PRB | Performance review body of the single european sky

Performance Review Body Monitoring Report

Denmark - 2023

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1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/770 of 13 April 2022

List of ACCs 1
Copenhagen ACC

No of airports in the scope of the performance plan:
- **≥80'K** 1
- **<80'K** 0

Exchange rate (1 EUR=)
2017: 7.43692 DKK
2023: 7.44877 DKK

Share of Union-wide:
- **traffic (TSUs) 2023** 1.2%
- **en route costs 2023** 1.6%

Share en route / terminal costs 2023 81% / 19%

En route charging zone(s)
Denmark

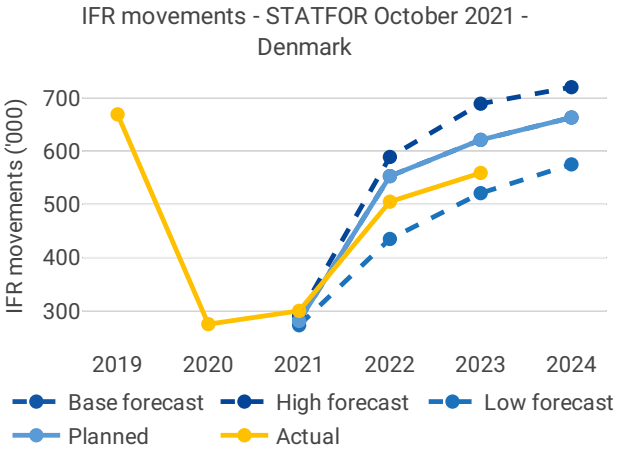
Terminal charging zone(s)
Denmark

Main ANSP
- NAVIAIR

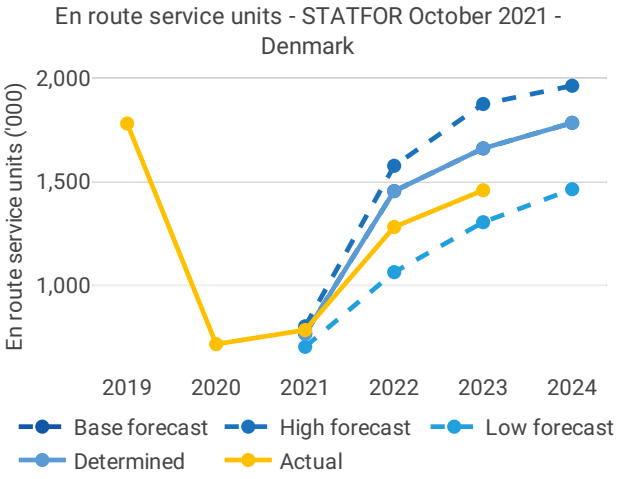
Other ANSPs
–

MET Providers
- DMI

1.2 Traffic (En route traffic zone)

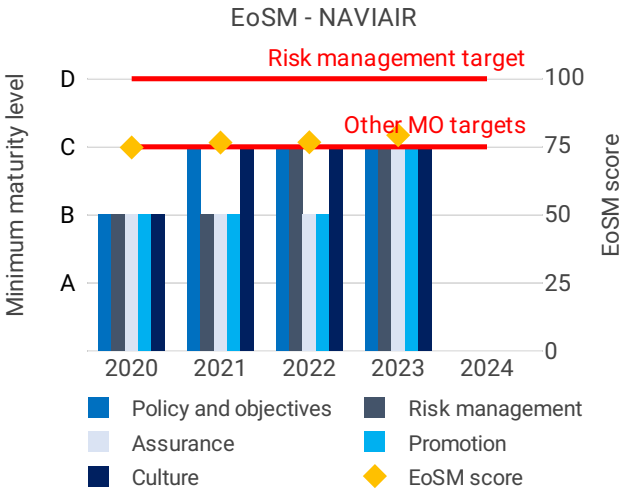


- Denmark recorded 559K actual IFR movements in 2023, +11% compared to 2022 (505K).
- Actual 2023 IFR movements were -9.9% below the plan (621K).
- Actual 2023 IFR movements represent 84% of the actual 2019 level (669K).



- Denmark recorded 1,459K actual en route service units in 2023, +14% compared to 2022 (1,282K).
- Actual 2023 service units were -12% below the plan (1,661K).
- Actual 2023 service units represent 82% of the actual 2019 level (1,781K).

1.3 Safety (Main ANSP)



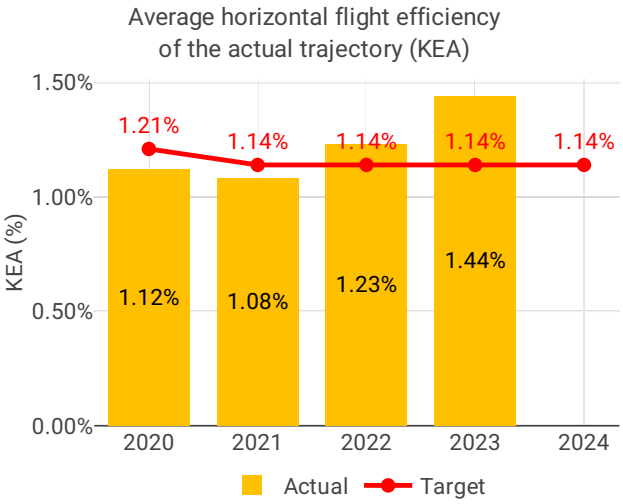
• In 2023, NAVIAIR improved its performance in safety assurance and safety promotion, achieving the EoSM RP3 targets. The ANSP lacked sufficient improvement in safety risk management and is still behind its planned maturity level as per performance plan.

• The NSA cautions that the ANSP might not be able to achieve the RP3 targets. The ANSP has identified specific measures to ensure level D in safety risk management achieved during 2024.

• Denmark did not record any RIs in 2023. The rate of separation minima infringements (SMIs) marginally increased but remained below the Union-wide average.

• NAVIAIR does not use automated safety data recording systems.

1.4 Environment (Member State)



• Denmark achieved a KEA performance of 1.44% compared to its target of 1.14% and did not contribute positively to achieving the Union-wide target.

• The NSA states that the main reason for NAVIAIR not achieving the target is the staffing challenges it faces.

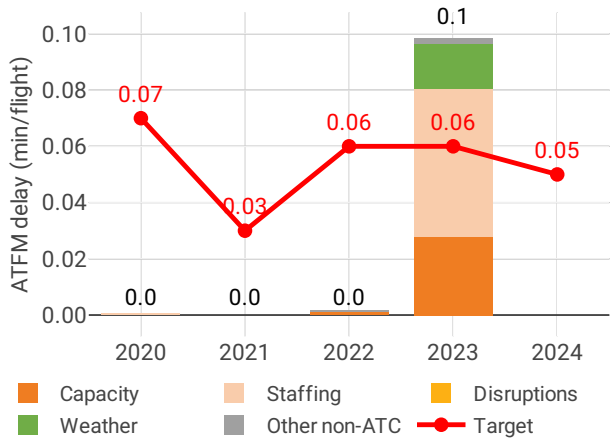
• Both KEP and SCR improved in 2023. Despite the KEA target being missed, the improvement in SCR shows that Denmark has improved the environmental efficiency of its airspace when accounting for impacts outside of its control.

• The share of CDO flights decreased from 52.50% to 48.56% in 2023.

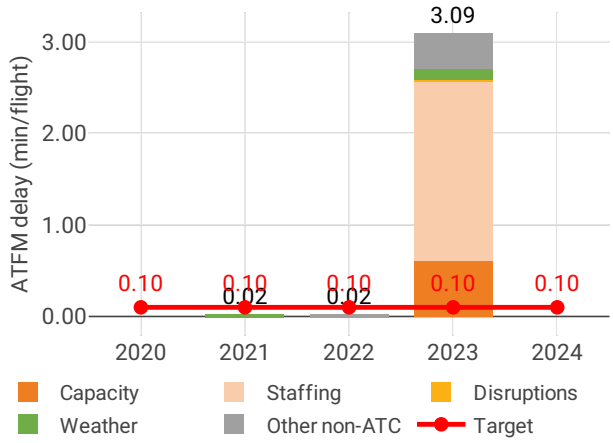
• During 2023, additional time in terminal airspace increased from 0.78 to 1.10 min/flight, while additional taxi out time increased from 2.37 to 2.59 min/flight.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



Average arrival ATFM delay per flight by delay groups



• Denmark registered 0.10 minutes of average en route ATFM delay per flight during 2023, thus not achieving the local target value of 0.06. Delays in Denmark increased by 0.10 minutes per flight year-on-year.

• Delays were highest in February and between May and July, mostly due to ATC Capacity and Staffing.

• The share of delayed flights with delays longer than 15 minutes in Denmark increased by 8 p.p. compared to 2022 and was higher than 2019 values.

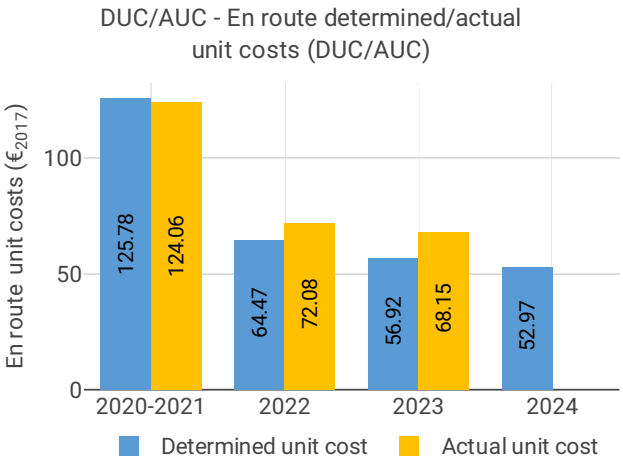
• The average number of IFR movements was 17% below 2019 levels in Denmark in 2023.

