



Performance Review Body Monitoring Report

Latvia - 2021

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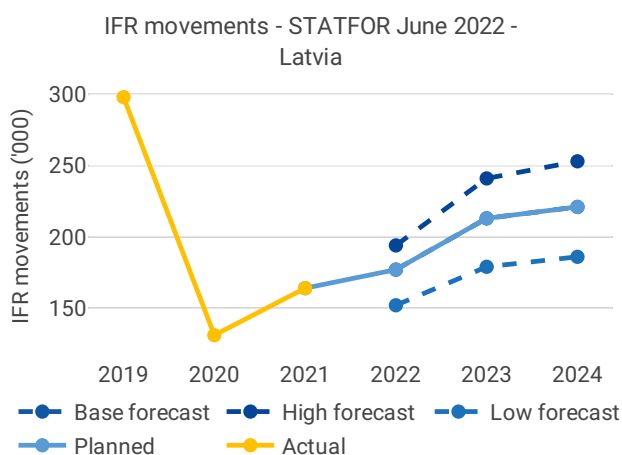
1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/2426 of 5 December 2022

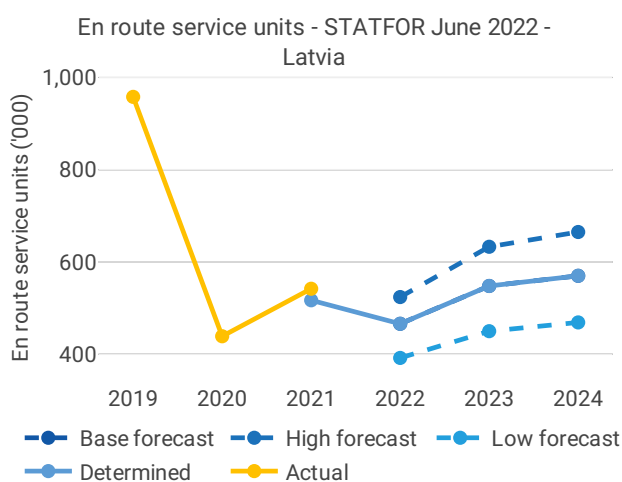
List of ACCs 1	Exchange rate (1 EUR=)	Main ANSP
Riga ACC	2017: 1 EUR	• LGS
	2021: 1 EUR	
No of airports in the scope of the performance plan:	Share of Union-wide:	Other ANSPs
• ≥80'K 0	• traffic (TSUs) 2021 0.8%	—
• <80'K 3	• en route costs 2021 0.3%	
	Share en route / terminal costs 2021 75% / 25%	MET Providers
	En route charging zone(s)	• LVGMC
	Latvia	
	Terminal charging zone(s)	
	Latvia	

1.2 Traffic (En route traffic zone)



- Latvia recorded 164K actual IFR movements in 2021, +26% compared to 2020 (131K).

- Actual 2021 IFR movements represent 55% of the actual 2019 level (298K).



- Latvia recorded 542K actual en route service units in 2021, +23% compared to 2020 (439K).

- Actual 2021 service units represent 57% of the actual 2019 level (958K).

1.3 Safety (Main ANSP)



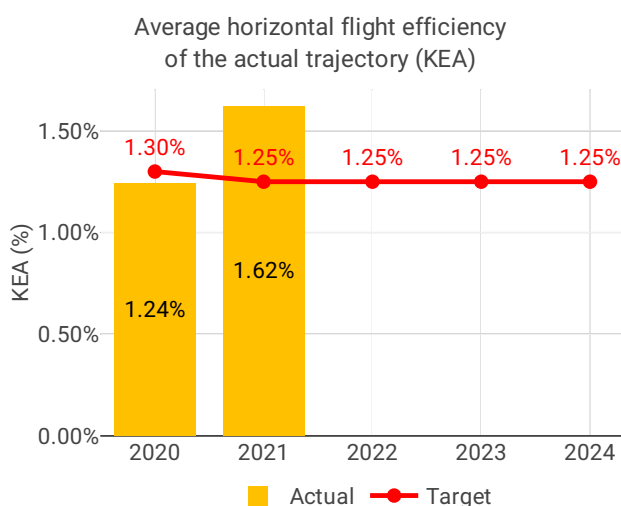
- LGS achieved its RP3 EoS targets in four out of five management objectives. LGS needs to improve in the safety risk management objective, but the achieved level is consistent with intermediate targets as per performance plan. Over 2021, LGS identified specific actions in safety risk management and assurance to align the safety management function to Regulation (EU) 2017/373.

