PRB | Performance review body of the single european sky

Performance Review Body Monitoring Report

Finland - 2023

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1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/765 of 13 April 2022

List of ACCs 1
Tampere ACC

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

Exchange rate (1 EUR=)
2017: 1 EUR
2023: 1 EUR

Share of Union-wide:
- **traffic (TSUs) 2023** 0.5%
- **en route costs 2023** 0.6%

Share en route / terminal costs 2023 71% / 29%

En route charging zone(s)
Finland

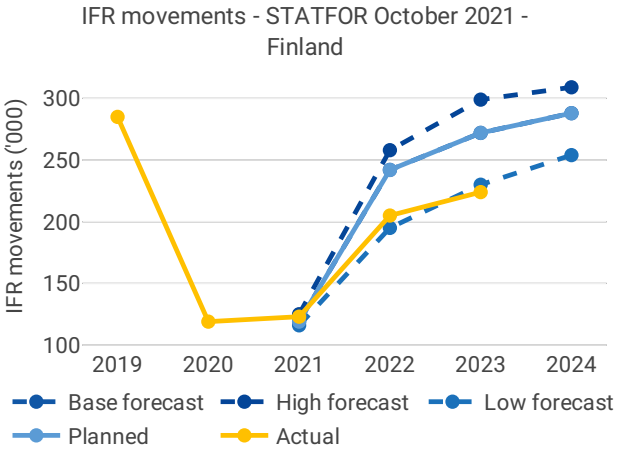
Terminal charging zone(s)
Finland

Main ANSP
- Fintraffic ANS

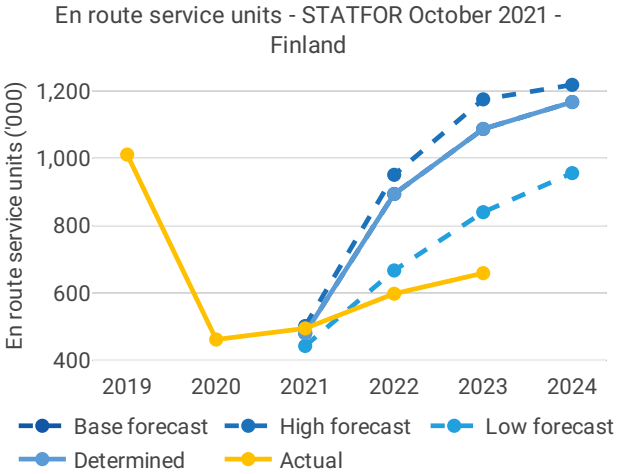
Other ANSPs
–

MET Providers
- Finnish Meteorological Institute (FMI)

1.2 Traffic (En route traffic zone)

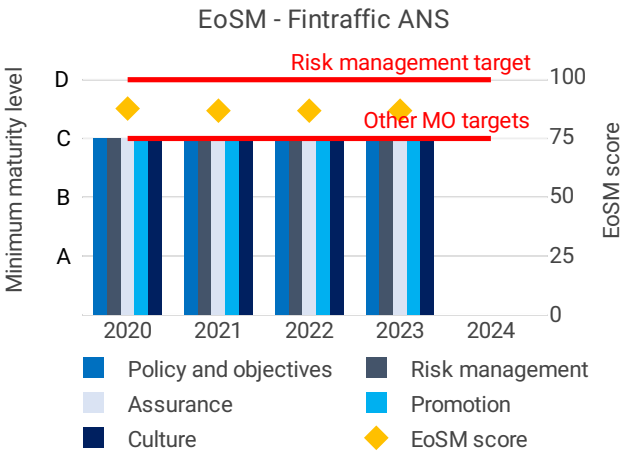


- Finland recorded 224K actual IFR movements in 2023, +9% compared to 2022 (205K).
- Actual 2023 IFR movements were -18% below the plan (272K).
- Actual 2023 IFR movements represent 79% of the actual 2019 level (285K).



- Finland recorded 659K actual en route service units in 2023, +10% compared to 2022 (598K).
- Actual 2023 service units were -39% below the plan (1,087K).
- Actual 2023 service units represent 65% of the actual 2019 level (1,011K).

1.3 Safety (Main ANSP)

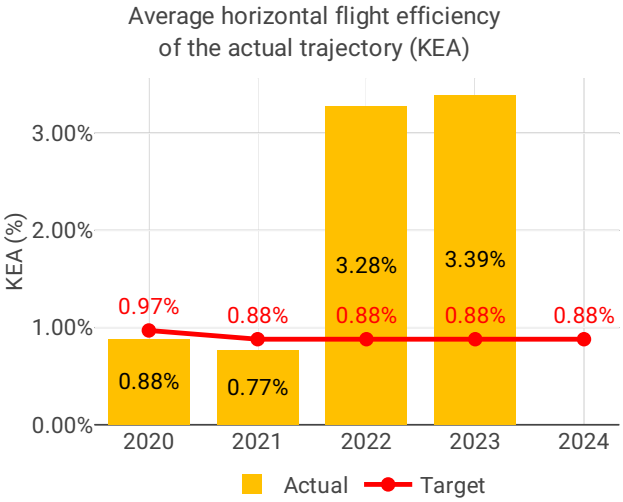


• Fintraffic ANS achieved the RP3 EoSM targets in four management objectives and must improve in safety risk management. The improvement of this management objective is planned in 2024.

• Finland recorded a stable number of safety occurrences, with a same rate of runway incursions and a marginal increase in the rate of separation minima infringements. Both rates were below the Union-wide average.

• Fintraffic ANS does not use automated safety data recording systems.

1.4 Environment (Member State)



• Finland achieved a KEA performance of 3.39% compared to its target of 0.88% and did not contribute positively towards achieving the Union-wide target.

• The NSA states that the performance target was not met due to the shift of the traffic flows between Russia and Kaliningrad and between Finland and Japan.

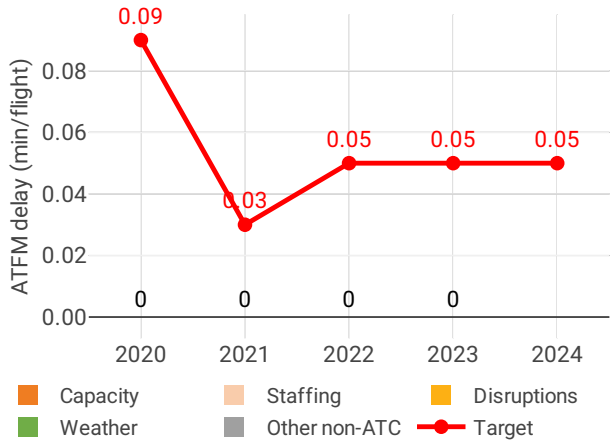
• Both KEP and SCR deteriorated in comparison with 2022. The value of these two indicators is similar, meaning airspace users plan close to the shortest route available.

• The share of CDO flights increased marginally from 63.17% to 63.69% in 2023.

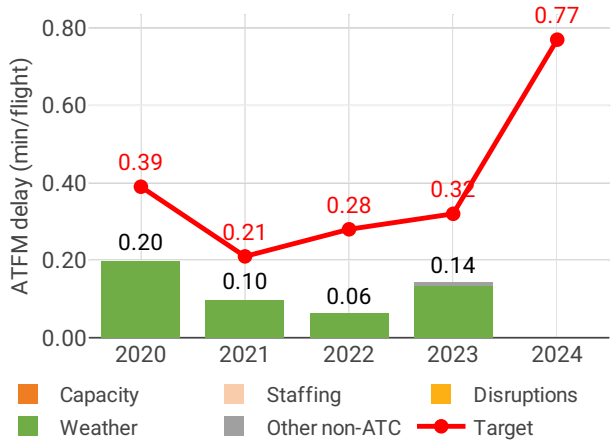
• During 2023, additional time in terminal airspace increased from 0.68 to 0.82 min/flight, while additional taxi out time increased from 2.81 to 3.02 min/flight.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



Average arrival ATFM delay per flight by delay groups



• Finland registered zero minutes of average en route ATFM delay per flight during 2023, thus achieving the local target value of 0.05. Delays in Finland remained unchanged year-on-year.

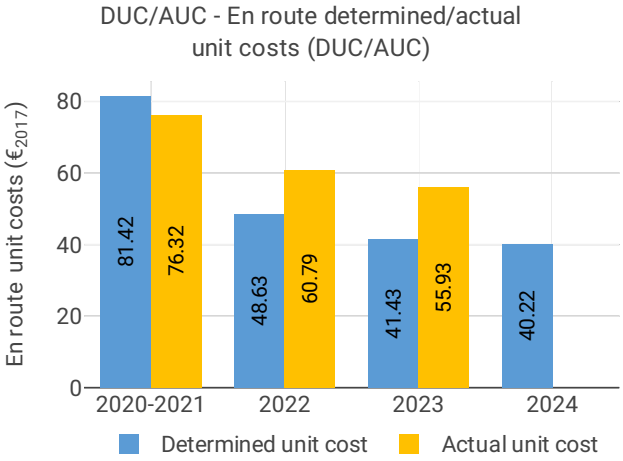
• The average number of IFR movements was 21% below 2019 levels in Finland in 2023.

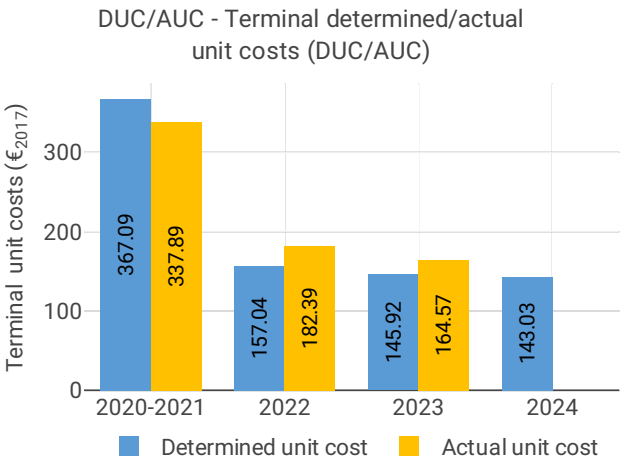
• The number of ATCOs in OPS is expected to increase by 8% by 2024, with the actual value being below the 2023 plan in Helsinki by 11 FTEs.