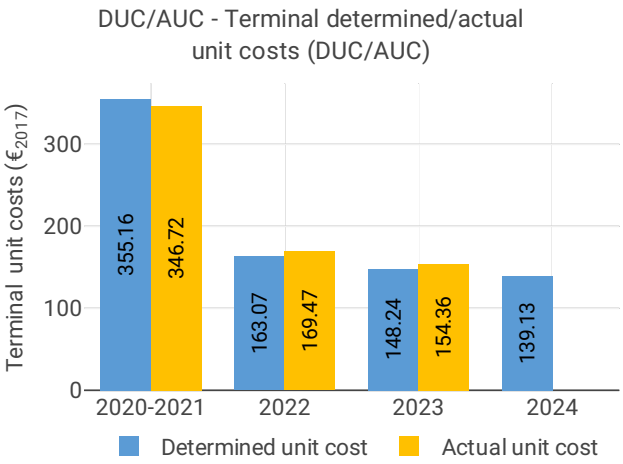
• The number of ATCOs in OPS is expected to decrease by 12% by 2024, with the actual value meeting the 2023 plan in Copenhagen.

• The yearly total of sector opening hours in Copenhagen ACC was 44,598, showing a 0.2% decrease compared to 2022. Sector opening hours are 0.2% below 2019 levels.

• Copenhagen ACC registered 10.93 IFR movements per one sector opening hour in 2023, being 15.4% below 2019 levels.

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





• The en route 2023 actual unit cost of Denmark was 68.15 €2017, +20% higher than the determined unit cost (56.92 €2017). The terminal 2023 actual unit cost was 154.36 €2017, +4.1% higher than the determined unit cost (148.24 €2017).

• The en route 2023 actual service units (1.5M) were -12% lower than the determined service units (1.7M), mainly due to shifted traffic flows caused by the Russia's war of aggression against Ukraine.

• The en route 2023 actual total costs were +4.9 M€2017 (+5.2%) higher than the determined. This was mainly due to higher staff costs (+5.5 M€2017, or +11%). The NSA attributed this gap to several factors: A high number of additional shifts, the limited effects of the determined cost-saving strategy, and the execution of an agreement with the ATCO union. The NSA did not provide sufficient information on the reason for these additional shifts, which contrasts with the significant reduction in service units compared to the plan.

• The PRB highlights that the pension costs are +13% higher than planned. The NSA decided not to adjust this amount via cost-exempt mechanism.

• NAVIAIR spent 20.1 M€2017 in 2023 related to costs of investments for both en route and terminal charging zones, -3.5% less than determined (19.7 M€2017), due to fewer and delayed investments.

• The en route actual unit cost incurred by users in 2023 was 68.38€ (+16% above the 2023 DUC), while the terminal actual unit cost incurred by users was 171.47€ (+11% above the 2023 DUC). The difference between the AUCU and the DUC for the en route charging zone is primarily attributed to lower than planned SUs, while for the terminal charging zone, it is mainly due to the inflation adjustment (+19.7 M€).

2 SAFETY - DENMARK

2.1 PRB monitoring

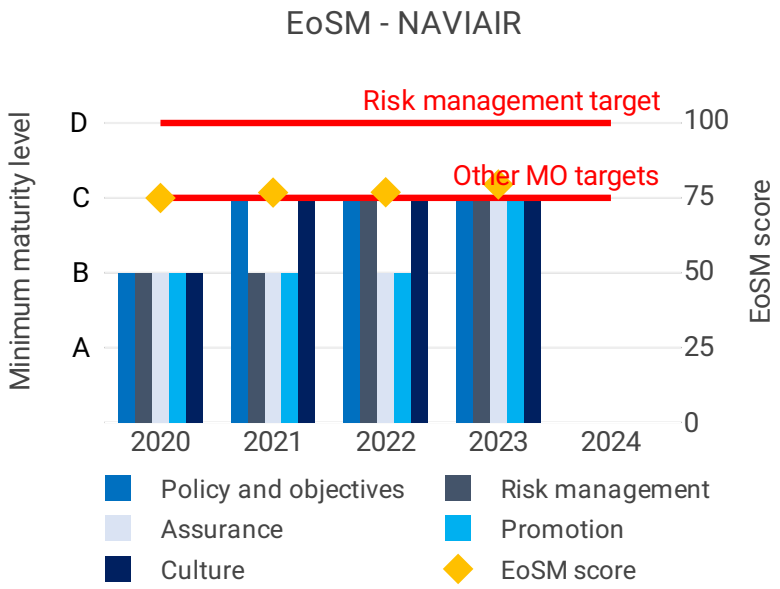
• In 2023, NAVIAIR improved its performance in safety assurance and safety promotion, achieving the EoSM RP3 targets. The ANSP lacked sufficient improvement in safety risk management and is still behind its planned maturity level as per performance plan.

• The NSA cautions that the ANSP might not be able to achieve the RP3 targets. The ANSP has identified specific measures to ensure level D in safety risk management achieved during 2024.

• Denmark did not record any RIs in 2023. The rate of separation minima infringements (SMIs) marginally increased but remained below the Union-wide average.

• NAVIAIR does not use automated safety data recording systems.

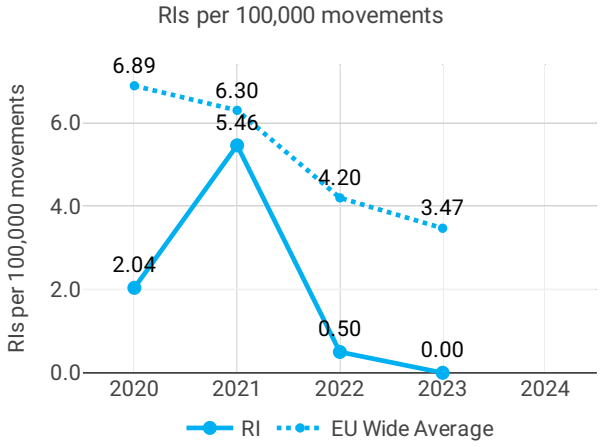
2.2 Effectiveness of Safety Management (EoSM) (KPI#1)

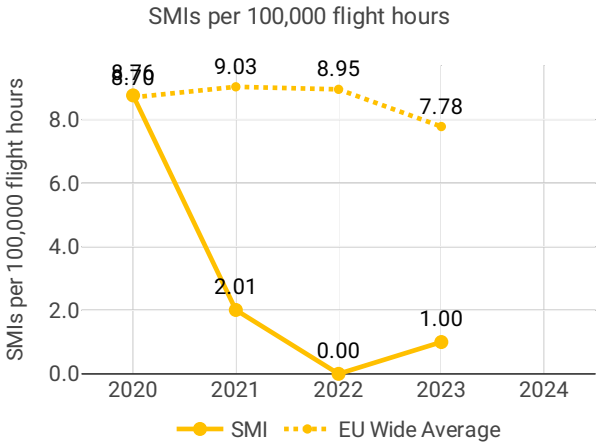


Focus on EoSM

Four out of five EoSM components of the ANSP meet the RP3 EoSM target level. Only “Safety Risk Management” is below 2024 target level. Over 2023, “Safety Assurance” and “Safety Promotion” were improved and reached the RP3 targets level.

2.3 Occurrences - Rate of runway incursions (RIs) (PI#1) & Rate of separation minima infringements (SMIs) (PI#2)





3 ENVIRONMENT - DENMARK

3.1 PRB monitoring

• Denmark achieved a KEA performance of 1.44% compared to its target of 1.14% and did not contribute positively to achieving the Union-wide target.

• The NSA states that the main reason for NAVIAIR not achieving the target is the staffing challenges it faces.

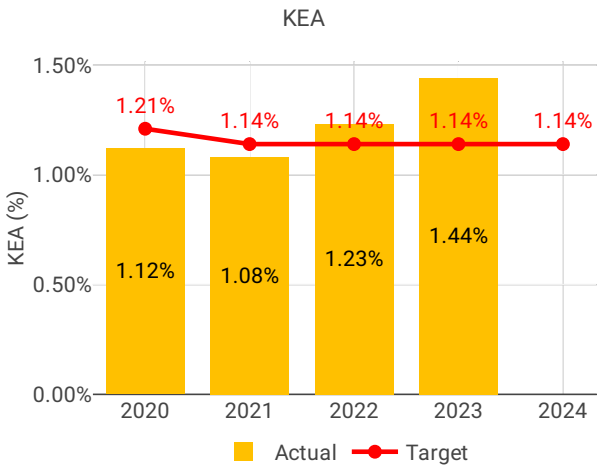
• Both KEP and SCR improved in 2023. Despite the KEA target being missed, the improvement in SCR shows that Denmark has improved the environmental efficiency of its airspace when accounting for impacts outside of its control.

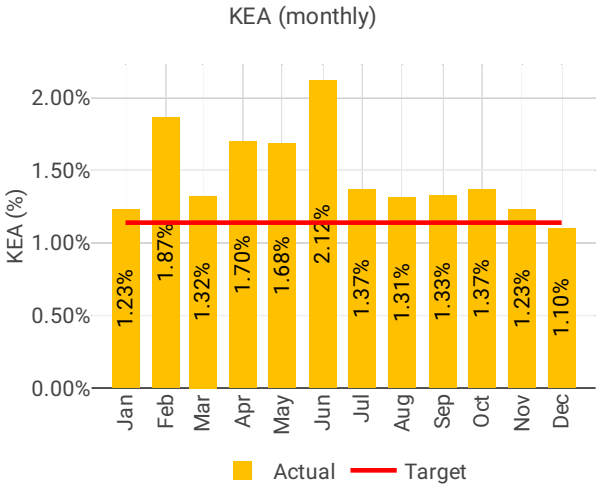
• The share of CDO flights decreased from 52.50% to 48.56% in 2023.