- Latvia recorded a good performance with respect to safety risks with no separation minima infringements and no runway incursions in 2021. LGS has implemented specific measures aiming at improving safety performance including procedures,

ATCO training, and specific equipment.

- LGS uses specific safety recording tools for separation minima infringements and runway incursions, being one of the few ANSPs doing so.

1.4 Environment (Member State)



- Latvia achieved a KEA performance of 1.62% compared to its target of 1.25% and did not contribute positively towards achieving the Union-wide target. KEA is at the worst levels in five years.

- The NSA states that air traffic flows and performance were impacted by inefficiencies linked to the sanctions against Belarus.

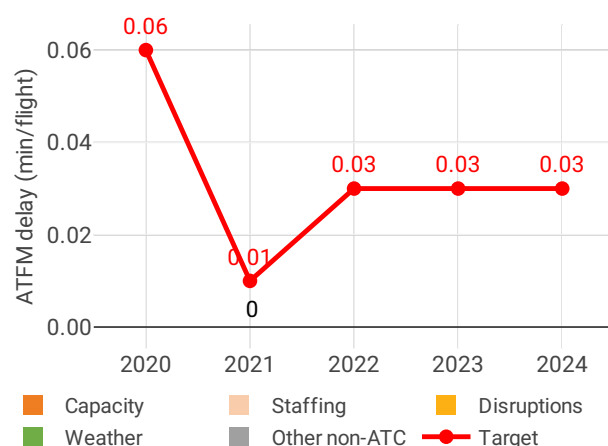
- Both KEP and SCR followed the same trend, and are at the worst levels in five years.

- The share of CDO flights has been continuously decreasing since 2017 and is currently at the lowest level in five years.

- Additional time in terminal airspace decreased by 29% in comparison to 2020, while additional taxi out time increased by 48%.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups

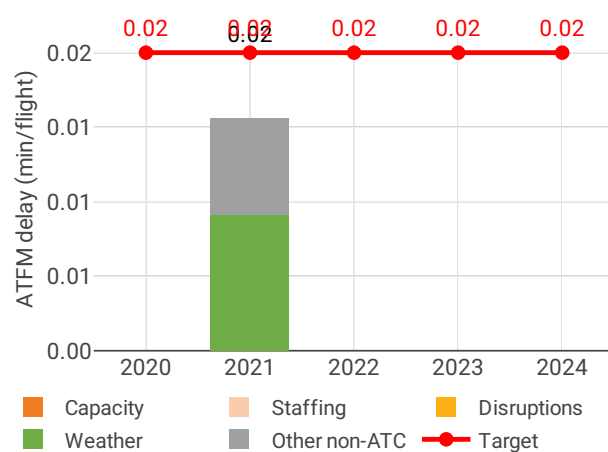


- Latvia registered zero minutes of average en route ATFM delay per flight during 2021, thus meeting the local breakdown value of 0.01.

- En route ATFM delays in Latvia were also near zero on average during past years.

- Traffic recovery in Latvia has continued to be impacted by the airspace closures East of the SES area and 2019 traffic levels are not likely to be reached during RP3 in any growth scenario. The number of ATCOs in OPS is planned to remain the same until the end of RP3.

