PRB | Performance review body of the single european sky

Performance Review Body Monitoring Report

Netherlands - 2020

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TABLE OF CONTENTS

1 OVERVIEW 3
- *1.1 Contextual information* 3
- *1.2 Traffic (En route traffic zone)* 3
- *1.3 Safety (Main ANSP)* 4
- *1.4 Environment (Member State)* 4
- *1.5 Capacity (Member State)* 5
- *1.6 Cost-efficiency (En route/Terminal charging zone(s))* 6

2 SAFETY - NETHERLANDS 6
- *2.1 PRB monitoring* 6
- *2.2 Effectiveness of Safety Management (EoSM) (KPI#1)* 7
- *2.3 Occurrences - Rate of runway incursions (RIs) (PI#1) & Rate of separation minima infringements (SMIs) (PI#2)* 7

3 ENVIRONMENT - NETHERLANDS 7
- *3.1 PRB monitoring* 7
- *3.2 En route performance* 8
- *3.3 Terminal performance* 9
- *3.4 Civil-Military dimension* 10

4 CAPACITY - NETHERLANDS 11
- *4.1 PRB monitoring* 11
- *4.2 En route performance* 12
- *4.3 Terminal performance* 13

5 COST-EFFIENCY - NETHERLANDS 15
- *5.1 PRB monitoring* 15
- *5.2 En route charging zone* 16
- *5.3 Terminal charging zone* 19

1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2023/179 of 14 December 2022

List of ACCs 1
Amsterdam ACC

No of airports in the scope of the performance plan:
- **≥80'K** 1
- **<80'K** 3

Exchange rate (1 EUR=)
2017: 1 EUR
2020: 1 EUR

Share of Union-wide:
- **traffic (TSUs) 2020** 2.8%
- **en route costs 2020** 3.9%

Share en route / terminal costs 2020 77% / 23%

En route charging zone(s)
Netherlands

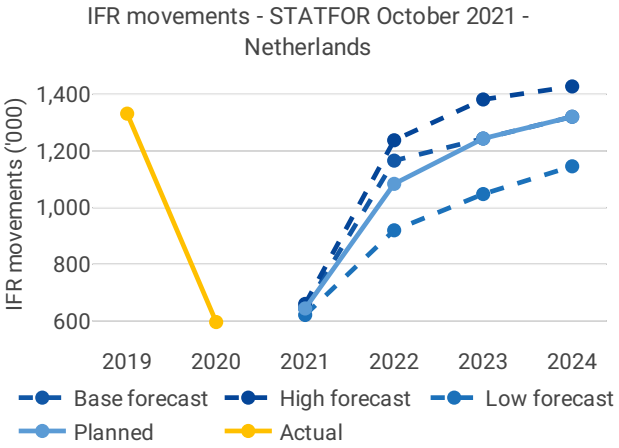
Terminal charging zone(s)
Netherlands

Main ANSP
- LVNL

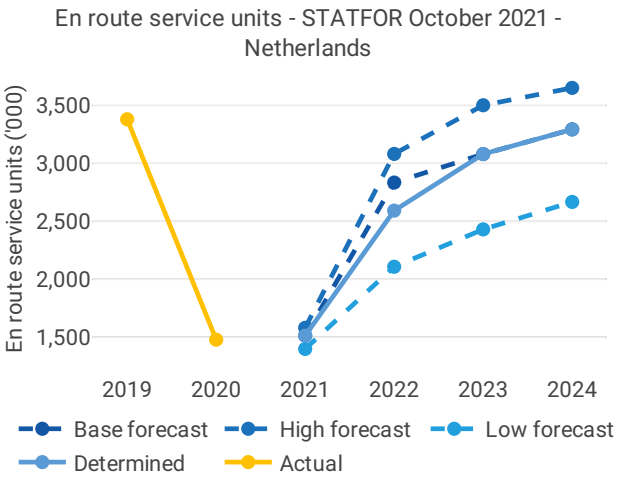
Other ANSPs
- MUAC

MET Providers
- Royal Netherlands Meteorological Institute (KNMI)

1.2 Traffic (En route traffic zone)

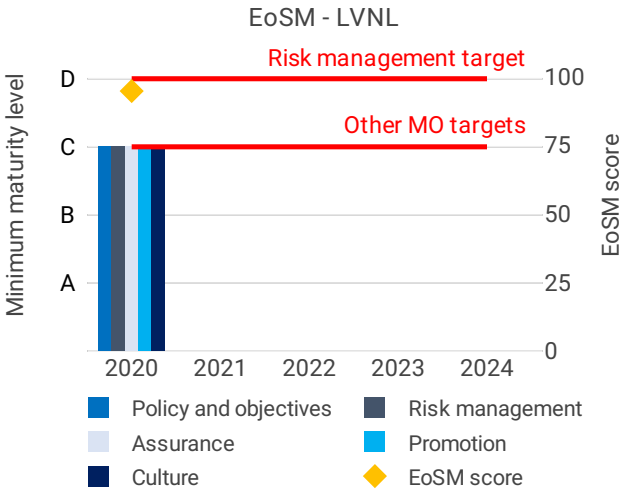


- Netherlands recorded 596K actual IFR movements in 2020, -55% compared to 2019 (1,332K).
- Netherlands IFR movements reduced less than the average reduction at Union-wide level (-57%).



- Netherlands recorded 1,480K actual en route service units in 2020, -56% compared to 2019 (3,381K).
- Netherlands service units reduced less than the average reduction at Union-wide level (-57%).

1.3 Safety (Main ANSP)



• LVNL achieved its EoSM target in four out of five safety management objectives. The safety risk management objective was the only objective to not reach the target.

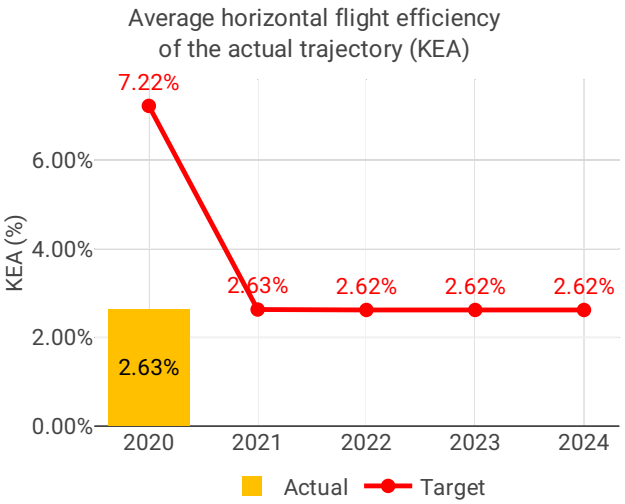
• The NSA explained that a limited update is required to the safety risk management process to achieve the RP3 target.

• LVNL's 2020 EoSM performance is consistent with the safety maturity achieved at the end of RP2. The need to implement improvements in the safety risk management objective was anticipated and a small improvement will ensure that LVNL will achieve the EoSM targets before the end of RP3.

• The Netherlands recorded a higher rate of SMIs, which is unusual compared to other Member States and not what was expected considering the reduced level of traffic. On the other hand, the rate of RIs fell by more than 90% in 2020 compared to 2019.

• LVNL should improve its SMS by implementing automated safety data recording systems for RIs and SMIs.

1.4 Environment (Member State)



• FABEC stated that half of the Union-wide RAD simplifications applied in 2020 were within FABEC airspace and that eNM measures were not needed. This helped improve the shortest constrained routes within FABEC, but was not sufficient in helping to reach the FAB-level KEA reference value (2.90%) in 2020.

• At national level, the Netherlands achieved a KEA performance of 2.63% and the FABEC reference value is 2.90%.

• While the KEA performance in the Netherlands improved relative to 2019, the SCR was stable.

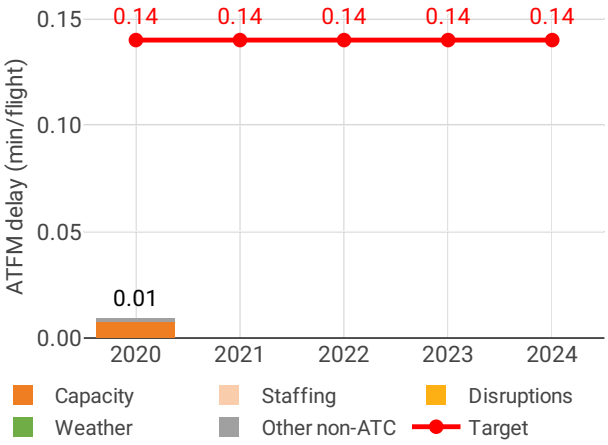
• Only one out of four Dutch airports that are regulated reported terminal data.

• The share of flights operating CCO/CDO at Dutch airports improved in 2020 compared to 2019, although it still requires further improvement as less than 30% of flights conduct CDOs.