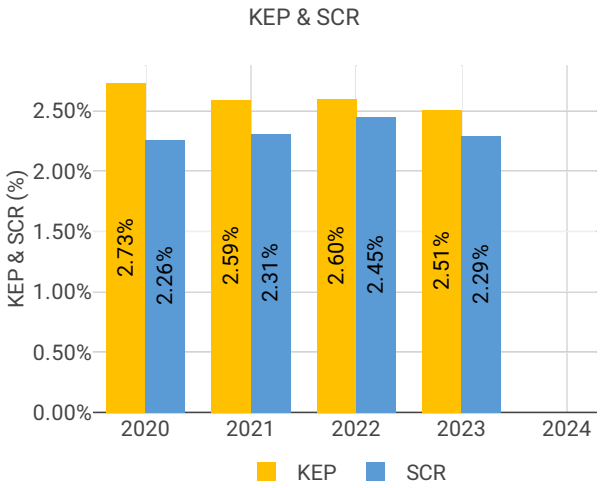
• During 2023, additional time in terminal airspace increased from 0.78 to 1.10 min/flight, while additional taxi out time increased from 2.37 to 2.59 min/flight.

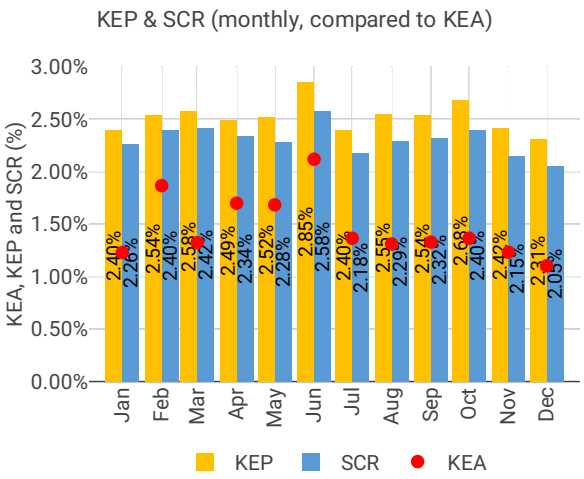
3.2 En route performance

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)



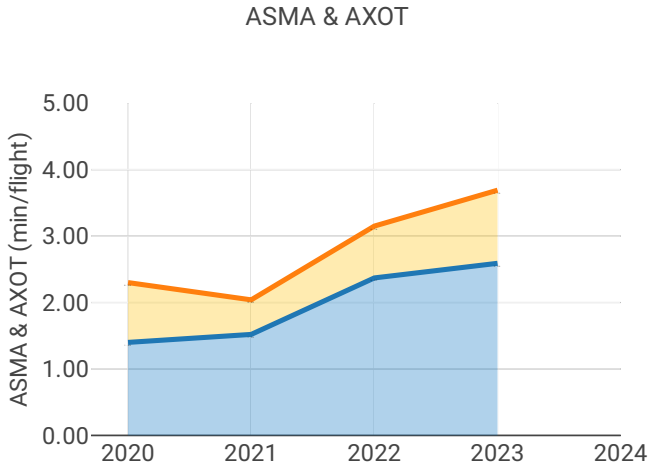


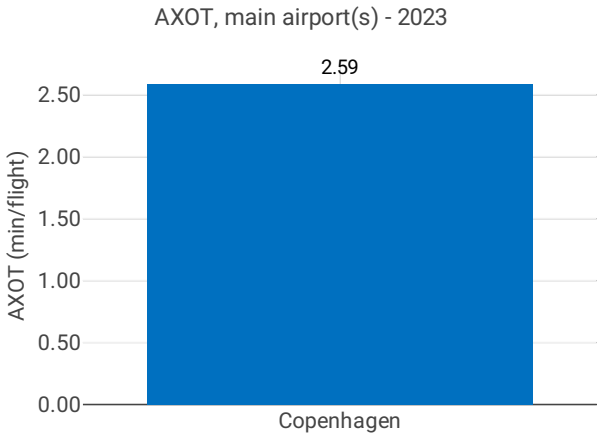


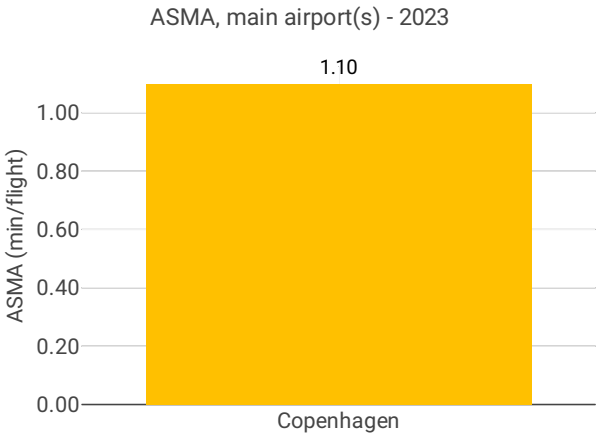


3.3 Terminal performance

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







Focus on ASMA & AXOT

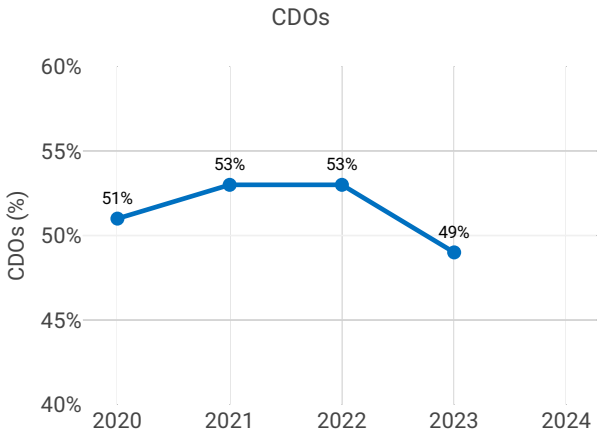
AXOT

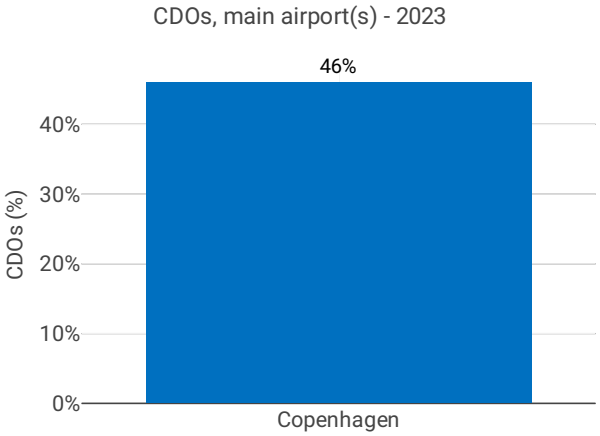
Additional taxi-out times at Copenhagen in 2023 were 9% higher than in 2022 (EKCH; 2019: 2.59 min/dep.; 2020: 1.4 min/dep.; 2021: 1.52 min/dep.; 2022: 2.37 min/dep.; 2023: 2.59 min/dep.) but still below the SES average of 2.81 min/dep.
According to the Danish monitoring report: *During the summer of 2023 there was WIP at main RWY 22L.*

ASMA

Additional ASMA times at Copenhagen in 2023 increased by 41% and were higher than in 2019 (EKCH; 2019: 1.07 min/arr.; 2020: 0.9 min/arr.; 2021: 0.52 min/arr.; 2022: 0.78 min/arr.; 2023: 1.1 min/arr.), and just below the SES average of 1.16 min/arr.
According to the Danish monitoring report: *During the summer of 2023 Naviair experienced ATCO shortages at EKCH and WIP RWY 22L which resulted in higher regulations and delays, which also had an impact in the ASMA.*

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





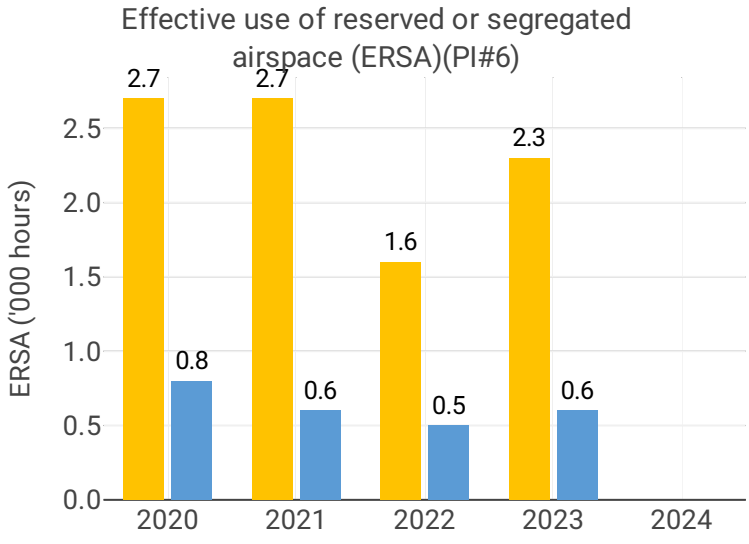
Focus CDOs

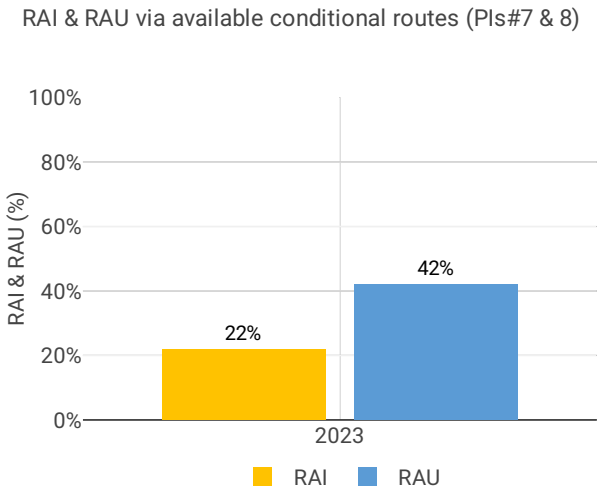
The share of CDO flights is 46.1% which is well above the overall RP3 value in 2023 (28.8%) and in the higher range of all observed values in 2023. It is however a decrease of 3.9 percentage points with respect to 2022.