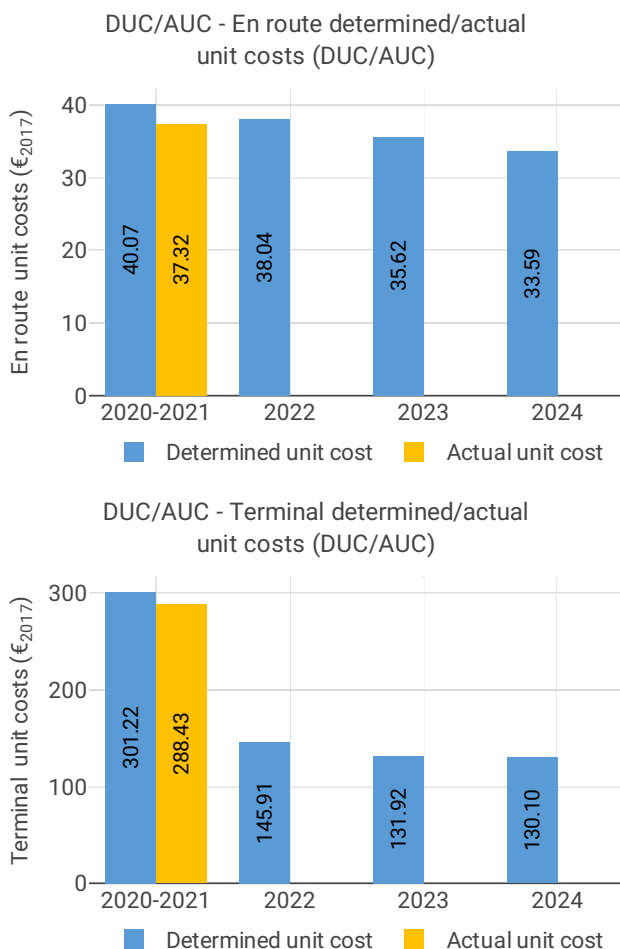
Average arrival ATFM delay per flight by delay groups



- The yearly total of sector opening hours in Riga ACC was 21,916, showing a 4.6% increase compared to 2020. Sector opening hours are 24.0% below 2019 levels.

- Riga ACC registered 7.41 IFR movements per one sector opening hour in 2021, being 27.9% below 2019 levels.

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



- The en route 2020/2021 actual unit cost of Latvia was 37.32 €2017, -6.9% lower than the determined unit cost (40.07 €2017). The terminal actual unit cost was 288.43 €2017, -4.2% lower than the determined unit cost (301.22 €2017).

- The en route 2021 actual service units (542K) were +4.8% higher than determined (517K).

- In 2021, actual total costs of Latvia were -1.7 M€2017 (-8.8%) lower than determined. The reduction was mainly driven by lower staff costs (-0.7 M€2017, or -6.2%) resulting from a reduction of 21 headcounts, and by lower other operating costs (-0.5 M€2017, or -13%) due to a decrease of trainings and business trips.

- LGS spent 5.7 M€2017 in 2021 related to costs of investments, -6.2% less than determined (6.0 M€2017), due to the fact that only ongoing projects proceeded as planned.

- The en route actual unit cost incurred by users in 2020/2021 was 41.61€, while the terminal actual unit cost incurred by users was 312.59€.

2 SAFETY - LATVIA

2.1 PRB monitoring

- LGS achieved its RP3 EoSM targets in four out of five management objectives. LGS needs to improve in the safety risk management objective, but the achieved level is consistent with intermediate targets as per performance plan. Over 2021, LGS identified specific actions in safety risk management and assurance to align the safety management function to Regulation (EU) 2017/373.

- Latvia recorded a good performance with respect to safety risks with no separation minima infringements and no runway incursions in 2021. LGS has implemented specific measures aiming at improving safety performance including procedures, ATCO training, and specific equipment.

- LGS uses specific safety recording tools for separation minima infringements and runway incursions, being one of the few ANSPs doing so.

