



Performance Review Body Monitoring Report

Luxembourg - 2020

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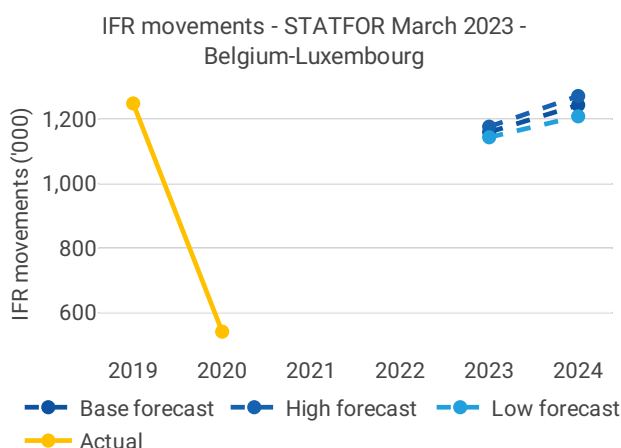
1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2024/343 of 13 December 2023

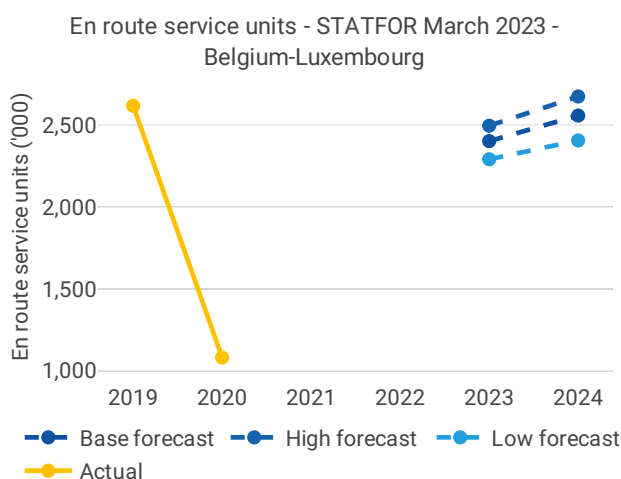
List of ACCs	0	Exchange rate (1 EUR=)		Main ANSP	
		2017: 1 EUR		• ANA Lux	
		2020: 1 EUR			
No of airports in the scope of the performance plan:		Share of Union-wide:		Other ANSPs	
• ≥80'K	0	• traffic (TSUs) 2020	2.1%	• skeyes	
• <80'K	1	• en route costs 2020	3.5%	• MUAC	
		Share en route / terminal costs 2020	94% / 6%	MET Providers	
		En route charging zone(s)		–	
		Belgium-Luxembourg			
		Terminal charging zone(s)			
		Luxembourg			

1.2 Traffic (En route traffic zone)



- The en route charging zone of Belgium-Luxembourg recorded 541K actual IFR movements in 2020, -57% compared to 2019 (1,249K).

- The reduction in IFR movements for Belgium-Luxembourg is in line with the average reduction at Union-wide level (-57%).



- The en route charging zone of Belgium-Luxembourg recorded 1,081K actual en route service units in 2020, -59% compared to 2019 (2,620K).

- Belgium-Luxembourg service units reduced more than the average reduction at Union-wide level (-57%).

1.3 Safety (Main ANSP)

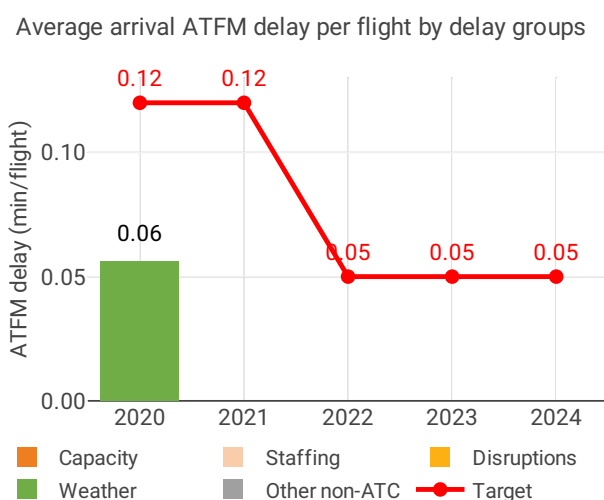


- ANA LUX needs to improve the level of maturity in five out of 28 EoSM questions (one question for each management objective) to achieve the RP3 targets. The PRB considers this feasible to achieve during RP3. The NSA explained that the mindset of some staff is the main hurdle to reach the RP3 targets. ANA LUX has implemented specific safety oriented trainings to significantly improve the safety culture and safety promotion.

- Rates of occurrence in Belgium decreased for both runway incursions and separation minima infringements. For data on occurrences related to ANA LUX, please refer to Annex III.

- ANA LUX should improve its SMS by implementing automated safety data recording systems.

1.4 Capacity (Member State)

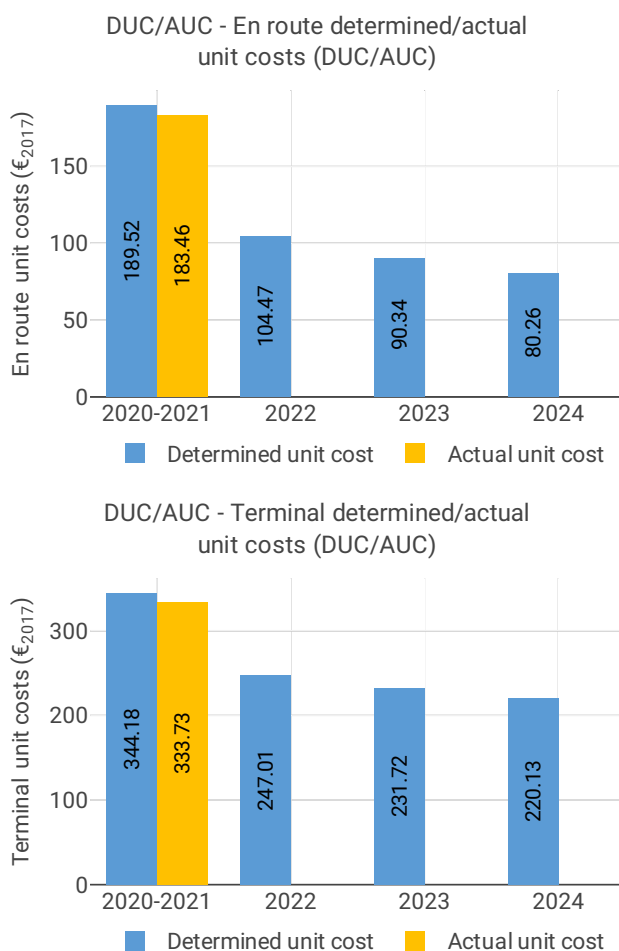


- Luxembourg registered 0.06 minutes of average airport arrival ATFM delay per flight during 2020, thus achieving the local target of 0.12 (based on the latest submitted draft RP3 performance plan of Luxembourg).

- Compared to 2019, average arrival ATFM delays were 94% lower, while the number of IFR arrivals was 47% lower than in 2019.