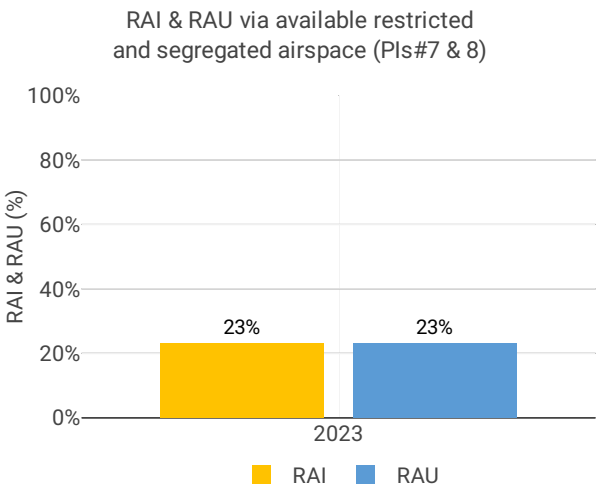
Airport level

	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
Airport Name	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Copenhagen	1.40	1.52	2.37	2.59	NA	0.90	0.52	0.78	1.10	NA	50%	51%	50%	46%	NA

3.4 Civil-Military dimension







Focus on Civil-Military dimension

Update on Military dimension of the plan

The airspace design and procedures used are created in order to minimise the negative effects on the environmental performance.
FUA is fully implemented in Denmark. NSA, ANSP and Military cooperates with the scope of further reduction of the impact of the military dimension.

Military - related measures implemented or planned to improve capacity

FUA is fully implemented in Denmark, thus it is very hard to increase capacity any further. An ongoing project of reconfiguration of airspace for the new F35 fighters, is seeking to minimise the potential negative effects from the enlarged airspace reservations.

Initiatives implemented or planned to improve PI#6

None, NSA monitors the performance via regularly reporting as well as FUA Level 1 where the NSA and the Military evaluates the performance with the scope of further improvement if possible.

Initiatives implemented or planned to improve PI#7

"Neither Naviair or the NSA have this data available and have no plans to monitor this at local level but is using Eurocontrol numbers when available.
Free route airspace is implemented which is expected to decrease the use of CDR's.*

Initiatives implemented or planned to improve PI#8

"Neither Naviair or the NSA have this data available and have no plans to monitor this at local level but is using Eurocontrol numbers when available. Free route airspace is implemented which is expected to decrease the use of CDR's.*

4 CAPACITY - DENMARK

4.1 PRB monitoring

• Denmark registered 0.10 minutes of average en route ATFM delay per flight during 2023, thus not achieving the local target value of 0.06. Delays in Denmark increased by 0.10 minutes per flight year-on-year.

• Delays were highest in February and between May and July, mostly due to ATC Capacity and Staffing.

• The share of delayed flights with delays longer than 15 minutes in Denmark increased by 8 p.p. compared to 2022 and was higher than 2019 values.

• The average number of IFR movements was 17% below 2019 levels in Denmark in 2023.

• The number of ATCOs in OPS is expected to decrease by 12% by 2024, with the actual value meeting the 2023 plan in Copenhagen.

• The yearly total of sector opening hours in Copenhagen ACC was 44,598, showing a 0.2% decrease compared to 2022. Sector opening hours are 0.2% below 2019 levels.

• Copenhagen ACC registered 10.93 IFR movements per one sector opening hour in 2023, being 15.4% below 2019 levels.

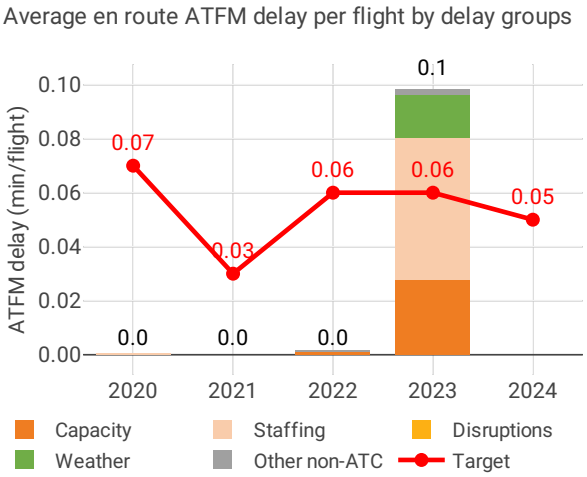
• Denmark registered an average airport arrival ATFM delay of 3.09 minutes per flight in 2023, thus not achieving the local target of 0.10 minutes.

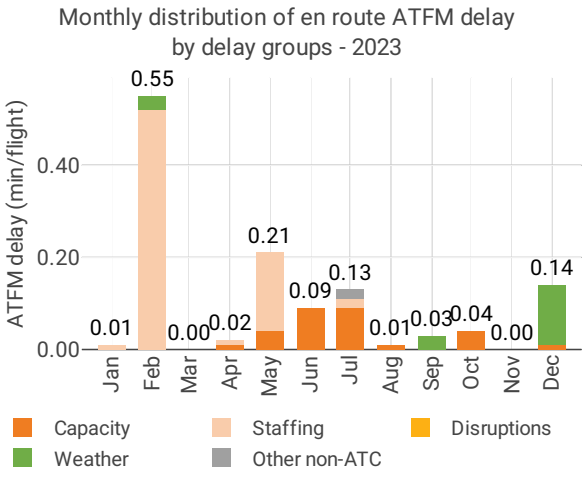
• Compared to 2022, average arrival ATFM delays in Denmark were 19824% higher in 2023, while the number of IFR arrivals increased by 12%.

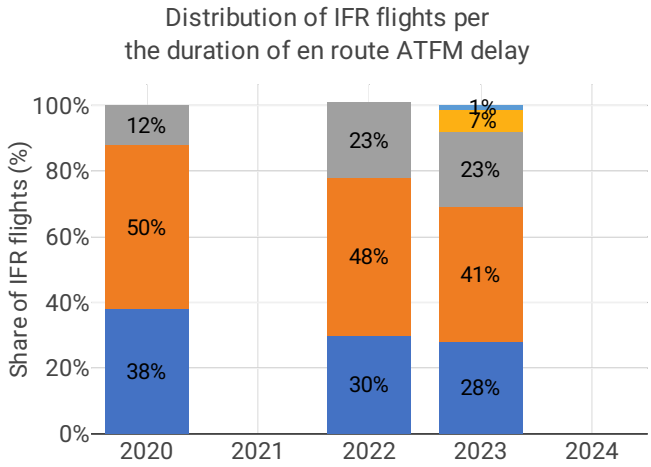
• The main reasons for delays were ATC staffing, accounting for 64% of delays, and ATC capacity, responsible for 20%.

4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)







Focus on en route ATFM delay

Summary of capacity performance

Denmark experienced an increase in traffic from 505k flights in 2022 to 559k flights in 2023. ATFM delays increased from <1k minutes in 2022 to 56k minutes in 2023. There were still 16% fewer flights than in 2019 (669k).

NSA's assessment of capacity performance

Traffic in Danish Airspace is affected by the closure of Russian Airspace leading to rerouting of international flights.
The capacity targets have not been met. This is due to the staffing challenges at the TWR and APP units serving Copenhagen Airport and TMA during spring and summer 2023.

Monitoring process for capacity performance

Monitoring process are in place and coordinated with the NM

Capacity planning

Capacity planning process are in place and coordinated with the NM

Application of Corrective Measures for Capacity (if applicable)

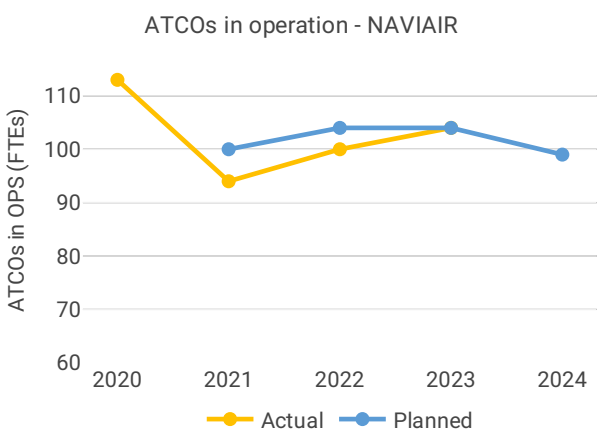
The capacity constraints at the ANSP due to lack of ATCO resources in relation to Copenhagen airport and the approach area led to lower capacity. Naviair is following their plan to provide more ATCO resources and thus increase capacity.

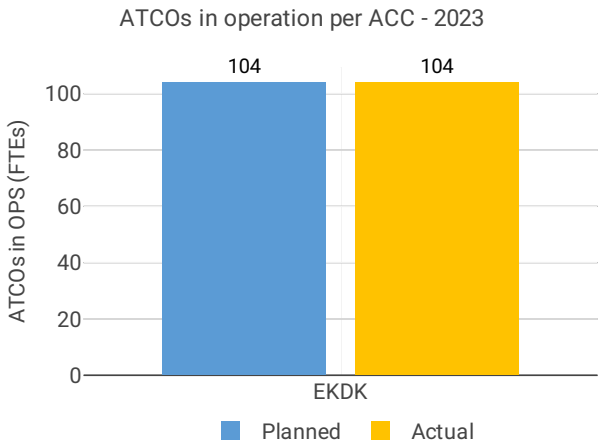
Additional Information Related to Russia's War of Aggression Against Ukraine Traffic in Danish Airspace is affected by the closure of Russian Airspace leading to rerouting of international flights, noticeably a change in flows to/from Asia via Denmark. We notice higher growth in western sectors than anticipated.

