PRB | Performance review body of the single european sky

# Performance Review Body Monitoring Report

## Finland - 2021

This report is automatically generated from: sesperformance.eu




Performance Review Body of the Single European Sky | Rue de la Fusée 96, Office 50.659, 1130 Brussels
Office Telephone: +32 (0)2 234 7824 | cathy.mannion@prb.eusinglesky.eu | prb-office@prb.eusinglesky.eu | eu-single-sky.transport.ec.europa.eu

# TABLE OF CONTENTS

# 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
2021: 1 EUR

**Share of Union-wide:**
- **traffic (TSUs) 2021** 0.7%
- **en route costs 2021** 0.6%

**Share en route / terminal costs 2021** 72% / 28%

**En route charging zone(s)**
Finland

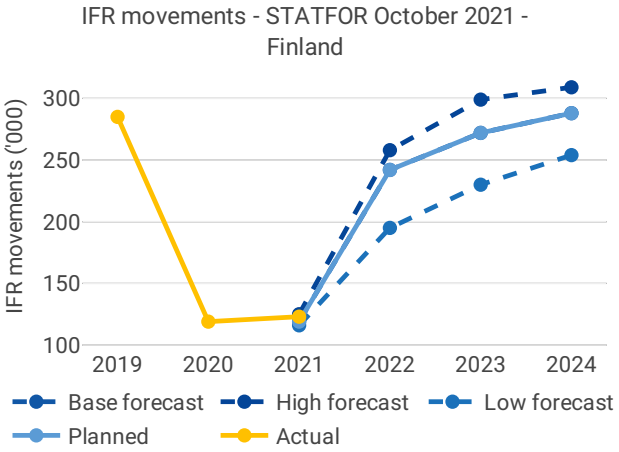
**Terminal charging zone(s)**
Finland

**Main ANSP**
- Fintraffic ANS

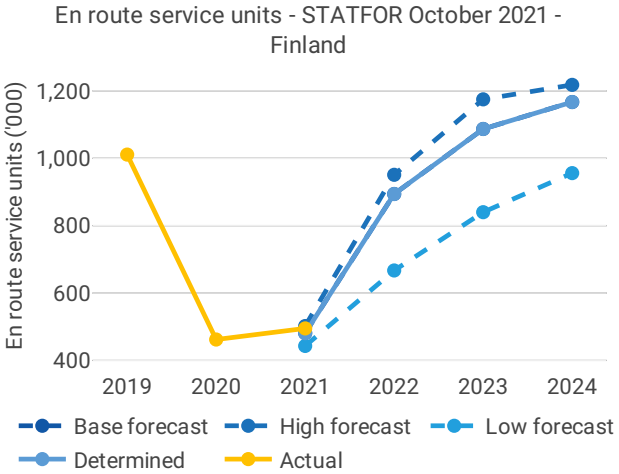
**Other ANSPs**
–

**MET Providers**
- Finnish Meteorological Institute (FMI)

## 1.2 Traffic (En route traffic zone)

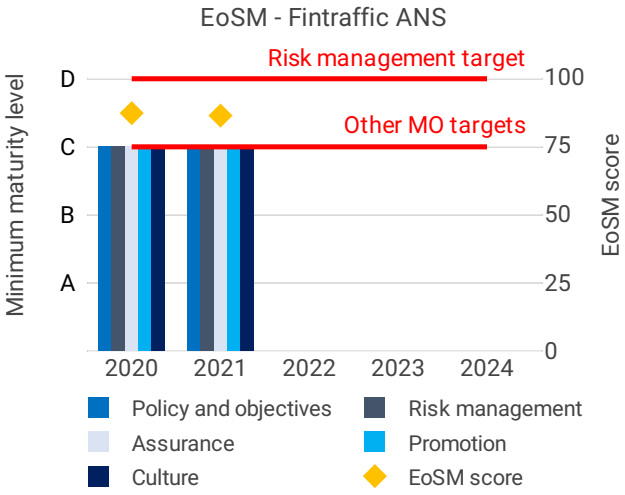



- Finland recorded 123K actual IFR movements in 2021, +3.6% compared to 2020 (119K).
- Actual 2021 IFR movements were +3.6% above the plan (119K).
- Actual 2021 IFR movements represent 43% of the actual 2019 level (285K).




- Finland recorded 495K actual en route service units in 2021, +7.1% compared to 2020 (462K).
- Actual 2021 service units were +2.9% above the plan (481K).
- Actual 2021 service units represent 49% of the actual 2019 level (1,011K).

## 1.3 Safety (Main ANSP)

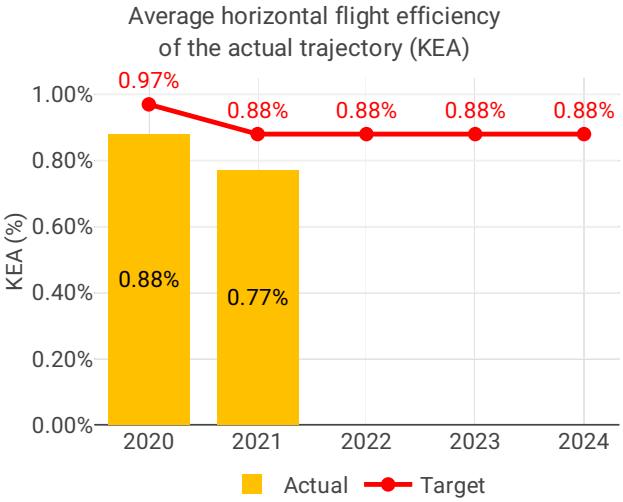



• Fintraffic ANS achieved the RP3 EoSM targets in four management objectives and must improve in only one area: safety risk management, which is currently under the review of the Finnish Transport and Communications Agency.

• Finland recorded a stable number of safety occurrences, with a rate of runway incursions similar to 2020 and a decrease in the rate of separation minima infringements. Both rates are below the Union-wide average rates.

• Fintraffic ANS should improve its safety management by implementing automated safety data recording systems.

## 1.4 Environment (Member State)




• Finland achieved a KEA performance of 0.77% compared to its target of 0.88% and contributed positively towards achieving the Union-wide target. These are the best levels of performance since 2017.

• The NSA states that Finland has cross-border free route airspace with NEFAB + DK-SE FAB and the overflying traffic is as direct as possible, leading to the strong horizontal en route flight efficiency performance.

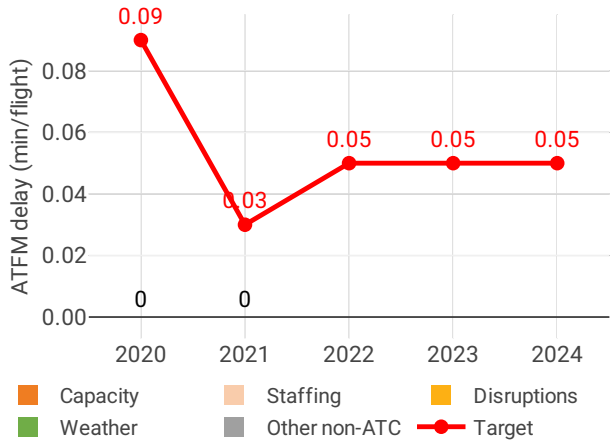
• Both KEP and SCR improved since 2020 and reached the best levels in five years.

• The share of CDO flights improved by 4%.

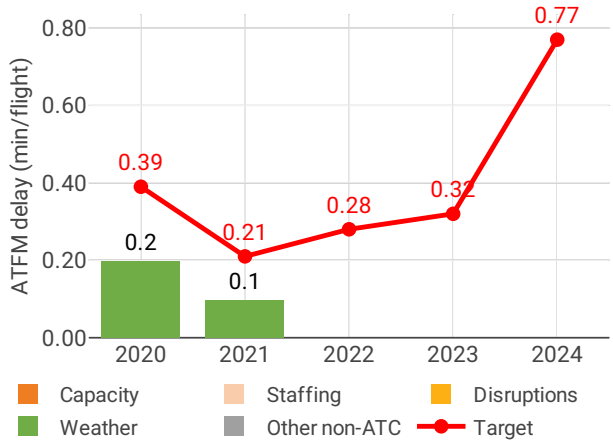
• Additional time in terminal airspace reduced by 40%, while additional taxi out time increased by 10%.

## 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 2021, thus meeting the local breakdown value of 0.03.

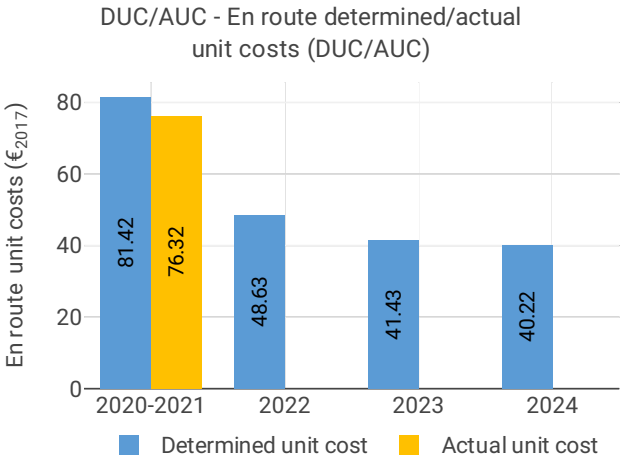
• En route ATFM delays in Finland were also zero on average during the past years.