- All ATFM delays were due to adverse weather and occurred in the first three months of the year.

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



- The 2020 actual service units (1,081K) were 57% lower than the actual service units in 2019 (2,538K).

- Belgium-Luxembourg increased all cost categories in 2020, with 2020 actual costs being 19 M€2017 (+10%) higher compared to 2019 actuals. Belgium and Luxembourg are one of the few Member States that increased costs and did not achieve the cost-efficiency targets in 2019.

- The increase in costs is attributable to four main reasons: (i) a change in allocation method of the approach costs, (ii) increased cost of capital due to higher net current assets (+48 M€2017, +323%), (iii) increased MUAC costs, and (iv) increased Euro-control costs.

2 SAFETY - LUXEMBOURG

2.1 PRB monitoring

- ANA LUX needs to improve the level of maturity in five out of 28 EoSM questions (one question for each management objective) to achieve the RP3 targets. The PRB considers this feasible to achieve during RP3. The NSA explained that the mindset of some staff is the main hurdle to reach the RP3 targets. ANA LUX has implemented specific safety oriented trainings to significantly improve the safety culture and safety promotion.

- Rates of occurrence in Belgium decreased for both runway incursions and separation minima infringements. For data on occurrences related to ANA LUX, please refer to Annex III.

- ANA LUX should improve its SMS by implementing automated safety data recording systems.

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



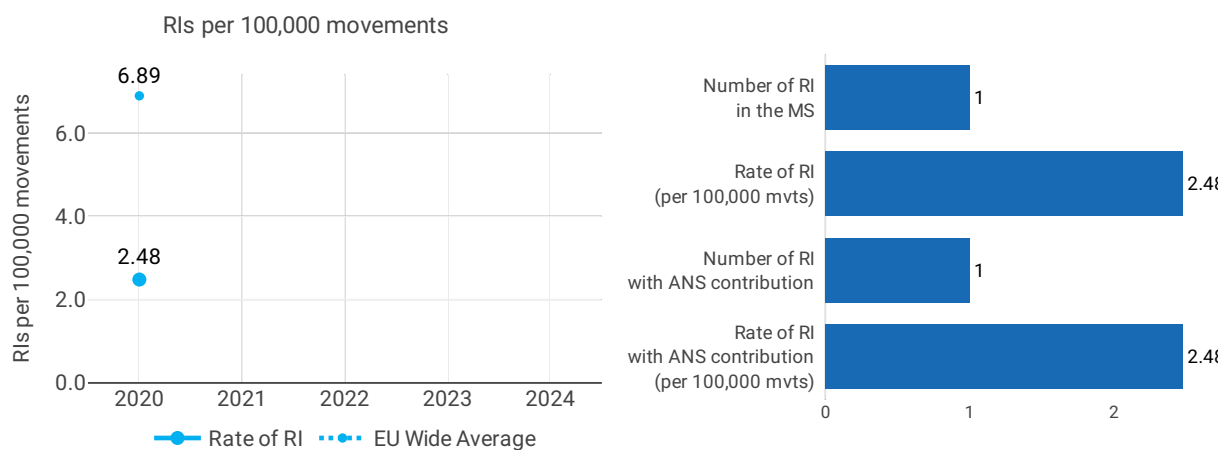
Focus on EoSM

All EoSM components are below 2024 EoSM target levels. Improvements in safety management are still expected in all components during RP3 to achieve 2024 targets.

Detailed information on Safety performance monitoring for the year 2020 are included in Performance Review Body Monitoring Report 2020, Annex III – Safety report

2.3 Safety occurrences

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



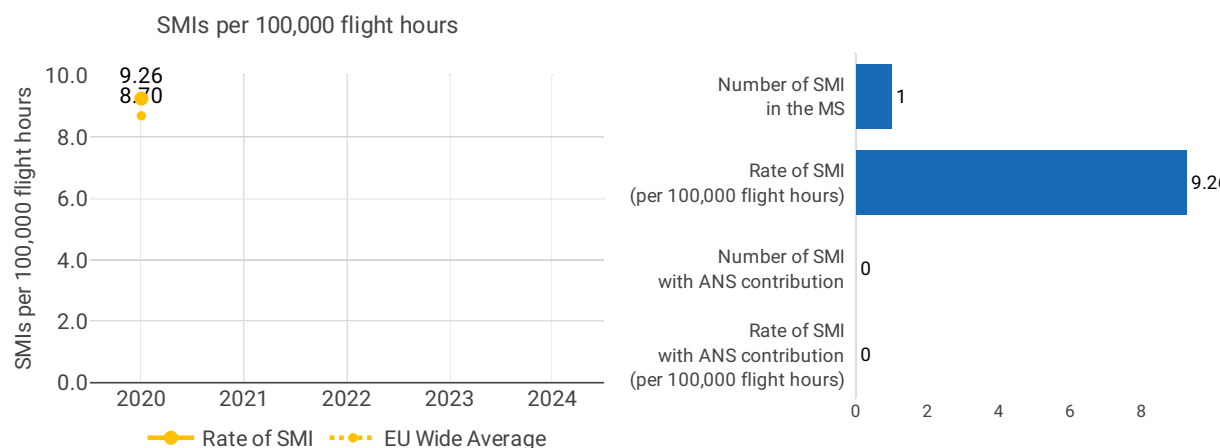
Rate of RIs per 100,000 airport movements - Luxembourg

#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Luxembourg	40,335	1	2.48

Focus on runway incursions

Detailed information on Safety performance monitoring for the year 2020 are included in Performance Review Body Monitoring Report 2020, Annex III – Safety report

2.3.2 Rate of separation minima infringements (SMIs) (PI#2)



Rate of SMI with ANS contribution per 100,000 flight hours

#	ANSP	Flight hours					Number of SMIs				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	ANA LUX	5,067	NA	NA	NA	NA	0	NA	NA	NA	NA

#	ANSP	Rate of SMI per 100,000 flight hours					% variation in rate of SMIs				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	ANA LUX	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

Focus on separation minima

Detailed information on Safety performance monitoring for the year 2020 are included in Performance Review Body Monitoring Report 2020, Annex III – Safety report

2.3.3 Quality of occurrences reporting

Detailed information on Safety performance monitoring for the year 2020 are included in Performance Review Body Monitoring Report 2020, Annex III – Safety report

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

2020	
For RIs	For SMIs
X	X

Detailed information on Safety performance monitoring for the year 2020 are included in Performance Review Body Monitoring Report 2020, Annex III – Safety report