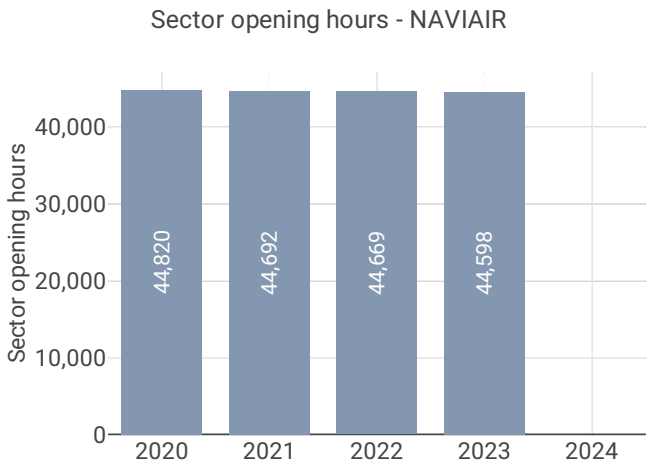
En route Capacity Incentive Scheme

NAVIAIR: Actual performance is within deadband so neither bonus nor malus is due.In accordance with Article 3(3)(a) of Implementing Regulation (EU) 2020/1627: The incentive scheme shall cover only the calendar years 2022 to 2024.

4.2.2 Other indicators





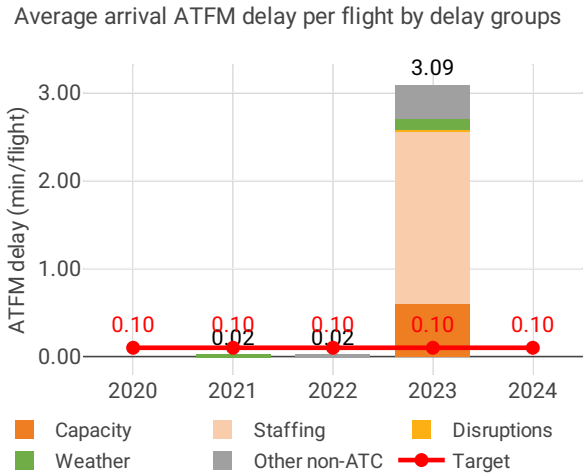


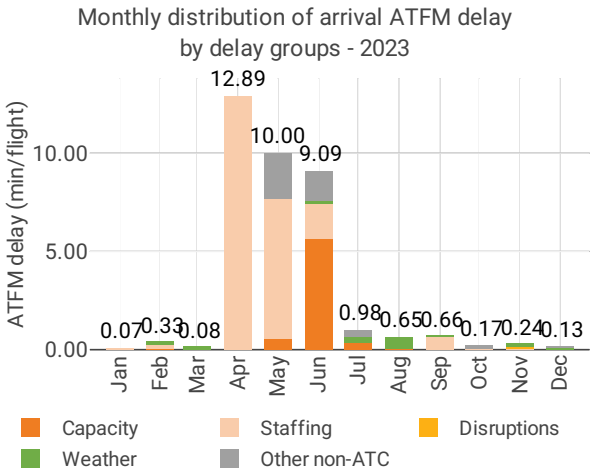
Focus on ATCOs in operations

Copenhagen ACC: Table has been altered from previous versions - explanation below.Naviair has changed the submission in the reporting of actual data due to a review on the data for reporting.
AMR 2021 Number of ATCOs in OPS (FTEs) who have stopped working in the OPS room (from -17 to -23): Our previous reporting was partially based on a forecast due lack of data at the time of the reporting.
AMR 2022 Number of additional ATCOs in OPS (FTEs) who have started working in the OPS room (from +10 to +8): Some of the additional FTE's in the previous reporting was based on a difference to earlier anticipations rather than actual changes in FTE's. That has now been revised.

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)





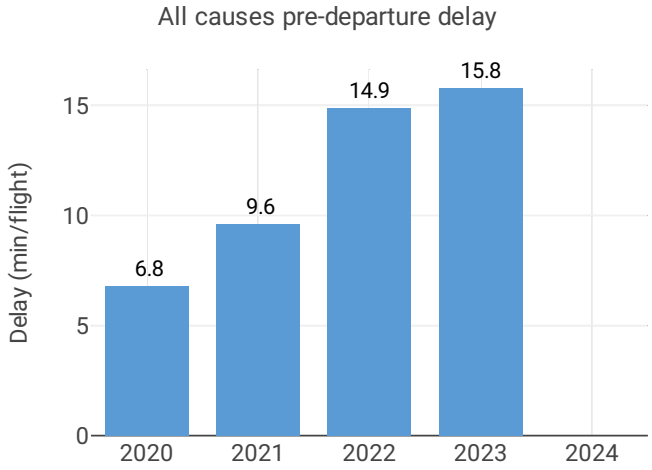
Focus on arrival ATFM delay

Denmark only has Copenhagen/Kastrup (EKCH) airport subject to RP3 monitoring for which the APDF is successfully established and the monitoring of the capacity indicators can be performed.
Traffic at this airport in 2023 was still 14% lower than in 2019, but 12% higher than in 2022.
Average arrival ATFM delay in 2023 was 3.09 min/arr, a very high increase with respect to 2022. The national target was not met.
ATFM slot adherence remained very high (2023: 98.8%; 2022: 98.9%).

Copenhagen, that in the last years had registered nearly zero delays, observed significant arrival ATFM delays in 2023 (EKCH; 2019: 0.07 min/arr.; 2020: 0 min/arr; 2021: 0.02 min/arr.; 2022: 0.02 min/arr.; 2023: 3.09 min/arr.)
64% of these delays were attributed to ATC Staffing, followed by 20% of ATC Capacity, 12% of Aerodrome Capacity and 4% of Weather.According to the Danish monitoring report:
There were capacity constraints at the TWR/APP unit in EKCH due to lack of ATCO resources, which meant that the targets for 2023 were not met. NSA is following up on the measures taken by the ANSP to ensure higher capacity in the years to come. The ANSP has moved ATCO resources from another unit to EKCH and the NSA is looking into different possibilities to facilitate higher mobility of ATCO's e.g. in relation to language barriers.
Also WIP RWY 22L meant regulations for aerodrome and also weather affected the years result.
Achievement of this year's objectives depends on whether Naviairs plan will be fulfilled.
In 2023, Naviair implemented several measures to increase capacity that involved NSA approval and follow-up.

The Danish performance plan sets a national target on arrival ATFM delay for all RP3 of 0.1 min/arr. This target was not met in 2023 with an actual performance of 3.09 min/arr.
According to the Danish monitoring report, this performance corresponds to the maximum penalty (0.50%), automatically computed as *913,586* DKK.

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



Airport level

	Avg arrival ATFM delay (KPI#2)				Slot adherence (PI#1)			
Airport name	2020	2021	2022	2023	2020	2021	2022	2023
Copenhagen	NA	0.02	0.02	3.09	98.7%	99.2%	98.9%	98.8%

	ATC pre departure delay (PI#2)				All causes pre departure delay (PI#3)			
Airport name	2020	2021	2022	2023	2020	2021	2022	2023
Copenhagen	0.02	0.13	0.04	0.62	6.8	9.6	14.9	15.8

Focus on performance indicators at airport level

ATFM slot adherence

Copenhagen's ATFM slot compliance in 2022 was 98.8%, showing a consistent good performance. With regard to the 1.2% of flights that did not adhere, 0.94% was early and 0.21% was late.
According to the Danish monitoring report: *Performance is stable. NSA monitors the performance via monthly reports from the ANSP, and yearly evaluation.*

ATC pre-departure delay

ATC pre-departure delay at Copenhagen (EKCH: 2021: 0.13 min/dep; 2022: 0.04 min/dep; 2023: 0.62 min/dep) has increased significantly in 2023 and it was considerably above the pre-pandemic value (0.09 min/dep)

All causes pre-departure delay

Influenced by the same issues observed above, the total (all causes) delay in the actual off block time at Copenhagen increased in 2023 (EKCH: 2020: 6.79 min/dep.; 2021: 9.63 min/dep.; 2022: 14.9 min/dep.; 2023: 15.79 min/dep.)

5 COST-EFFIENCY - DENMARK

5.1 PRB monitoring

• The en route 2023 actual unit cost of Denmark was 68.15 €2017, +20% higher than the determined unit cost (56.92 €2017). The terminal 2023 actual unit cost was 154.36 €2017, +4.1% higher than the determined unit cost (148.24 €2017).

• The en route 2023 actual service units (1.5M) were -12% lower than the determined service units (1.7M), mainly due to shifted traffic flows caused by the Russia's war of aggression against Ukraine.

• The en route 2023 actual total costs were +4.9 M€2017 (+5.2%) higher than the determined. This was mainly due to higher staff costs (+5.5 M€2017, or +11%). The NSA attributed this gap to several factors: A high number of additional shifts, the limited effects of the determined cost-saving strategy, and the execution of an agreement with the ATCO union. The NSA did not provide sufficient information on the reason for these additional shifts, which contrasts with the significant reduction in service units compared to the plan.