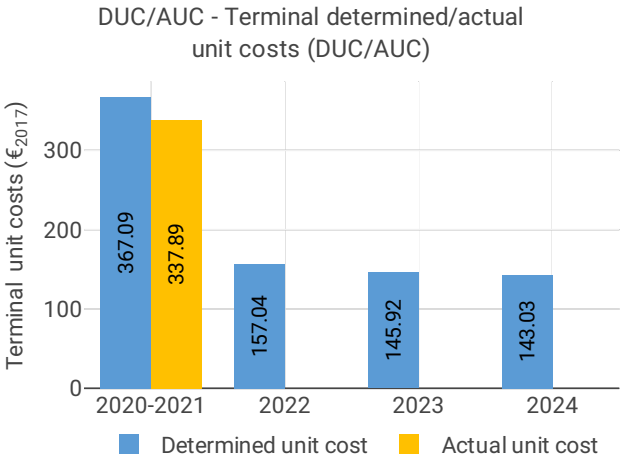
• Traffic recovery in Finland has been slower than in many other Member States (also due to non-COVID-19 related issues) and 2019 traffic levels are not likely to be reached during RP3. An increase in the number of ATCOs in OPS is planned by the end of RP3 with no capacity related delays envisaged.

• The yearly total of sector opening hours in Tampere ACC was 9,070, showing a 10.7% decrease compared to 2020. Sector opening hours are 32.0% below 2019 levels.

• Tampere ACC registered 9.91 IFR movements per one sector opening hour in 2021, being 32.5% below 2019 levels.

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




• The en route 2020/2021 actual unit cost of Finland was 76.32 €2017, -6.3% lower than the determined unit cost (81.42 €2017). The terminal actual unit cost was 337.89 €2017, -8.0% lower than the determined unit cost (367.09 €2017).

• The en route 2021 actual service units (495K) were +2.9% higher than determined (481K).

• In 2021, actual total costs were -3.8 M€2017 lower (-9.5%) than determined. The main driver was the reduction of other operating costs (-2.0 M€2017, or -13%) due to lower training costs and lower travel costs. Staff costs (-1.3 M€2017, or -7.0%) were lower than determined due to temporary layoffs and postponement of the recruitment, a decrease in head count, cancellation of bonuses, and lower pension costs.

• Fintraffic ANS spent 6.7 M€2017 in 2021 related to costs of investments, -5.8% lower than determined (7.1 M€2017) due to the postponement of investments.

• The discrepancies regarding total costs and costs of investments are significant, especially as the performance plan has been submitted at the end of 2021. The PRB invites the NSA to analyse the discrepancies and identify their reasons, including potential inaccurate planning and possible misusing of the regulatory framework to finance the liquidity.

• The en route actual unit cost incurred by users in 2020/2021 was 71.52€, while the terminal actual unit cost incurred by users was 372.16€.

# 2 SAFETY - FINLAND

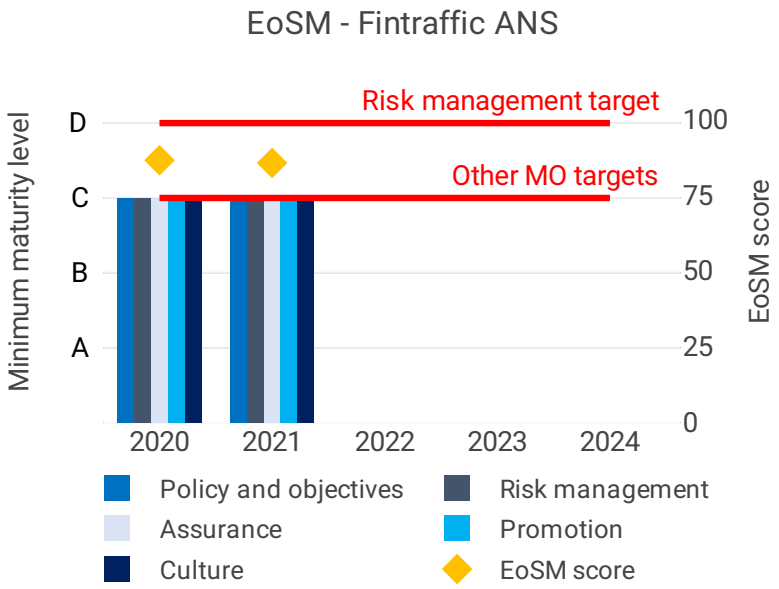
## 2.1 PRB monitoring

• Fintraffic ANS achieved the RP3 EoSM targets in four management objectives and must improve in only one area: safety risk management, which is currently under the review of the Finnish Transport and Communications Agency.

• Finland recorded a stable number of safety occurrences, with a rate of runway incursions similar to 2020 and a decrease in the rate of separation minima infringements. Both rates are below the Union-wide average rates.

• Fintraffic ANS should improve its safety management by implementing automated safety data recording systems.

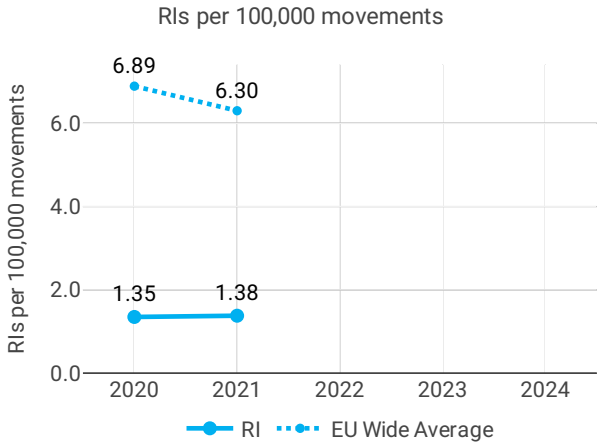
## 2.2 Effectiveness of Safety Management (EoSM) (KPI#1)

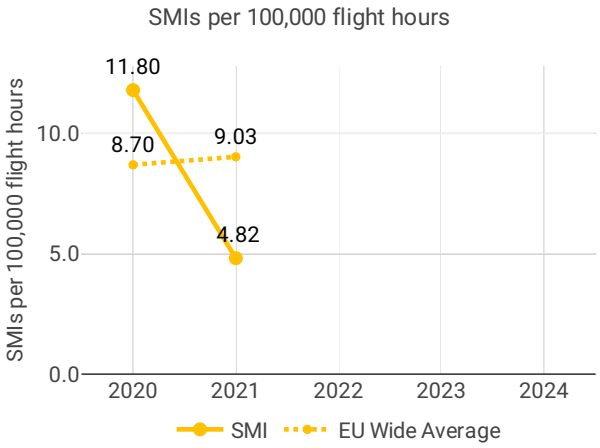



**Focus on EoSM**

Four out of five EoSM components of the ANSP meet already the 2024 target level. Slightly decrease has been observed with respect 2020, but only the component "Safety Risk Management" is below 2024 target level. Improvements in safety risk management are still expected during RP3 to achieve 2024 target.

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




# 3 ENVIRONMENT - FINLAND

## 3.1 PRB monitoring

• Finland achieved a KEA performance of 0.77% compared to its target of 0.88% and contributed positively towards achieving the Union-wide target. These are the best levels of performance since 2017.

• The NSA states that Finland has cross-border free route airspace with NEFAB + DK-SE FAB and the overflying traffic is as direct as possible, leading to the strong horizontal en route flight efficiency performance.

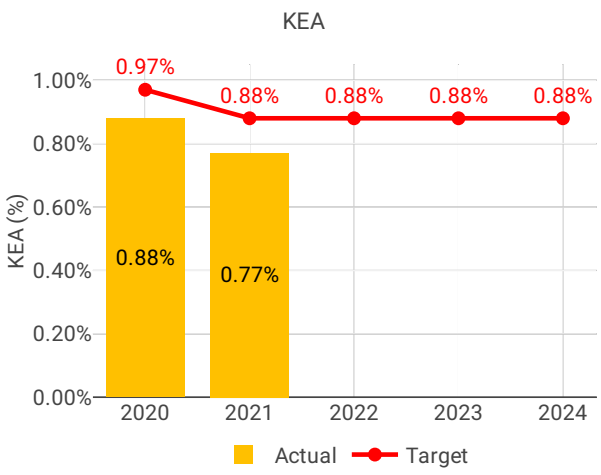
• Both KEP and SCR improved since 2020 and reached the best levels in five years.

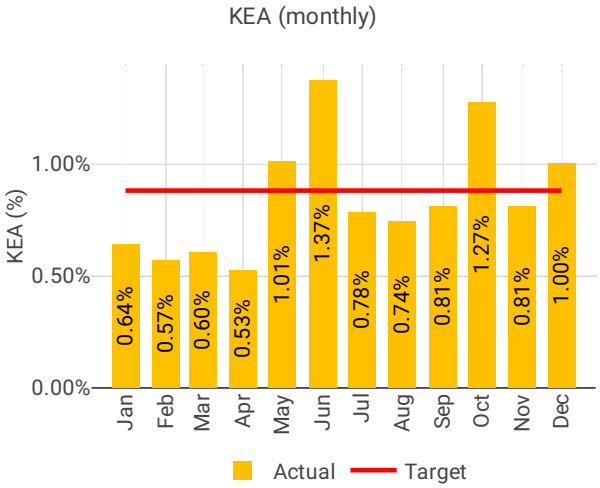
• The share of CDO flights improved by 4%.