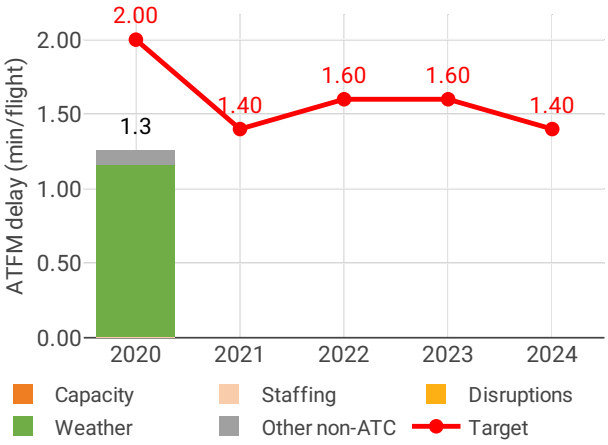
• The additional time airspace users spent taxiing or holding in terminal airspace reduced by 43% compared to 2019.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



Average arrival ATFM delay per flight by delay groups



- LVNL registered 0.01 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.14.

- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 55% below the 2019 levels in the Netherlands.

- The Netherlands reported no capacity issues and a 2% increase in ATCO FTE numbers in 2020 compared to 2019 values.

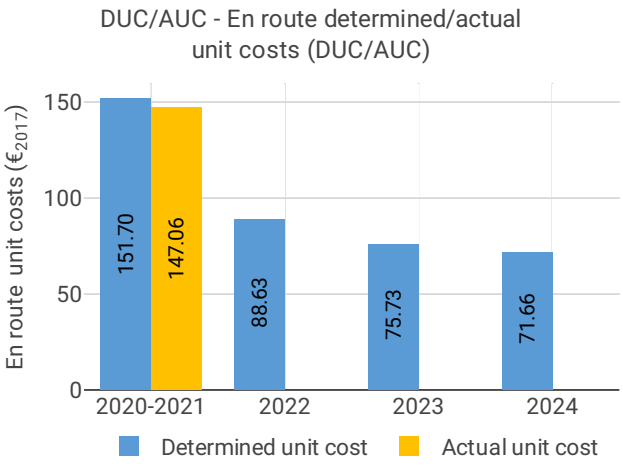
- Delays were driven by ATC capacity issues.

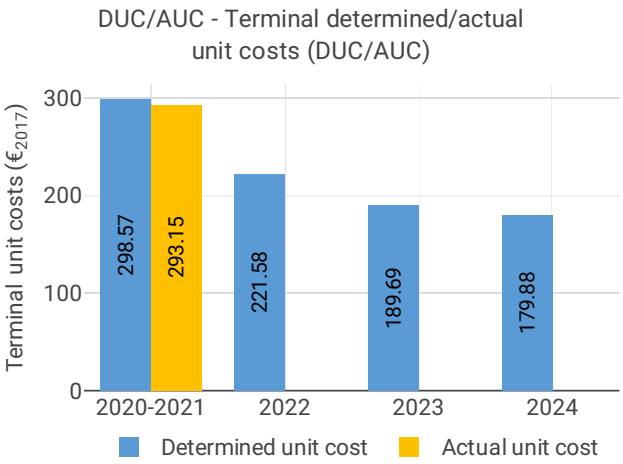
- The share of delayed flights with delays longer than 15 minutes in the Netherlands decreased by 19.25 p.p. compared to 2019.

- The yearly total of sector opening hours in Amsterdam ACC was 40,138, showing a 0.3% increase compared to 2019.

- Amsterdam ACC registered 6.68 IFR movements per one sector opening hour in 2020, being 55.2% below 2019 levels.

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





• The 2020 actual service units (1,480K) were 55% lower than the actual service units in 2019 (3,314K).

• The Netherlands increased total costs in 2020 by 3.7 M€2017 (+2%) compared to 2019 actual costs. Moreover, the Netherlands did not achieve the cost-efficiency targets in 2019.

• The cost increase is mainly due to the increase in MUAC staff costs due to high indexation and ATCOs negotiations on remuneration and the new Polaris building that has been put into operation.

• LVNL spent 20 M€2017 in 2020 related to costs of investments, 2% less than planned in the 2019 draft performance plan (21 M€2017). The under-spending is due to issues with practical execution of projects due to COVID-19.

2 SAFETY - NETHERLANDS

2.1 PRB monitoring

• LVNL achieved its EoSM target in four out of five safety management objectives. The safety risk management objective was the only objective to not reach the target.

• The NSA explained that a limited update is required to the safety risk management process to achieve the RP3 target.

• LVNL's 2020 EoSM performance is consistent with the safety maturity achieved at the end of RP2. The need to implement improvements in the safety risk management objective was anticipated and a small improvement will ensure that LVNL will achieve the EoSM targets before the end of RP3.

• The Netherlands recorded a higher rate of SMIs, which is unusual compared to other Member States and not what was expected considering the reduced level of traffic. On the other hand, the rate of RIs fell by more than 90% in 2020 compared to 2019.

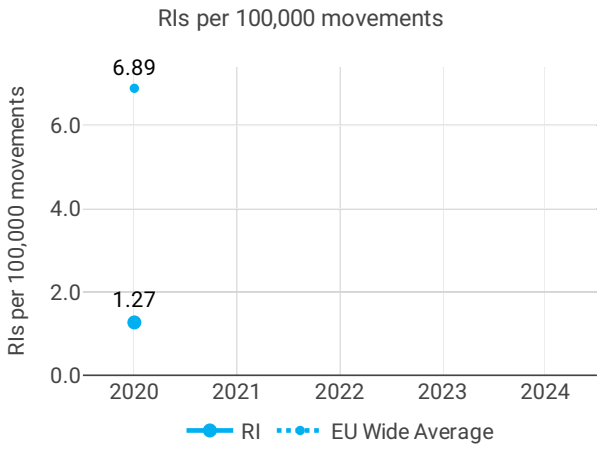
• LVNL should improve its SMS by implementing automated safety data recording systems for RIs and SMIs.

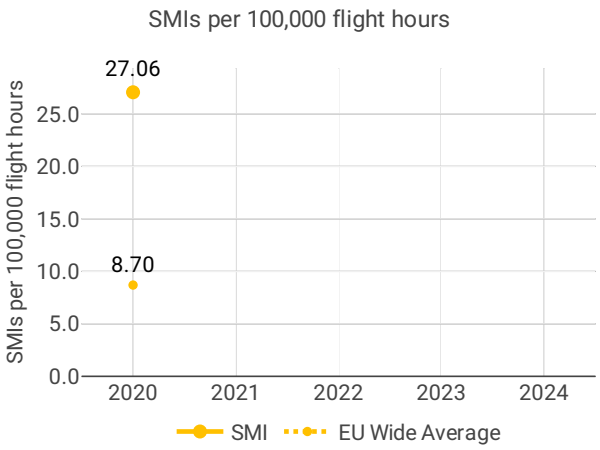
2.2 Effectiveness of Safety Management (EoSM) (KPI#1)

Focus on EoSM

Four out of five EoSM components of the LVNL meet already the 2024 target level. Only the component "Safety Risk Management" is below 2024 target level, at level C. Improvements in safety risk management are still expected during RP3 to achieve 2024 targets.
All five EoSM components of MUAC meet, or exceed, already the 2024 target level.