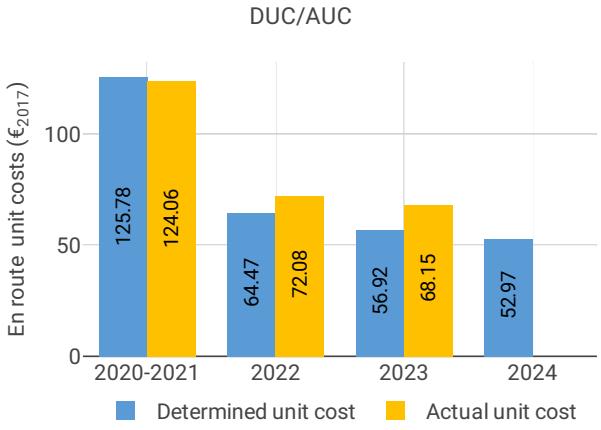
• The PRB highlights that the pension costs are +13% higher than planned. The NSA decided not to adjust this amount via cost-exempt mechanism.

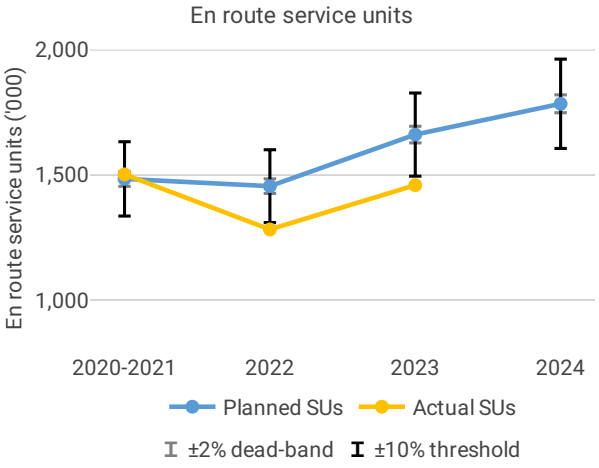
• NAVIAIR spent 20.1 M€2017 in 2023 related to costs of investments for both en route and terminal charging zones, -3.5% less than determined (19.7 M€2017), due to fewer and delayed investments.

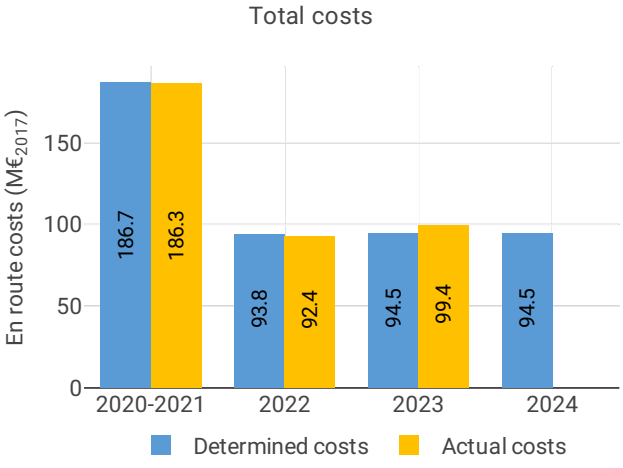
• The en route actual unit cost incurred by users in 2023 was 68.38€ (+16% above the 2023 DUC), while the terminal actual unit cost incurred by users was 171.47€ (+11% above the 2023 DUC). The difference between the AUCU and the DUC for the en route charging zone is primarily attributed to lower than planned SUs, while for the terminal charging zone, it is mainly due to the inflation adjustment (+19.7 M€).

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)

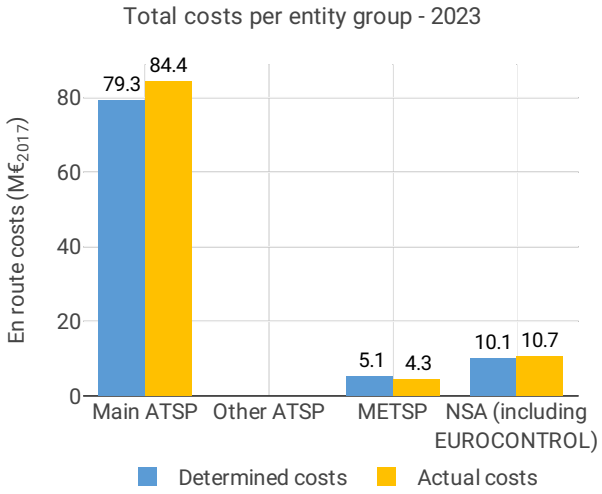


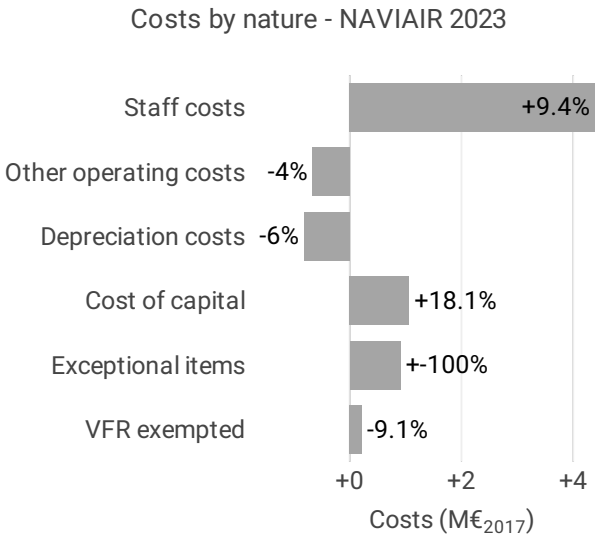




Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	190	100	111	NA
Determined costs	190	96	98	99
Difference costs	0	4	12	NA
Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.4%	1.5%	1.6%
Determined inflation index	NA	104.2	105.7	107.4
Actual inflation rate	NA	8.5%	3.4%	NA
Actual inflation index	NA	112.5	116.3	NA
Difference inflation index (p.p.)	NA	+8.2	+10.5	NA





Focus on unit cost

AUC vs. DUC

In 2023, the en route AUC was +19.7% (or +83.56 DKK2017, +11.24 €2017) higher than the planned DUC. This results from the combination of significantly lower than planned TSUs (-12.2%) and significantly higher than planned en route costs in real terms (+5.2%, or +36.3 MDKK2017, +4.9 M€2017). It should be noted that actual inflation index in 2023 was +10.5 p.p. higher than planned.

En route service units

The difference between actual and planned TSUs (-12.2%) falls outside 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.

En route costs by entity

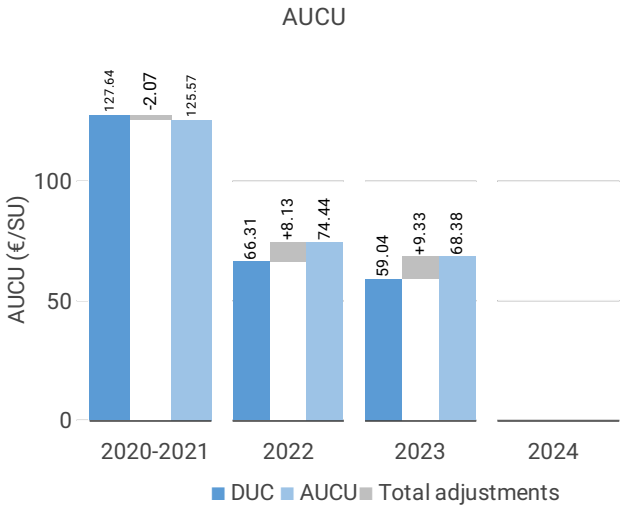
Actual real en route costs are +5.2% (+4.9 M€2017) higher than planned. This is the result of higher costs for the main ANSP, NAVIAIR (+6.4%, or +5.1 M€2017) and the NSA/EUROCONTROL (+5.8%, or +0.6 M€2017) and lower costs for the MET service provider (-15.6%, or -0.8 M€2017).

En route costs for the main ANSP at charging zone level

Significantly higher than planned en route costs in real terms for NAVIAIR in 2023 (+6.4%, or +5.1 M€2017) result from:

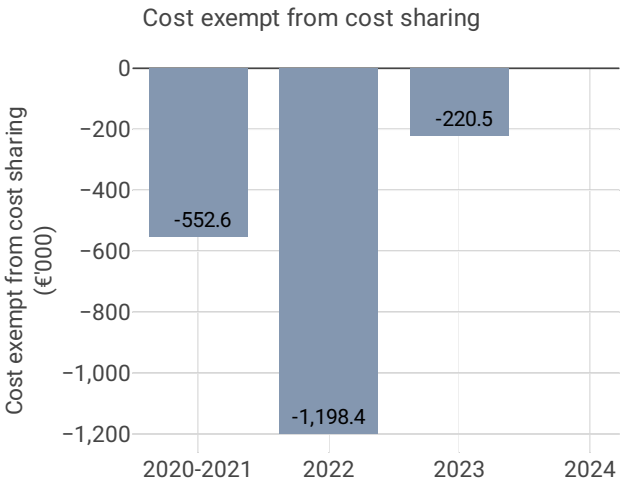
- Significantly higher staff costs (+9.4%), reflecting "*high level of extra shifts, and not realised effects from the implementation of the Strategy*".
- Lower other operating costs (-4.0%) in real terms due to the inflation index impact (+10.5 p.p.). In nominal terms other operating costs are above the plan (+5.6%), which result from higher energy and training costs.
- Significantly lower depreciation (-6.0%), reflecting "*fewer and delayed investments and later deployment*";
- Significantly higher cost of capital (+18.1%), resulting from "*higher interest rate on loan and increased asset base*";
- No deduction through exceptional costs which was included in the PP to reduce the level of en-route cost-base.