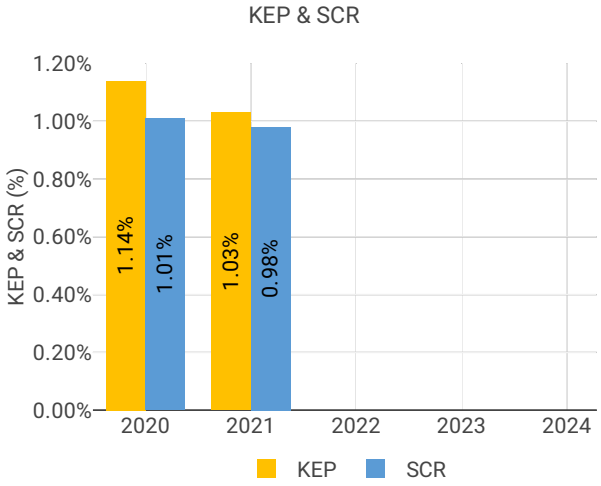
• Additional time in terminal airspace reduced by 40%, while additional taxi out time increased by 10%.

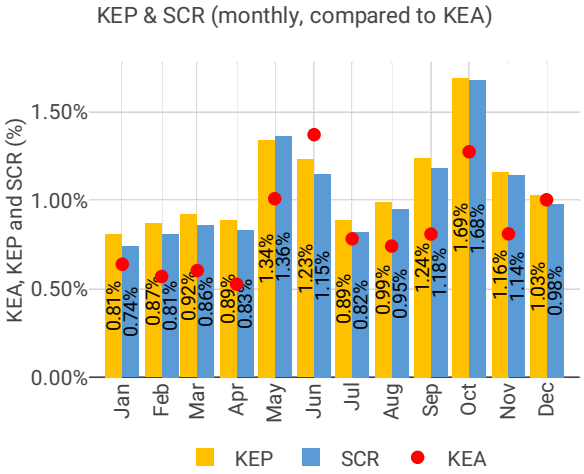
## 3.2 En route performance

### 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)



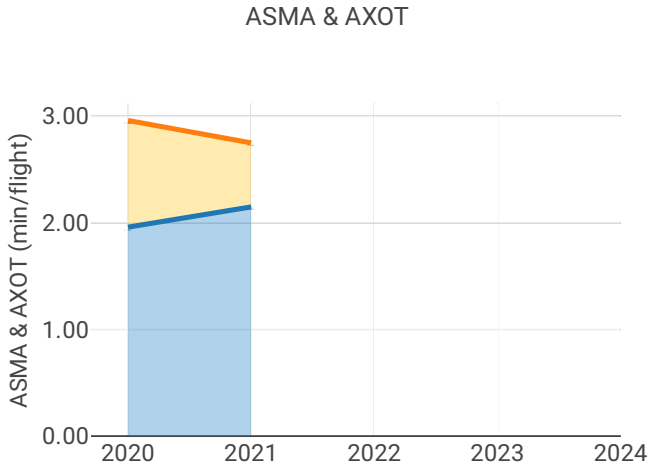



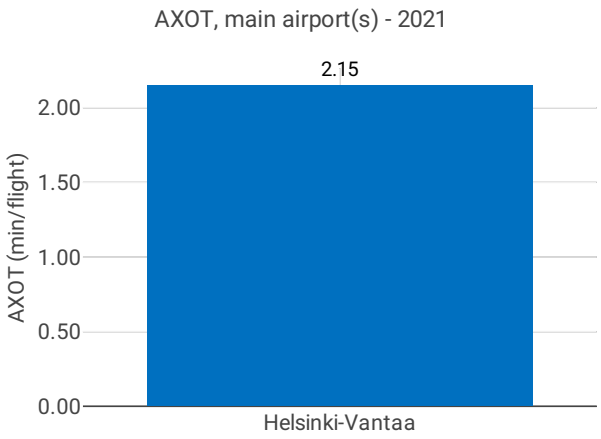



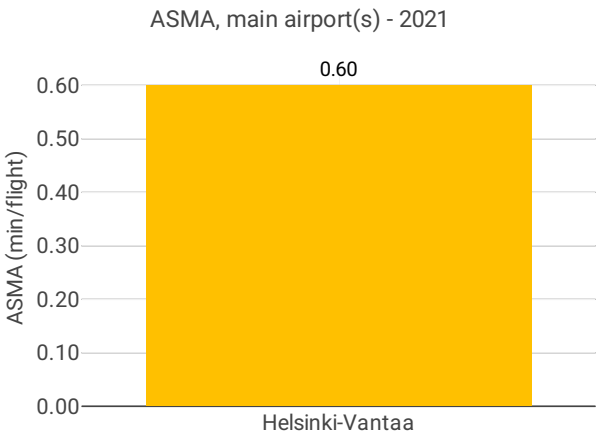




## 3.3 Terminal performance

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






**Focus on ASMA & AXOT**

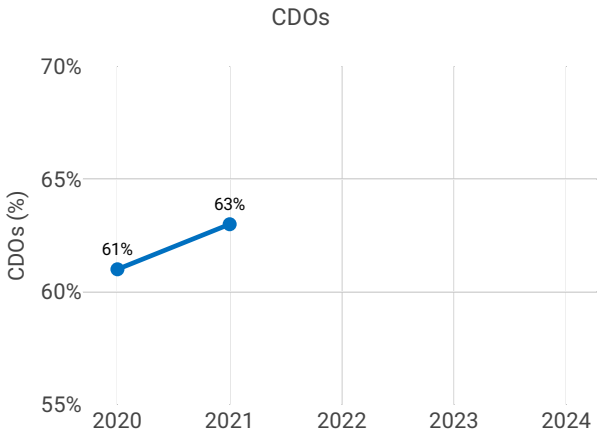
**AXOT**

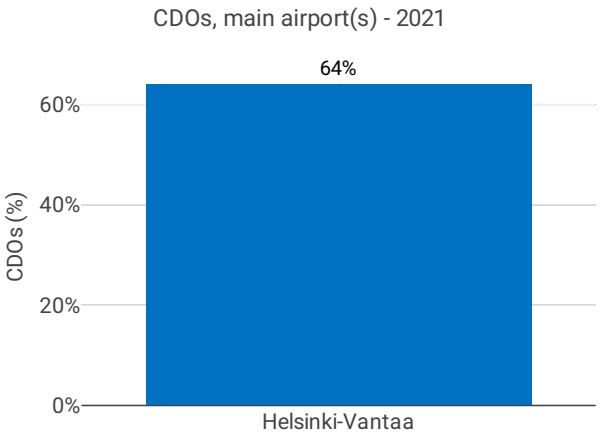
Additional taxi-out times at Helsinki (EFHK; 2019: 3.04 min/dep.; 2020: 1.96 min/dep.; 2021: 2.15 min/dep.) are very influenced by the winter operations (winter maintenance and de-icing procedures), reaching above 6 min/dep in January and December of 2021. Additional taxi out times between April and October average well below 0.5 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 2020, after the reduction of traffic due to COVID. 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 have further decreased in 2021 (EFHK; 2019: 1.19 min/arr.; 2020: 1 min/arr.; 2021: 0.6 min/arr). Nevertheless at the end of the year, with the partial traffic recovery, we can observe again additional ASMA times above 1 min/dep, same levels as in 2019.
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)



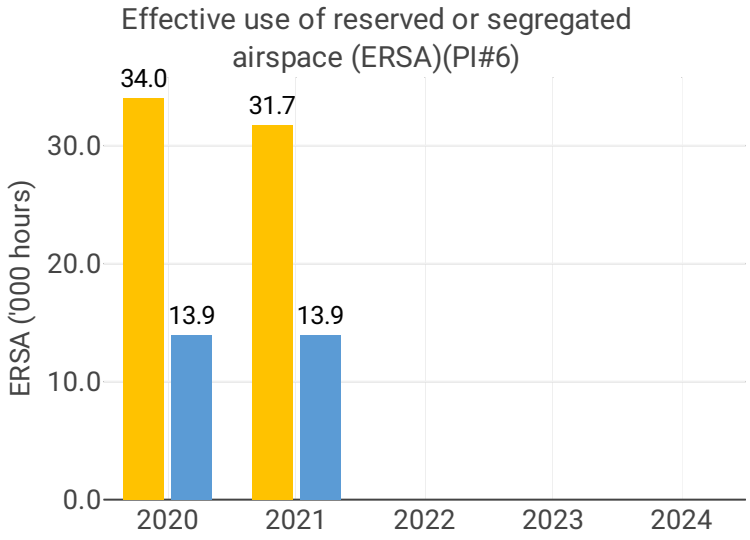

**Focus CDOs**

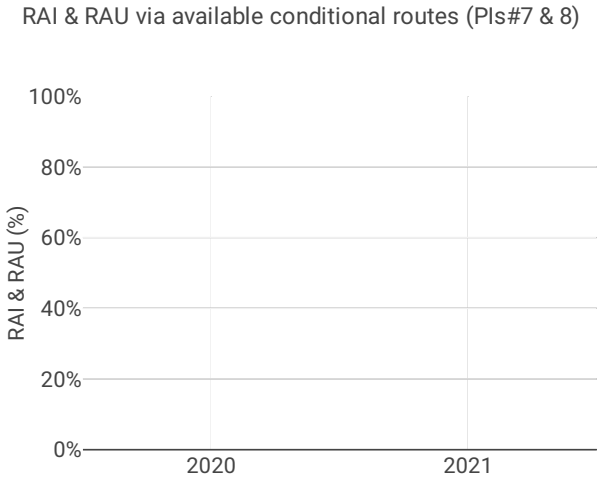
The share of CDO flights at Helsinki (EFHK) has increased to 64.0% which is well above the overall RP3 value in 2021 (30.5%) and in the higher range of all observed values in 2021.
However, in the second half of the year, the monthly values decreased from 73.4% in June to 54.2% in December.