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



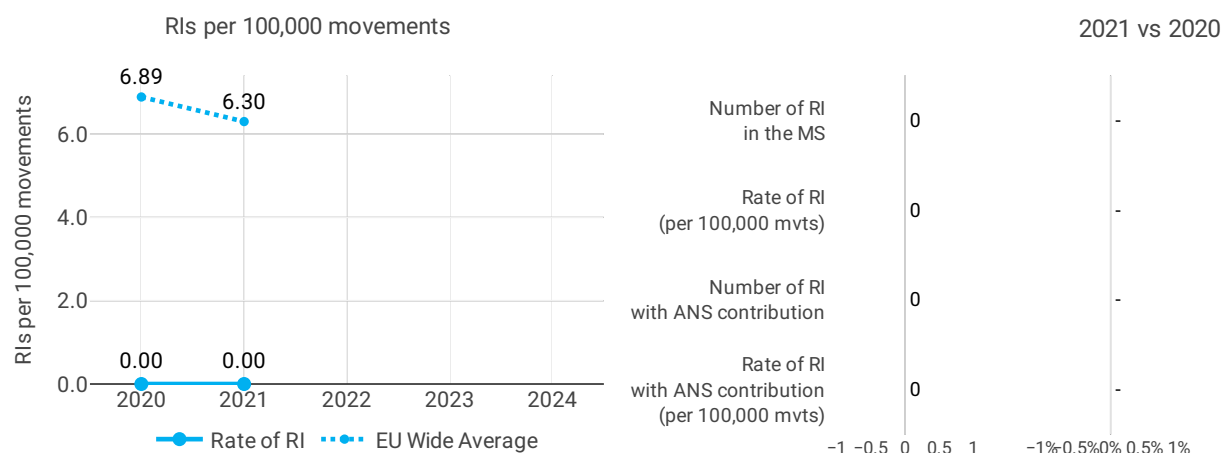
Focus on EoSM

Four out of five EoSM components of the ANSP meet already the 2024 target level. Only the component “Safety Risk Management” is below 2024 target level. Improvements in safety risk management are still expected during RP3 to achieve 2024 targets. Slight increase in maturity is observed from 2020 figures.

Detailed information on Safety performance monitoring for the year 2021 are included in Performance Review Body Monitoring Report 2021, Annex III – Safety report

2.3 Safety occurrences

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



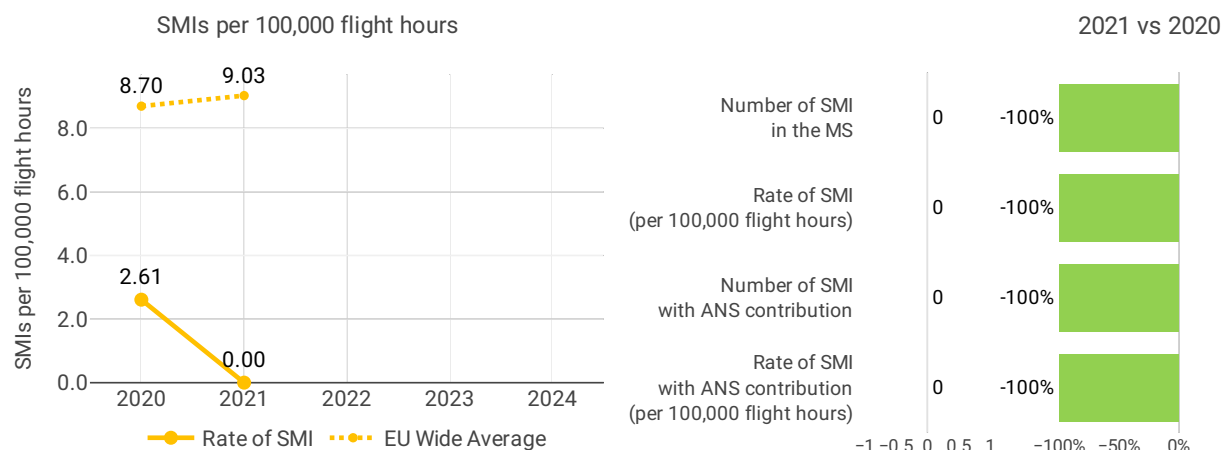
Rate of RIs per 100,000 airport movements - Latvia

#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Riga	38,753	0	0.00
2	Liepaja	2,340	0	0.00
3	Ventspils	207	0	0.00
4	Tukums Jurmala	NA	NA	NA