3 ENVIRONMENT - LUXEMBOURG

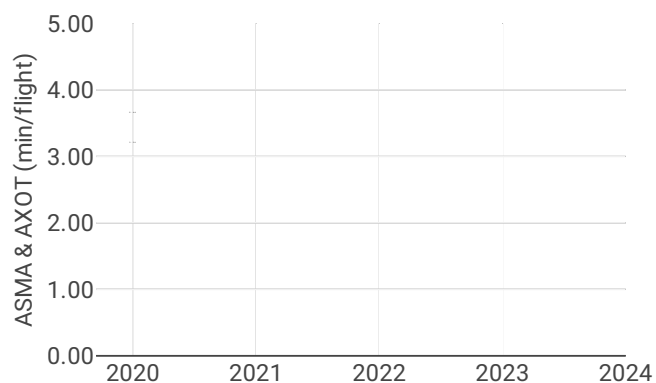
3.1 PRB monitoring

- Please refer to the KEA indicator for Belgium

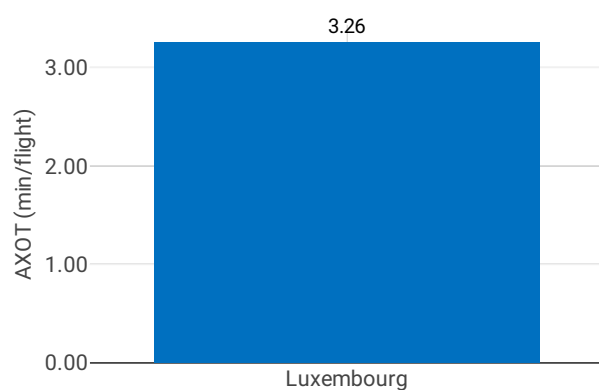
3.2 Terminal performance

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

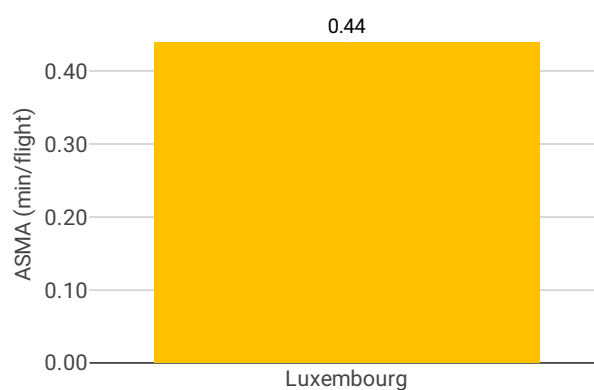
ASMA & AXOT



AXOT, main airport(s) - 2020



ASMA, main airport(s) - 2020



Focus on ASMA & AXOT

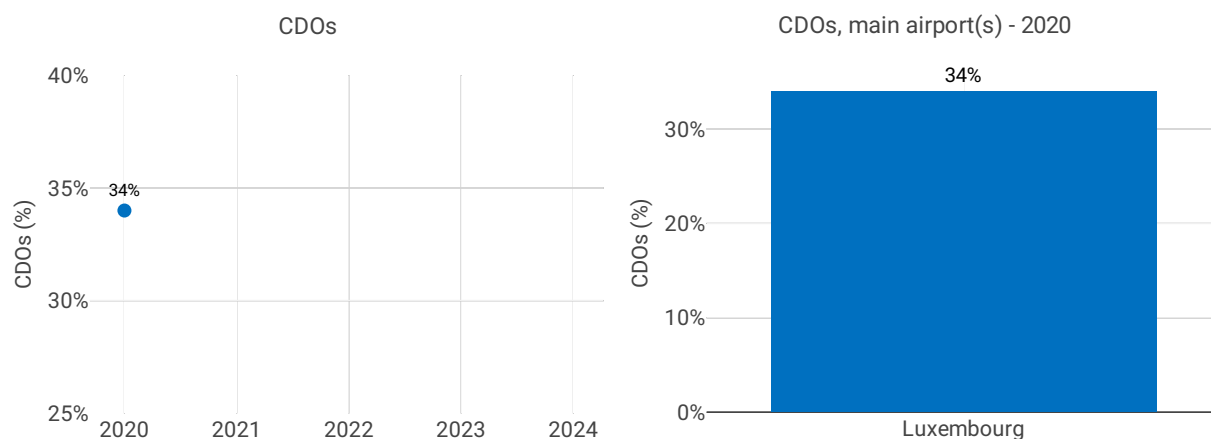
AXOT

This indicator is not monitored for airports below 80,000 IFR movements annual average during the 2016-2018 period, so it is not monitored for Luxembourg.

ASMA

This indicator is not monitored for airports below 80,000 IFR movements annual average during the 2016-2018 period, so it is not monitored for Luxembourg.

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



Focus CDOs

The share of CDO flights arriving at ELLX in 2020 is 33.5% which is just above the overall RP3 value for 2020 (32.5%).

Airport level															
Airport Name	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Luxembourg	3.26	NA	NA	NA	NA	0.44	NA	NA	NA	NA	34%	NA	NA	NA	NA

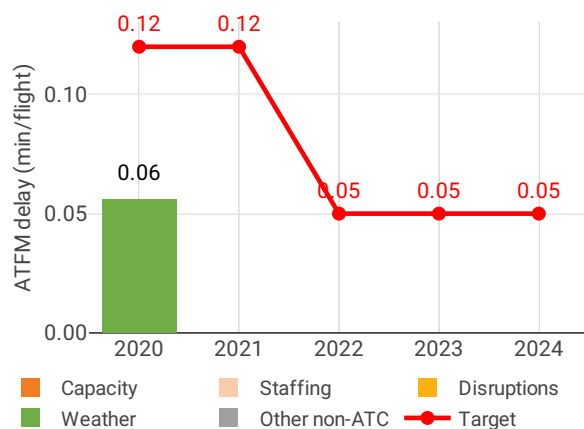
4 CAPACITY - LUXEMBOURG

4.1 PRB monitoring

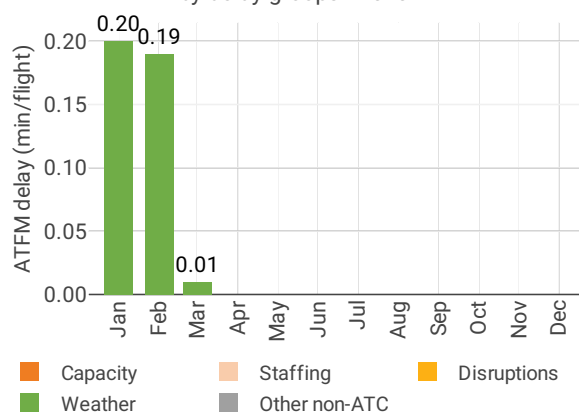
4.2 Terminal performance

4.2.1 Arrival ATFM delay (KPI#2)

Average arrival ATFM delay per flight by delay groups



Monthly distribution of arrival ATFM delay by delay groups - 2020



Focus on arrival ATFM delay

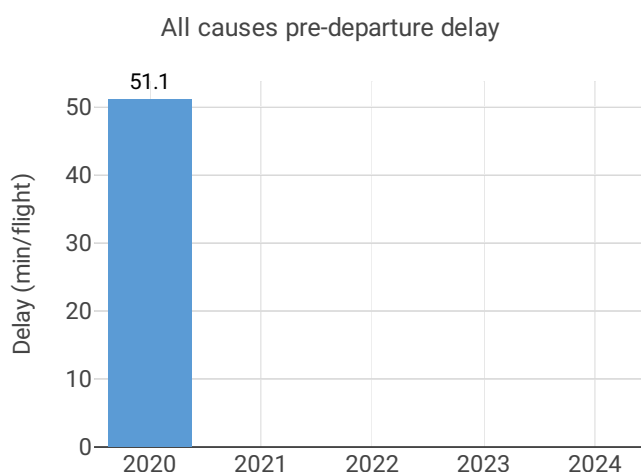
The scope of RP3 monitoring for Luxembourg comprises the main airport (ELLX), where traffic decreased by 47% in 2020 compared to the previous year. This traffic reduction had an obvious impact on the ATFM measures, with zero arrival ATFM delays as of April. In accordance with IR (EU) 2019/317 and the traffic volume, pre-departure delays are not monitored at Luxembourg and the capacity performance monitoring focuses on arrival ATFM delay and slot adherence.