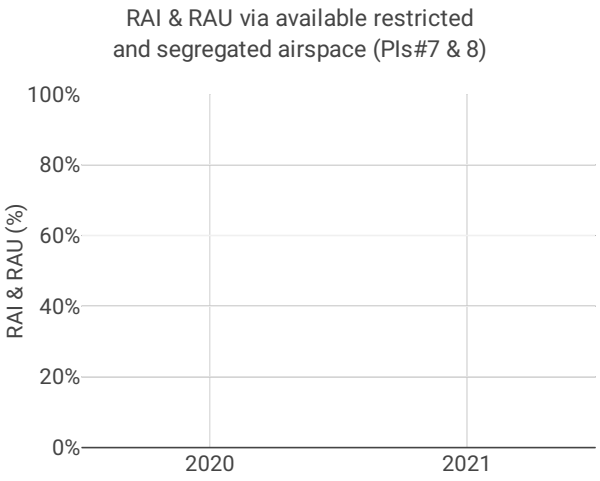
**Airport level**

| | 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 | NA | NA | NA | 1.0 | 0.6 | NA | NA | NA | 60% | 64% | NA | NA | NA |

## 3.4 Civil-Military dimension




### Focus on Civil-Military dimension

**Update on Military dimension of the plan**

No data available

**Military - related measures implemented or planned to improve capacity**

No data available

**Initiatives implemented or planned to improve PI#6**

No data available

**Initiatives implemented or planned to improve PI#7**

No data available

**Initiatives implemented or planned to improve PI#8**

No data available

# 4 CAPACITY - FINLAND

## 4.1 PRB monitoring

• Finland registered zero minutes of average en route ATFM delay per flight during 2021, thus meeting the local breakdown value of 0.03.

• En route ATFM delays in Finland were also zero on average during the past years.

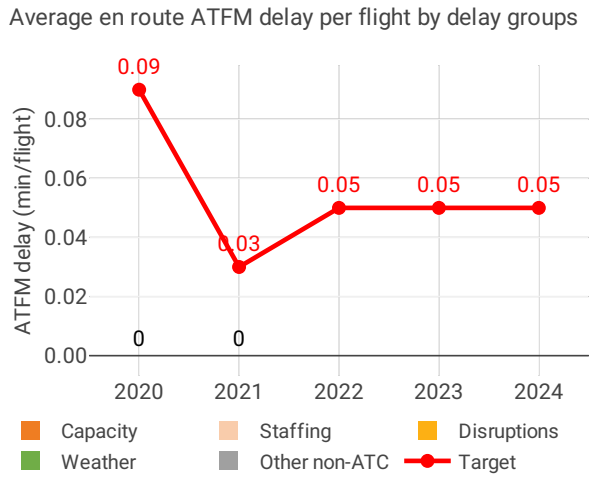
• Traffic recovery in Finland has been slower than in many other Member States (also due to non-COVID-19 related issues) and 2019 traffic levels are not likely to be reached during RP3. An increase in the number of ATCOs in OPS is planned by the end of RP3 with no capacity related delays envisaged.

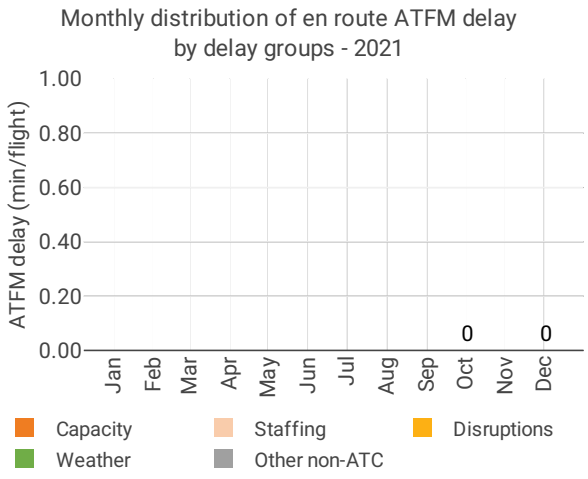
• The yearly total of sector opening hours in Tampere ACC was 9,070, showing a 10.7% decrease compared to 2020. Sector opening hours are 32.0% below 2019 levels.

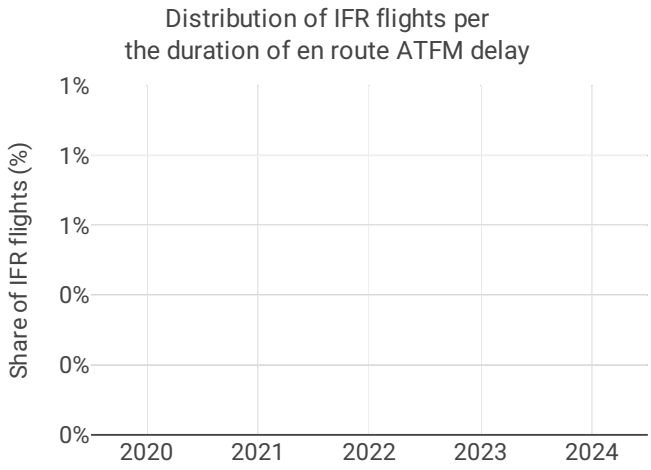
• Tampere ACC registered 9.91 IFR movements per one sector opening hour in 2021, being 32.5% below 2019 levels.

## 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 119k flights in 2020 to 123k flights in 2021, with zero ATFM delay. However, traffic levels were still substantially below the 285k flights in 2019.

### NSA's assessment of capacity performance

The traffic dropped significantly due to COVID-19 pandemic. The en-route ATFM delay has been 0 for many years. During RP3 planning, airspace user demand was to keep the delays as low as possible, and ANSP has achieved the target of this KPI.

### Monitoring process for capacity performance

Review of the actual values from the NM dashboard.

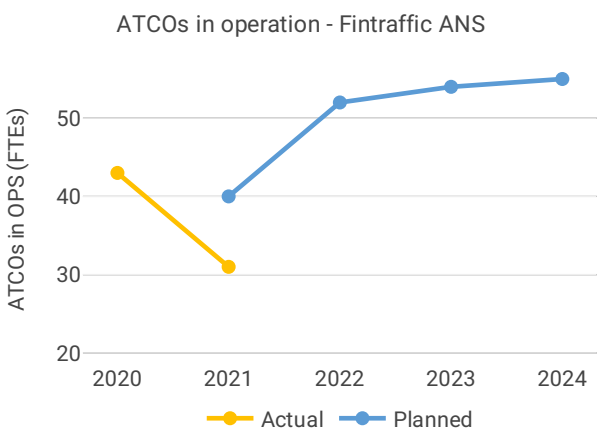
### Capacity planning

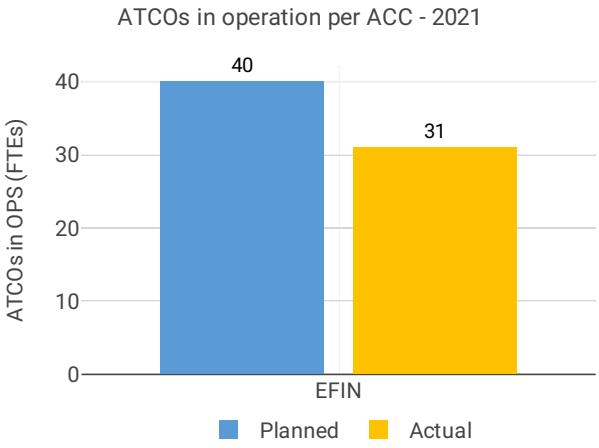
En-route ATFM delay will remain low as the capacity is delivered due to user demand.