• The yearly total of sector opening hours in Tampere ACC was 10,162, showing a 3.3% increase compared to 2022. Sector opening hours are 24.7% below 2019 levels.

• Tampere ACC registered 15.61 IFR movements per one sector opening hour in 2023, being 5.6% above 2019 levels.

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





• The en route 2023 actual unit cost of Finland was 55.84 €2017, +35% higher than the determined unit cost (41.43 €2017). The terminal 2023 actual unit cost was 164.57 €2017, +13% higher than the determined unit cost (145.92 €2017).

• The en route 2023 actual service units (0.7M) were -39% lower than determined (1.1M) mainly due to shifted traffic flows caused by Russia's war of aggression against Ukraine.

• The en route 2023 actual total costs were -8.2 M€2017 lower (-18%) compared to determined, as all categories registered lower-than-planned costs. The main reason for the reduction was the lower staff costs (-4.3 M€2017, or -19%) which resulted from various measures including temporary lay-offs, a reduction in headcount, the elimination of bonuses, lowered pension costs, deferred recruitment, and other staff-related savings. Other operating costs registered an underspend (-2.0 M€2017, or -12%) due to savings across several categories such as group service fees, voluntary staff costs, and travel expenses.

• Fintraffic ANS spent 5.4 M€2017 in 2023 related to costs of investments for both en route and terminal charging zones, -26% lower than determined (7.2 M€2017) due to the postponement of investments.

• The en route actual unit cost incurred by users in 2023 was 71.48€ (+63% above the 2023 DUC), while the terminal actual unit cost incurred by users was 220.02€ (+41% above the 2023 DUC). The difference between the AUCU and the DUC is strongly affected by the difference between the determined and actual SU for both the en route and terminal charging zones.

• The en route regulatory result for Fintraffic ANS amounted to +5.9 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 - FINLAND

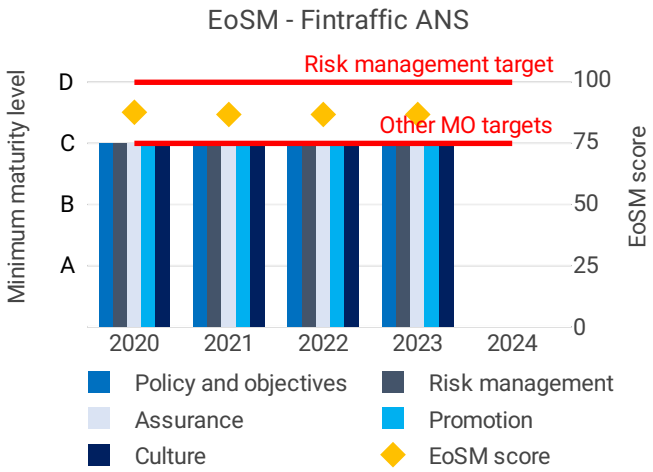
2.1 PRB monitoring

• Fintraffic ANS achieved the RP3 EoSM targets in four management objectives and must improve in safety risk management. The improvement of this management objective is planned in 2024.

• Finland recorded a stable number of safety occurrences, with a same rate of runway incursions and a marginal increase in the rate of separation minima infringements. Both rates were below the Union-wide average.

• Fintraffic ANS does not use automated safety data recording systems.

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



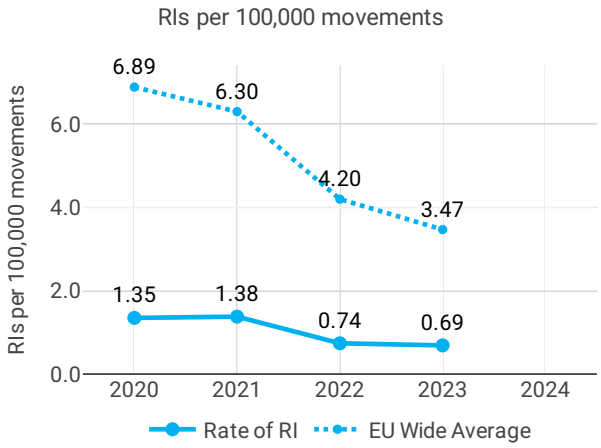
Focus on EoSM

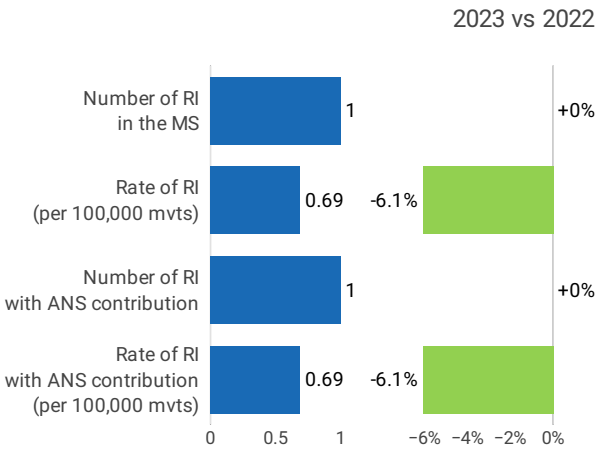
Four out of five EoSM components of the ANSP meet the RP3 target level. No improvements were observed over 2023, but only "Safety Risk Management" component is below RP3 target level with three questions to improve during RP3 to achieve RP3 target. IMPORTANT: EASA/European Commission did not receive the verified questionnaire from the NSA on time. This is an important step to receive confirmation that the self-evaluated questionnaire by the ANSP has been actually verified. It should be sent in due time to allow proper and timely drafting of the Monitoring Report.

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)





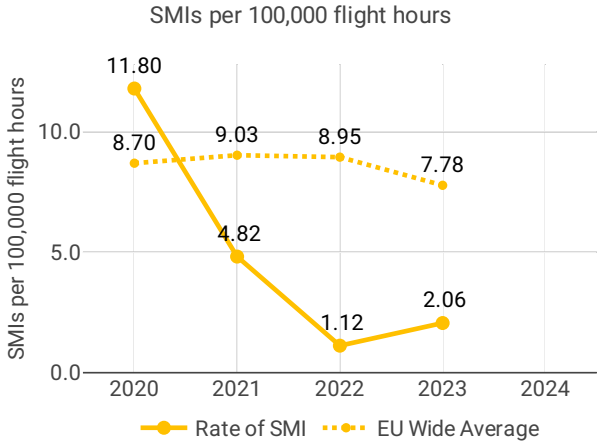
Rate of RIs per 100,000 airport movements - Finland

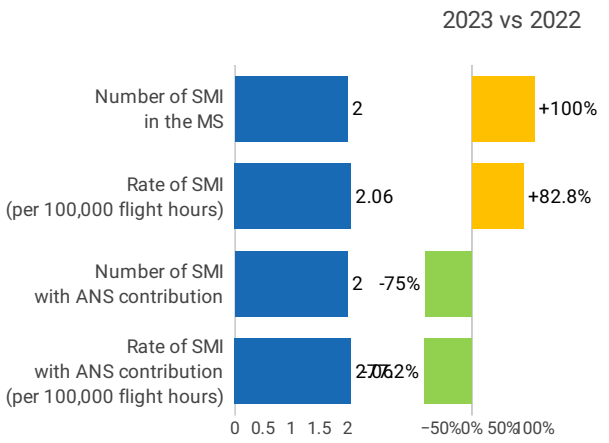
#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Helsinki - Vantaa	144,122	1	0.69

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

		Flight hours					Number of SMIs				
#	ANSP	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	Fintraffic ANS	57,321	62,275	88,850	97,259	NA	0	3	8	2	NA

		Rate of SMI per 100,000 flight hours					% variation in rate of SMIs				
#	ANSP	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	Fintraffic ANS	0.0	4.8	9.0	2.1	NA	NA	0%	+87%	-77%	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 occurences 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
✗	✗

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 - FINLAND

3.1 PRB monitoring

• Finland achieved a KEA performance of 3.39% compared to its target of 0.88% and did not contribute positively towards achieving the Union-wide target.

• The NSA states that the performance target was not met due to the shift of the traffic flows between Russia and Kaliningrad and between Finland and Japan.

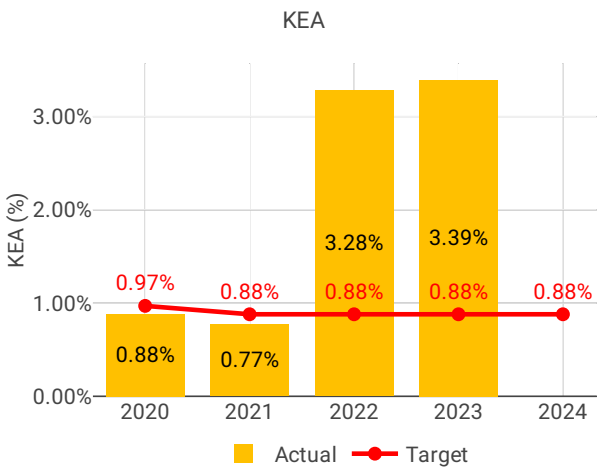
• Both KEP and SCR deteriorated in comparison with 2022. The value of these two indicators is similar, meaning airspace users plan close to the shortest route available.