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



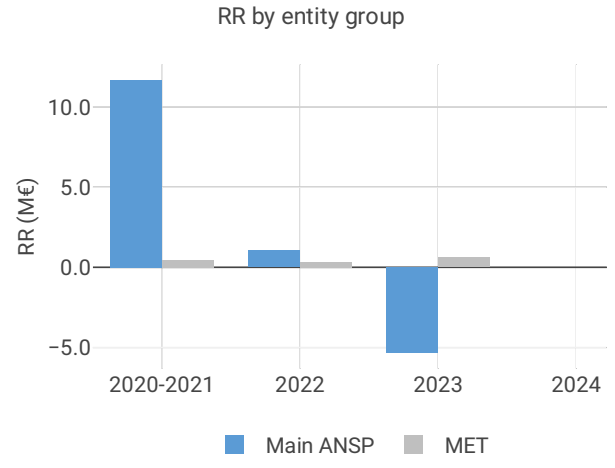
AUCU components (€/SU) – 2023

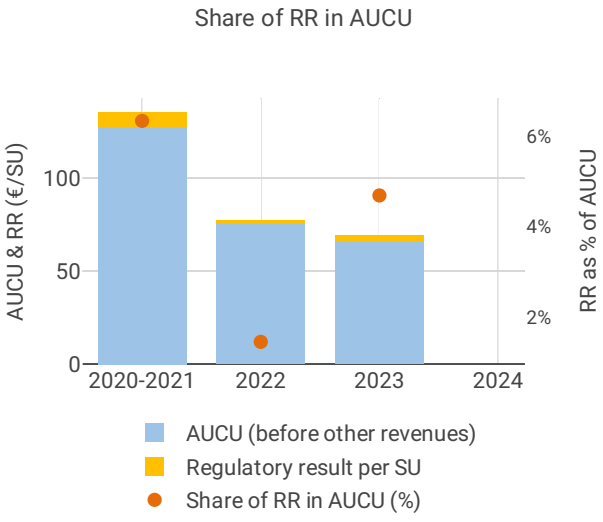
Components of the AUCU in 2023	€/SU
DUC	**59.04**
Inflation adjustment	4.65
Cost exempt from cost-sharing	-0.15
Traffic risk sharing adjustment	4.40
Traffic adj. (costs not TRS)	1.29
Finantial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-0.86
Application of lower unit rate	0.00
Total adjustments	9.33
AUCU	**68.38**
AUCU vs. DUC	**+15.8%**

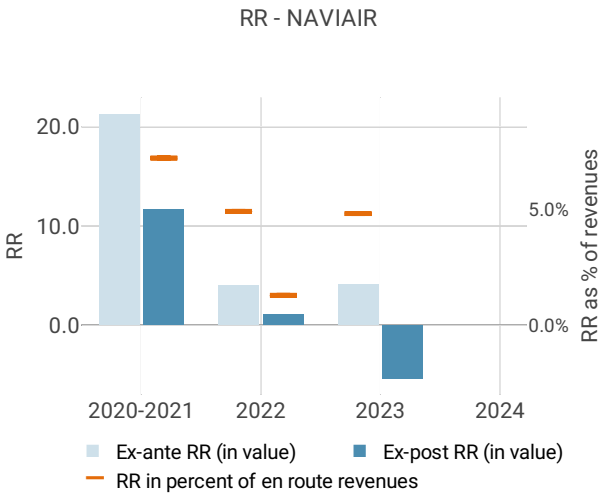


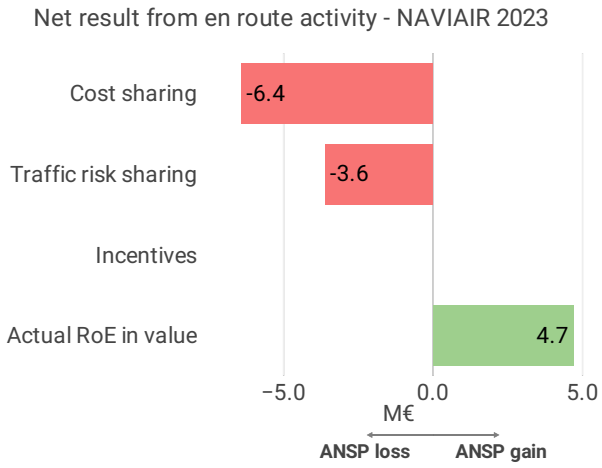
Cost exempt from cost sharing by item - 2023	€'000	€/SU
New and existing investments	-806.8	-0.55
Competent authorities and qualified entities costs	-239.9	-0.16
Eurocontrol costs	826.2	0.57
Pension costs	0.0	0.00
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-220.5**	**-0.15**

5.2.3 Regulatory result (RR)









Focus on regulatory result

NAVIAIR net gain on activity in the Denmark en route charging zone in the year 2023

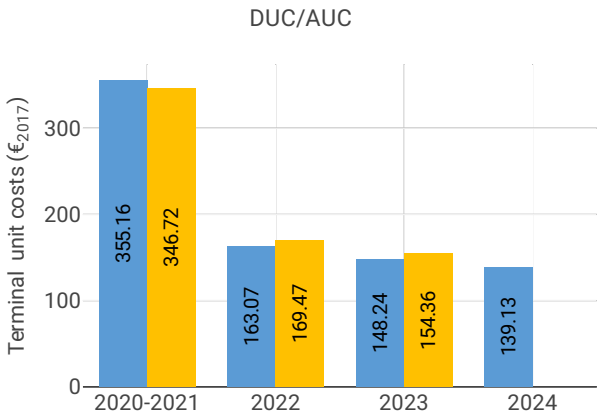
NAVIAIR reported a net loss of -74.9 MDKK, as a combination of a loss of -47.8 MDKK arising from the cost sharing mechanism, with a loss of -27.1 MDKK arising from the traffic risk sharing mechanism.

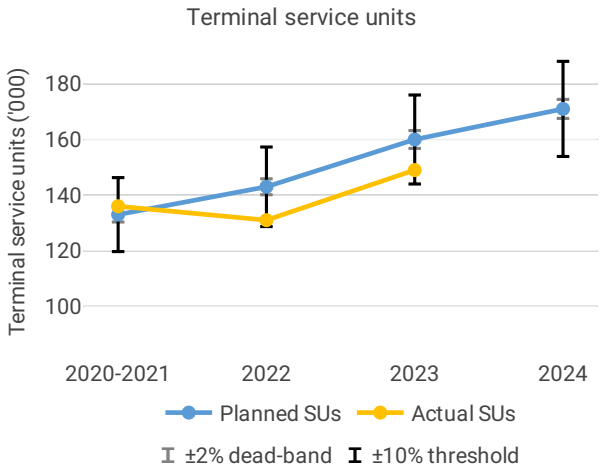
NAVIAIR overall regulatory results (RR) for the en route activity

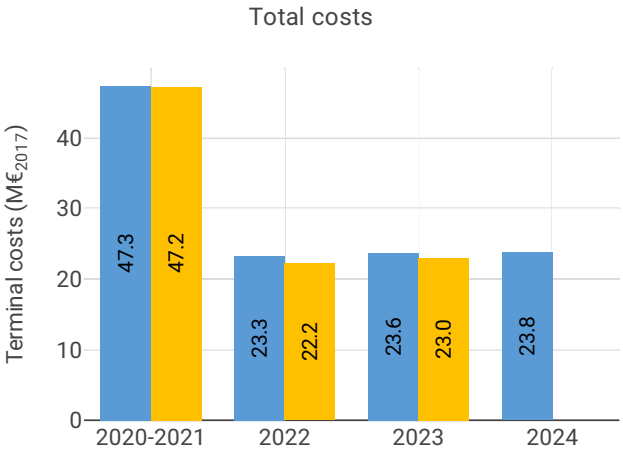
Ex-post, the overall RR taking into account the net loss from the en route activity mentioned above (-74.9 MDKK) and the actual RoE (+35.0 MDKK) amounts to -39.9 MDKK (-6.3% of the en route revenues). The resulting ex-post rate of return on equity is -5.7%.

5.3 Terminal charging zone

5.3.1 Unit cost (KPI#1)

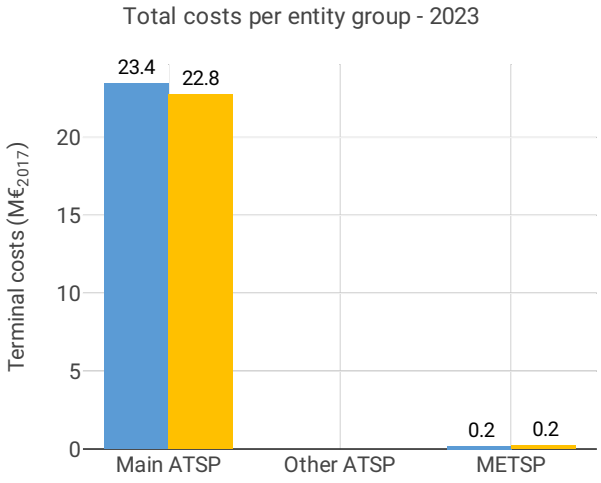


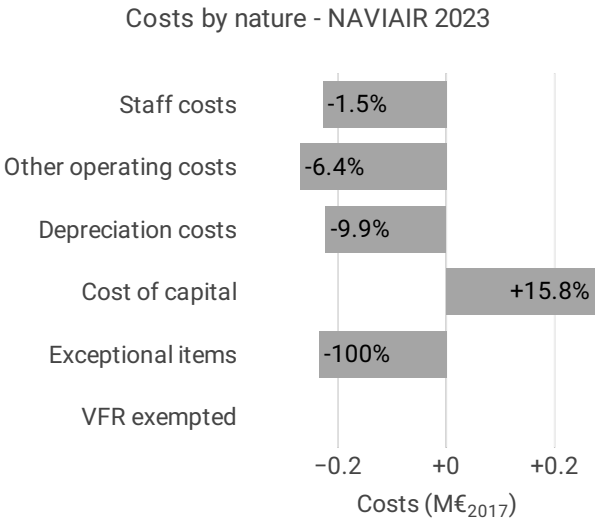




Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	48	24	26	NA
Determined costs	48	24	25	25
Difference costs	0	0	1	NA
Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.4%	1.5%	1.6%
Determined inflation index	NA	104.2	105.7	107.4
Actual inflation rate	NA	8.5%	3.4%	NA
Actual inflation index	NA	112.5	116.3	NA
Difference inflation index (p.p.)	NA	+8.2	+10.5	NA





Focus on unit cost

AUC vs. DUC

In 2023, the terminal AUC was +4.1% (or +45.53 DKK2017, +6.12 €2017) higher than the planned DUC. This results from the combination of significantly lower than planned TNSUs (-6.6%) and lower than planned terminal costs in real terms (-2.8%, or -4.8 MDKK2017, -0.7 M€2017). Actual inflation index in 2023 was +10.5 p.p. higher than planned.