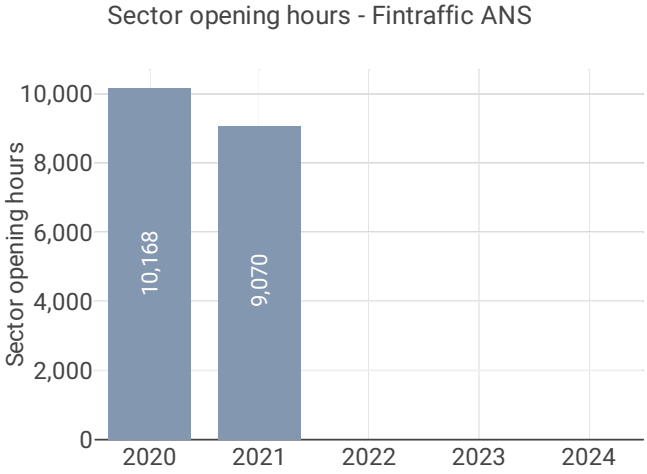
### Application of Corrective Measures for Capacity (if applicable)

No data available

## 4.2.2 Other indicators



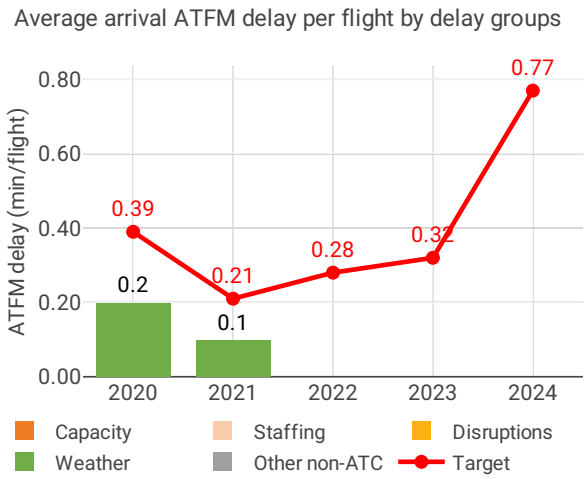



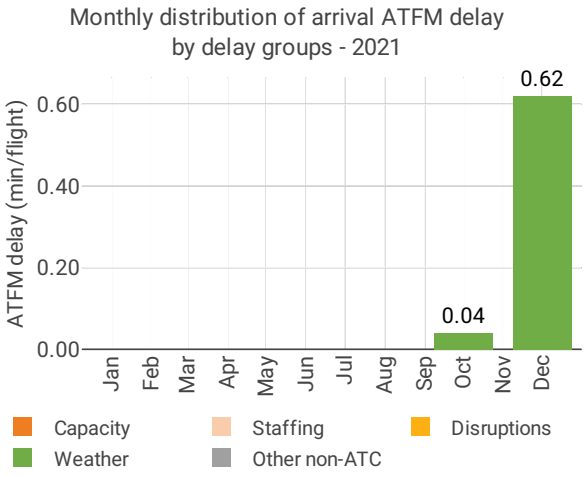

## Focus on ATCOs in operations

N/A

## 4.3 Terminal performance

### 4.3.1 Arrival ATFM delay (KPI#2)



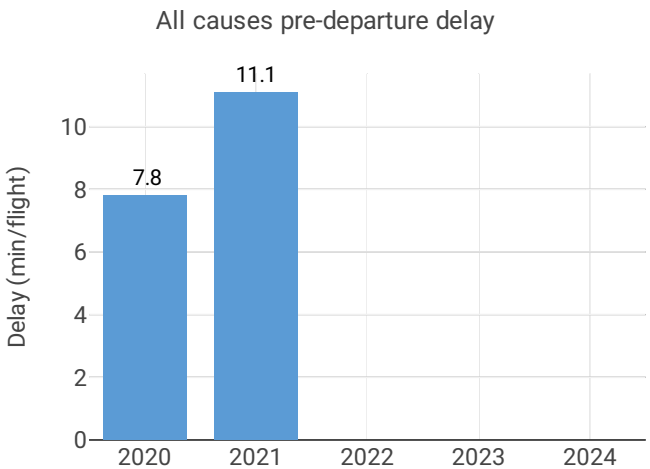

**Focus on arrival ATFM delay**

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. Nevertheless, the quality of the reporting does not allow for the calculation of the ATC pre-departure delay, with more than 60% of the reported delay not allocated to any cause.
Traffic at this airport in 2020 had decreased by 63% with respect to 2019, and it did not recover in 2021, showing similar figures than in 2020.
Average arrival ATFM delays in 2021 were 0.10 min/arr, compared to 0.20 min/arr in 2020.
ATFM slot adherence has slightly deteriorated (2021: 93.1%; 2020: 93.6%).

Arrival ATFM delays at Helsinki in 2021 averaged 0,10 min/arr. (-0,11 below the target), and there were all attributed to weather reasons(198 minutes in October and 3341 minutes in December).
Finland reports that *Helsinki airport was closed on December 10 for about 3 hours due to extremely severe runway conditions due to icing and freezing drizzle.*

The provisional national target on arrival ATFM delay in 2021 was met.
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.

### 4.3.2 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 |
| Helsinki-Vantaa | 0.2 | 0.1 | NA | NA | 93.6% | 93.1% | NA% | NA% |

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

### Focus on performance indicators at airport level

#### ATFM slot adherence

With the drastic drop in traffic, regulated departures from Helsinki virtually disappeared until July 2021. Helsinki's ATFM slot compliance was 93.1 %, similar to the performance in 2020 (93.6%). With regard to the 6.9% of flights that did not adhere, 1% was early and 5.9% was late.

#### ATC pre-departure delay

The share of unidentified delay reported by Helsinki was above 40% for more than 2 months in the year, preventing the calculation of this indicator in 2021. This was due to the special traffic composition before the recovery. Helsinki had proper reporting before the pandemic and the reporting has improved since July 2021.

#### All causes pre-departure delay

The total (all causes) delay in the actual off block time at Helsinki increased in 2021 (EFHK: 2020: 7.76 min/dep.; 2021: 11.07 min/dep.). The highest delays per flight were observed in December, averaging more than 22 min/dep.

## 5 COST-EFFIENCY - FINLAND

### 5.1 PRB monitoring

• The en route 2020/2021 actual unit cost of Finland was 76.32 €2017, -6.3% lower than the determined unit cost (81.42 €2017). The terminal actual unit cost was 337.89 €2017, -8.0% lower than the determined unit cost (367.09 €2017).

• The en route 2021 actual service units (495K) were +2.9% higher than determined (481K).

• In 2021, actual total costs were -3.8 M€2017 lower (-9.5%) than determined. The main driver was the reduction of other operating costs (-2.0 M€2017, or -13%) due to lower training costs and lower travel costs. Staff costs (-1.3 M€2017, or -7.0%) were lower than determined due to temporary layoffs and postponement of the recruitment, a decrease in head count, cancellation of bonuses, and lower pension costs.

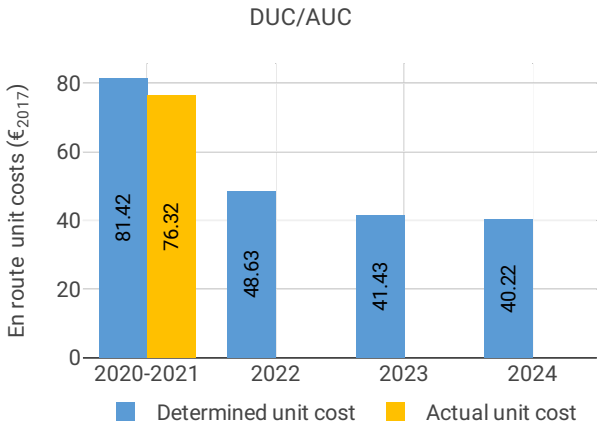
• Fintraffic ANS spent 6.7 M€2017 in 2021 related to costs of investments, -5.8% lower than determined (7.1 M€2017) due to the postponement of investments.

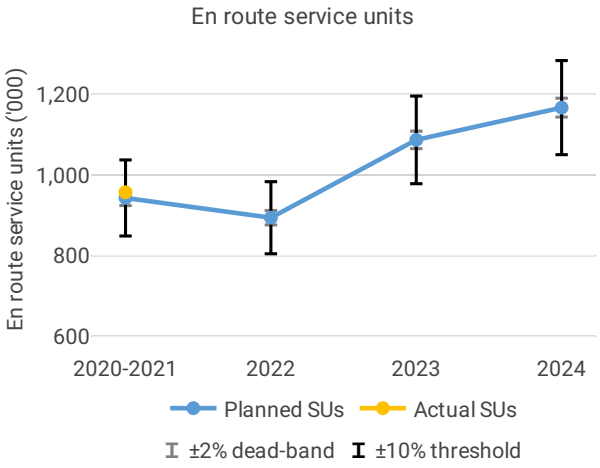
• The discrepancies regarding total costs and costs of investments are significant, especially as the performance plan has been submitted at the end of 2021. The PRB invites the NSA to analyse the discrepancies and identify their reasons, including potential inaccurate planning and possible misusing of the regulatory framework to finance the liquidity.