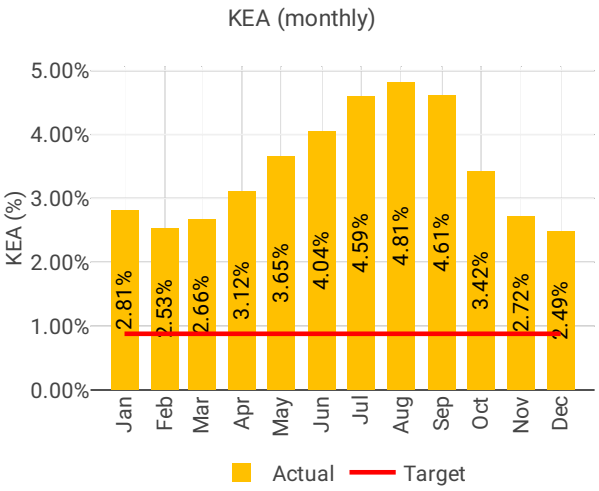
• The share of CDO flights increased marginally from 63.17% to 63.69% in 2023.

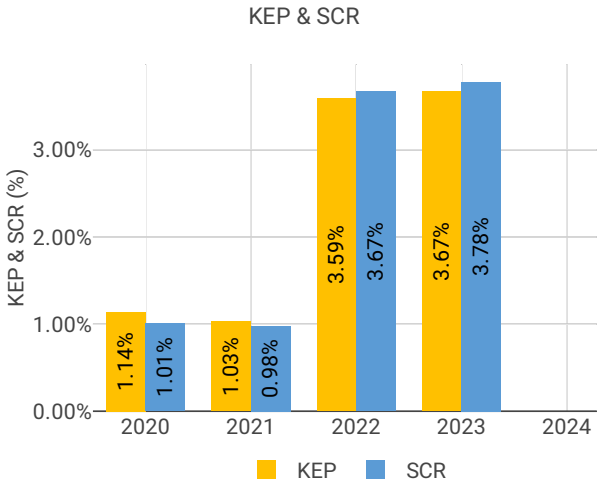
• During 2023, additional time in terminal airspace increased from 0.68 to 0.82 min/flight, while additional taxi out time increased from 2.81 to 3.02 min/flight.

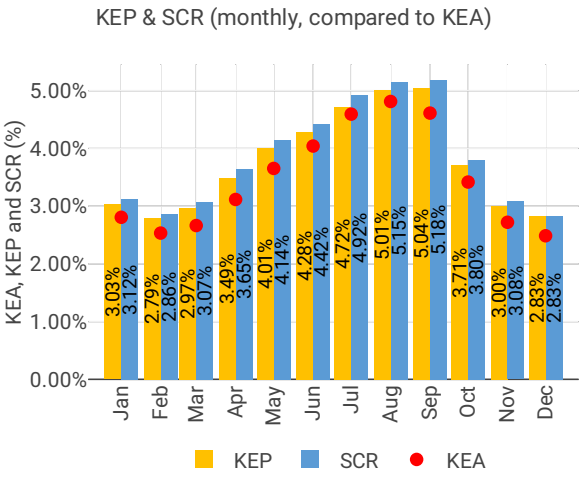
3.2 En route performance

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)



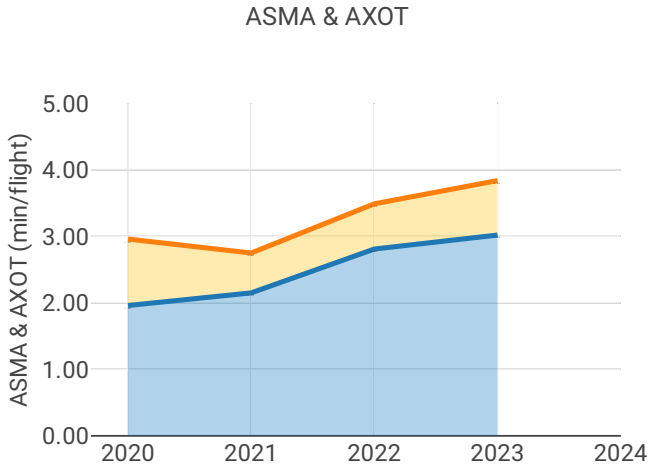


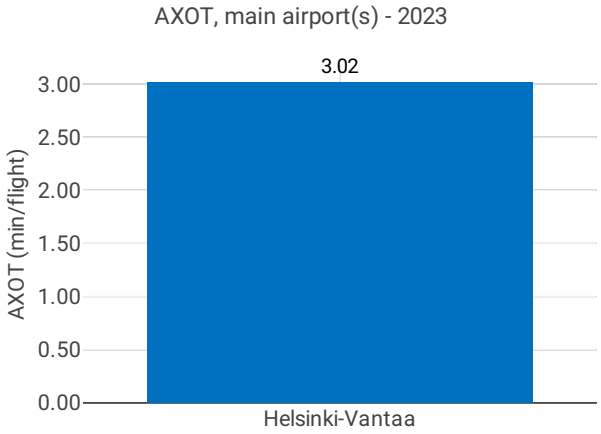


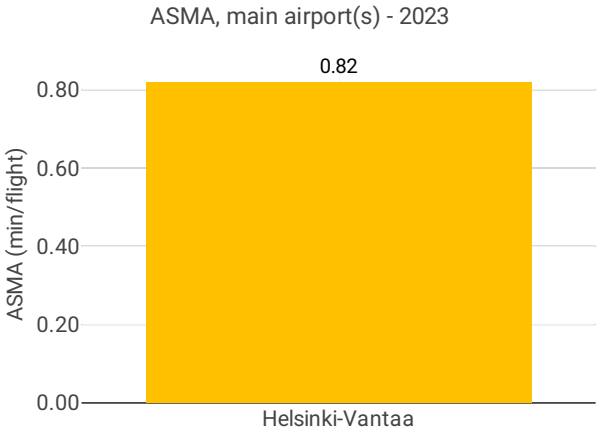


3.3 Terminal performance

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 Helsinki (EFHK; 2019: 3.04 min/dep.; 2020: 1.96 min/dep.; 2021: 2.15 min/dep.; 2022: 2.81 min/dep.; 2023: 3.02 min/dep.) exceeded in 2023 the SES average of 2.81 min/dep. These additional times are very influenced by the winter operations (winter maintenance and de-icing procedures), surpassing 8 min/dep. in December 2023. Additional taxi out times between April and September average 1.14 min/dep.

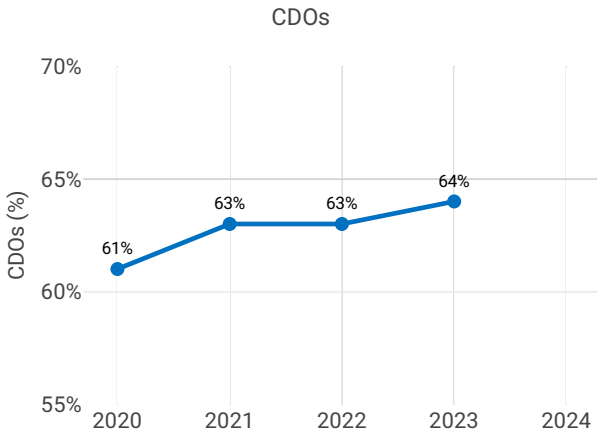
According to Finland's monitoring report: *No new initiatives or planned initiatives for additional taxi-out time PI. Additional taxi-out time is following the same pattern as in previous years. Additional taxi-out time is rather low from April to October and higher in the winter months due to winter maintenance and de-icing procedures.*

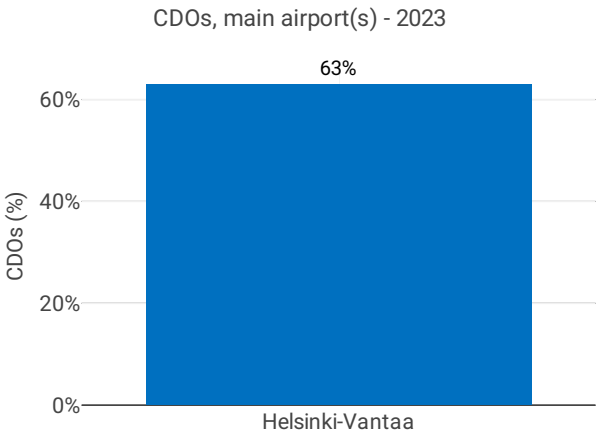
ASMA

The additional times in the terminal airspace increased in 2023 but remained below the SES average of 1.16 min/arr. (EFHK; 2019: 1.19 min/arr.; 2020: 1 min/arr.; 2021: 0.6 min/arr.; 2022: 0.68 min/arr.; 2023: 0.82 min/arr.).