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





3 ENVIRONMENT - NETHERLANDS

3.1 PRB monitoring

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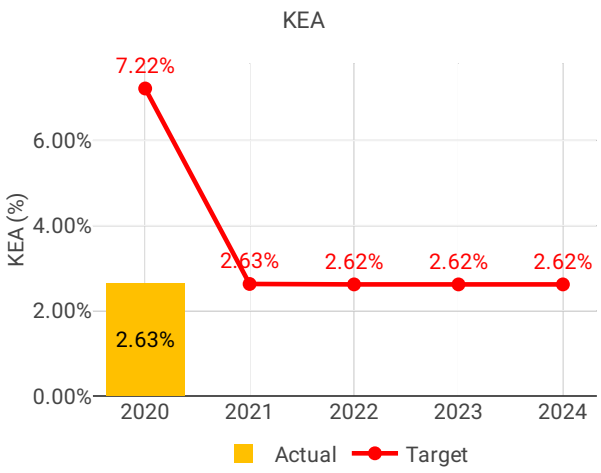
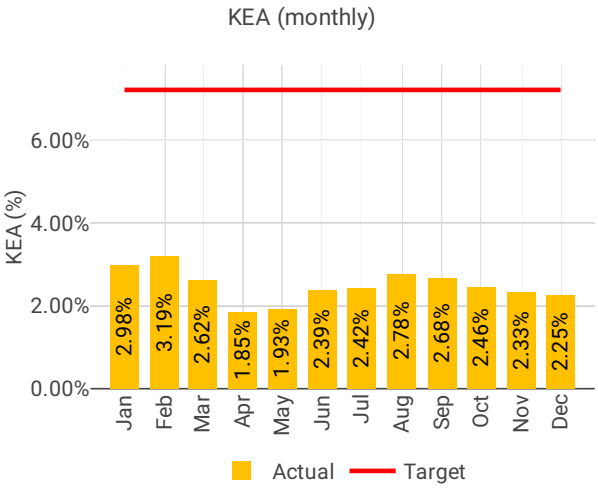
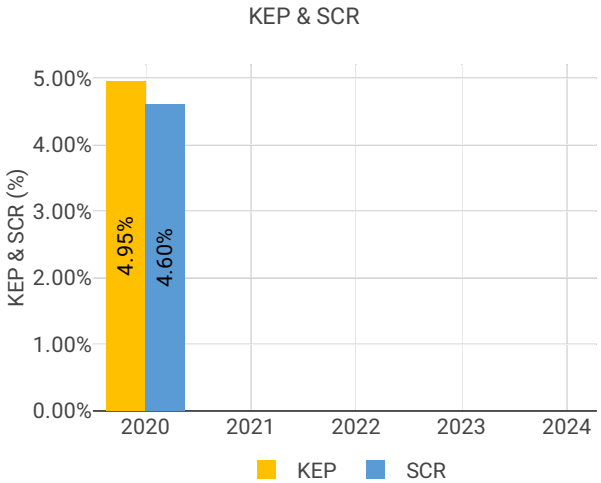
• The additional time airspace users spent taxiing or holding in terminal airspace reduced by 43% compared to 2019.

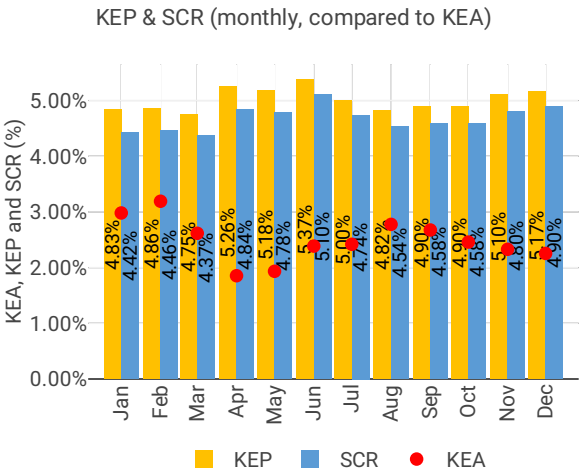
3.2 En route performance

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)



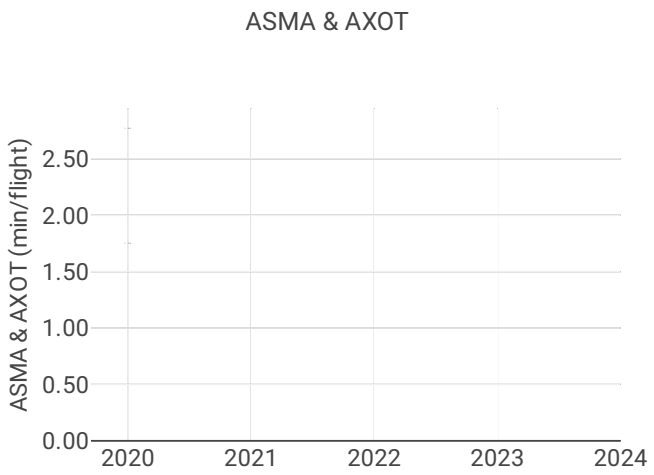


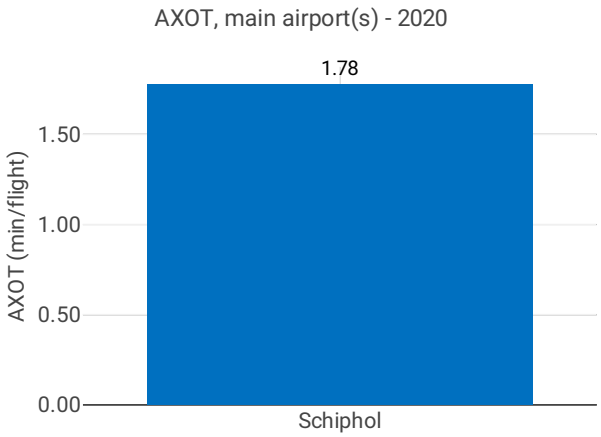


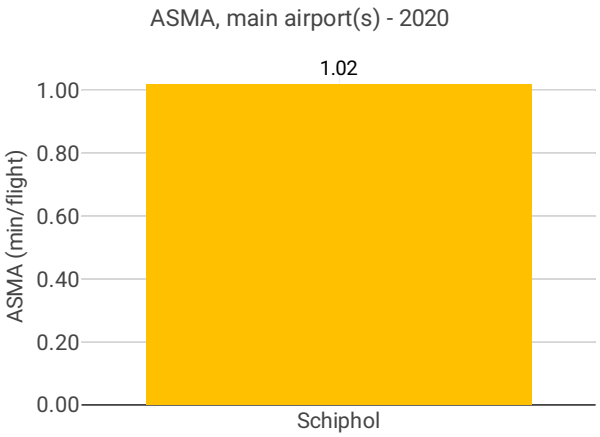


3.3 Terminal performance

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







Focus on ASMA & AXOT

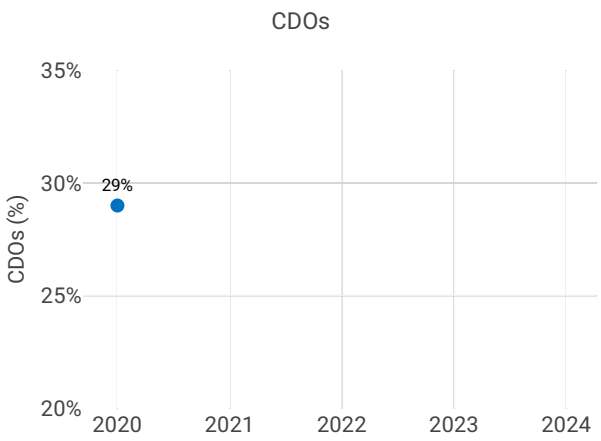
AXOT

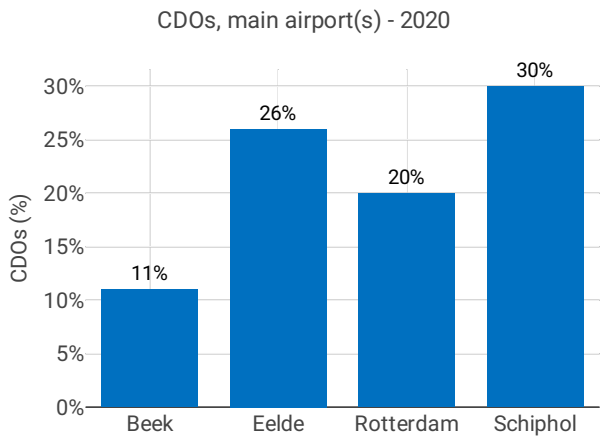
Additional taxi-out times at Amsterdam (EHAM; 2019: 3.11 min/dep; 2020: 1.78 min/dep.) already showed improvement in the first quarter of the year compared to 2019, and then drastically dropped to 0.37 min/dep. average in April 2020. The rest of the year these additional times remained low, around half of the values in 2019.

ASMA

Additional times in the terminal airspace of Amsterdam (EHAM; 2019: 1.78 min/arr.; 2020: 1.02 min/arr.), after averaging more than 2 min/arr. in February (probably due to the storms in central Europe), plummeted to zero during April, May and June 2020. From June until the end of the year, the additional times steadily increased but still remained well under the 1 min/arr.

