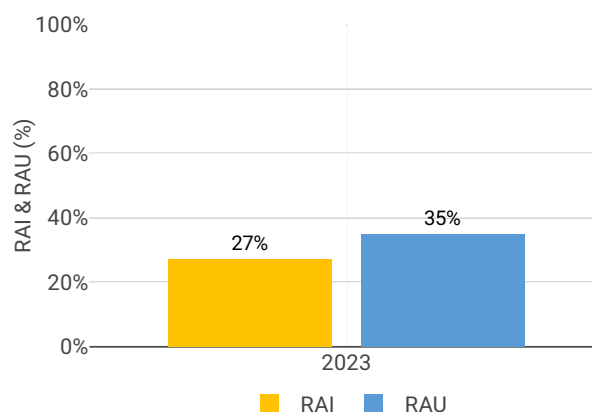
3.3 Civil-Military dimension



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 air navigation services in Nicosia FIR are provided with reference to the arrangements which have been established through the implementation of regulation (EC) 2150/2005 "*laying down common rules for the flexible use of airspace*". (see section 5. Application of FUA). The implementation of the said Regulation has been achieved through the adoption of the "National Plan for the Implementation of FUA",

signed on the 2nd of July 2009. The implementation of the National FUA plan ensures to the maximum possible extent, the most efficient use of airspace, both by civil and military users.

The activities of the National Military Authorities are predominately executed over the National airspace. The cooperation between the national Civil and Military Authorities is excellent and the effect on civil aviation is minimal. Over the high seas however, which constitute the majority of the Nicosia FIR, a number of foreign Military authorities, most commonly the Russian Navy, USA Navy, French Navy, Israeli Air Force, British Air Force and Turkish military forces, regularly performed operational flights and exercises throughout 2023. Additionally, air carrier operations in Nicosia FIR combined with the different military authorities made it necessary to implement and upgrade the coordination among the willing authorities. The activities of the British and Israeli forces were coordinated fairly well with the national authorities (AMC) keeping the adverse effect on ATS to minimal effect.

The most significant impact on ATS is caused by the refusal of the Turkish authorities to coordinate or cooperate with Cyprus on the conduct of any military activities in Nicosia FIR. Turkish activity NOTAMS are issued by non-authorised entities relevant to these activities thus imposing a significant level of uncertainty on ATM management in Nicosia FIR adversely affecting capacity. A regular phenomenon is the penetration of Nicosia FIR or Cyprus National airspace in violation to ICAO procedures thus increasing the workload on ATC staff and hence having a detrimental effect on airspace capacity.

The political unrest in the South East Mediterranean region gave rise to the number of USA and Russian operational flights (OAT). These flights were rarely coordinated with the ATS authorities thus causing additional workload to ACC staff. Nevertheless, the situation in 2023 was better than previous years, as a consequence of the COVID-19 pandemic, better coordination with British and Israeli military authorities, enhanced cooperation among AMC/ATC units and aircraft carriers operating in the area and fewer operations of aircraft carriers south of Cyprus. The designation, by EASA, of the Syrian airspace as "conflict zone" has significantly affected the traffic flows in the north east part of Nicosia FIR.

Military - related measures implemented or planned to improve capacity

The recent Israel - Hamas conflict has significantly affected traffic flows and volumes. It was the main reason why air traffic demand did not yet reach 2019 levels. The trend continues in 2024 with traffic levels remaining lower than forecast. The situation is ongoing so it is not possible to accurately evaluate the scale of the impact of military dimension on the capacity KPA. At the moment, no measures are foreseen since the military and geopolitical developments are not under the control of the ANSP.

Initiatives implemented or planned to improve PI#6

The NSA verifies, through audits and inspections, that the entity responsible for the tactical management of the airspace (AMC), monitors the planned Vs the actual times of airspace reservations so as to promote the most effective use of reserved or segregated airspace. In the context of its oversight inspections, it has raised findings in order to drive positive change and to optimise the application of FUA and, as a result, improvements have been noted. For example, real time activation / de-activation of reserved areas is now implemented through the establishment of real time communications between the ATC Units and Military authorities.

Initiatives implemented or planned to improve PI#7

PRISMIL CURA has been implemented by Cyprus AMC in early 2023. All the data provided are according to the data available on PRISMIL.