According to Finland's monitoring report: *No implemented or planned initiatives for additional time in terminal airspace PI.*

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





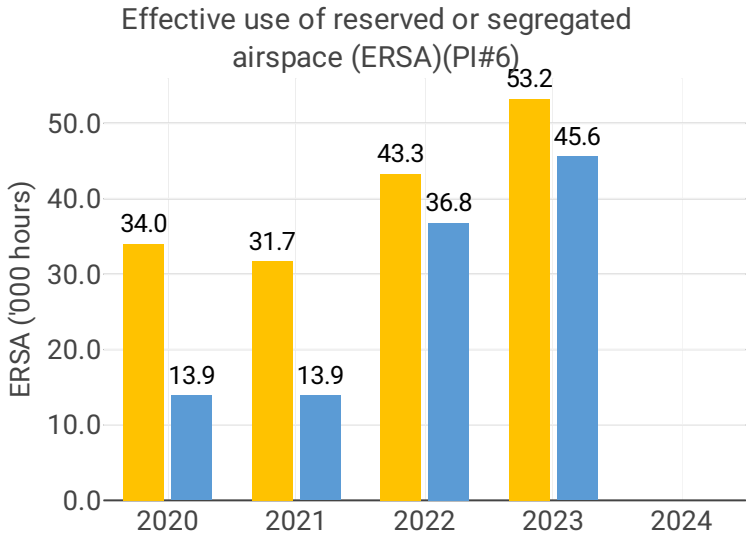
Focus CDOs

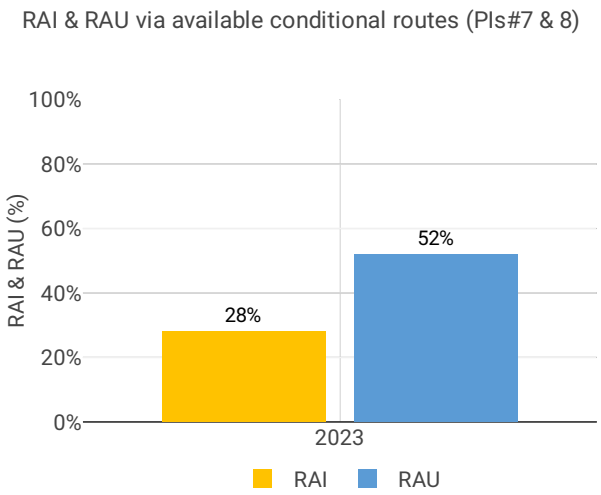
The share of CDO flights at Helsinki (EFHK) has remained stable at 63.3% which is well above the overall RP3 value in 2023 (28.8%) and in the higher range of all observed values in 2023. The highest monthly value was observed in May when the share of CDO flights was 71.6%.

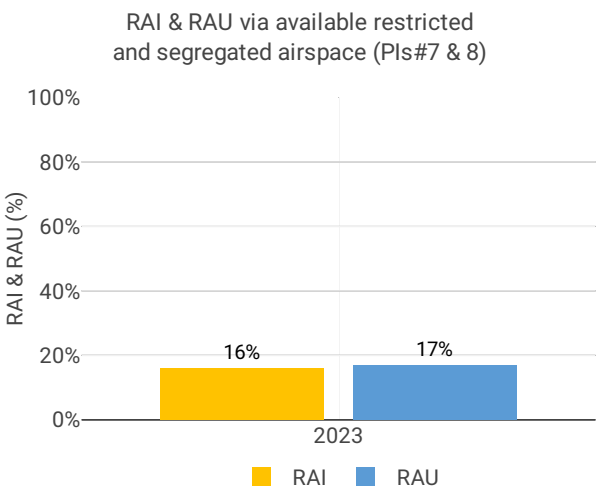
Airport level

	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
Helsinki-Vantaa	1.96	2.15	2.81	3.02	NA	1.00	0.60	0.68	0.82	NA	60%	64%	63%	63%	NA

3.4 Civil-Military dimension







Focus on Civil-Military dimension

Update on Military dimension of the plan

N/A

Military - related measures implemented or planned to improve capacity

N/A

Initiatives implemented or planned to improve PI#6

LARA/PRISMIL implemented, automated reporting, that differs from manual calculation that was used earlier in 2020, 2021 and RP2. The figures for 2020 and 2021 should be as follows:
2020 number of hours allocated & notified: 38,340; used: 34,296 (ratio 89.45%).
2021 number of hours allocated & notified: 37,346; used: 33,978 (ratio 90.98%).

Initiatives implemented or planned to improve PI#7

LARA/PRISMIL implemented, automated reporting, that differs from manual calculation that was used earlier in 2020, 2021 and RP2. Figures for 2020 and 2021 should be as follows:
2020 number of aircraft filing via reserved or segregated airspace and CDRs: 1,676,883; could have planned: 1,779,163 (ratio 94.25%).
2021 number of aircraft filing via reserved or segregated airspace and CDRs: 1,908,679; could have planned: 1,982,855 (ratio 96.26%).

Initiatives implemented or planned to improve PI#8

LARA/PRISMIL implemented, automated reporting, that differs from manual calculation that was used earlier in 2020, 2021 and RP2. Figures for 2020 and 2021 should be as follows:
2020 number of aircraft flying via reserved or segregated airspace and CDRs: 1,512,596; could have planned: 1,779,163 (ratio 85.02%).
2021 number of aircraft flying via reserved or segregated airspace and CDRs: 1,721,982; could have planned: 1,982,855 (ratio 86.84%).

4 CAPACITY - FINLAND

4.1 PRB monitoring

• Finland registered zero minutes of average en route ATFM delay per flight during 2023, thus achieving the local target value of 0.05. Delays in Finland remained unchanged year-on-year.

• The average number of IFR movements was 21% below 2019 levels in Finland in 2023.

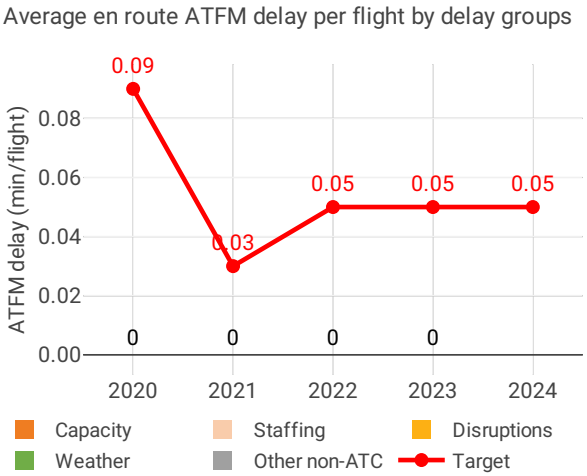
• The number of ATCOs in OPS is expected to increase by 8% by 2024, with the actual value being below the 2023 plan in Helsinki by 11 FTEs.

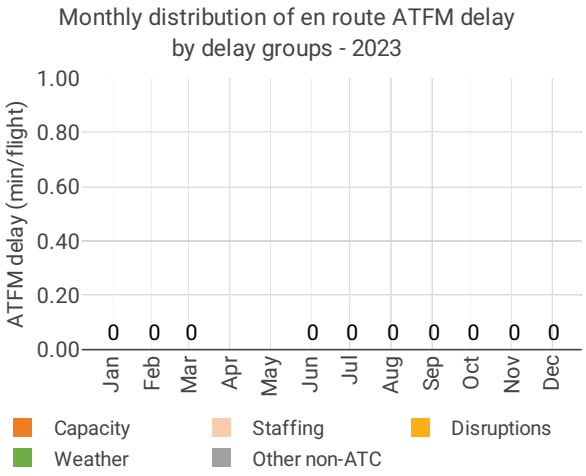
• The yearly total of sector opening hours in Tampere ACC was 10,162, showing a 3.3% increase compared to 2022. Sector opening hours are 24.7% below 2019 levels.

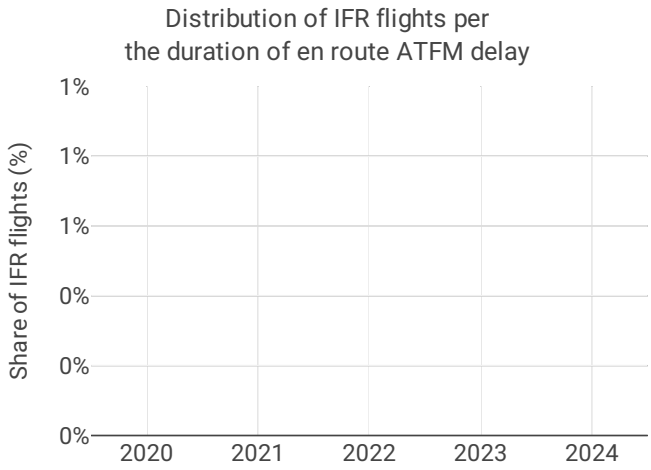
• Tampere ACC registered 15.61 IFR movements per one sector opening hour in 2023, being 5.6% above 2019 levels.

4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)







Focus on en route ATFM delay

Summary of capacity performance

Finland experienced an increase in traffic from 205k flights in 2022, to 224k flights in 2023, yet again, with zero ATFM delay. Traffic levels remain substantially below the 2019 level of 285k flights, mainly due to ramifications from Russia's war against Ukraine.

NSA's assessment of capacity performance

The war in Ukraine and the closure of Russian airspace and banning Russian airlines from flying in Finnish airspace continued having a huge impact in traffic in 2023.
As a result of the sanctions, all European airlines stopped flying to Asia completely over Finland. Overflying traffic resulted around 70 % compared to the level of 2019. These traffic volumes are expected to continue and this situation remain as a new normal. Fintraffic ANS continued adapting its operations but not as strongly as in 2022. Layoffs continued but only until June.
Finland reached the capacity targets in both KPIs, en-route and terminal. En-route delays have been zero for many years, and the capacity provided for this is due to user demand for as few delays as possible. For terminal, the delays were 0,14 (-0,18 below the target), mostly caused by weather in the winter months.

Monitoring process for capacity performance

Review of the actual values from the NM dashboard.

Capacity planning

En-route ATFM delay will remain low as the capacity is delivered according to user demand.

Application of Corrective Measures for Capacity (if applicable)

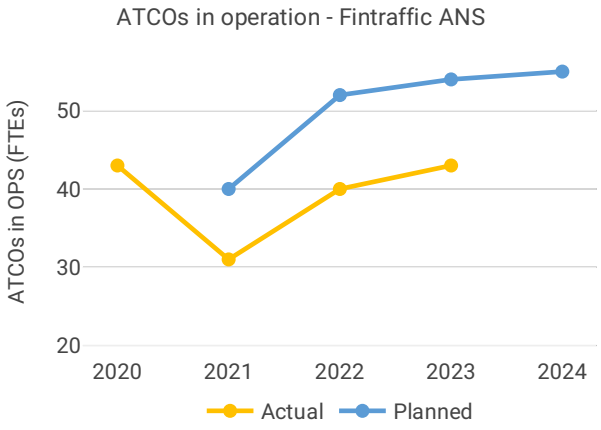
Not applicable.