Focus on runway incursions

Detailed information on Safety performance monitoring for the year 2021 are included in Performance Review Body Monitoring Report 2021, 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	LGS	39,170	46,440	NA	NA	NA	1	0	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	LGS	2.6	0.0	NA	NA	NA	NA	-100%	NA	NA	NA

Focus on separation minima

Detailed information on Safety performance monitoring for the year 2021 are included in Performance Review Body Monitoring Report 2021, Annex III – Safety report

2.3.3 Quality of occurrences reporting

Detailed information on Safety performance monitoring for the year 2021 are included in Performance Review Body Monitoring Report 2021, Annex III – Safety report

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

2021	
For RIs	For SMIs
✓	✓

Detailed information on Safety performance monitoring for the year 2021 are included in Performance Review Body Monitoring Report 2021, Annex III – Safety report

3 ENVIRONMENT - LATVIA

3.1 PRB monitoring

- Latvia achieved a KEA performance of 1.62% compared to its target of 1.25% and did not contribute positively towards achieving the Union-wide target. KEA is at the worse levels in five years.

- The NSA states that air traffic flows and performance were impacted by inefficiencies linked to the sanctions against Belarus.
- Both KEP and SCR followed the same trend, and are at the worst levels in five years.
- The share of CDO flights has been continuously decreasing since 2017 and is currently at the lowest level in five years.
- Additional time in terminal airspace decreased by 29% in comparison to 2020, while additional taxi out time increased by 48%.

3.2 En route performance

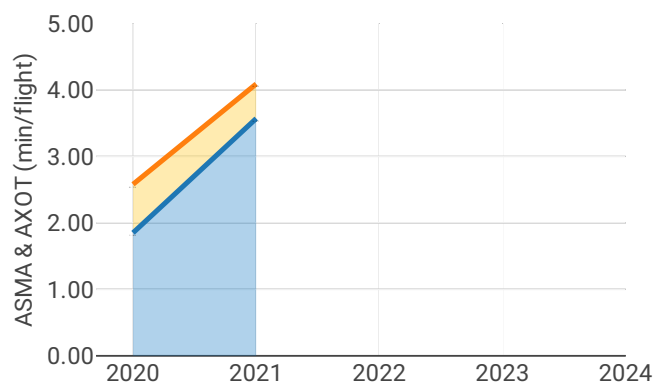
3.2.1 Horizontal flight efficiency of the actual trajectory (KEA) (KPI#1), of the last filed flight plan (KEP) (PI#1) & shortest constrained route (SCR) (PI#2)