Initiatives implemented or planned to improve PI#8

PRISMIL CURA has been implemented by Cyprus AMC in early 2023. All the data provided are according to the data available on PRISMIL.

4 CAPACITY - CYPRUS

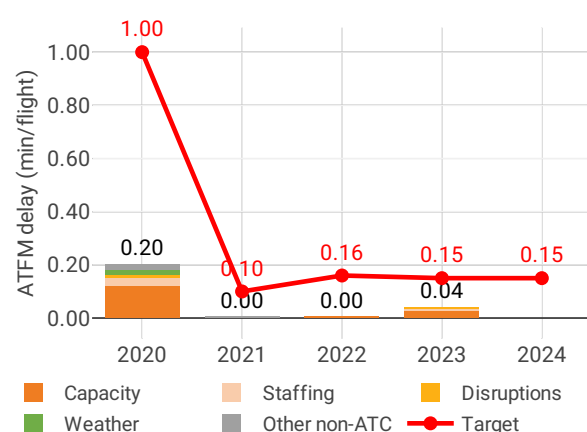
4.1 PRB monitoring

- Cyprus registered 0.04 minutes of average en route ATFM delay per flight during 2023, thus achieving the local target value of 0.15. Delays in Cyprus increased by 0.04 minutes per flight year-on-year.
- Delays were highest in February and March, mostly due to ATC Capacity reasons.
- The share of delayed flights with delays longer than 15 minutes in Cyprus decreased by 1 percentage point compared to 2022 and was lower than 2019 values.
- The average number of IFR movements was 2% below 2019 levels in Cyprus in 2023.
- The number of ATCOs in OPS is expected to increase by 28% by 2024, with the actual value meeting the 2023 plan in Nicosia.
- The yearly total of sector opening hours in Nicosia ACC was 26,886, showing an 11.9% increase compared to 2022. Sector opening hours are 9.1% below 2019 levels.
- Nicosia ACC registered 14.95 IFR movements per one sector opening hour in 2023, being 7.4% above 2019 levels.

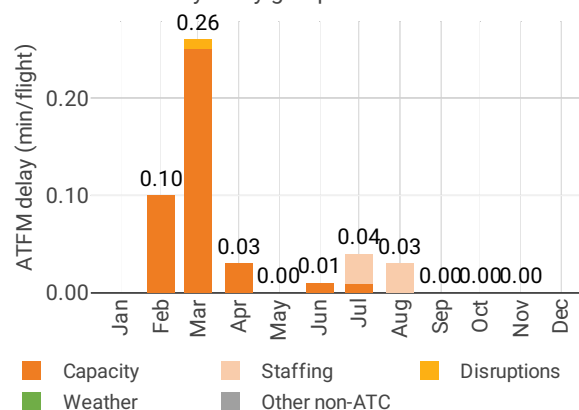
4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)

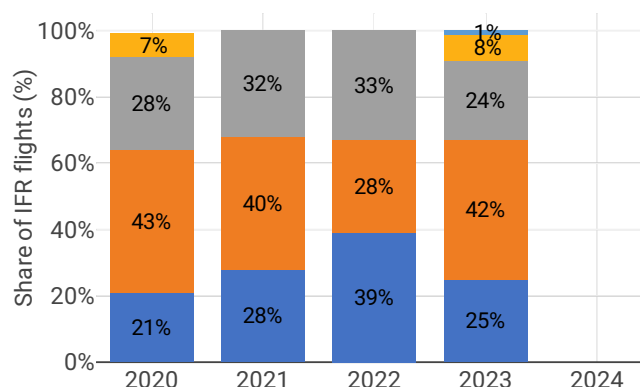
Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2023



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



Focus on en route ATFM delay

Summary of capacity performance

Cyprus experienced an increase in traffic from 344k flights in 2022, with practically zero ATFM delays, to 402k flights in 2023 with 15k minutes of en-route ATFM delay. For reference, in 2019, Cyprus handled 411k flights but had 485k minutes of en-route ATFM delays.