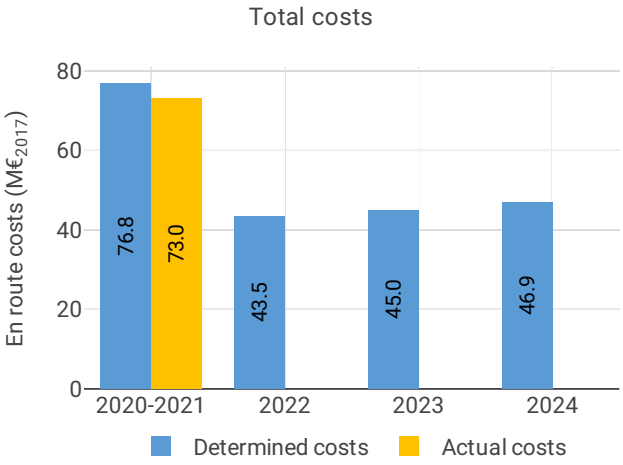
• The en route actual unit cost incurred by users in 2020/2021 was 71.52€, while the terminal actual unit cost incurred by users was 372.16€.

## 5.2 En route charging zone

### 5.2.1 Unit cost (KPI#1)

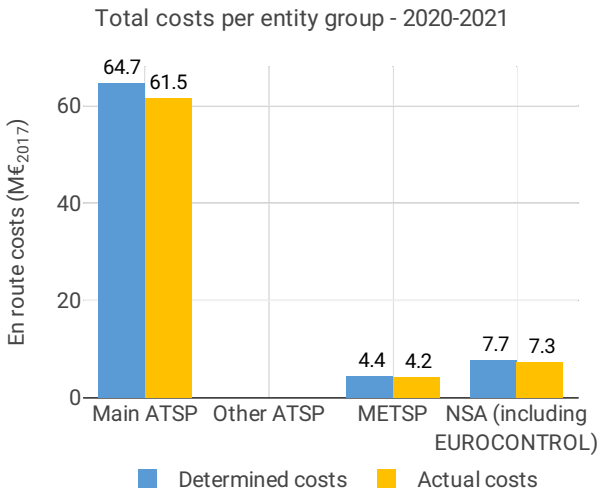


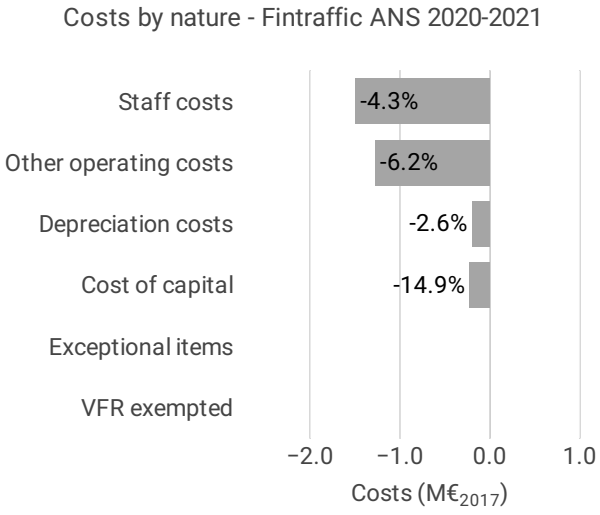




**Actual and determined data**

| Total costs - nominal (M€) | 2020-2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|
| Actual costs | 75 | NA | NA | NA |
| Determined costs | 79 | 45 | 48 | 50 |
| Difference costs | -4 | NA | NA | 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 | NA | NA | NA |
| Actual inflation index | NA | NA | NA | NA |
| Difference inflation index (p.p.) | NA | NA | NA | NA |




**Focus on unit cost**

**AUC vs. DUC**

In the combined year 2020-2021, the AUC was lower than the planned DUC (by -6.3%, or -5.10€2017). This results from the combination of higher than planned TSUs (+1.5%) and lower than planned en route costs in real terms (by -4.9%, or -3.8 M€2017).

**En route service units**

The difference between actual and planned TSUs (+1.5%) falls within the ±2% dead band. Hence the resulting additional revenue is kept by the ANSPs.

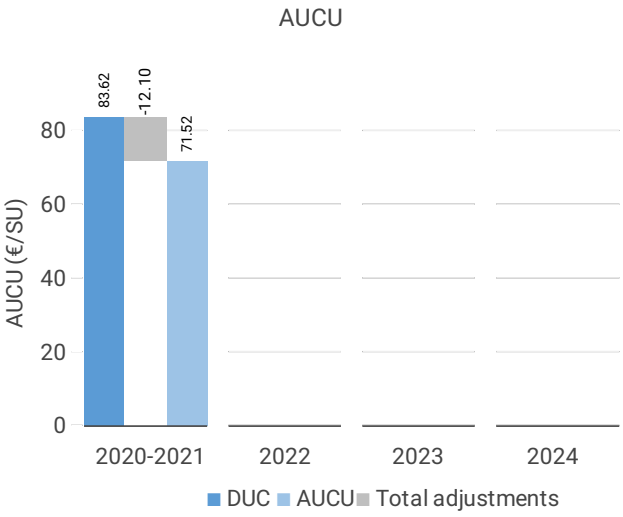
**En route costs by entity**

Actual real en route costs for 2020-2021 are -4.9% (-3.8 M€2017) lower than planned. This result is driven by the main ANSP, Fintraffic ANS (-4.9%, or -3.2 M€2017), the MET service provider (-4.4% or -0.2 M€2017) and the NSA/EUROCONTROL (-4.7%, or -0.4 M€2017).

**En route costs for the main ANSP at charging zone level**

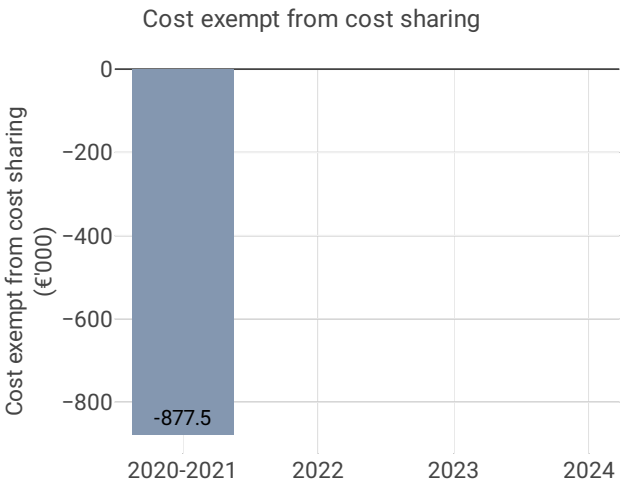
Lower then planned en route costs in real terms for Fintraffic ANS in 2020-2021 (-4.9%, or -3.2 M€2017 lower) results from:
- lower staff costs (-4.3%), "due to temporary lay-offs, lower head count, abandoning bonuses, lower pension costs, postponing recruiting and other savings in staff costs;"
- lower other operating costs (-6.2%), "due to savings in many cost groups: voluntary staff costs (health cost, training, parking), travel costs and telecommunication and maintenance and spare parts expenses, less payments to airport operator (Finavia) due to new contracts related to HR and ICT, lower credit losses, purchases from military (ATCO) and LFV (ATCO service for Kvarken flights) were lower, costs of operative ICT services lower than planned";
- lower depreciation (-2.6%), "due to postponing investments";
- lower cost of capital (-14.9%), "due to postponing investments";
- lower deduction for VFR exempted flights (-0.3%).

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



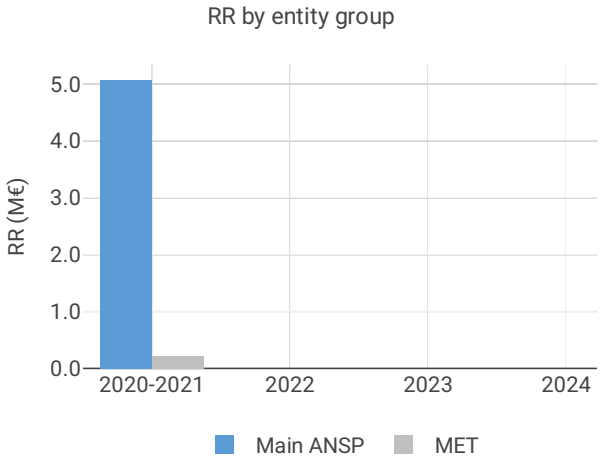

**AUCU components (€/SU) – 2020-2021**

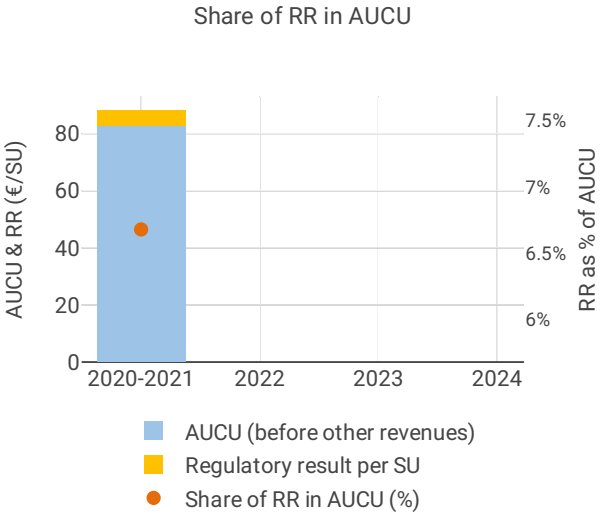
| Components of the AUCU in 2020-2021 | €/SU |
|---|---|
| **DUC** | **83.62** |
| Inflation adjustment | 0.22 |
| Cost exempt from cost-sharing | -0.92 |
| Traffic risk sharing adjustment | 0.00 |
| Traffic adj. (costs not TRS) | -0.19 |
| Finantial incentives | 0.00 |
| Modulation of charges | 0.00 |
| Cross-financing | 0.00 |
| Other revenues | -11.22 |
| Application of lower unit rate | 0.00 |
| Total adjustments | -12.10 |
| **AUCU** | **71.52** |
| **AUCU vs. DUC** | **-14.5%** |