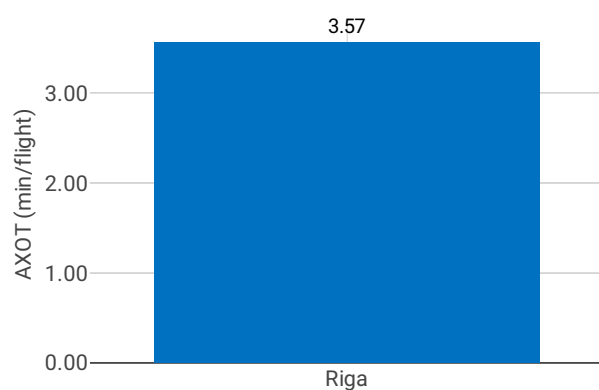
3.3 Terminal performance

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

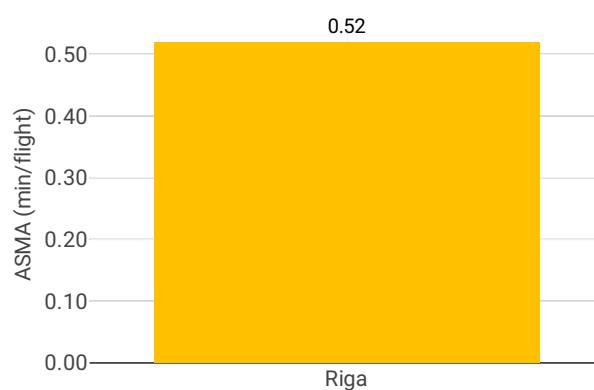
ASMA & AXOT



AXOT, main airport(s) - 2021



ASMA, main airport(s) - 2021



Focus on ASMA & AXOT

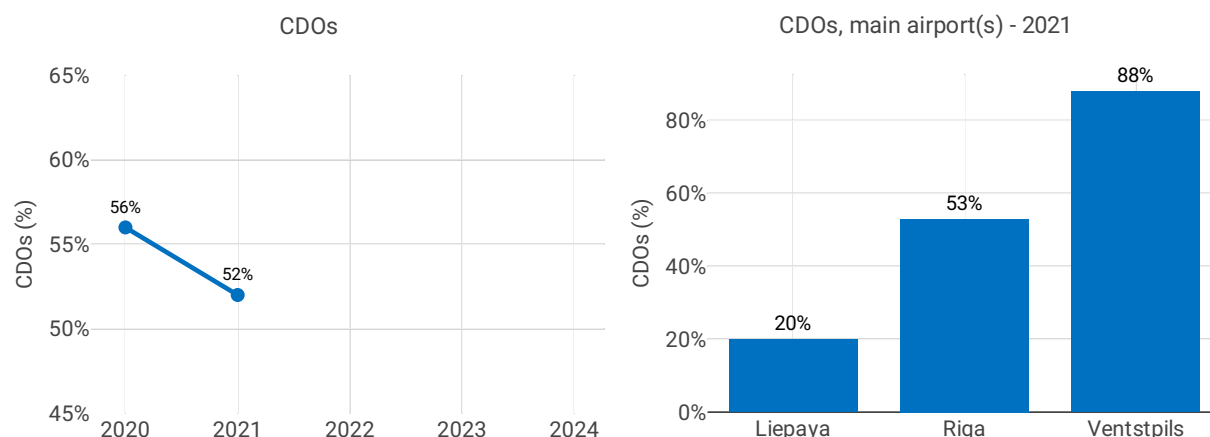
AXOT

This indicator is not monitored for airports below 80 000 IFR movements average during the 2016-2018 period, so it is not monitored for any airport in this state.

ASMA

This indicator is not monitored for airports below 80 000 IFR movements average during the 2016-2018 period, so it is not monitored for any airport in this state.