Terminal service units

The difference between actual and planned TNSUs (-6.6%) falls outside the ±2% dead band, but does not exceed the ±10% threshold foreseen in the traffic risk sharing mechanism. The resulting loss of terminal revenues is therefore shared between the ANSP and the airspace users.

Terminal costs by entity

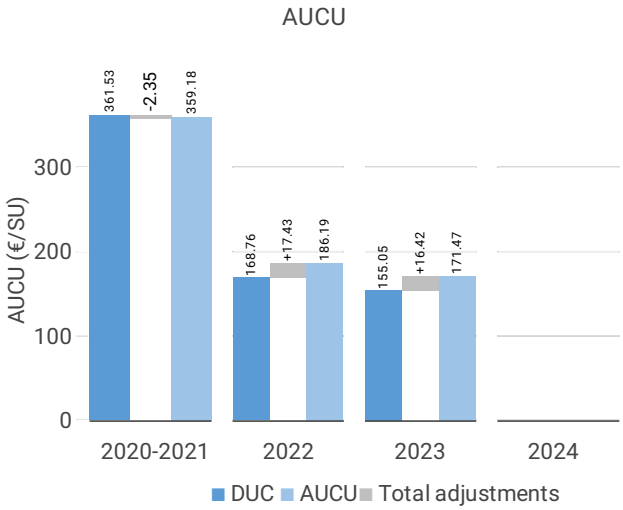
Actual real terminal costs are -2.8% (-0.7 M€2017) lower than planned. This is the result of lower costs for the main ANSP, NAVIAIR (-2.9%, or -0.7 M€2017) and higher costs for the MET service provider (+15.5%, or +0.03 M€2017).

Terminal costs for the main ANSP at charging zone level

Lower than planned terminal costs in real terms for NAVIAIR in 2023 (-2.9%, or -0.7 M€2017) result from:
- Slightly lower staff costs (-1.5%), in real terms due to the inflation index impact (+10.5 p.p.). In nominal terms staff costs are above the plan (+8.3%), explained by "*high level of extra shifts, and not realised effects from the implementation of the Strategy*".
- Significantly lower other operating costs (-6.4%) in real terms due to the impact of inflation index. In nominal terms other operating costs are above the plan (+2.9%), which result from higher energy and

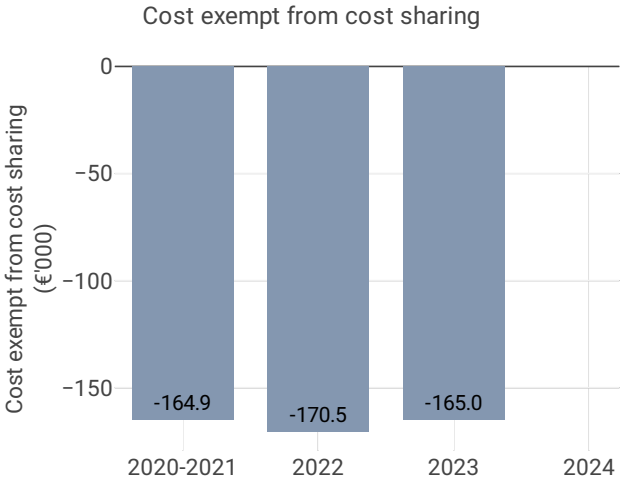
training costs.
- Significantly lower depreciation (-9.9%), reflecting "*fewer and delayed investments and later deployment*";
- Significantly higher cost of capital (+15.8%), reflecting "*higher interest rate on loan and increased asset base*";
- No deduction through exceptional costs which was included in the PP to reduce the level of terminal cost-base.

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



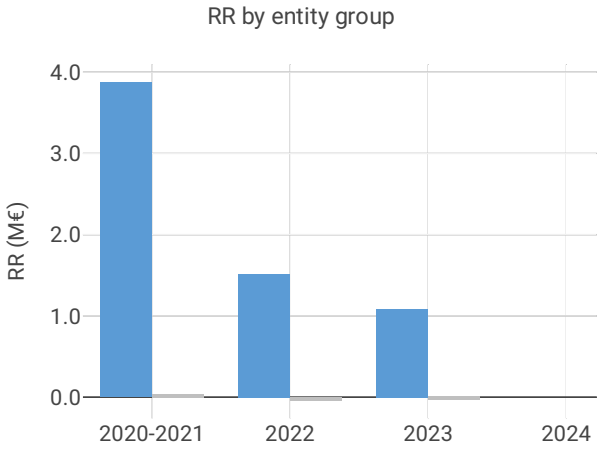
AUCU components (€/SU) – 2023

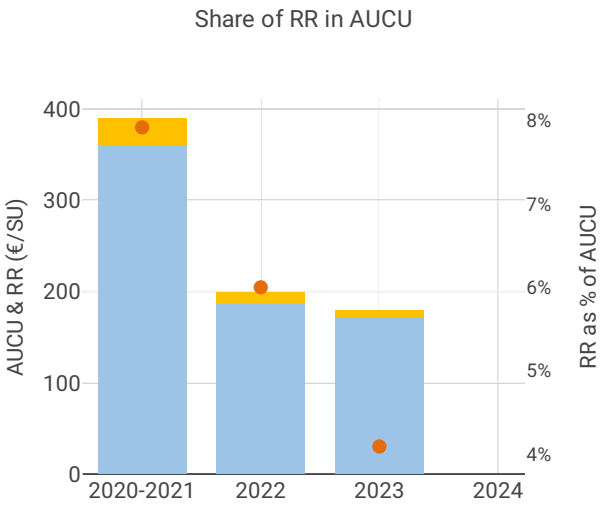
Components of the AUCU in 2023	€/SU
DUC	**155.05**
Inflation adjustment	13.89
Cost exempt from cost-sharing	-1.11
Traffic risk sharing adjustment	5.32
Traffic adj. (costs not TRS)	0.09
Finantial incentives	-0.82
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-0.95
Application of lower unit rate	0.00
Total adjustments	16.42
AUCU	**171.47**
AUCU vs. DUC	**+10.6%**

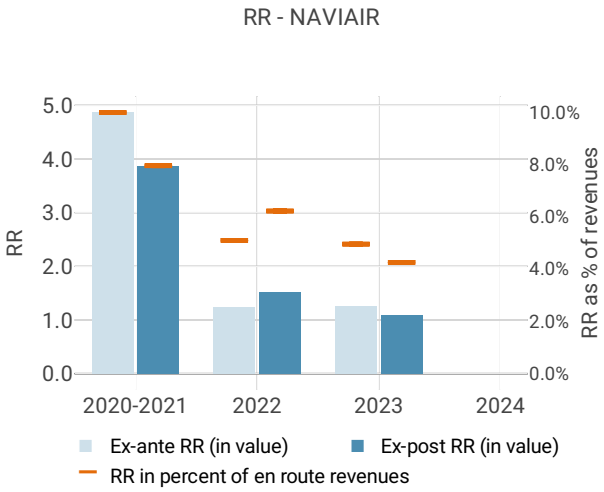


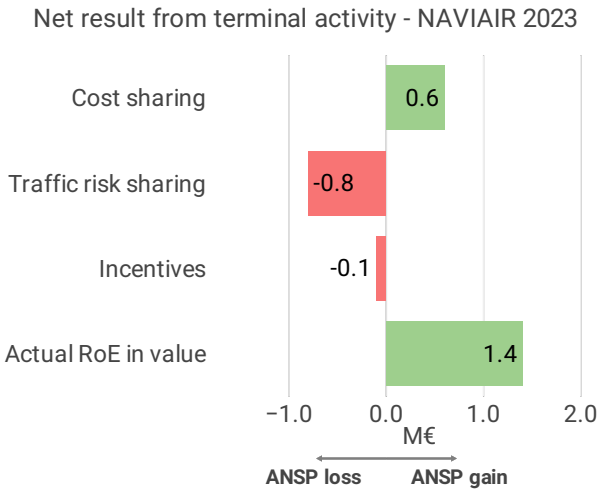
Cost exempt from cost sharing by item - 2023	€'000	€/SU
New and existing investments	-165.0	-1.11
Competent authorities and qualified entities costs	0.0	0.00
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-165.0**	**-1.11**

5.3.3 Regulatory result (RR)









Focus on regulatory result

NAVIAIR net gain on activity in the Denmark terminal charging zone in the year 2023

NAVIAIR reported a net loss of -2.4 MDKK, as a combination of a gain of +4.7 MDKK arising from the cost sharing mechanism, with a loss of -6.2 MDKK arising from the traffic risk sharing mechanism and a loss of -0.9 MDKK relating to financial incentives.

NAVIAIR overall regulatory results (RR) for the terminal activity

Ex-post, the overall RR taking into account the net loss from the terminal activity mentioned above (-2.4 MDKK) and the actual RoE (+10.4 MDKK) amounts to +8.1 MDKK (4.3% of the terminal revenues). The resulting ex-post rate of return on equity is 3.9%, which is lower than the 5.0% planned in the PP.