NSA's assessment of capacity performance

Cyprus is in a turbulent region of the world, where geopolitical changes are frequent and, often, dramatic. For this reason, air traffic volatility is very high and traffic demand estimates (hence, ATM performance) can vary as a result of external factors. These factors are beyond the control of the ANSP and the State in general. Furthermore, geopolitical changes can significantly alter the air traffic flows, creating new hotspots and significant capacity constraints. As an example, the continuation of the Russia - Ukraine conflict has removed a significant traffic flow (and associated revenue) to and from Cyprus. Furthermore, the conflict between Israel and Hamas has also negatively affected the traffic demand towards the end of 2023. Finally, the categorisation, by EASA, of the Syrian airspace as "conflict zone" has eliminated traffic flows in the north-eastern part of Nicosia FIR. These flows were diverted to the south, saturating the west and south sectors of Nicosia ACC.

Capacity performance in 2023 was very good and the relevant targets were achieved. However, air traffic demand in 2023 was still lower than the 2019 levels. In this respect, the 2023 results cannot be considered as an accurate indication of future trends.

Monitoring process for capacity performance

The NSA has in place the "NSA procedure for the monitoring of ANS Performance". According to this procedure, the NSA monitors at quarterly intervals the average minutes of enroute ATFM (Air Traffic Flow Management) delay per flight. Based on this, the NSA analyzes the trends and takes the necessary measures, if needed.

Capacity planning

Capacity planning is done in consultation with the Network Manager. The results are consistent with the required performance.

Application of Corrective Measures for Capacity (if applicable)

Not applicable.

Additional Comments about Capacity

During the period of the transfer to the new ACC, which is delayed and planned in late 2024 to mid 2025, traffic delays are expected, which however will be of temporary nature. As the transfer will be done during a low traffic period, the effect on the European Network is not expected to be significant. Efforts will be made so that any operation related to the transfer i.e. shadowing operations, will be kept to the absolute minimum level so as not to absorb HR from the actual ops at the new ACC.

The ATSP has implemented (in mid 2022) a new ATC sector at Larnaca Airport (an extension of the ACC main ATM system) for providing Approach Control Service with surveillance (APS). This new ATC sector is operating with ATCOs working on an overtime basis. In RP4, the ATSP shall proceed with new ATCOs recruitments.

An effort to modify the ATCO employment contract (the, so called, "scheme of services") is ongoing. The aim of the modification will be to significantly reduce the period between recruitment and assuming operational duties. In any case, the recruitment plan for new ATCOs will continue to be implemented so that the en-route service will continue to be provided without significant capacity constraints.

In conclusion, some air traffic delays may be attributed to these restructuring developments and the operation of the new ATC sector. The precise impact cannot be estimated at the moment since the service has just began. Nevertheless, the NM has confirmed that this new service will have significant net capacity benefits in the longer term.

Additional Information Related to Russia's War of Aggression Against Ukraine The Russia - Ukraine conflicts as well as the Israel - Hamas conflicts have removed a significant traffic flow (and associated revenue)

to and from Cyprus.