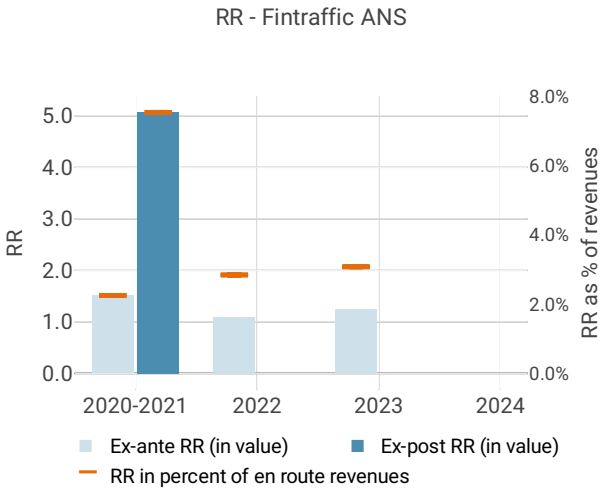


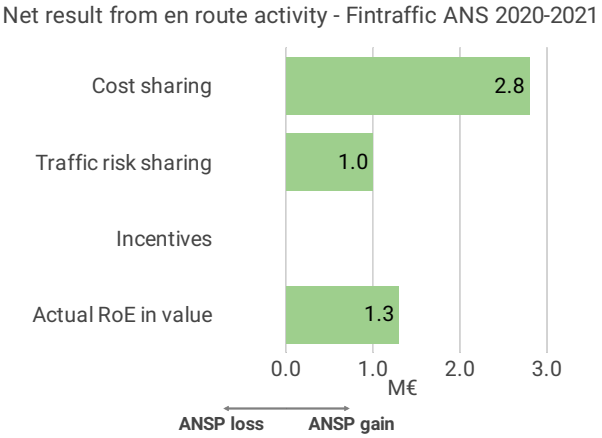

| Cost exempt from cost sharing by item - 2020-2021 | €'000 | €/SU |
|---|---|---|
| New and existing investments | -424.2 | -0.44 |
| Competent authorities and qualified entities costs | 0.0 | 0.00 |
| Eurocontrol costs | -364.4 | -0.38 |
| Pension costs | -88.9 | -0.09 |
| Interest on loans | 0.0 | 0.00 |
| Changes in law | 0.0 | 0.00 |
| **Total cost exempt from cost risk sharing** | **-877.5** | **-0.92** |

### 5.2.3 Regulatory result (RR)



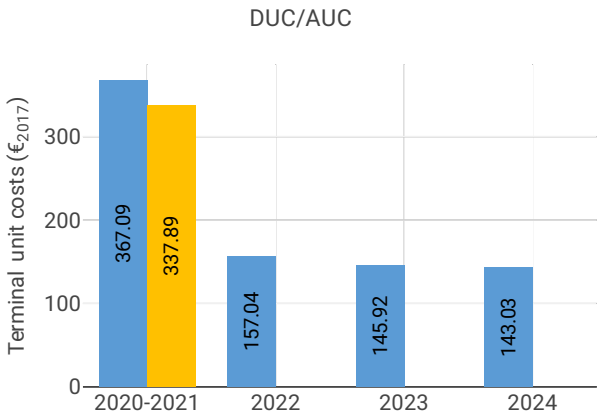



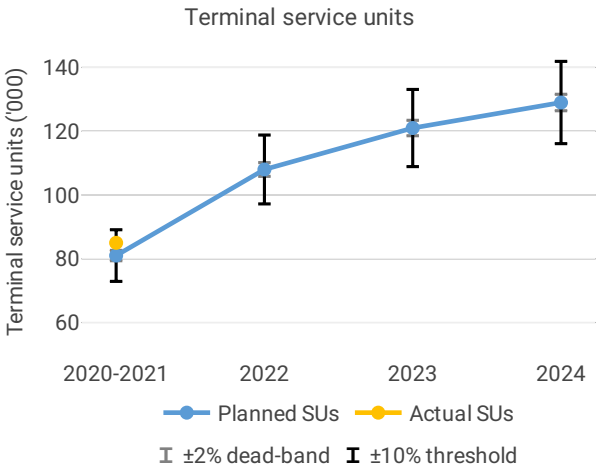

## Focus on regulatory result

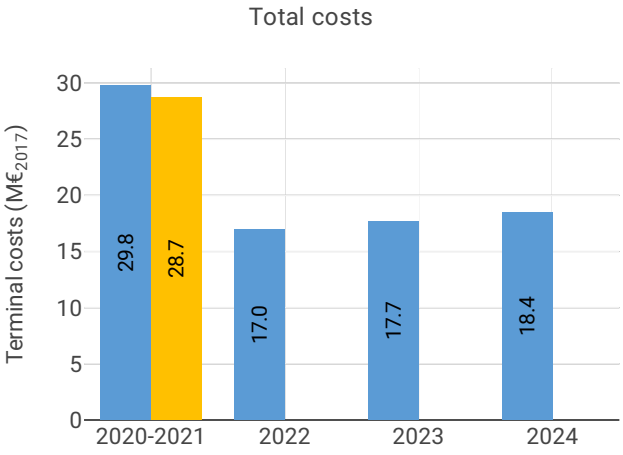
**Fintraffic ANS net gain on en route activity in the Finland charging zone in the combined year 2020-2021**
Fintraffic ANS's net gain amounts to +3.8 M€, as a combination of a gain of +2.8 M€ arising from the cost sharing mechanism and a gain of +1.0 M€ arising from the traffic risk sharing mechanism.
**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 mentioned above (+3.8 M€) and the actual RoE (+1.3 M€) amounts to +5.1 M€ (7.5% of the en route revenues). The resulting ex-post rate of return on equity is 16.9%, which is higher than the 4.3% planned in the PP.

## 5.3 Terminal charging zone

### 5.3.1 Unit cost (KPI#1)

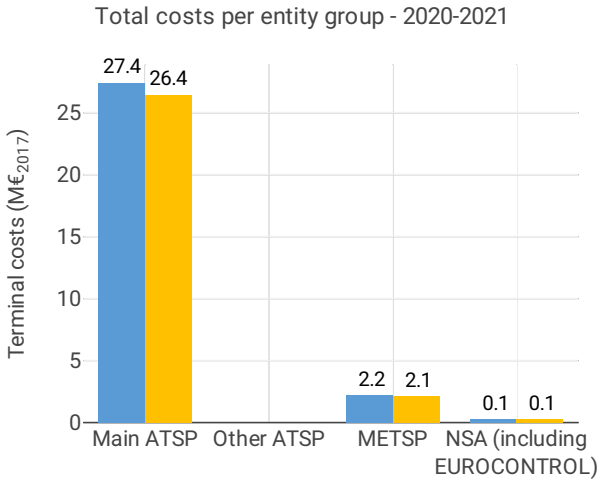


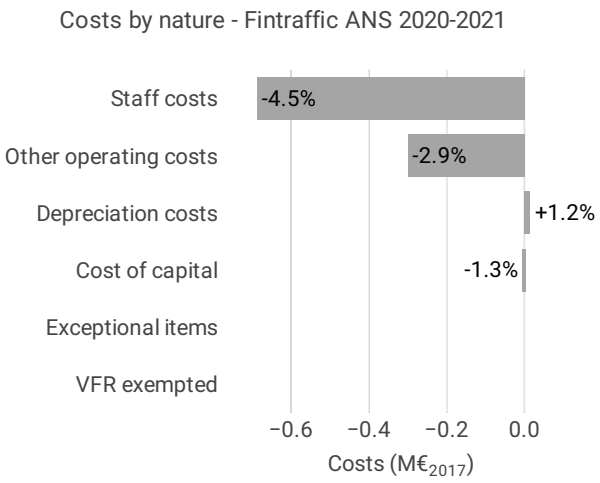




**Actual and determined data**

| Total costs - nominal (M€) | 2020-2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|
| Actual costs | 30 | NA | NA | NA |
| Determined costs | 31 | 18 | 19 | 20 |
| Difference costs | -1 | NA | NA | 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 | NA | NA | NA |
| Actual inflation index | NA | NA | NA | NA |
| Difference inflation index (p.p.) | NA | NA | NA | NA |




**Focus on unit cost**

**AUC vs. DUC**

In the combined year 2020-2021, the terminal AUC was -8.0% (or -29.20€2017) lower than the planned DUC. This results from the combination of higher than planned TNSUs (+4.7%) and lower than planned terminal costs in real terms (-3.6%, or -1.1 M€2017).