The massive traffic drop due to the COVID-19 pandemic outbreak in Europe as from March 2020 (-47% for the whole year for ANA LUX) has reduced the 2020 March - December traffic to a very low level (from -35% in March down to -83% in April). The average arrival ATFM delay at Luxembourg in 2020 was 0.06 min/arr, drastically lower compared with 1 min/arr in 2019 (-94%).

Delays were only observed in January and February and a small fraction in March, and they were 100% attributed to weather.

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.

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



Airport level										
Airport name	Avg arrival ATFM delay (KPI#2)					Slot adherence (PI#1)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Luxembourg	0.06	NA	NA	NA	NA	90.2%	NA%	NA%	NA%	NA%

Airport name	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Luxembourg	0.02	NA	NA	NA	NA	51.1	NA	NA	NA	NA

Focus on performance indicators at airport level

ATFM slot adherence

With the drastic drop in traffic, regulated departures from Luxembourg also virtually disappeared as of April. The annual figure is therefore driven by the performance in the first trimester. Luxembourg's ATFM slot compliance was 90.2%. With regard to the 9.8% of flights that did not adhere, 5.46% was early and 4.34% was late.

ATC pre-departure delay

This indicator is not monitored for airports below 80,000 IFR movements annual average during the 2016-2018 period, so it is not monitored for Luxembourg.

All causes pre-departure delay

This indicator is not monitored for airports below 80,000 IFR movements annual average during the 2016-2018 period, so it is not monitored for Luxembourg.