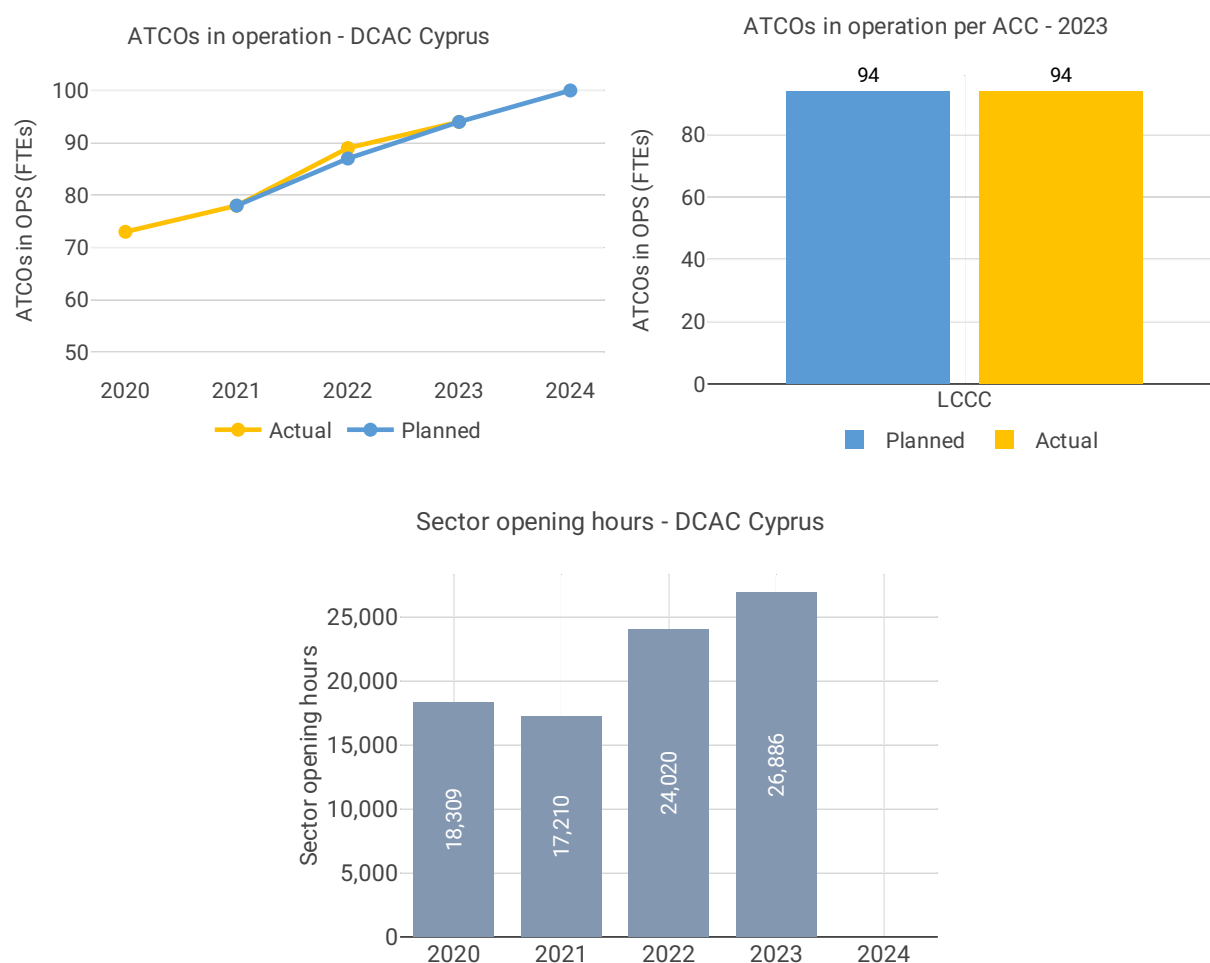
The categorisation, by EASA, of the Syrian airspace as “conflict zone” has eliminated traffic flows in the north-eastern part of Nicosia FIR. These flows were diverted to the south, saturating the west and south sectors of Nicosia ACC and causing delays.

Cyprus has no control of this situation. However, it maintains a constant cooperation with the NM to mitigate its impacts.

En route Capacity Incentive Scheme

According to the incentive scheme defined in the monitoring report, the ANSP is due a bonus of 471,380 €.

4.2.2 Other indicators



Focus on ATCOs in operations

The ATCO numbers are exactly as foreseen in the PP. 94 ATCOs, are as follows: 18 SUPS + 76 ATCOs = 94.