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





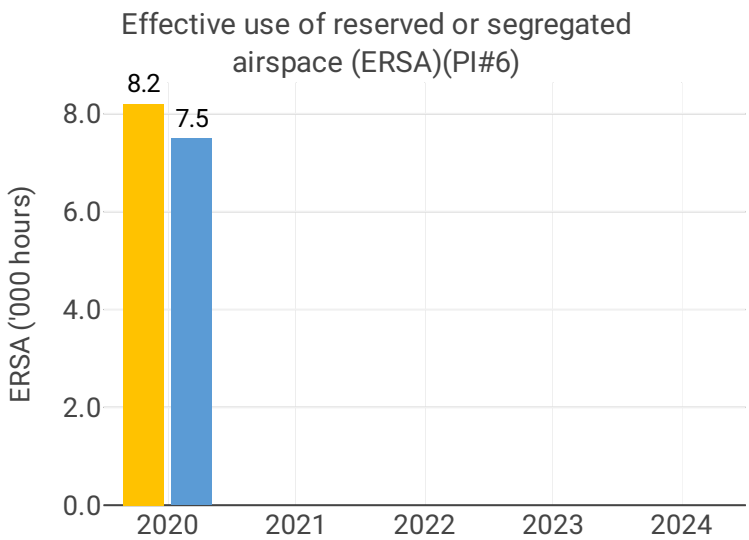
Focus CDOs

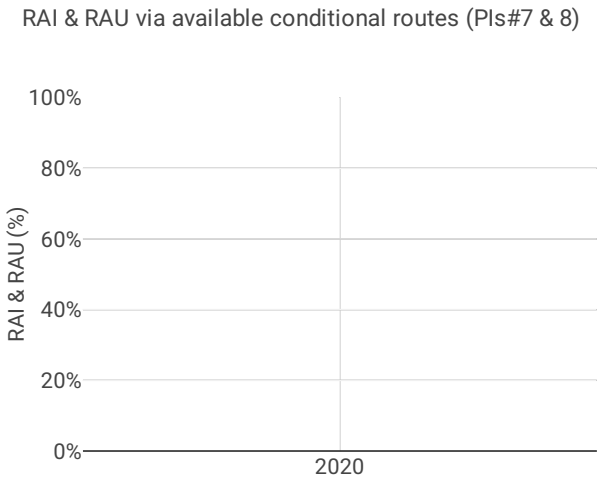
Amsterdam, being the major airport in the Netherlands, has the highest share of CDO flights of the 4 airports: 30.0% which is a little below the overall RP3 value in 2020 (32.5%).
Groningen (EHGG) and Rotterdam (EHRD) have (a little) more than 20% of CDO flights while Maastricht-Aachen (EHBK) has only 11.3% of CDO flights.

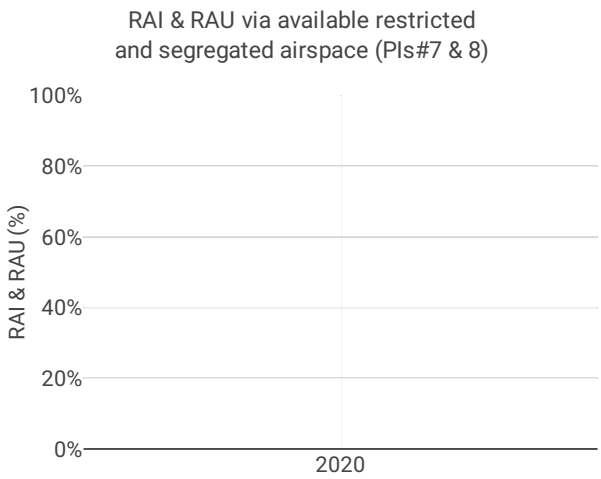
Airport level

	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
Schiphol	1.78	NA	NA	NA	NA	1.02	NA	NA	NA	NA	30%	NA	NA	NA	NA
Beek	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11%	NA	NA	NA	NA
Eelde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26%	NA	NA	NA	NA
Rotterdam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20%	NA	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 environment and 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 - NETHERLANDS

4.1 PRB monitoring

• LVNL registered 0.01 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.14.

• Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 55% below the 2019 levels in the Netherlands.

• The Netherlands reported no capacity issues and a 2% increase in ATCO FTE numbers in 2020 compared to 2019 values.

• Delays were driven by ATC capacity issues.

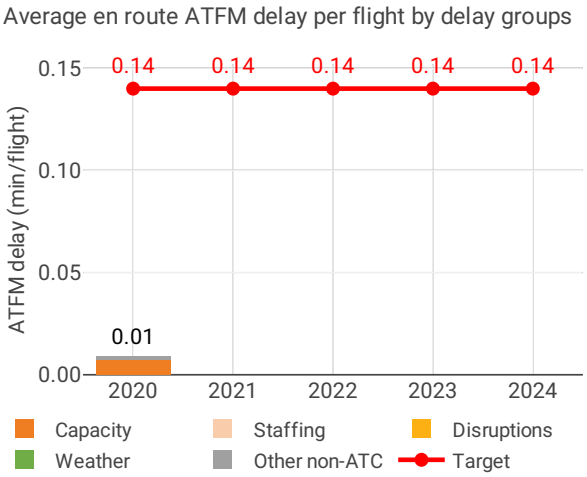
• The share of delayed flights with delays longer than 15 minutes in the Netherlands decreased by 19.25 p.p. compared to 2019.

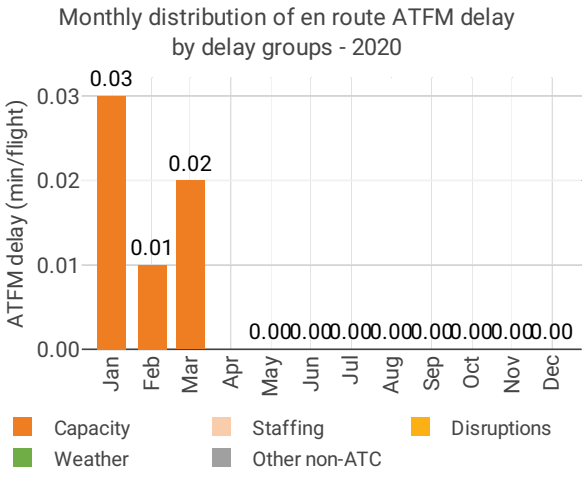
• The yearly total of sector opening hours in Amsterdam ACC was 40,138, showing a 0.3% increase compared to 2019.

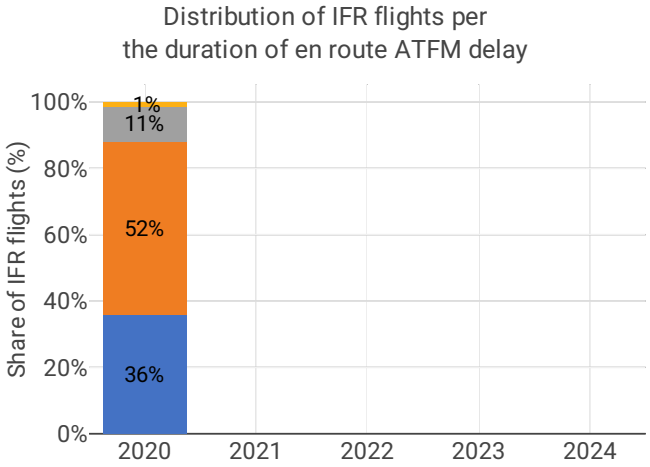
• Amsterdam ACC registered 6.68 IFR movements per one sector opening hour in 2020, being 55.2% below 2019 levels.

4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)







Focus on en route ATFM delay

Summary of capacity performance

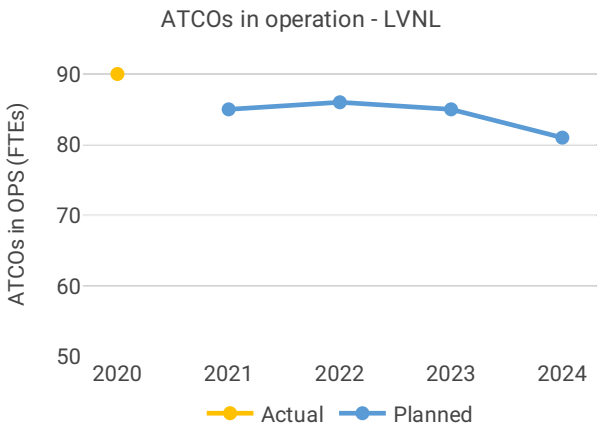
NSA's assessment of capacity performance

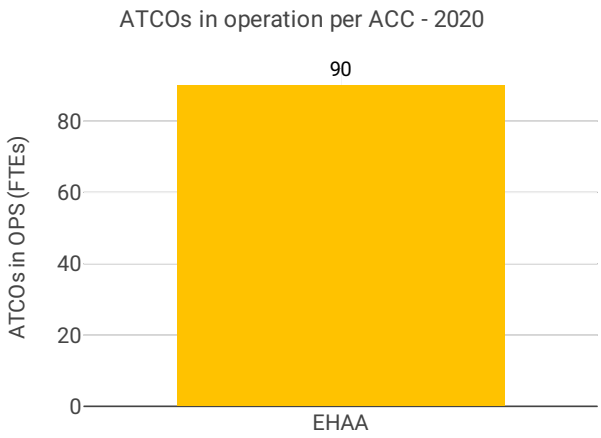
Monitoring process for capacity performance