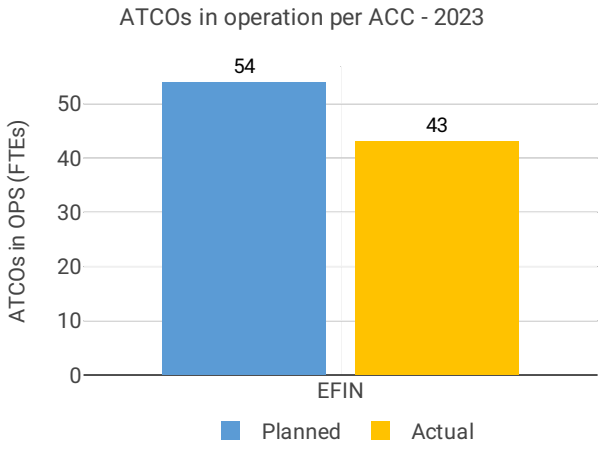
Additional Information Related to Russia's War of Aggression Against Ukraine There are changes in traffic flows/patterns. The airspace closures have shifted the traffic flows from Russia to Kaliningrad, and these flights have to use the narrow international airspace corridor between Finland and Estonia, and can not use the direct routing that has been used before the war. There is an average of 350 flights per week. Also the flights from Europe to Asia are not overflying Finnish airspace anymore because of the airspace closure. Other change is in the flights between Finland (Helsinki) and Japan, where our main operator Finnair flies daily. These flights can't fly the most direct route anymore because of the airspace closure, and have to fly via northern route above the North Pole. These changes do not affect the en route capacity performance, but still need to be taken into account when assessing the overall performance of the ANSP.

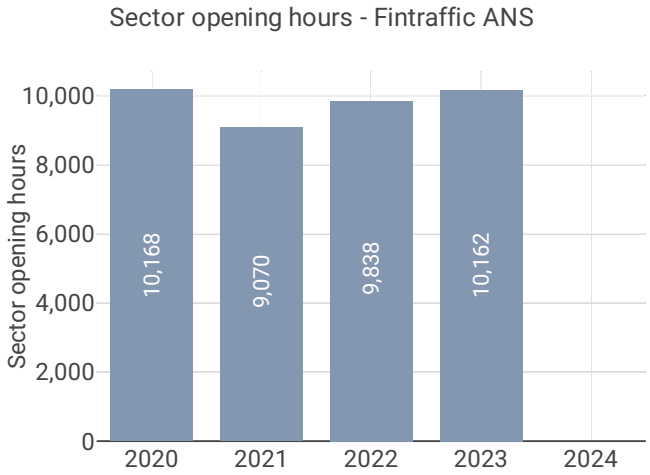
En route Capacity Incentive Scheme

Fintraffic ANS: Even though there was zero delays, the actual performance falls within the deadband, so no bonus 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





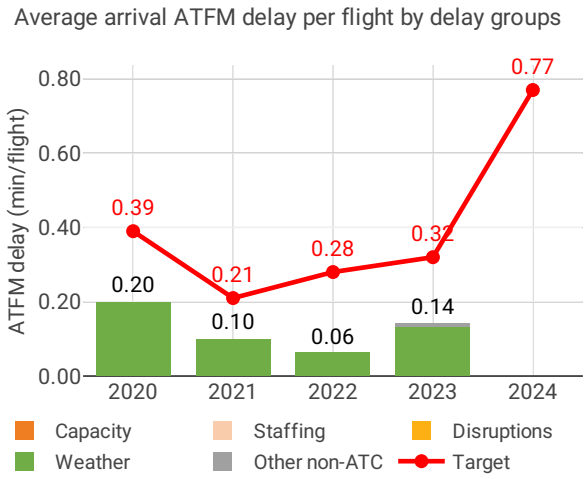


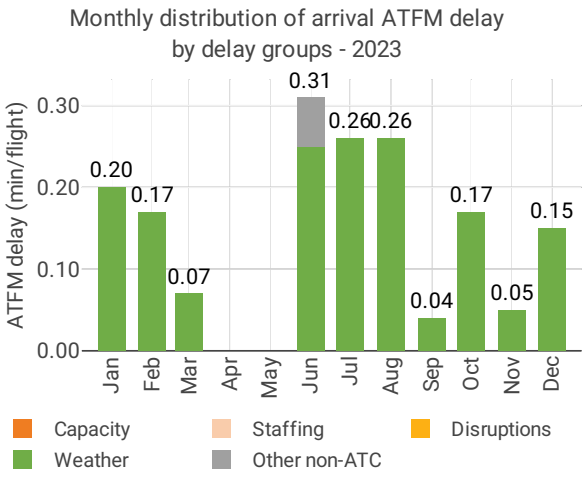
Focus on ATCOs in operations

N/A

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)





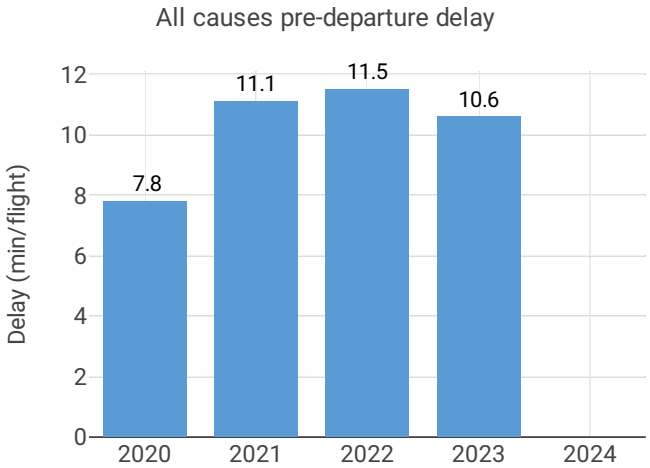
Focus on arrival ATFM delay

Finland identifies only Helsinki airport as subject to RP3 monitoring. The Airport Operator Data Flow is fully established and the monitoring of all capacity indicators can be performed. Traffic at this airport in 2023 was still 27% lower with respect to 2019, and 7% above 2022 levels.
Average arrival ATFM delays in 2023 were 0.14 min/arr, compared to 0.06 min/arr in 2022. The national target was met. ATFM slot adherence has slightly decreased (2023: 95.1%; 2022: 95.6%).

Arrival ATFM delays at Helsinki in 2023 averaged 0.14 min/arr, an increase with respect to 2022 (0.06 min/arr). 97% of these delays were attributed to weather, followed by 3% of Special Event.
Finland reports: *For terminal, the delays were 0,14 (-0,18 below the target), and the only delays were caused by weather, mostly in the winter months. No airport ATFM delays due to the war.*

The Finnish performance plan sets a national target on arrival ATFM delay for 2023 of 0.32 min/arr. This target was met in 2023 with an actual performance of 0.14 min/arr. The incentive scheme uses modulated pivot values limited CRSTMP delay causes. This pivot value for CRSTMP is 0.02 min/arr during all RP3. According to the attribution of the regulation reason, the actual CRSTMP value for 2023 is 0.005 min/arr. The incentive scheme in the Performance Plan however does not contemplate any bonus.

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	2024	2020	2021	2022	2023	2024
Helsinki-Vantaa	0.20	0.10	0.06	0.14	NA	93.6%	93.1%	95.6%	95.1%	NA%

	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
Airport name	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Helsinki-Vantaa	0.08	0.08	0.21	0.12	NA	7.8	11.1	11.5	10.6	NA

Focus on performance indicators at airport level

ATFM slot adherence

Helsinki's ATFM slot compliance was 95.1 %. With regard to the 4.9% of flights that did not adhere, 1% was early and 3.9% was late.

ATC pre-departure delay

ATC pre-departure delay at Helsinki (EFHK: 2023: 0.12 min/dep) decreased with respect to 2022 is still below the pre-pandemic value (0.39 min/dep).

All causes pre-departure delay

The total (all causes) delay in the actual off block time at Helsinki decreased in 2023 (EFHK: 2020: 7.76 min/dep.; 2021: 11.07 min/dep.; 2022: 11.46 min/dep.; 2023: 10.61 min/dep.).

5 COST-EFFICIENCY - FINLAND

5.1 PRB monitoring

• The en route 2023 actual unit cost of Finland was 55.84 €2017, +35% higher than the determined unit cost (41.43 €2017). The terminal 2023 actual unit cost was 164.57 €2017, +13% higher than the determined unit cost (145.92 €2017).

• The en route 2023 actual service units (0.7M) were -39% lower than determined (1.1M) mainly due to shifted traffic flows caused by Russia's war of aggression against Ukraine.

• The en route 2023 actual total costs were -8.2 M€2017 lower (-18%) compared to determined, as all categories registered lower-than-planned costs. The main reason for the reduction was the lower staff costs (-4.3 M€2017, or -19%) which resulted from various measures including temporary layoffs, a reduction in headcount, the elimination of bonuses, lowered pension costs, deferred recruitment, and other staff-related savings. Other operating costs registered an underspend (-2.0 M€2017, or -12%) due to savings across several categories such as group service fees, voluntary staff costs, and travel expenses.