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



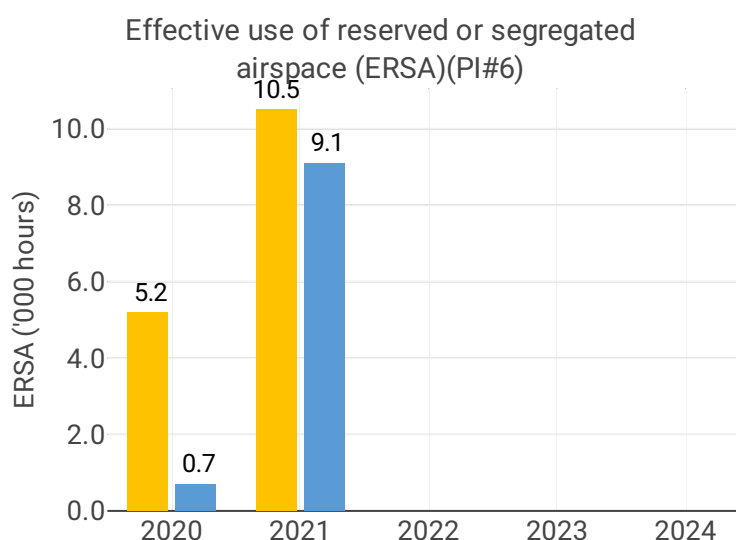
Focus CDOs

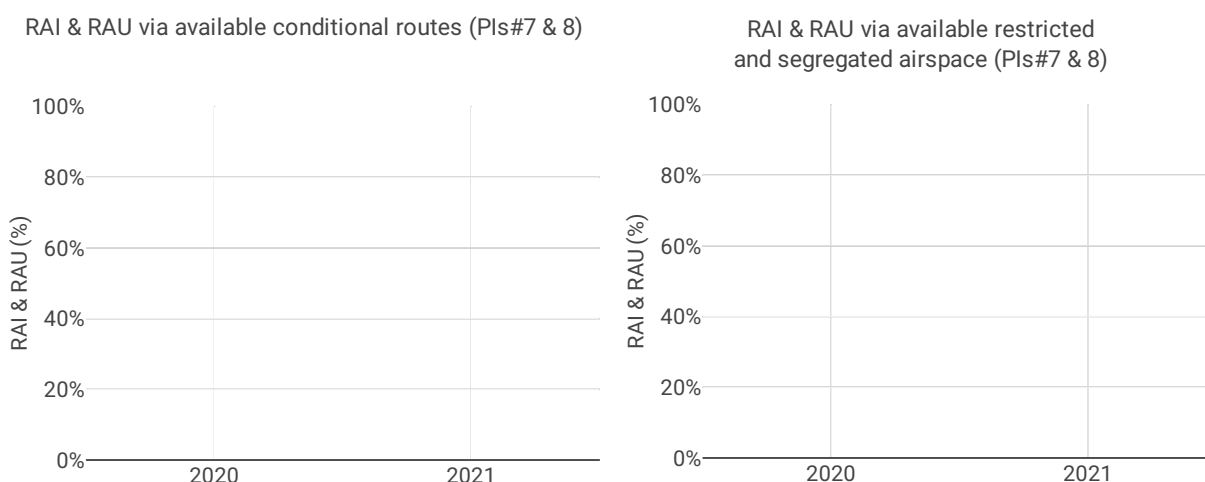
The shares of CDO flights changed significantly for Liepaya (-45.5 percentage points) and Ventstpils (+37.5 percentage points) while it slightly decreased for Riga (-2.9 percentage points). While the shares of CDO flights were well above the overall RP3 in 2020 for all airports, only Riga and Ventstpils have values well above the overall RP3 value in 2021 (30.5%). The value for Liepaya is well below the overall RP3 value in 2021.

According to the Latvian monitoring report: *Although, LGS cannot directly impact environmental pollution, projects carried out by LGS in 2020 - 2021 included mechanisms to reduce noise, CO₂ and NO_x. For example: implementation of additional effectiveness and safety for aircraft services at the airport and during descent and approach (A-CDM), PBN procedures to increase predictability of flight arrival trajectories from flight planning perspective, as well as implementation of Free Route Airspace (projects FRA 1 and FRA2) to optimize airspace use and to facilitate reduction/straightening of enroute segments. In 2022 and forward other service improvements are planned.*

Airport Name	Airport level														
	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
Riga	1.85	3.57	NA	NA	NA	0.73	0.52	NA	NA	NA	56%	53%	NA	NA	NA
Liepaya	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66%	20%	NA	NA	NA
Ventstpils	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50%	88%	NA	NA	NA

3.4 Civil-Military dimension





Focus on Civil-Military dimension

Update on Military dimension of the plan

Design of all military use areas takes into consideration impact on other airspace users, and subsequently the impact on the environment and capacity. As a result, airspace booking (for FUA areas only) and airspace use procedures are developed appropriately to minimize the impact.

Military - related measures implemented or planned to improve capacity

Various considerable changes in MIL SUA areas were implemented and more are planned for 2022.

Initiatives implemented or planned to improve PI#6

In comparison to 2020, in 2021 changes in certain areas designated for military use were implemented, which affected the efficiency of their use. Certain changes in military airspace use priorities also affected the military SUA area use efficiency positively.

The CAA is closely involved in providing the guidance to the military in different airspace management and oversight aspects. LoA between the ANSP and the military about booking and actual use of military areas and procedures is under the CAA oversight in line with Reg.2017/373.

Initiatives implemented or planned to improve PI#7

FRA was implemented in Riga FIR in 2015.

Initiatives implemented or planned to improve PI#8

FRA was implemented in Riga FIR in 2015.