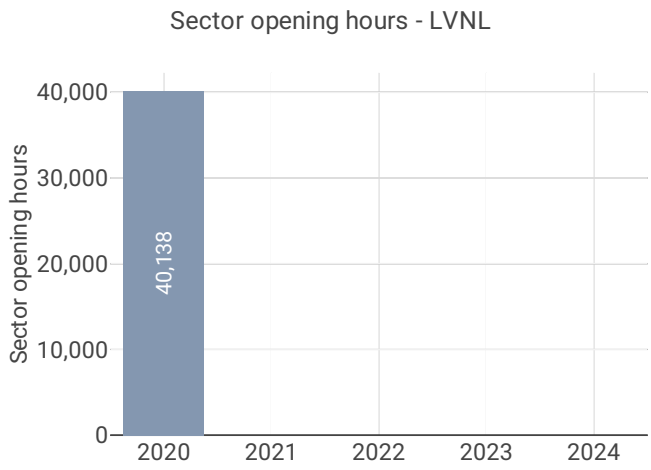
Capacity planning

Application of Corrective Measures for Capacity (if applicable)

4.2.2 Other indicators



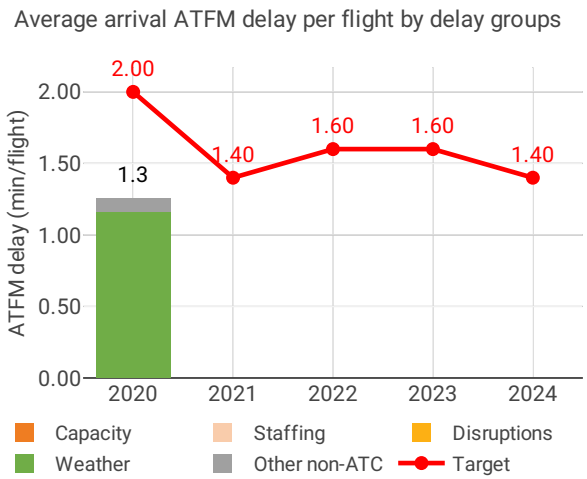


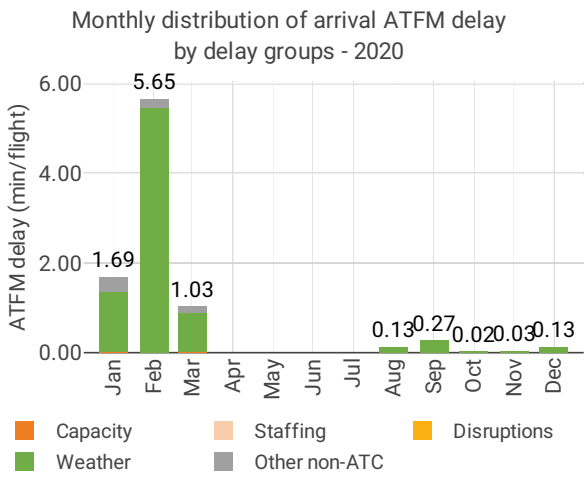


Focus on ATCOs in operations

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)





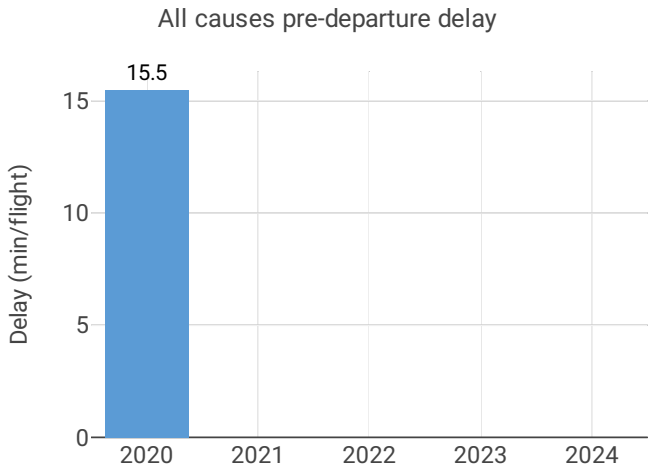
Focus on arrival ATFM delay

For the Netherlands, the scope of the performance monitoring of terminal services under RP3 comprises a total of 4 airports. In accordance with IR (EU) 2019/317 and the traffic figures at these 4 airports, only Amsterdam must be monitored for pre-departure delays.
The Airport Operator Data Flow is fully established at Amsterdam and the monitoring of pre-departure delays 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 these 4 airports decreased in 2020 by 53%. Amsterdam, after reaching its maximum allowed capacity of 500,000 movements per year in previous years, saw a reduction in traffic in 2020 of 54%.
Despite the traffic reduction, arrival ATFM delays at Amsterdam were still high (5th highest in the SES area) and all causes pre-departure delays were also very high (2nd highest in the SES area) especially in the second trimester.

The massive traffic drop due to the COVID-19 pandemic outbreak in Europe as from March 2020 has reduced the 2020 March - December traffic to a very low level at these airports (from -36% in March down to -89% in April).
Amsterdam (EHAM: 2019: 4.23 min/arr.; 2020: 1.41 min/arr.) registered significant arrival ATFM delays during the first trimester of 2020, averaging 3.18 min/arr during this period (vs 4.93 min/arr during the same first trimester of 2019).
Zero delays were observed between April and June, and some minor delays were caused by weather regulations during the second half of the year,
The other 3 airports did not observe any arrival ATFM delay in 2020.

The provisional national target on arrival ATFM delay in 2020 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
Beek	NA	NA	NA	NA	96.0%	NA%	NA%	NA%
Eelde	0.01	NA	NA	NA	88.0%	NA%	NA%	NA%
Rotterdam	NA	NA	NA	NA	100.0%	NA%	NA%	NA%
Schiphol	1.41	NA	NA	NA	97.6%	NA%	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
Beek	NA	NA	NA	NA	NA	NA	NA	NA
Eelde	NA	NA	NA	NA	NA	NA	NA	NA
Rotterdam	NA	NA	NA	NA	NA	NA	NA	NA
Schiphol	NA	NA	NA	NA	15.5	NA	NA	NA

Focus on performance indicators at airport level

ATFM slot adherence

With the drastic drop in traffic, the share of regulated departures from Amsterdam (EHAM), Rotterdam (EHRD) and Maastricht (EHBK) airports virtually disappeared as of April. The annual figures are therefore driven by the performance in the first trimester.
These three airports showed adherence above 95% and the national average was 97.6%.With regard to the 2.4% of flights that did not adhere, 0.9% was early and 1.5% was late.
Only 25 departures from Groningen (EHGG) were regulated in 2020, so the 12% of departures outside of the STW are in fact only 3 flights.

ATC pre-departure delay

The share of unidentified delay reported by Amsterdam (the only Dutch airport subject to monitoring of this indicator) in 2020 has been above 40% for more than 2 months in the year, preventing the calculation of this indicator.
The insufficient data quality provided by Amsterdam is a long standing issue prior to April 2020, but the situation has worsened since April 2020 due to the special traffic composition since then. The unidentified delay after April 2020 has been around 80% of all delays.

All causes pre-departure delay

Amsterdam is the only Dutch airport subject to the monitoring of this indicator.
The total (all causes) delay in the actual off block time at Amsterdam in 2020 was 15.52 min/dep. which is the 3rd highest among the RP3 monitored airports. The higher delays per flight were observed in the second trimester of the year, due to the lower traffic and extraordinary circumstances. In November and December there was also a significant increase of the delay per flight, averaging almost 25 min/dep in December.

5 COST-EFFIENCY - NETHERLANDS

5.1 PRB monitoring

• The 2020 actual service units (1,480K) were 55% lower than the actual service units in 2019 (3,314K).

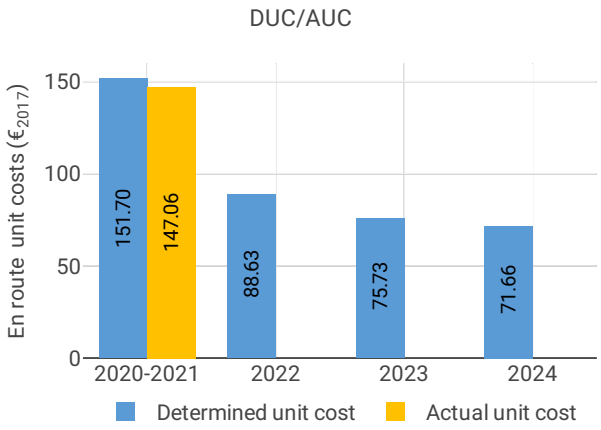
• The Netherlands increased total costs in 2020 by 3.7 M€2017 (+2%) compared to 2019 actual costs. Moreover, the Netherlands did not achieve the cost-efficiency targets in 2019.