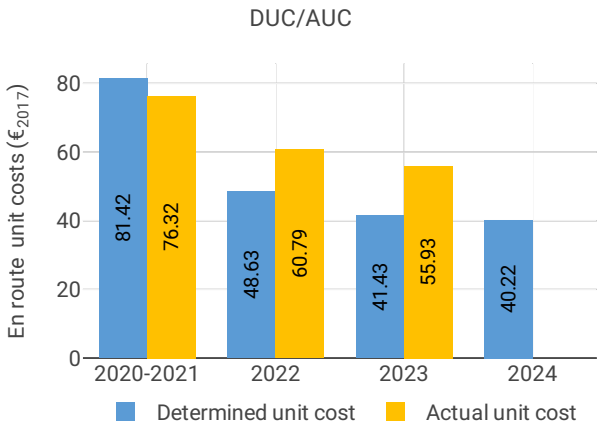
• Fintraffic ANS spent 5.4 M€2017 in 2023 related to costs of investments for both en route and terminal charging zones, -26% lower than determined (7.2 M€2017) due to the postponement of investments.

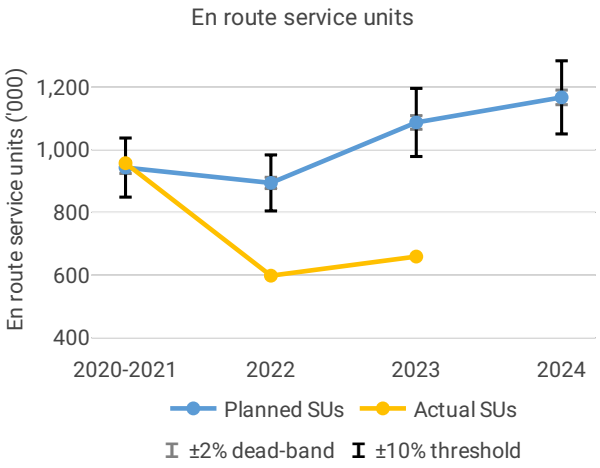
• The en route actual unit cost incurred by users in 2023 was 71.48€ (+63% above the 2023 DUC), while the terminal actual unit cost incurred by users was 220.02€ (+41% above the 2023 DUC). The difference between the AUCU and the DUC is strongly affected by the difference between the determined and actual SU for both the en route and terminal charging zones.

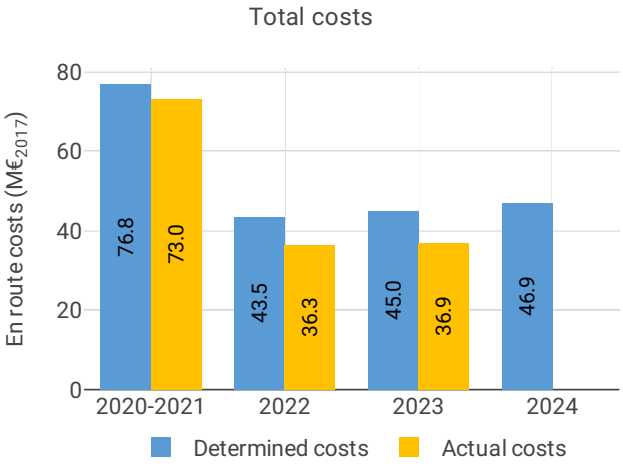
• The en route regulatory result for Fintraffic ANS amounted to +5.9 M€, or 14% of the 2023 revenue. This may indicate that the airspace users are charged for costs which have not materialised in 2023. The PRB will take into consideration the implementation of the RP3 performance plan when assessing the RP4 cost-efficiency targets.

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)

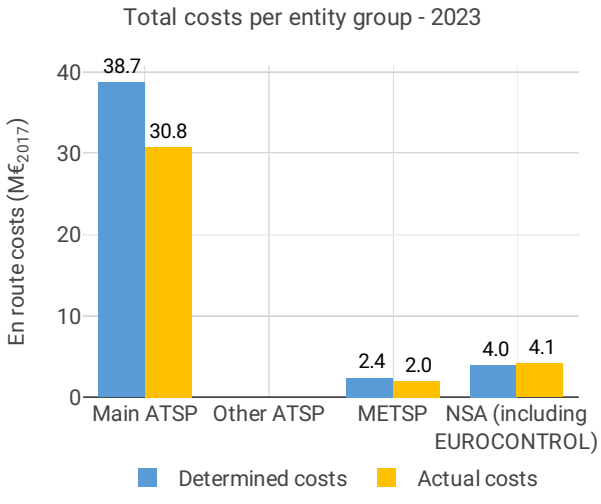


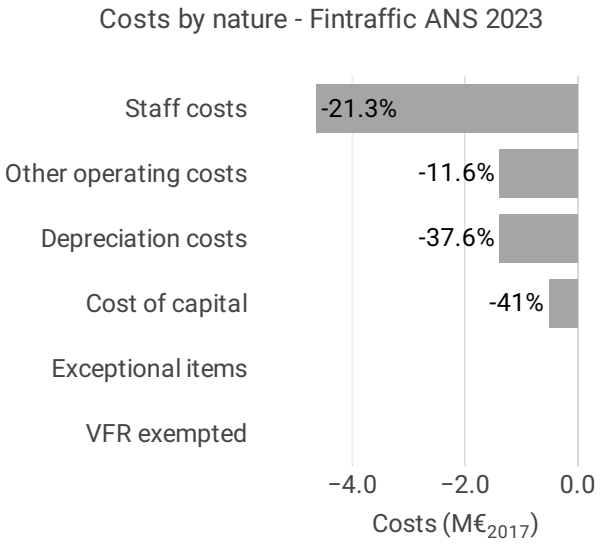




Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	75	40	42	NA
Determined costs	79	45	48	50
Difference costs	-4	-6	-6	NA
Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.5%	1.6%	1.8%
Determined inflation index	NA	105.7	107.4	109.3
Actual inflation rate	NA	7.2%	4.3%	NA
Actual inflation index	NA	112.4	117.3	NA
Difference inflation index (p.p.)	NA	+6.7	+9.8	NA





Focus on unit cost

AUC vs. DUC

In 2023, the en route AUC was +34.8% (or +14.41 €2017) higher than the planned DUC. This results from the combination of significantly lower than planned TSUs (-39.4%) and significantly lower than planned en

route costs in real terms (-18.3%, or -8.2 M€2017). It should be noted that actual inflation index in 2023 was +9.8 p.p. higher than planned.

En route service units

The difference between the 2023 actual and planned TSUs (-39.4%) falls outside the ±10% threshold foreseen in the traffic risk sharing mechanism. It is reported that "*the sanctions due to the war in Ukraine, (….) had a significant impact on traffic*". The resulting loss of en route revenues is therefore shared between the ANSP and the airspace users.

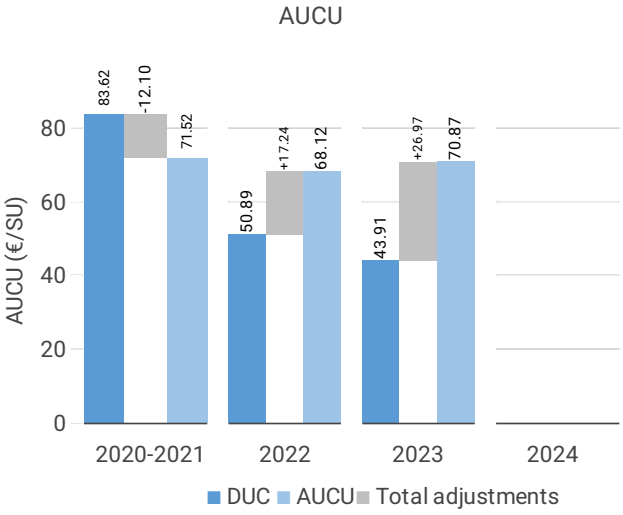
En route costs by entity

The 2023 actual real en route costs are -18.3% (-8.2 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, Fintraffic ANS (-20.5%, or -7.9 M€2017) and the MET service provider (-17.0%, or -0.4 M€2017), while for the NSA/EUROCONTROL costs are higher (+2.7%, or +0.1 M€2017) than planned.

En route costs for the main ANSP at charging zone level

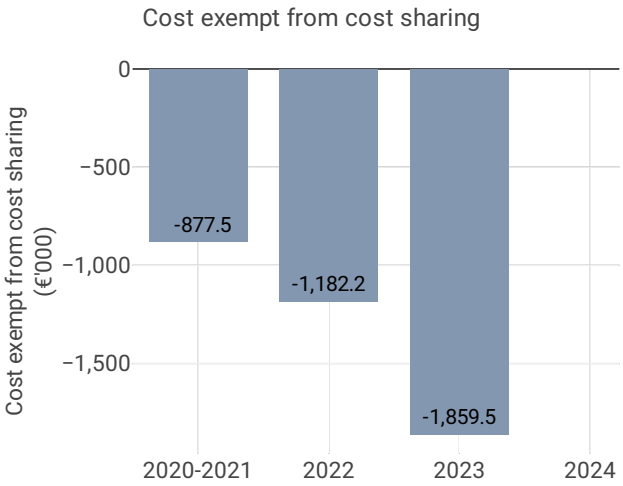
The 2023 actual real en route costs for Fintraffic ANS are significantly lower than planned (-20.5%, or -7.9 M€2017), partially due to a higher than planned inflation index and resulting from:
- Significantly lower than planned staff costs in real terms (-21.3%), reported to be mainly due to "*ANSP temporary lay-offs, lowered head count, abandoned bonuses, lowered pension costs, postponed recruiting and other savings in staff costs*.",
- Significantly lower than planned other operating costs in real terms (-11.6%), reported to be mainly driven by "*lower service fees (HR, Accounting ICT), remote work with less travel costs, less payments to airport operator (Finavia), lower telecom costs, less equipment and spare parts, purchases from military (ATCO) and LFV (ATCO service for Kvarken flights)*",
- Significantly lower than planned depreciation costs (-37.6%) and cost of capital (-41.0%), reported to be mainly "*due to postponing investments*".
- Significantly lower than planned deduction for VFR exempted flights (-8.4%).