5 COST-EFFICIENCY - CYPRUS

5.1 PRB monitoring

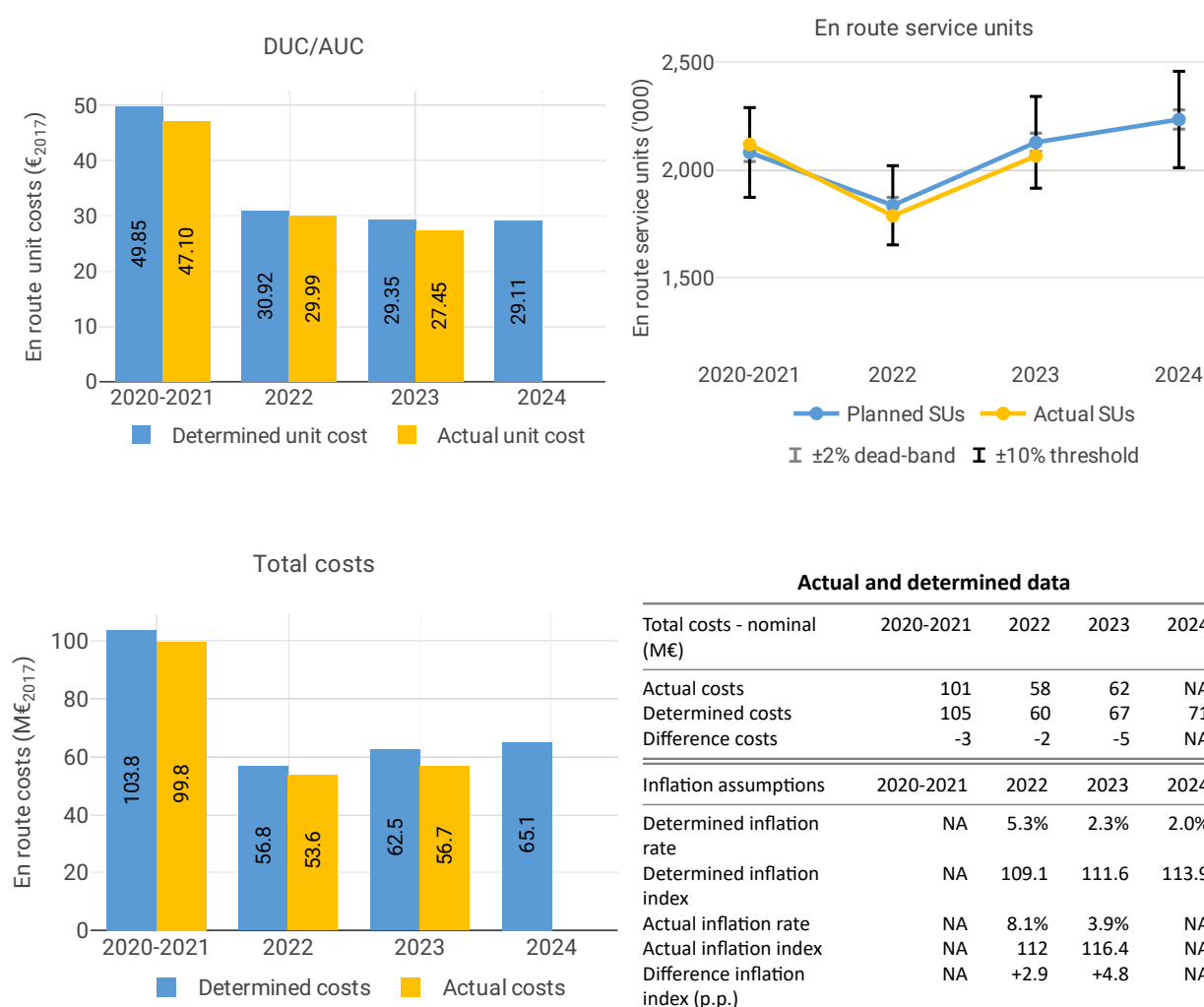
- The en route 2023 actual unit cost of Cyprus was 27.43 €/2017, -6.5% lower than the determined unit cost (29.35 €/2017). Cyprus does not have a terminal charging zone.
- The en route 2023 actual service units (2.07M) were -2.9% lower than the determined service units (2.13M).
- The en route 2023 actual total costs were -5.8 M€/2017 (-9.3%) lower than determined, as all categories registered lower-than-planned costs. According to the NSA, this difference was largely due to a reduction