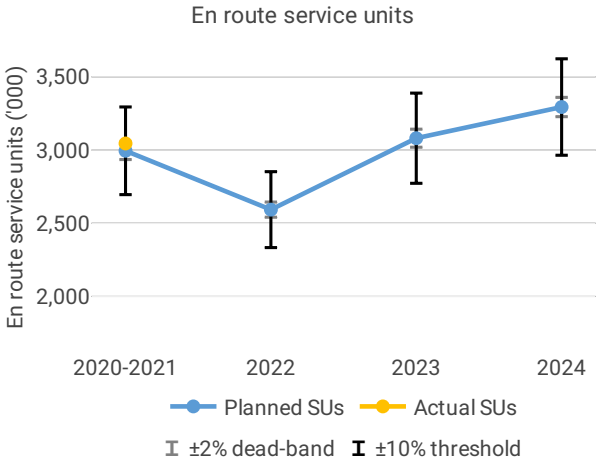
• The cost increase is mainly due to the increase in MUAC staff costs due to high indexation and ATCOs negotiations on remuneration and the new Polaris building that has been put into operation.

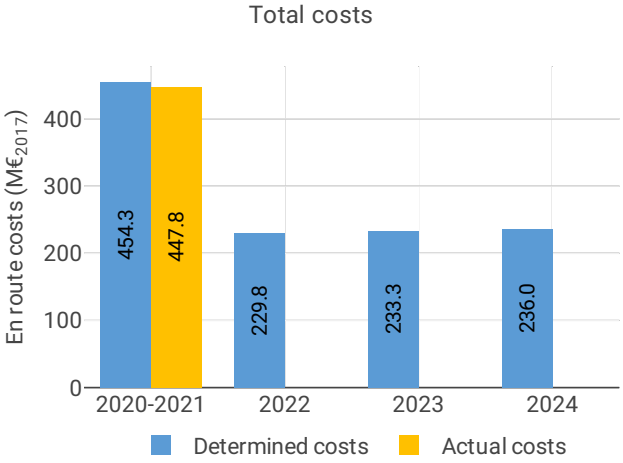
• LVNL spent 20 M€2017 in 2020 related to costs of investments, 2% less than planned in the 2019 draft performance plan (21 M€2017). The underspending is due to issues with practical execution of projects due to COVID-19.

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)



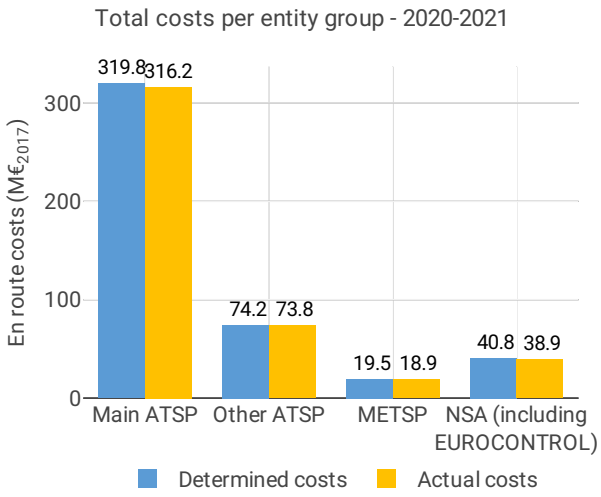


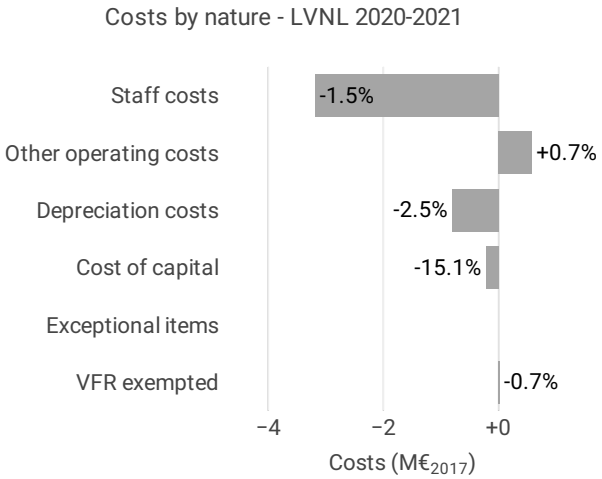


Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	474	NA	NA	NA
Determined costs	478	246	253	259
Difference costs	-4	NA	NA	NA

Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	1.5%	1.6%	1.6%
Determined inflation index	NA	108.6	110.3	112.1
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 -3.1% (or -4.64 €2017) lower than the planned DUC. This results from the combination of higher than planned TSUs (+1.7%) and lower than planned en route costs in real terms (-1.4%, or -6.5 M€2017).

En route service units

The difference between actual and planned TSUs (+1.7%) falls within the ±2% dead band. Hence the resulting additional en-route revenue is kept by the ANSPs.

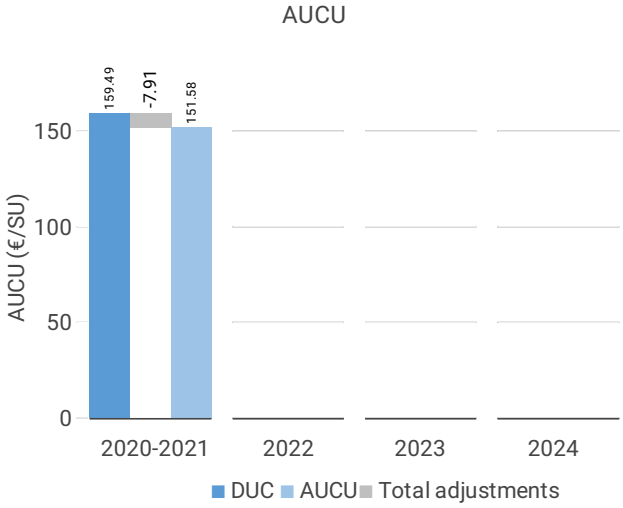
En route costs by entity

Actual real en route costs are -1.4% (-6.5 M€2017) lower than planned. This is driven by the lower costs across all the entities in the charging zone: main ANSP - LVNL(-1.1%, or -3.6 M€2017), other ANSP - MUAC (-0.6%, or -0.5 M€2017), MET service provider (-2.7%, or -0.5 M€2017) and NSA/EUROCONTROL (-4.6%, or -1.9 M€2017).

En route costs for the main ANSP at charging zone level

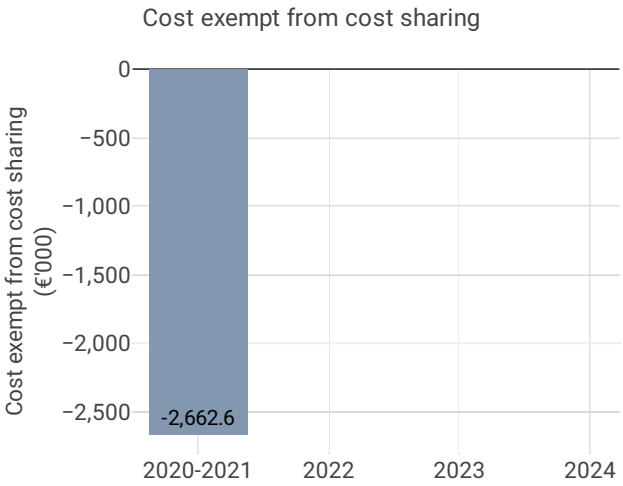
The lower than planned en route costs in real terms for LVNL (-1.1%, or -3.6 M€2017) result from:
- lower staff costs (-1.5%) reflecting cost-containment measures relating to staff wages;
- slightly higher other operating costs (+0.7%);
- lower depreciation (-2.5%) reflecting delays in projects implementation due to the impact of Covid-19;
- lower cost of capital (-15.1%) resulting from the lower than planned asset base and lower than planned average interest on debts; and,
- slightly lower than planned deduction for VFR exempted flights (-0.7%).