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



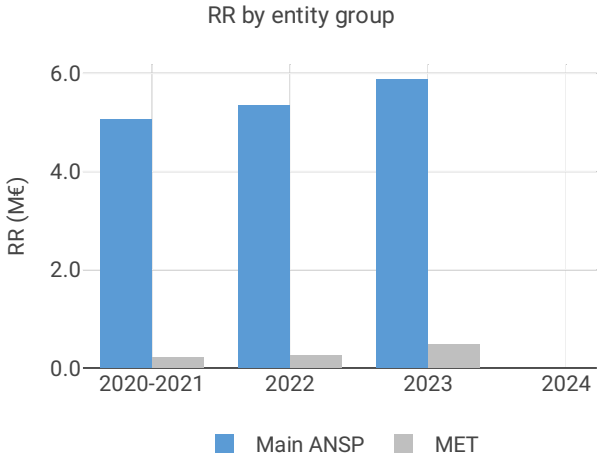
AUCU components (€/SU) – 2023

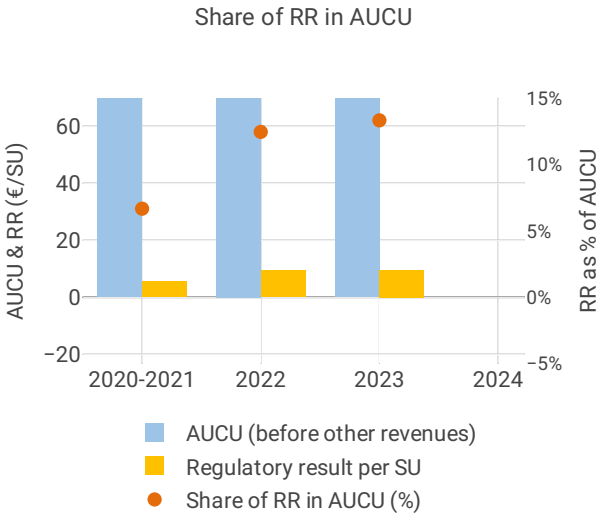
Components of the AUCU in 2023	€/SU
DUC	**43.91**
Inflation adjustment	5.39
Cost exempt from cost-sharing	-2.82
Traffic risk sharing adjustment	21.86
Traffic adj. (costs not TRS)	3.90
Finantial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-1.36
Application of lower unit rate	0.00
Total adjustments	26.97
AUCU	**70.87**
AUCU vs. DUC	**+61.4%**

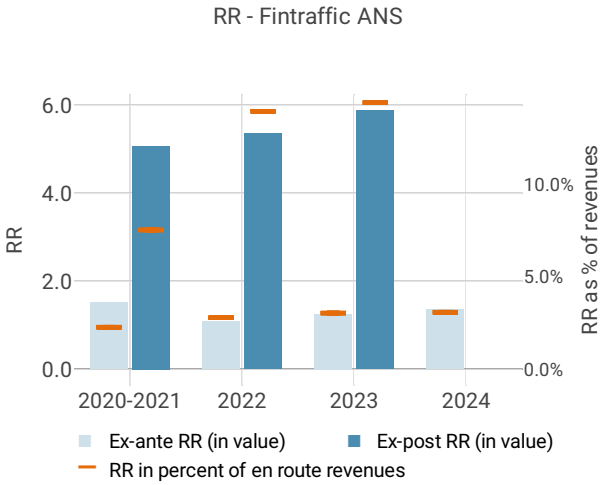


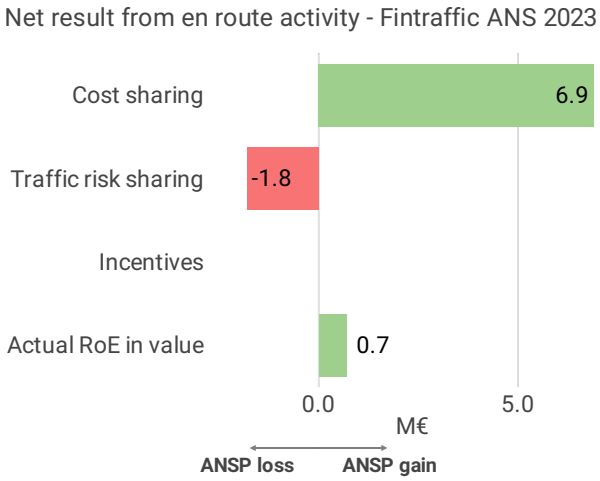
Cost exempt from cost sharing by item - 2023	€'000	€/SU
New and existing investments	-1,850.9	-2.81
Competent authorities and qualified entities costs	0.0	0.00
Eurocontrol costs	166.2	0.25
Pension costs	-174.7	-0.27
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-1,859.5**	**-2.82**

5.2.3 Regulatory result (RR)









Focus on regulatory result

Fintraffic ANS net gain on activity in Finland en route charging zone in the year 2023

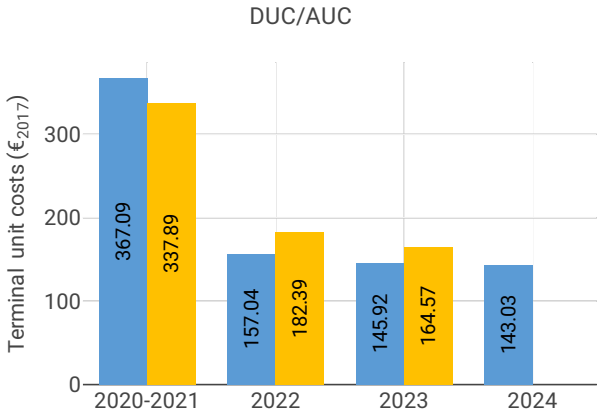
Fintraffic ANS reported a net gain of +5.1 M€, as a combination of a gain of +6.9 M€ arising from the cost sharing mechanism, with a loss of -1.8 M€ arising from the traffic risk sharing mechanism.

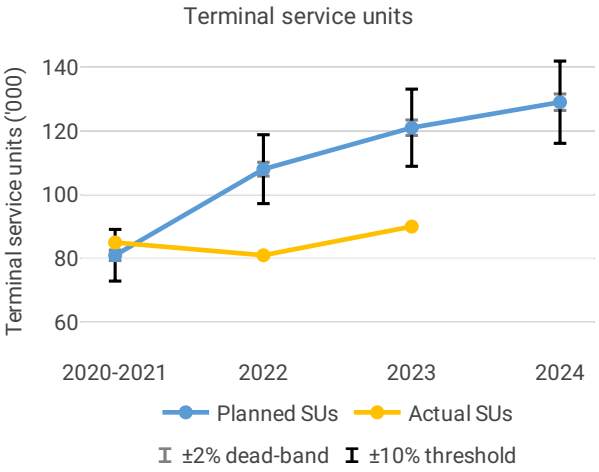
Fintraffic ANS overall regulatory results (RR) for the en route activity

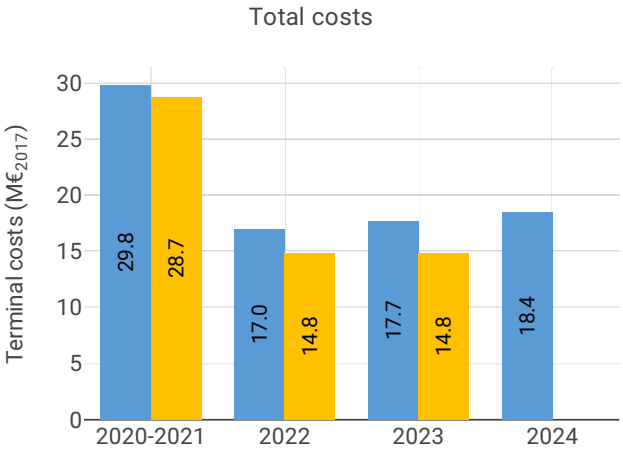
Ex-post, the overall RR taking into account the net gain from the en route activity above mentioned (+5.1 M€) and the actual RoE (+0.7 M€) amounts to +5.9 M€ (14.4% of the en route revenues). The resulting ex-post rate of return on equity is 34.2%, which is higher than the 4.3% planned in the PP.

5.3 Terminal charging zone

5.3.1 Unit cost (KPI#1)

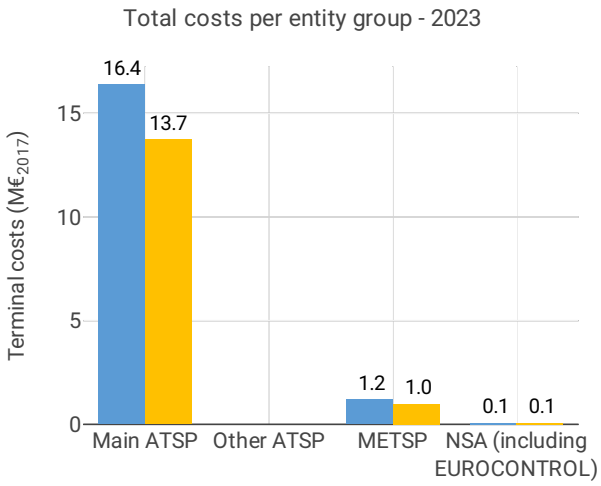


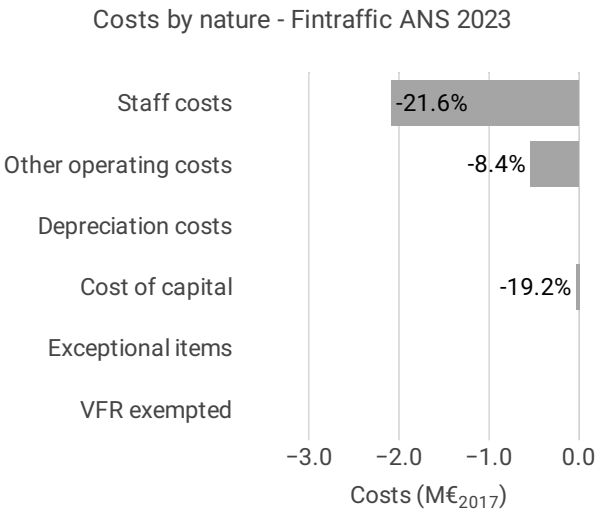




Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	30	17	17	NA
Determined costs	31	18	19	20
Difference costs	-1	-1	-2	NA
Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.5%	1.6%	1.8%
Determined inflation index	NA	105.7	107.4	109.3
Actual inflation rate	NA	7.2%	4.3%	NA
Actual inflation index	NA	112.4	117.3	NA
Difference inflation index (p.p.)	NA	+6.7	+9.8	NA





Focus on unit cost

AUC vs. DUC

In 2023, the terminal AUC was +12.8% (or +18.66 €2017) higher than the planned DUC. This results from the combination of significantly lower than planned TNSUs (-25.7%) and significantly lower than planned terminal costs in real terms (-16.2%, or -2.9 M€2017). It should be noted that actual inflation index in 2023 was +9.8 p.p. higher than planned.