**Terminal service units**

The difference between actual and planned TNSUs (+4.7%) falls between the ±2% dead band, and the ±10% threshold. The resulting gain of additional terminal revenues is therefore shared between the ATSP and the airspace users, with the ATSP (Fintraffic ANS) retaining an amount of +0.8 M€2017.

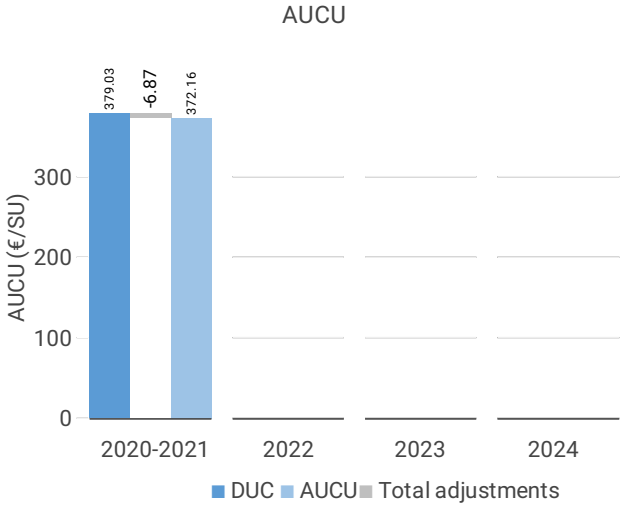
**Terminal costs by entity**

Actual real terminal costs are -3.6% (-1.1 M€2017) lower than planned. This is driven by the main ANSP, Fintraffic ANS (-3.6%, or -1.0 M€2017) and the MET service provider (-4.4%, or -0.1 M€2017).

**Terminal costs for the main ANSP at charging zone level**

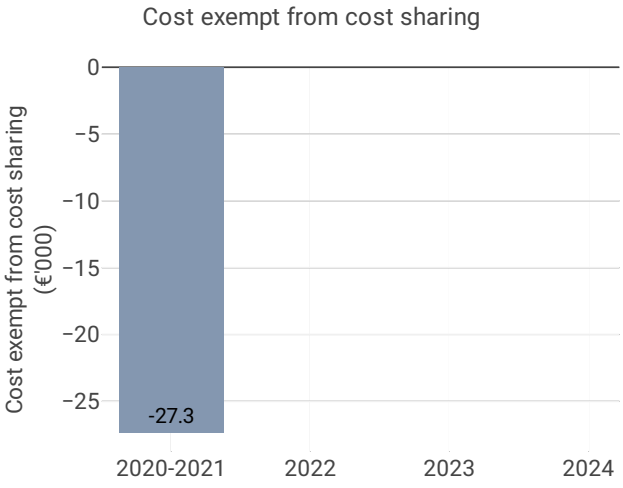
The lower than planned terminal costs in real terms for Fintraffic ANS (-3.6%, or -1.0 M€2017) result from:
- lower staff costs (-4.5%), "due to temporary lay-offs, lower head count, abandoning bonuses, lower pension costs, postponing recruiting and other savings in staff costs";
- lower other operating costs (-2.9%), "due to savings in many cost groups: voluntary staff costs (health cost, training, parking) and travel costs due to remote work, less payments to airport operator (Finavia) due to new contracts related to HR and ICT, lower telecommunication costs, lower credit losses, less purchases of equipment and spare parts, costs of operative ICT services lower than planned";
- slightly higher depreciation (+1.2%); and
- slightly lower cost of capital (-1.3%).

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



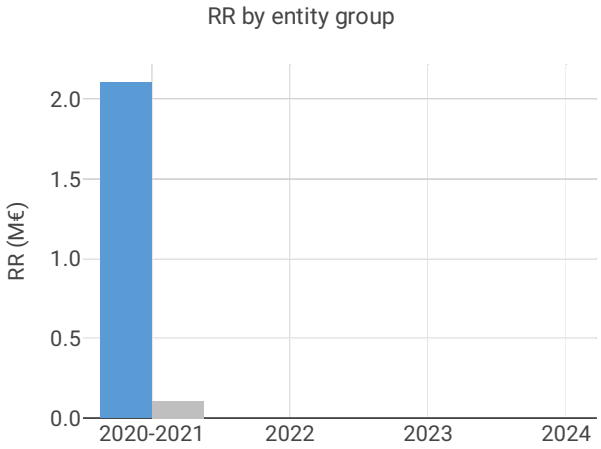

**AUCU components (€/SU) – 2020-2021**

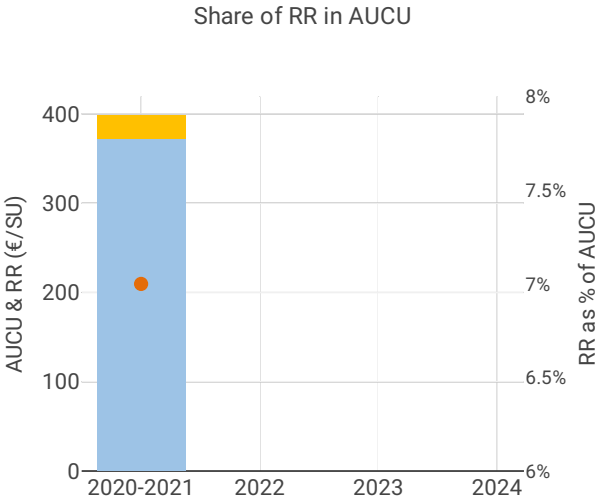
| Components of the AUCU in 2020-2021 | €/SU |
|---|---|
| **DUC** | **379.03** |
| Inflation adjustment | 1.16 |
| Cost exempt from cost-sharing | -0.32 |
| Traffic risk sharing adjustment | -6.36 |
| Traffic adj. (costs not TRS) | -1.35 |
| Finantial incentives | 0.00 |
| Modulation of charges | 0.00 |
| Cross-financing | 0.00 |
| Other revenues | 0.00 |
| Application of lower unit rate | 0.00 |
| Total adjustments | -6.87 |
| **AUCU** | **372.16** |
| **AUCU vs. DUC** | **-1.8%** |

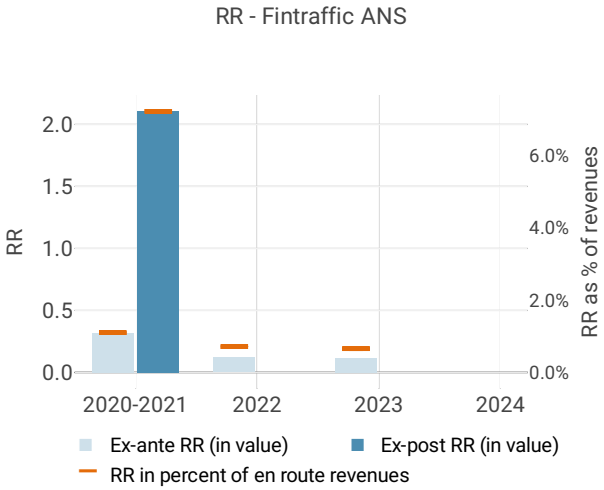


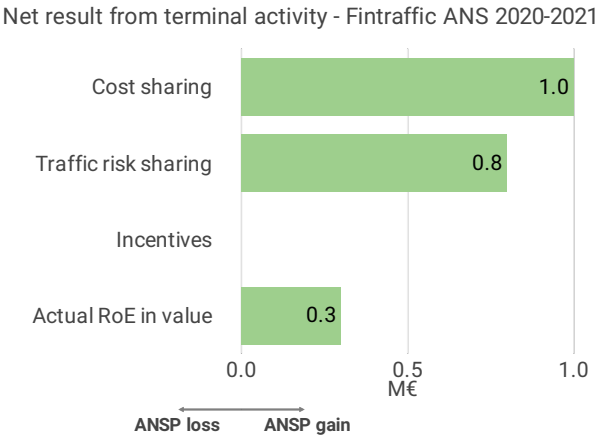

| Cost exempt from cost sharing by item - 2020-2021 | €'000 | €/SU |
|---|---|---|
| New and existing investments | 10.0 | 0.12 |
| Competent authorities and qualified entities costs | 0.0 | 0.00 |
| Eurocontrol costs | 0.0 | 0.00 |
| Pension costs | -37.4 | -0.44 |
| Interest on loans | 0.0 | 0.00 |
| Changes in law | 0.0 | 0.00 |
| **Total cost exempt from cost risk sharing** | **-27.3** | **-0.32** |

### 5.3.3 Regulatory result (RR)




## Focus on regulatory result

**Fintraffic ANS net gain on activity in the Finland terminal charging zone in the combined year 2020-2021**
Fintraffic ANS's net gain amounts to +1.8 M€ due to gains of +1.0 M€ from the cost sharing mechanism and of +0.8 M€ from the traffic risk sharing mechanism.

**Fintrafffic ANS overall regulatory results (RR) for the terminal charging zone activity**
Ex-post, the overall RR taking into account the net gain from the terminal activity mentioned above (+1.8 M€) and the actual RoE (+0.3 M€) amounts to +2.1 M€ (7.2% of the terminal revenues). The resulting ex-post rate of return on equity is 28.6%, which is higher than the 4.3% planned in the PP.