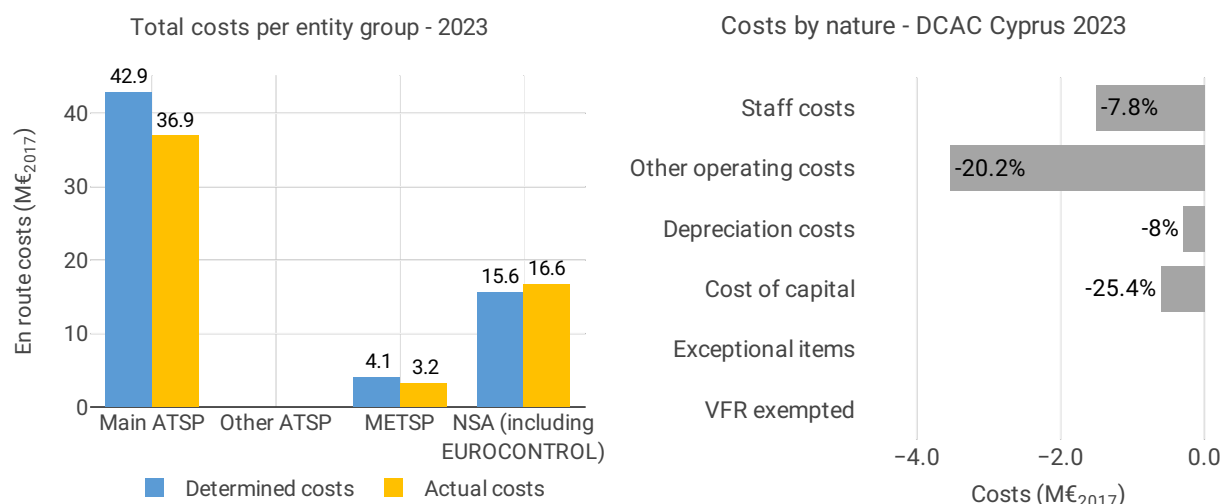
in other operating costs (-2.7 M€2017, or -8.8%), primarily because of “a delay in the operation of the new ACC building in Kokkinotrimithia (for which additional operating costs had been forecast)”.

- DCAC Cyprus spent 4.8 M€2017 in 2023 related to costs of investments, -15% less than determined (5.7 M€2017), mainly due to the partial implementation of two key investment projects.
- The en route actual unit cost incurred by users in 2023 was 32.72€ (+3.7% above the 2023 DUC).
- The en route regulatory result for DCAC Cyprus amounted to +6.3 M€, or 14% of the 2023 revenue. This may indicate that the airspace users are charged for costs which have not materialised in 2023.
- The PRB will take into consideration the implementation of the RP3 performance plan when assessing the RP4 cost-efficiency targets.

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)





Focus on unit cost

AUC vs. DUC

In 2023, the en route AUC was -6.5% (or -1.92 €2017) lower than the planned DUC. This results from the combination of significantly lower than planned en route costs in real terms (-9.3%, or -5.8 M€2017) and lower than planned TSUs (-2.9%). It should be noted that the actual inflation index in 2023 was +4.8 p.p. higher than planned.

En route service units

In 2023, difference between actual and planned TSUs (-2.9%) falls outside the $\pm 2\%$ dead band, but does not exceed the $\pm 10\%$ 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.