Terminal service units

The difference between the 2023 actual and planned TNSUs (-25.7%) falls outside 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.

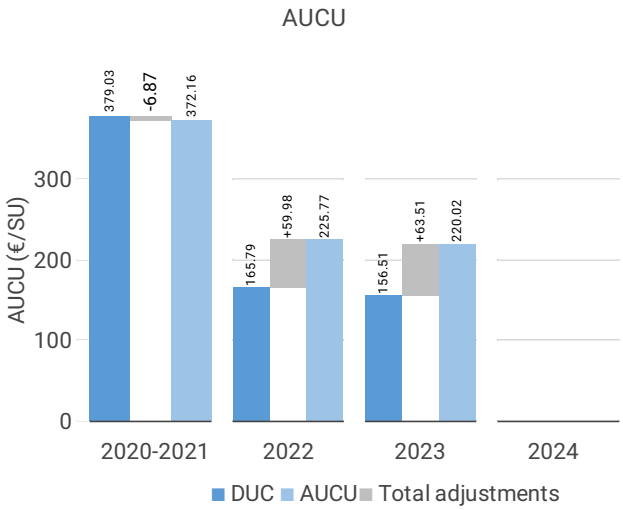
Terminal costs by entity

The 2023 actual real terminal ANS costs are -16.2% (-2.9 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, Fintraffic ANS (-16.2%, or -2.6 M€2017) and the MET service provider (-17.0%, or -0.2 M€2017).

Terminal costs for the main ANSP at charging zone level

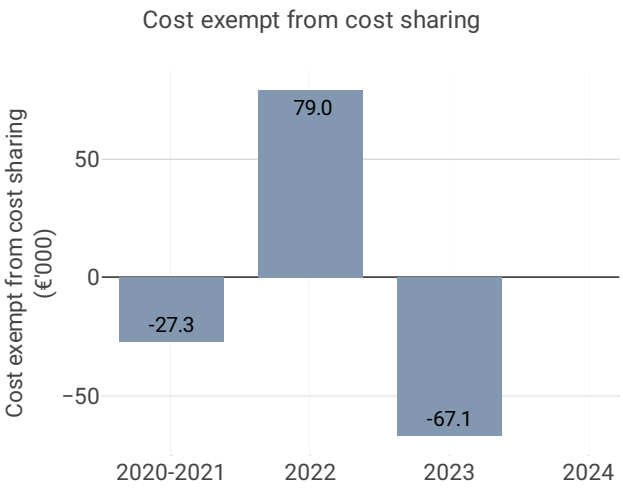
The 2023 real actual terminal ANS costs for Fintraffic ANS are significantly lower than planned (-16.2%, or -2.6 M€2017) , partially due to a higher than planned inflation index and resulting from:
- Significantly lower than planned staff costs (-21.6%) reported to be mainly due to "*lower head count (postponed recruitment), staff cost savings included temporary lay-offs, abandoning bonuses, lower pension costs and other savings in staff costs*.",
- Significantly lower than planned other operating costs (-8.4%), reported to be mainly dur to the impact of the inflation index,
- Depreciation costs in line with the plan in real terms (-0.1%),
- Significantly lower than planned cost of capital (-19.2%), reported to be mainly "*due to lower fixed assets. Most of the cost of capital is included in the leasing costs (included in other operating costs).Finavia owns the ANS assets and Fintraffic ANS pays for their use.*

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



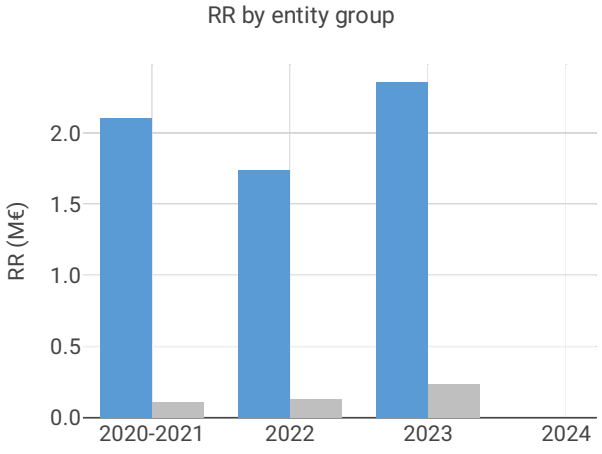
AUCU components (€/SU) – 2023

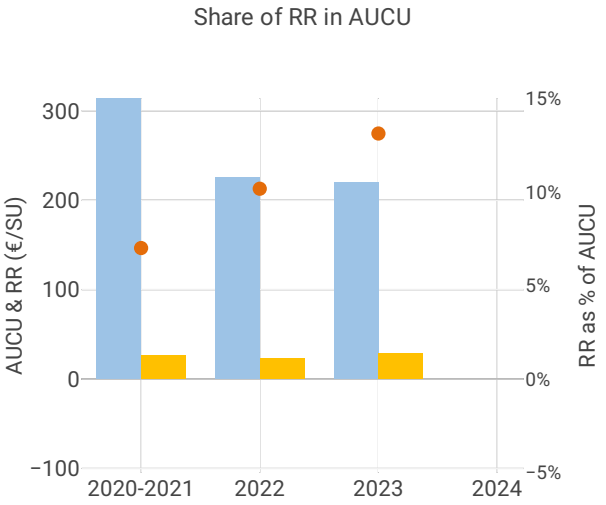
Components of the AUCU in 2023	€/SU
DUC	**156.51**
Inflation adjustment	18.83
Cost exempt from cost-sharing	-0.75
Traffic risk sharing adjustment	41.55
Traffic adj. (costs not TRS)	3.87
Finantial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	0.00
Application of lower unit rate	0.00
Total adjustments	63.51
AUCU	**220.02**
AUCU vs. DUC	**+40.6%**

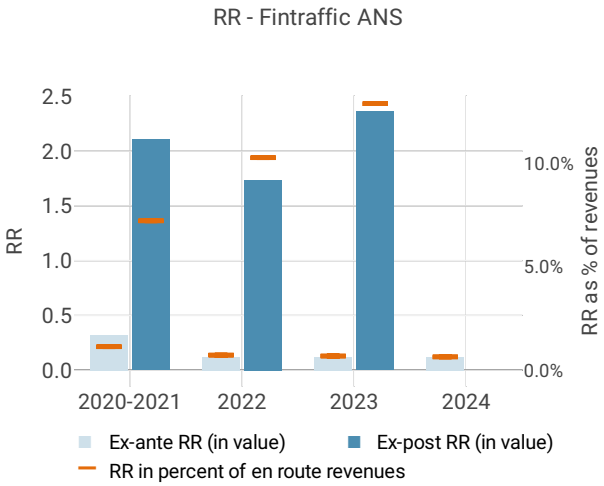


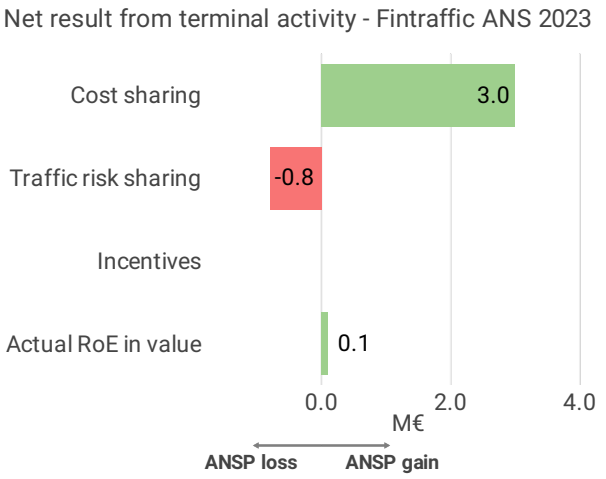
Cost exempt from cost sharing by item - 2023	€'000	€/SU
New and existing investments	10.2	0.11
Competent authorities and qualified entities costs	0.0	0.00
Eurocontrol costs	0.0	0.00
Pension costs	-77.3	-0.86
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-67.1**	**-0.75**

5.3.3 Regulatory result (RR)









Focus on regulatory result

Fintraffic ANS net gain on the activity in Finland terminal charging zone in the year 2023

Fintraffic ANS reported a net gain of +2.3 M€, as a combination of a gain of +3.0 M€ arising from the cost sharing mechanism, with a loss of -0.8 M€ arising from the traffic risk sharing mechanism.

Fintraffic ANS 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 (+2.3 M€) and the actual RoE (+0.1 M€) amounts to +2.4 M€ (or 12.9% of the terminal revenues). The resulting ex-post rate of return on equity is 104.3%, which is higher than the 4.3% planned in the PP.