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



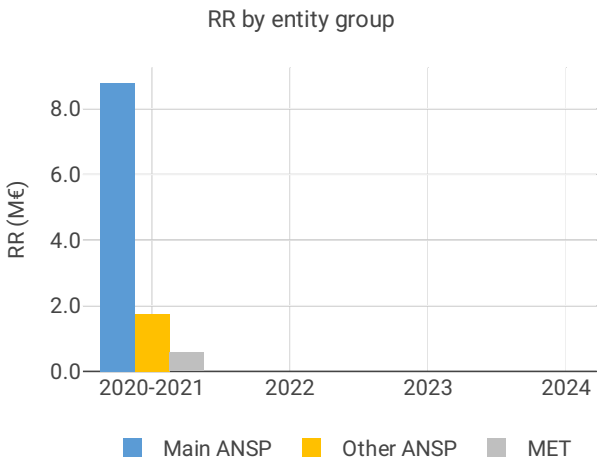
AUCU components (€/SU) – 2020-2021

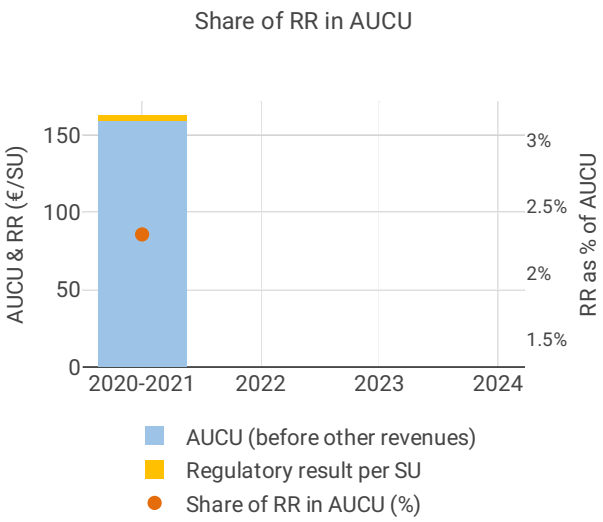
Components of the AUCU in 2020-2021	€/SU
DUC	**159.49**
Inflation adjustment	0.88
Cost exempt from cost-sharing	-0.87
Traffic risk sharing adjustment	0.00
Traffic adj. (costs not TRS)	-0.34
Finantial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-7.58
Application of lower unit rate	0.00
Total adjustments	-7.91
AUCU	**151.58**
AUCU vs. DUC	**-5.0%**

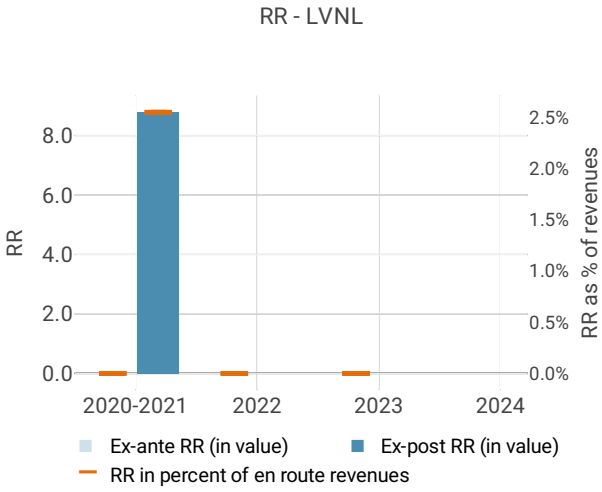


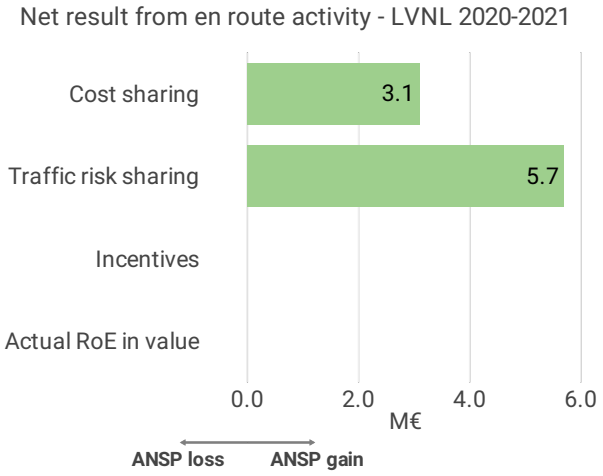
Cost exempt from cost sharing by item - 2020-2021	€'000	€/SU
New and existing investments	-799.6	-0.26
Competent authorities and qualified entities costs	-253.0	-0.08
Eurocontrol costs	-1,610.0	-0.53
Pension costs	0.0	0.00
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-2,662.6**	**-0.87**

5.2.3 Regulatory result (RR)







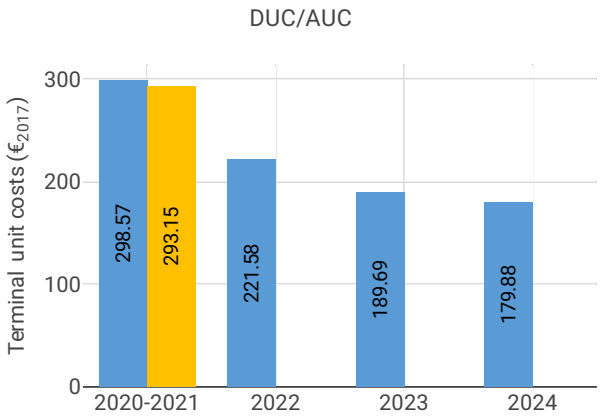


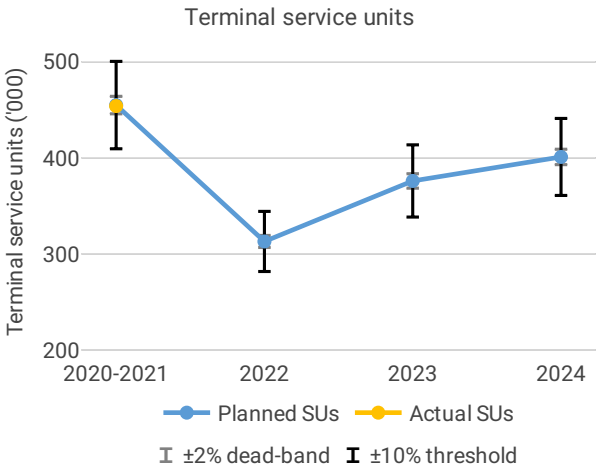
Focus on regulatory result

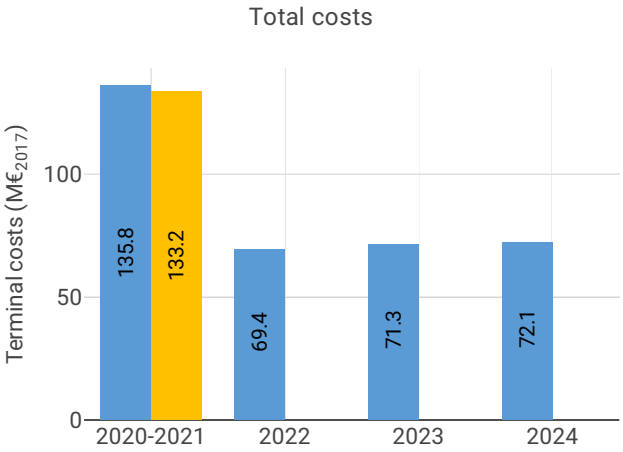
LVNL net gain on activity in the Netherlands en route charging zone in the combined year 2020-2021
LVNL generated a net gain of +8.8 M€, resulting from a gain of +3.1 M€ arising from the cost sharing mechanism and a gain of +5.7 M€ arising from the traffic risk sharing mechanism.
LVNL overall regulatory results (RR) for the en route activity
Ex-post, the overall RR is equal to the net gain from the en route activity mentioned above (+8.8 M€) and corresponds to 2.5% of the en route revenues.
The RoE cannot be computed for LVNL, as its assets are entirely financed through debt.

5.3 Terminal charging zone

5.3.1 Unit cost (KPI#1)

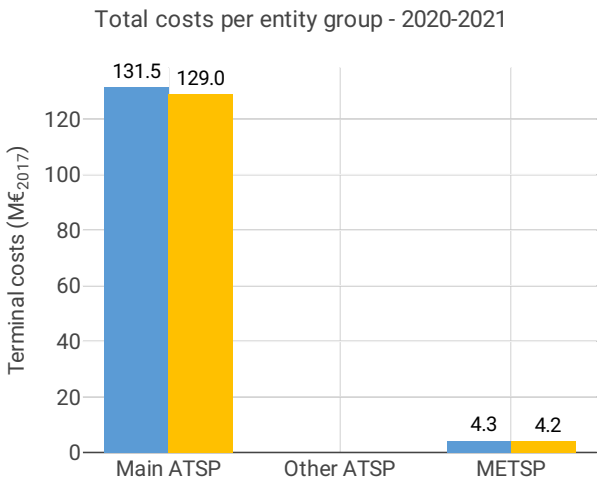


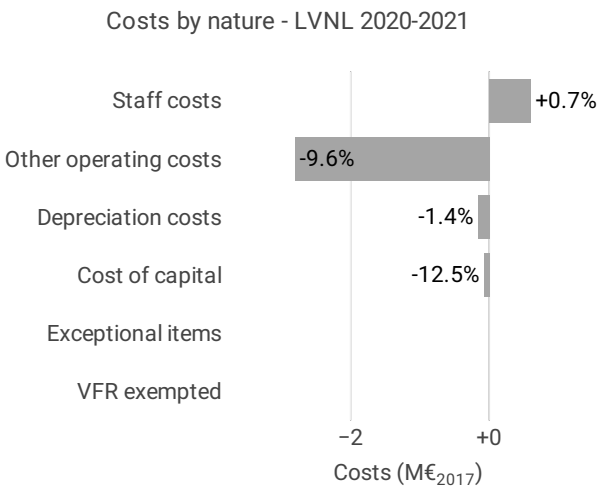




Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	142	NA	NA	NA
Determined costs	143	75	78	80
Difference costs	-2	NA	NA	NA
Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.5%	1.6%	1.6%
Determined inflation index	NA	108.6	110.3	112.1
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 -1.8% (or -5.43 €2017) lower than the planned DUC. This results from the combination of slightly lower than planned TNSUs(-0.1%) and lower than planned terminal costs in real terms (-1.9%, or -2.5 M€2017).