En route costs by entity

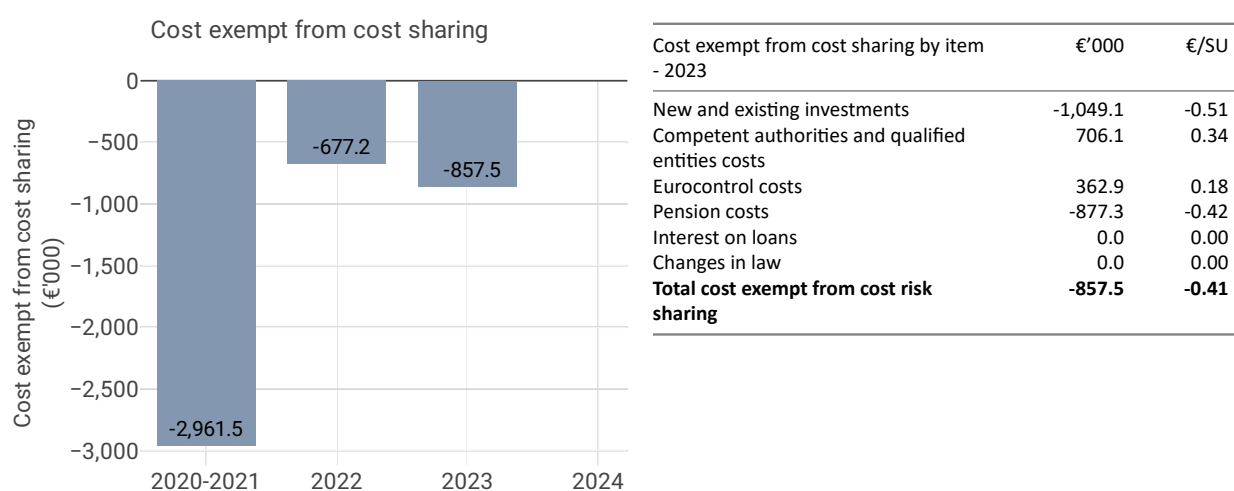
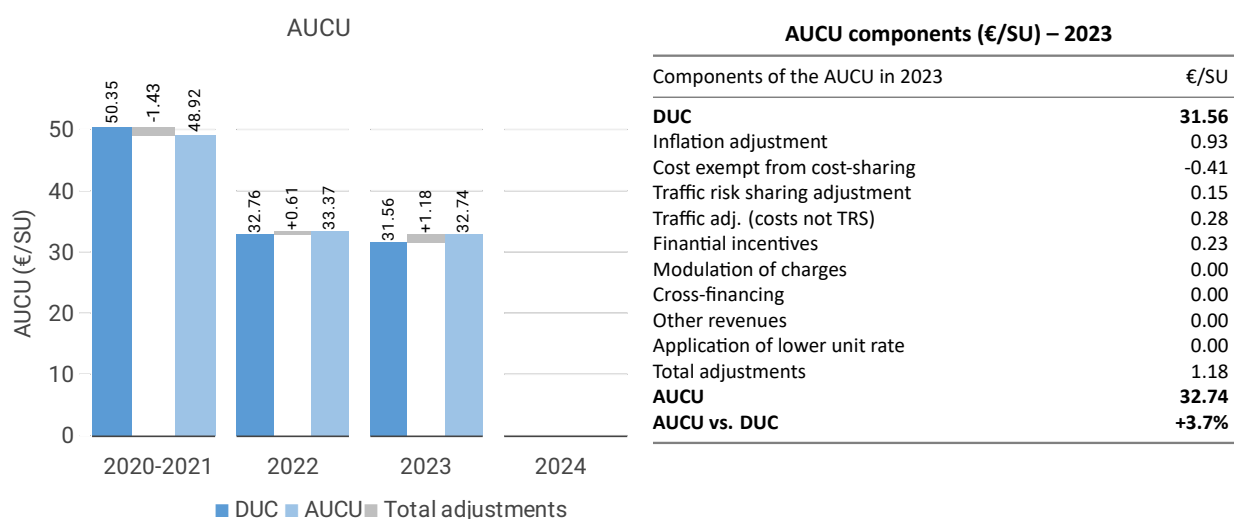
The 2023 actual real en route costs are -9.3% (-5.8 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, DCAC Cyprus (-13.9%, or -5.9 M€2017) and the MET service provider (-21.9%, or -0.9 M€2017), while costs for the NSA/EUROCONTROL are higher (+6.6%, or +1.0 M€2017) than planned.

En route costs for the main ANSP at charging zone level

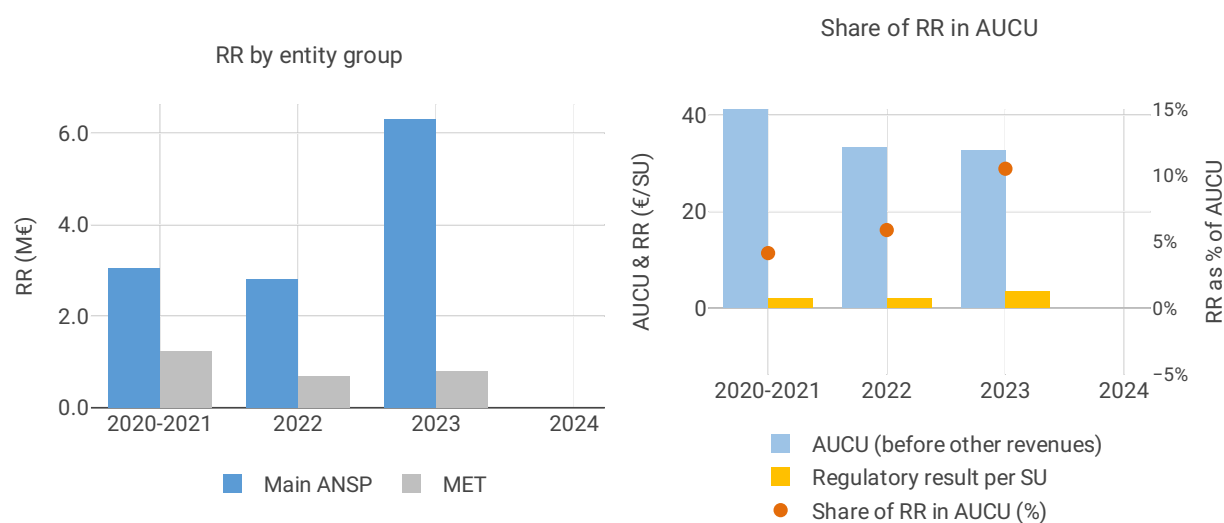
Significantly lower than planned en route costs in real terms for DCAC Cyprus in 2023 (-13.9%, or -5.9 M€2017) result from:

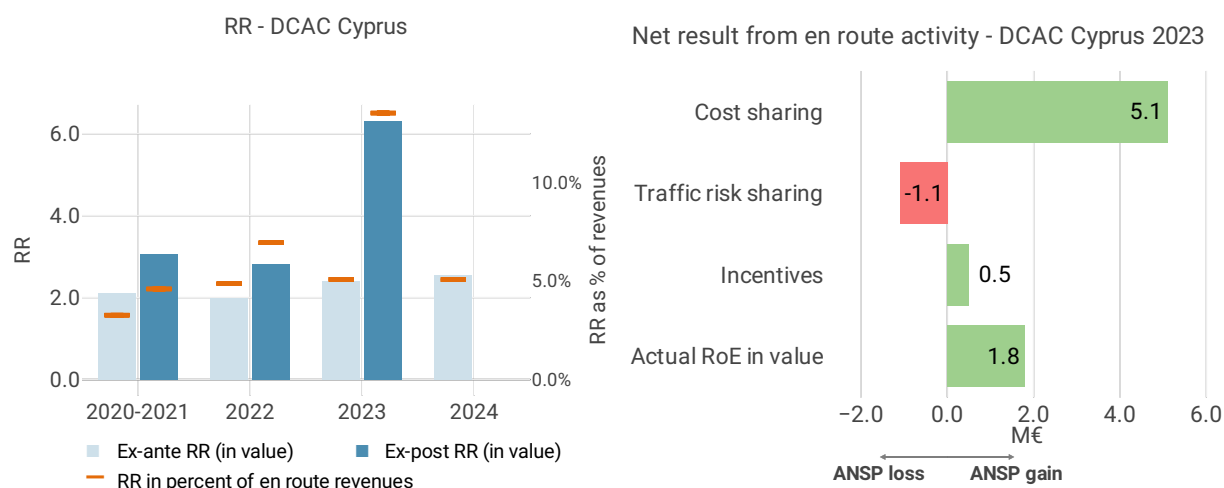
- Significantly lower staff costs (-7.8%) reported to be mainly due to "an unforeseen change in the national pension law which affected public sector employees hired after 2011",
- Significantly lower other operating costs (-20.2%), reported to be "mainly due to a delay in the operation of the new ACC building in Kokkinotrimithia (for which additional operating costs had been forecast)",
- Significantly lower depreciation (-8.0%) reported to be mainly "due to a postponement or the partial implementation of two investments: one is regarding the implementation of an IP compatible voice-communication system at the ACC and other is regarding the partial implementation of surveillance equipment upgrades",
- Significantly lower cost of capital (-25.4%), reported to be "mainly due to the postponement or the partial implementation of the above mentioned two investments".

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



5.2.3 Regulatory result (RR)





Focus on regulatory result

DCAC Cyprus net gain on activity in the Cyprus en route charging zone in the year 2023

DCAC Cyprus reported a net gain of +4.5 M€, as a combination of a gain of +5.1 M€ arising from the cost sharing mechanism, with a loss of -1.1 M€ arising from the traffic risk sharing mechanism and a gain of +0.5 M€ relating to financial incentives.

DCAC Cyprus overall regulatory results (RR) for the en route activity

Ex-post, the overall RR taking into account the net gain from the en route activity above mentioned (+4.5 M€) and the actual RoE (+1.8 M€) amounts to +6.3 M€ (13.5% of the en route revenues). The resulting ex-post rate of return on equity is 18.7%, which is higher than the 5.3% planned in the PP.