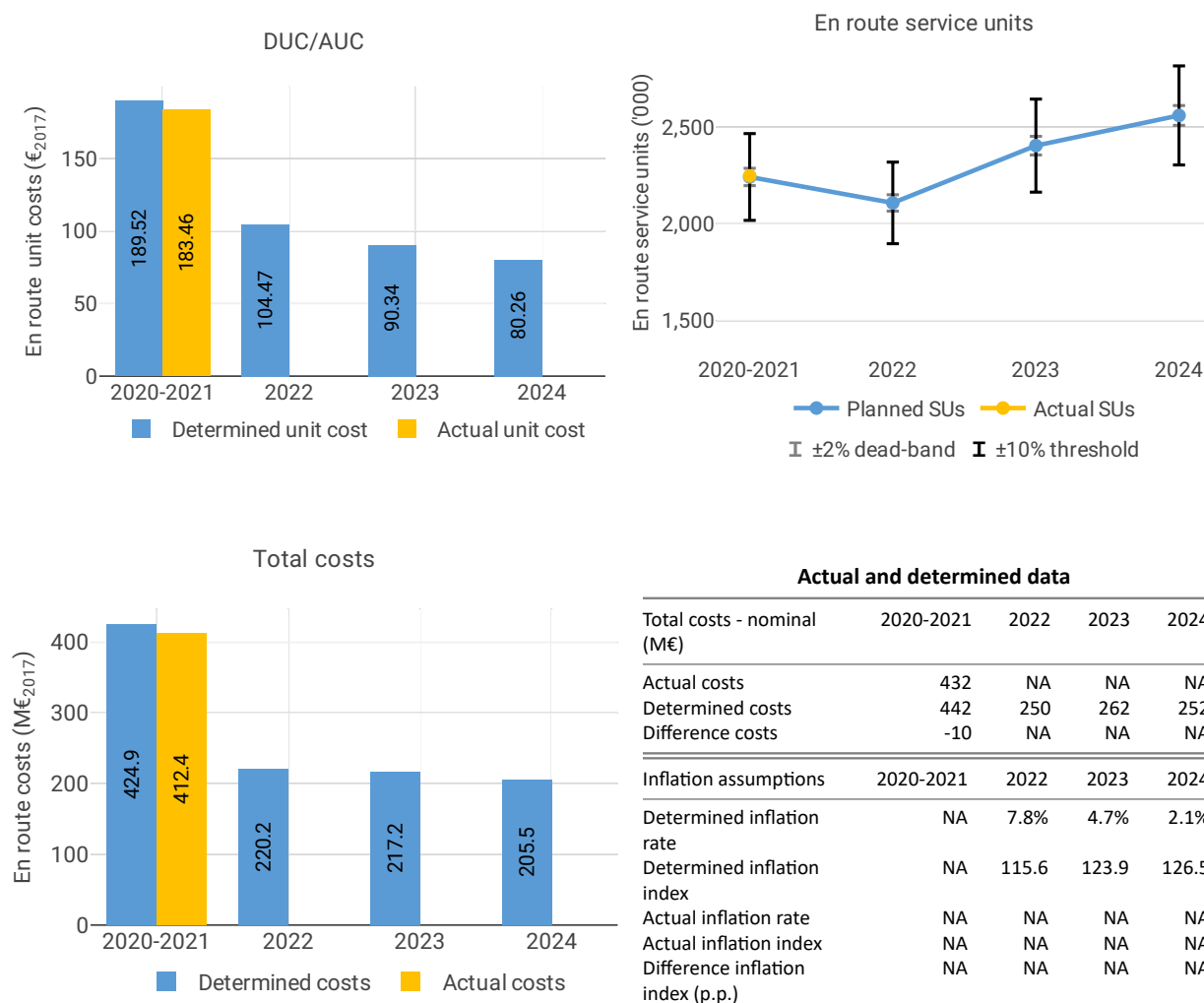
5 COST-EFFICIENCY - LUXEMBOURG

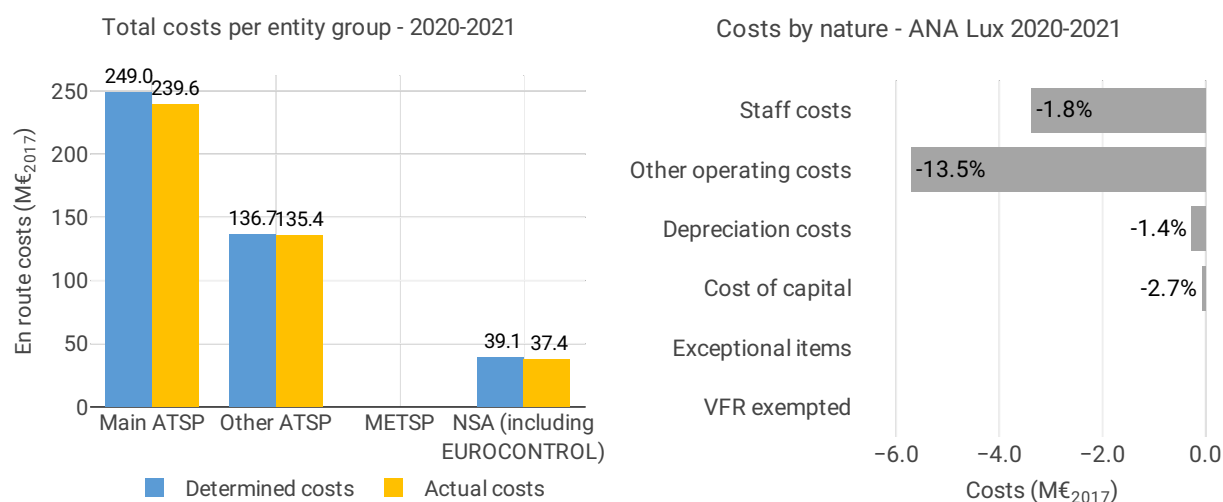
5.1 PRB monitoring

- The 2020 actual service units (1,081K) were 57% lower than the actual service units in 2019 (2,538K).
- Belgium-Luxembourg increased all cost categories in 2020, with 2020 actual costs being 19 M€2017 (+10%) higher compared to 2019 actuals. Belgium and Luxembourg are one of the few Member States that increased costs and did not achieve the cost-efficiency targets in 2019.
- The increase in costs is attributable to four main reasons: (i) a change in allocation method of the approach costs, (ii) increased cost of capital due to higher net current assets (+48 M€2017, +323%), (iii) increased MUAC costs, and (iv) increased Eurocontrol costs.

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)





Focus on unit cost

AUC vs. DUC

In the combined year 2020-2021, the en route AUC was -3.0% (or -5.76€2017) lower than the planned DUC. This results from the combination of slightly higher than planned TSUs (+0.3%) and lower than planned en-route costs in real terms (-2.8%, or -11.9 M€2017).

En route service units

The difference between actual and planned TSUs (+0.3%) falls within the $\pm 2\%$ 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 -2.8% (-11.9 M€2017) lower than planned. This is driven by the main ANSP, Skeyes (-3.8%, or -9.4 M€2017), the other ANSPs (MUAC and ANA Luxembourg, -1.0%, or -1.4 M€2017 together) and the NSA/EUROCONTROL costs (-2.7%, or -1.0 M€2017).

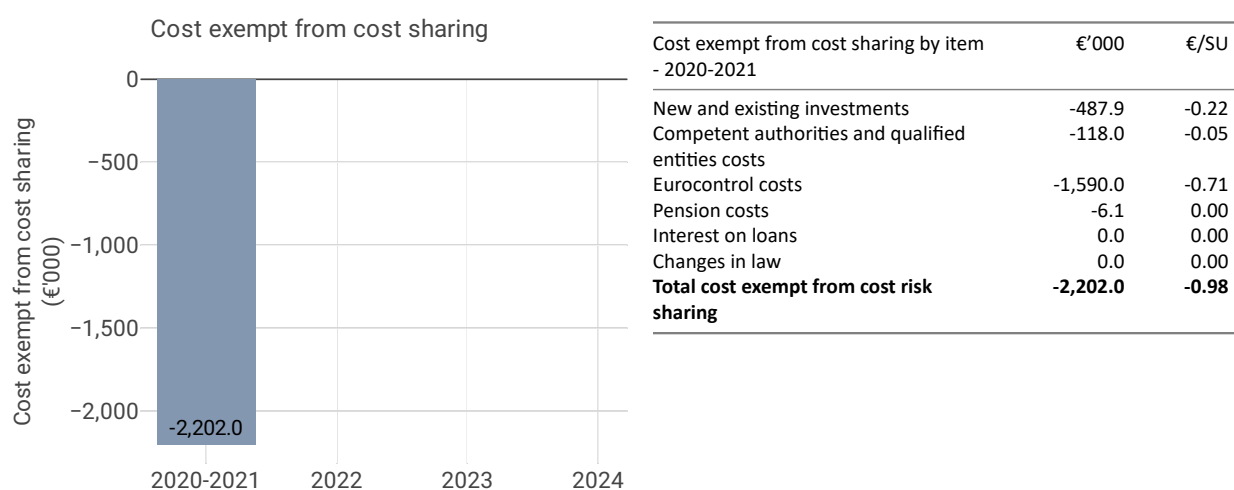
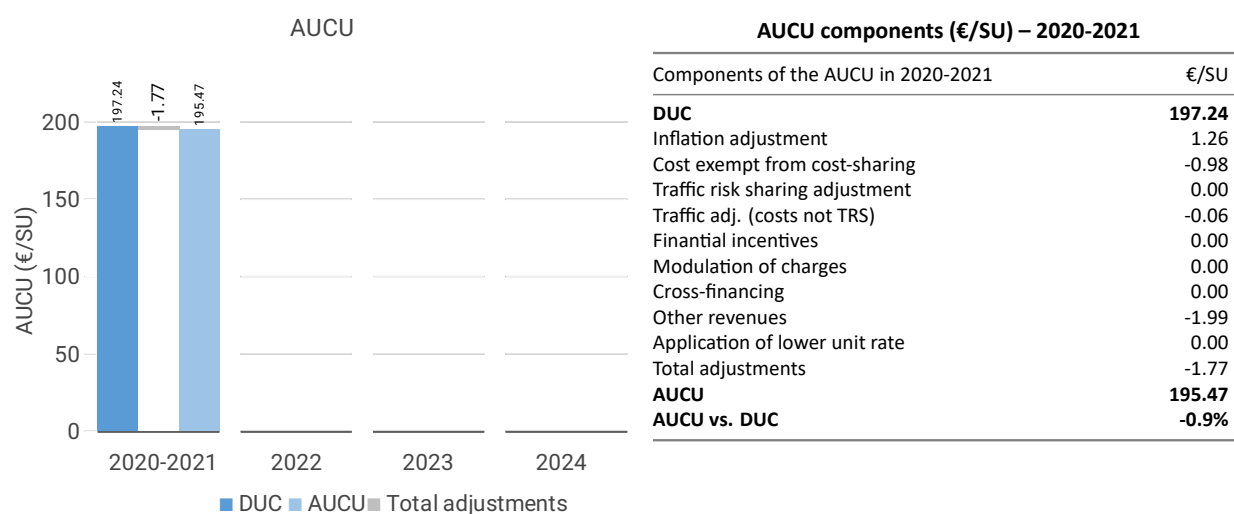
En route costs for the main ANSP at charging zone level

The lower than planned en route costs in real terms for Skeyes (-3.8%, or -9.4 M€2017) result from:

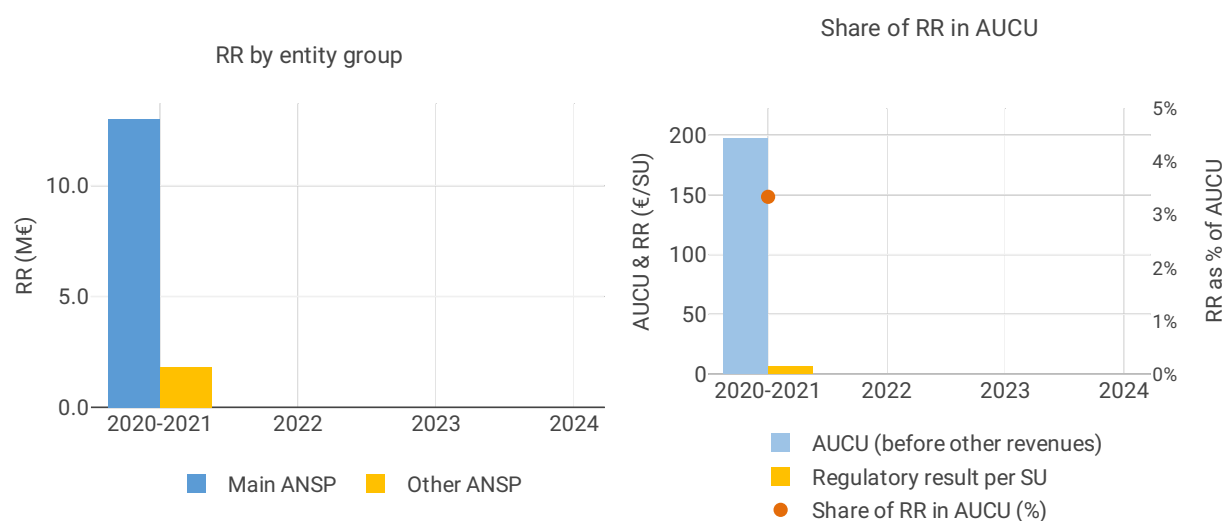
- lower staff costs (-1.8%);
- lower other operating costs (-13.5%);
- slightly lower depreciation (-1.4%); and
- lower cost of capital (-2.7%).

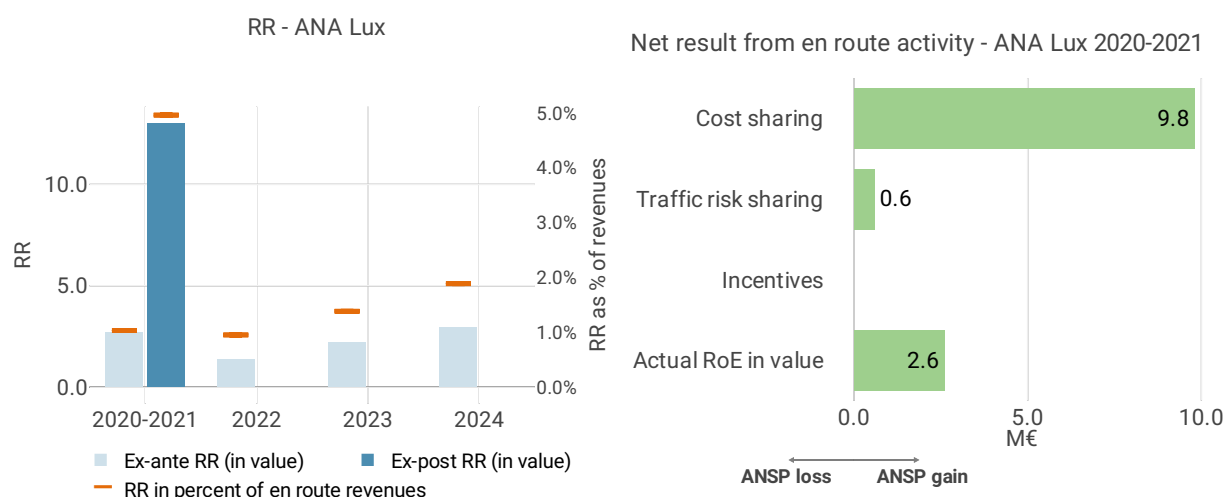
The additional information to the reporting tables does not provide qualitative information explaining the reasons underlying the differences between the determined and actual costs.

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



5.2.3 Regulatory result (RR)





Focus on regulatory result

Keyes net gain on activity in the Belgium-Luxembourg en route charging zone in the combined year 2020-2021

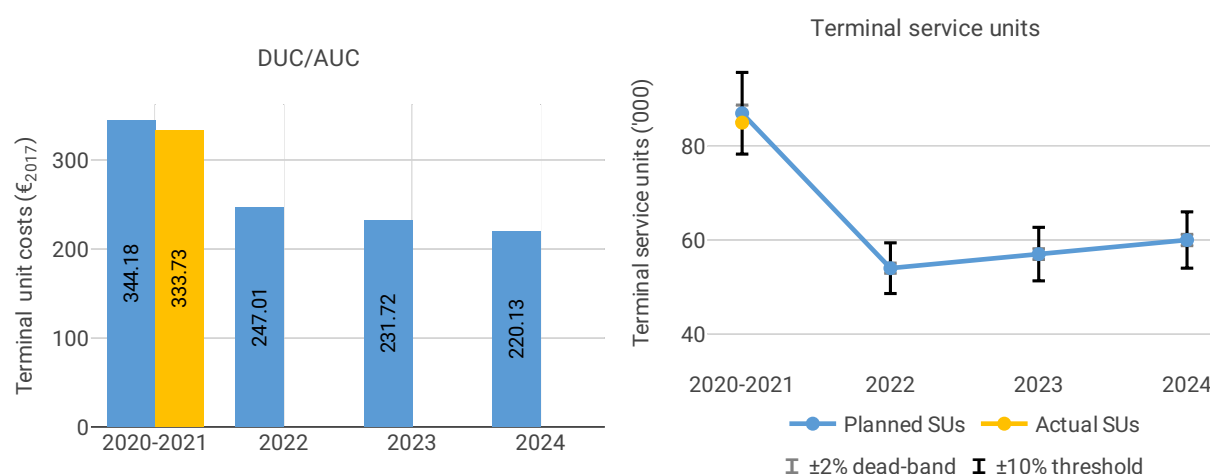
Keyes reported a net gain of +10.4 M€, resulting from a gain of +9.8 M€ arising from the cost sharing mechanism and a gain of +0.6 M€ arising from the traffic risk sharing mechanism.