Terminal service units

The difference between actual and planned TNSUs (-0.1%) falls within the ±2% dead band. Hence the resulting loss is borne by the ANSPs.

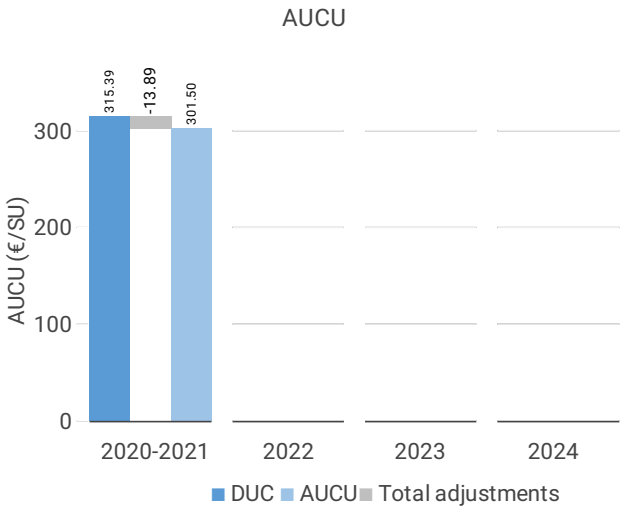
Terminal costs by entity

Actual real terminal costs for 2020-2021 are -1.9% (-2.5 M€2017) lower than planned. This result is driven by the main ANSP, LVNL (-1.9%, or -2.4 M€2017), while the MET service provider costs are -2.4% (or -0.1 M€2017) lower than planned.

Terminal costs for the main ANSP at charging zone level

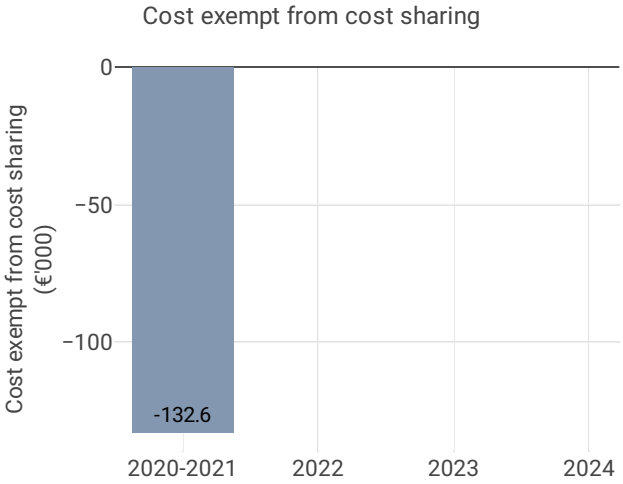
The lower than planned terminal costs in real terms for LVNL (-1.9%, or -2.4 M€2017) in 2020-2021 result from:
- slightly higher staff costs (+0.7%);
- lower other operating costs (-9.6%) as a result of cost-containment measures;
- slightly lower depreciation (-1.4%); and,
- lower cost of capital (-12.5%) reflecting lower than planned asset base and lower than planned average interest on debts.

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



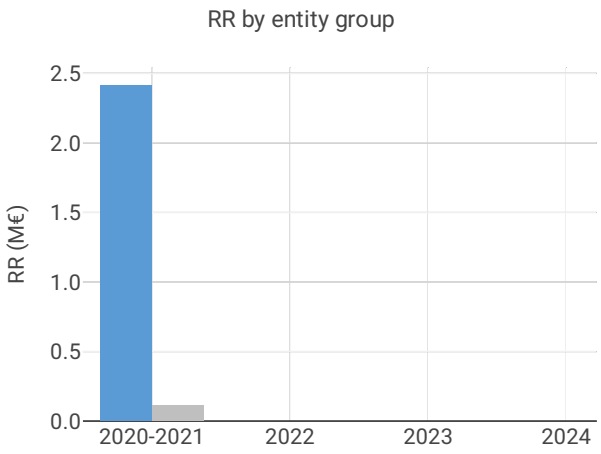
AUCU components (€/SU) – 2020-2021

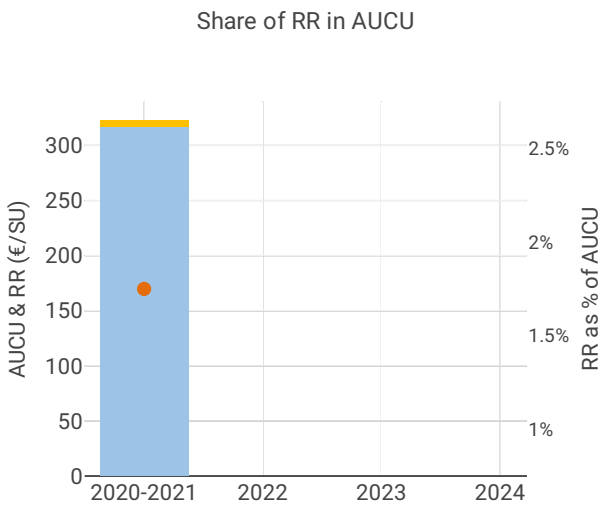
Components of the AUCU in 2020-2021	€/SU
DUC	**315.39**
Inflation adjustment	1.96
Cost exempt from cost-sharing	-0.29
Traffic risk sharing adjustment	0.00
Traffic adj. (costs not TRS)	0.01
Finantial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-15.57
Application of lower unit rate	0.00
Total adjustments	-13.89
AUCU	**301.50**
AUCU vs. DUC	**-4.4%**

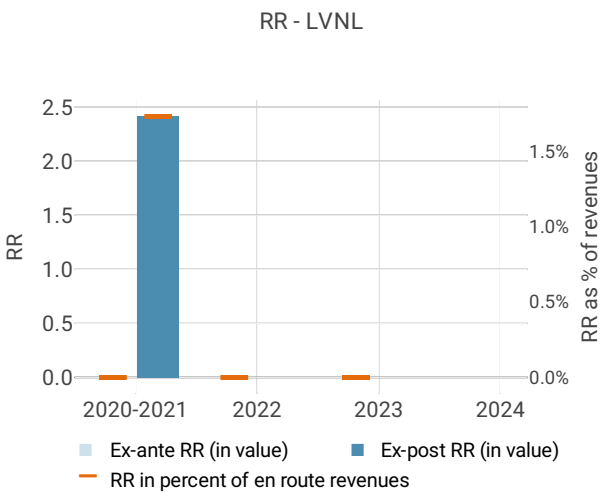


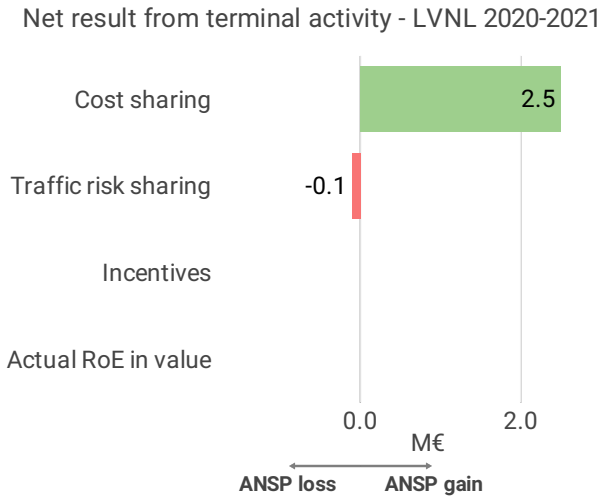
Cost exempt from cost sharing by item - 2020-2021	€'000	€/SU
New and existing investments	-132.6	-0.29
Competent authorities and qualified entities costs	0.0	0.00
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-132.6**	**-0.29**

5.3.3 Regulatory result (RR)









Focus on regulatory result

LVNL net gain on activity in the Netherlands terminal charging zone in the combined year 2020-2021
LVNL generated a net gain of +2.4 M€, resulting from a gain of +2.5 M€ arising from the cost sharing mechanism and a loss of -0.09 M€ arising from the traffic risk sharing mechanism.
LVNL overall regulatory results (RR) for the terminal activity
Ex-post, the overall RR is equal to the net gain from the terminal activity mentioned above (+2.4 M€) and corresponds to 1.7% of the terminal revenues.
The RoE cannot be computed for LVNL, as its assets are entirely financed through debt.