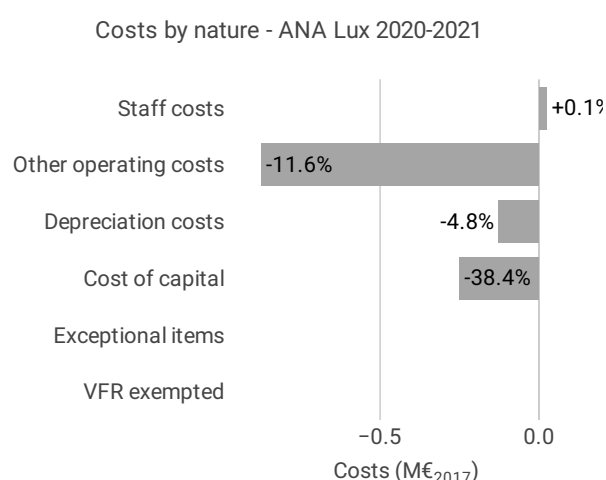
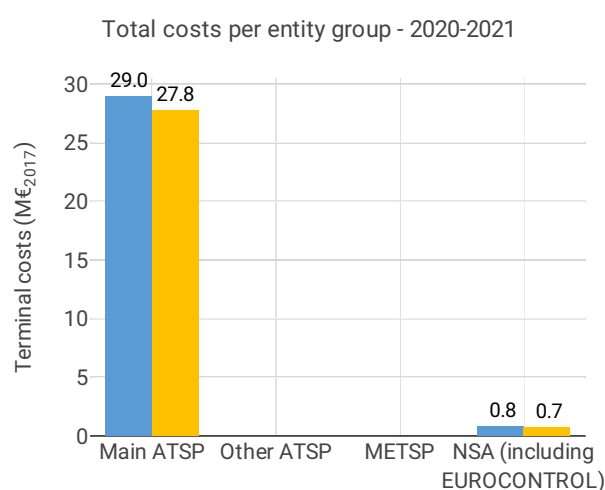
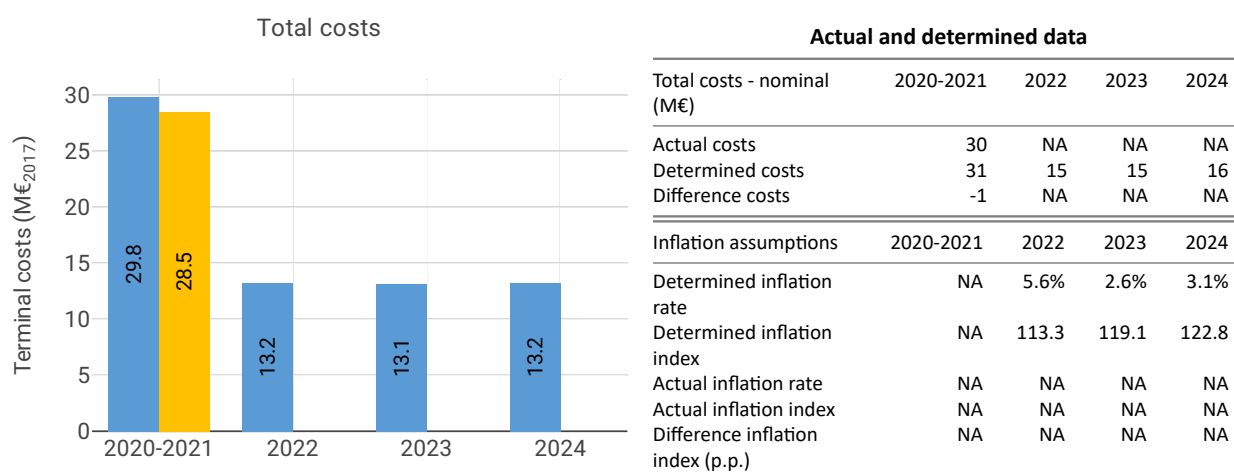
Keyes overall regulatory results (RR) for the en route activity

Ex-post, the overall RR corresponding to the net gain from the en route activity mentioned above (+10.4 M€) and the RoE (+2.6 M€) amounts to +13.0 M€ (5.0% of the en route revenues), compared to 1.0% ex-ante. The resulting ex-post rate of return on equity is 11.2%, which is higher than the 2.2% planned in the PP.

5.3 Terminal charging zone

5.3.1 Unit cost (KPI#1)





Focus on unit cost

AUC vs. DUC

The AUC for the combined year 2020-2021 is lower than the planned DUC (by -3.0%, or -10.45 M€2017). This is due to the combination of lower than planned TNSUs (-1.5%) and lower than planned terminal costs in real terms (by -4.5%, or -1.3 M€2017).

Terminal service units

The difference between actual and planned TNSUs (-1.5%) falls within the $\pm 2\%$ dead band. Hence the resulting loss is borne by the ANSPs.

Terminal costs by entity

Actual real terminal costs for 2020-2021 are -4.5% (-1.3 M€2017) lower than planned. This result is driven by the main ANSP, ANA (-4.2%, or -1.2 M€2017), while the NSA costs are also lower than planned (-13.5%, or -0.1 M€2017).

Terminal costs for the main ANSP at charging zone level

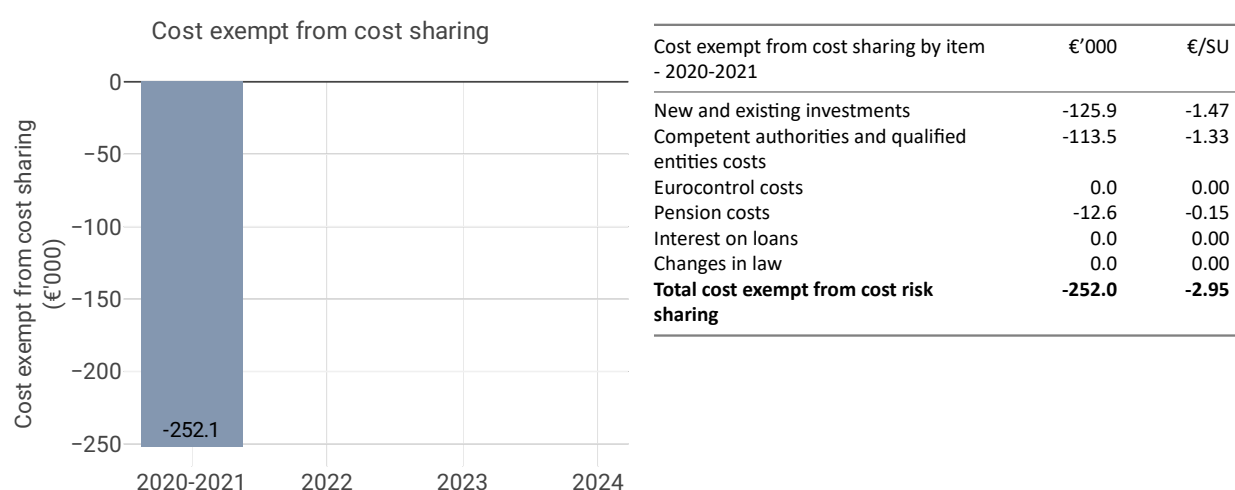
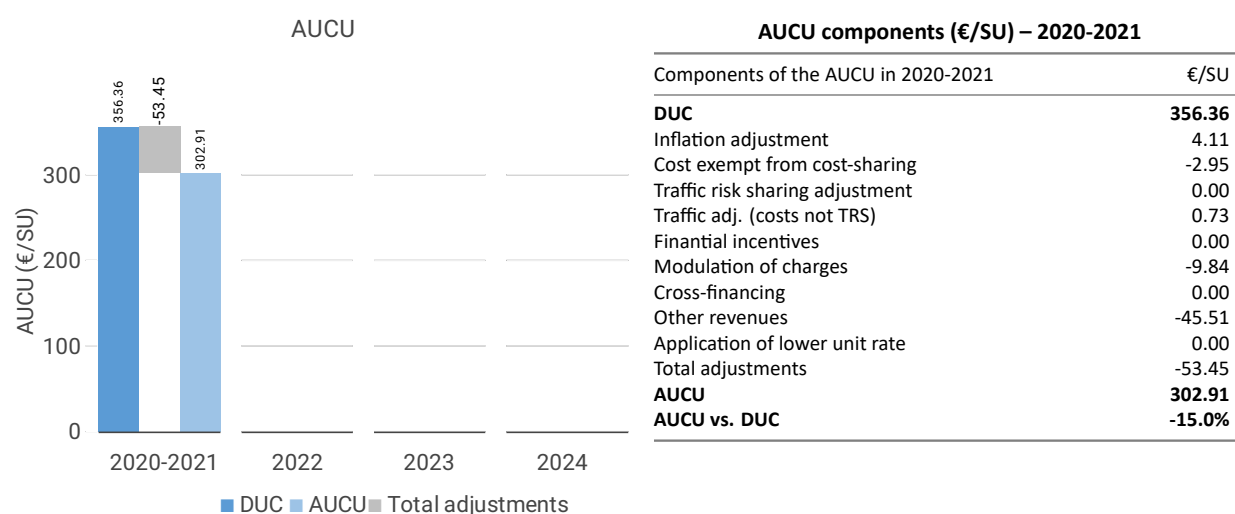
Overall, the terminal costs in real terms for ANA in 2020-2021 were lower than the determined costs from the performance plan (by -4.2%, or -1.2 M€2017). This results from:

- slightly higher staff costs (+0.1%), "mainly due to the, so far, higher success rate of ATC students, which is well above the expected 50%";
- significantly lower other operating costs (-11.6%), mainly due to "lower overhead costs";
- lower depreciation (-4.8%). "Due to budget constraints, ANA had to revise the investment plan which lead to project cancelations and postponements. The main difference in comparison to the plan is related to the later capitalisation of the A-SMGCS project on December 31 only, although it was initially foreseen

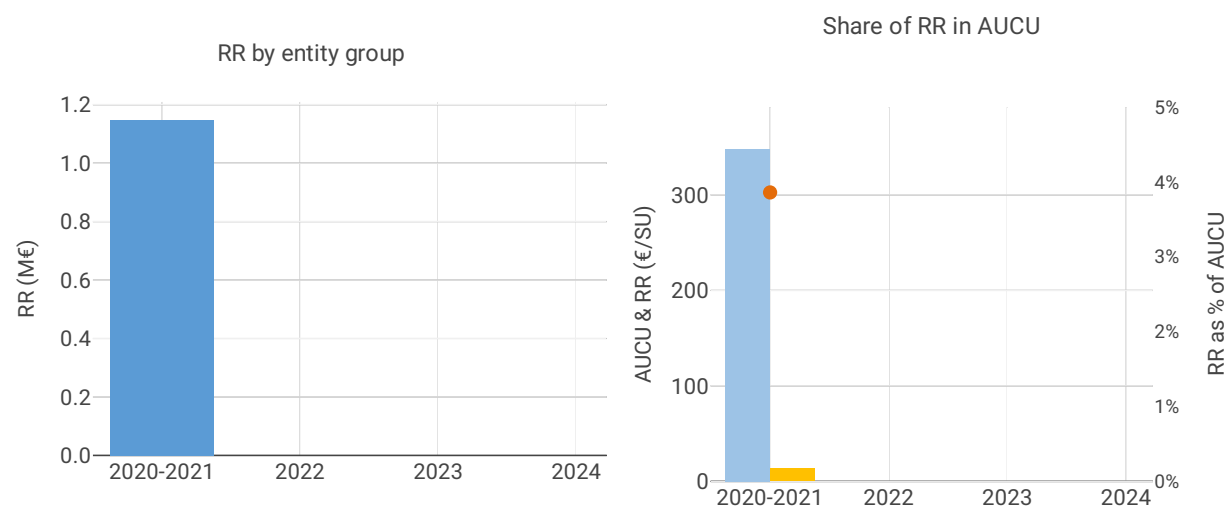
for mid-2021"; and

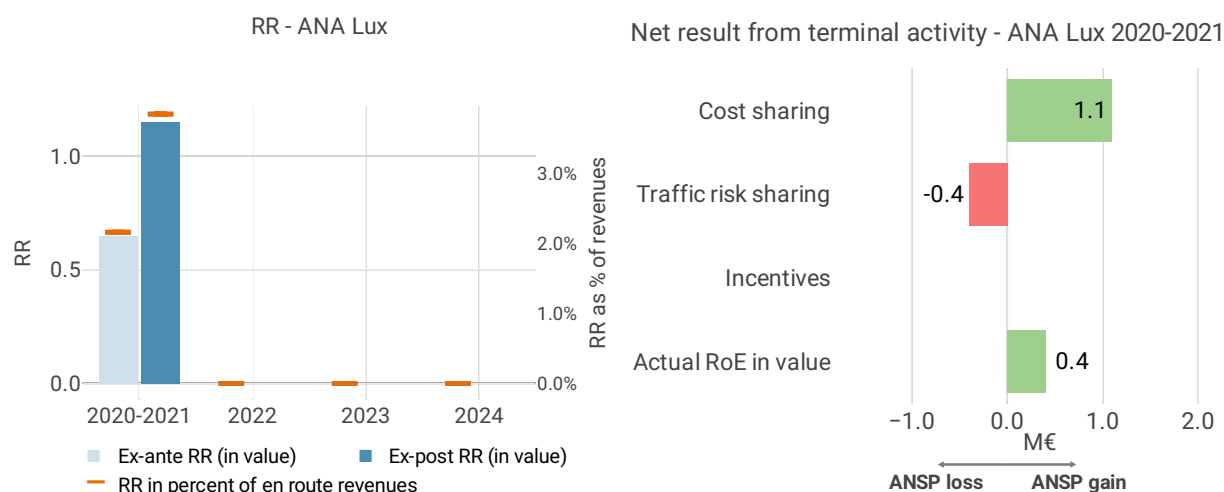
- lower cost of capital (-38.4%), due to the significantly lower net current assets..

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



5.3.3 Regulatory result (RR)





Focus on regulatory result

ANA net gain on activity in Luxembourg terminal charging zone in the combined year 2020-2021

ANA reported a net gain of +0.8 M€, resulting from a gain of +1.2 M€ arising from the cost sharing mechanism and a loss of -0.4 M€ arising from the traffic risk sharing mechanism.

ANA overall regulatory results (RR) for the terminal activity

Ex-post, the overall RR corresponding to the net gain from the terminal activity mentioned above (+0.8 M€) and the RoE (+0.4 M€) amounts to +1.2 M€ (3.9% of the terminal revenues), compared to 2.2% ex-ante. The resulting ex-post rate of return on equity is 5.2%, which is higher than the 1.8% planned in the PP.