4 CAPACITY - LATVIA

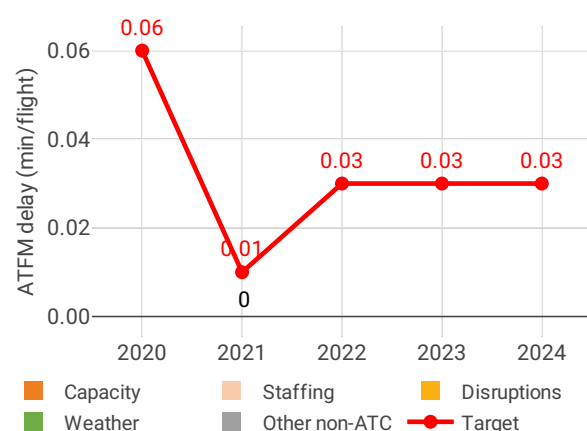
4.1 PRB monitoring

- Latvia registered zero minutes of average en route ATFM delay per flight during 2021, thus meeting the local breakdown value of 0.01.
- En route ATFM delays in Latvia were also near zero on average during past years.
- Traffic recovery in Latvia has continued to be impacted by the airspace closures East of the SES area and 2019 traffic levels are not likely to be reached during RP3 in any growth scenario. The number of ATCOs in OPS is planned to remain the same until the end of RP3.
- The yearly total of sector opening hours in Riga ACC was 21,916, showing a 4.6% increase compared to 2020. Sector opening hours are 24.0% below 2019 levels.
- Riga ACC registered 7.41 IFR movements per one sector opening hour in 2021, being 27.9% below 2019 levels.

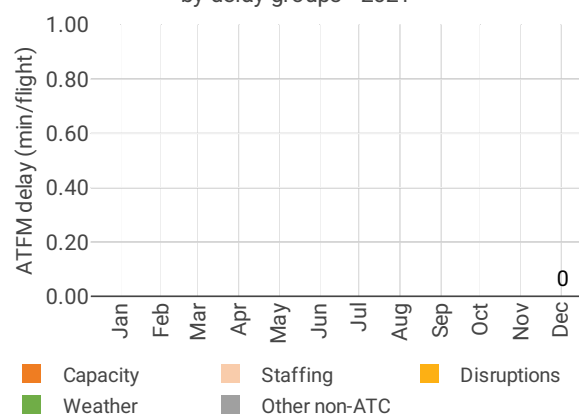
4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)

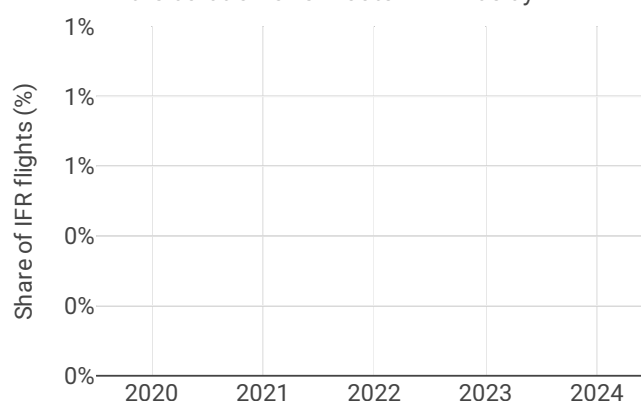
Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2021



Distribution of IFR flights per the duration of en route ATFM delay



Focus on en route ATFM delay

Summary of capacity performance

Latvia experienced an increase in traffic from 129k flights in 2020 to 163k flights in 2021, with zero ATFM delay. However, traffic levels were still substantially below the 295k flights in 2019.

NSA's assessment of capacity performance

Due to considerable impact of COVID-19 and sanctions against Belarus, there were no identified issues with the capacity.

Monitoring process for capacity performance

Impact of traffic diversion due to Belarus sanctions were analysed and posed no capacity issues. Data was shared with EASA. Information about impact on traffic flows and numbers is shared by the ANSP upon request and during oversight audits and inspections, when all aspects impacting capacity in different sectors is checked.

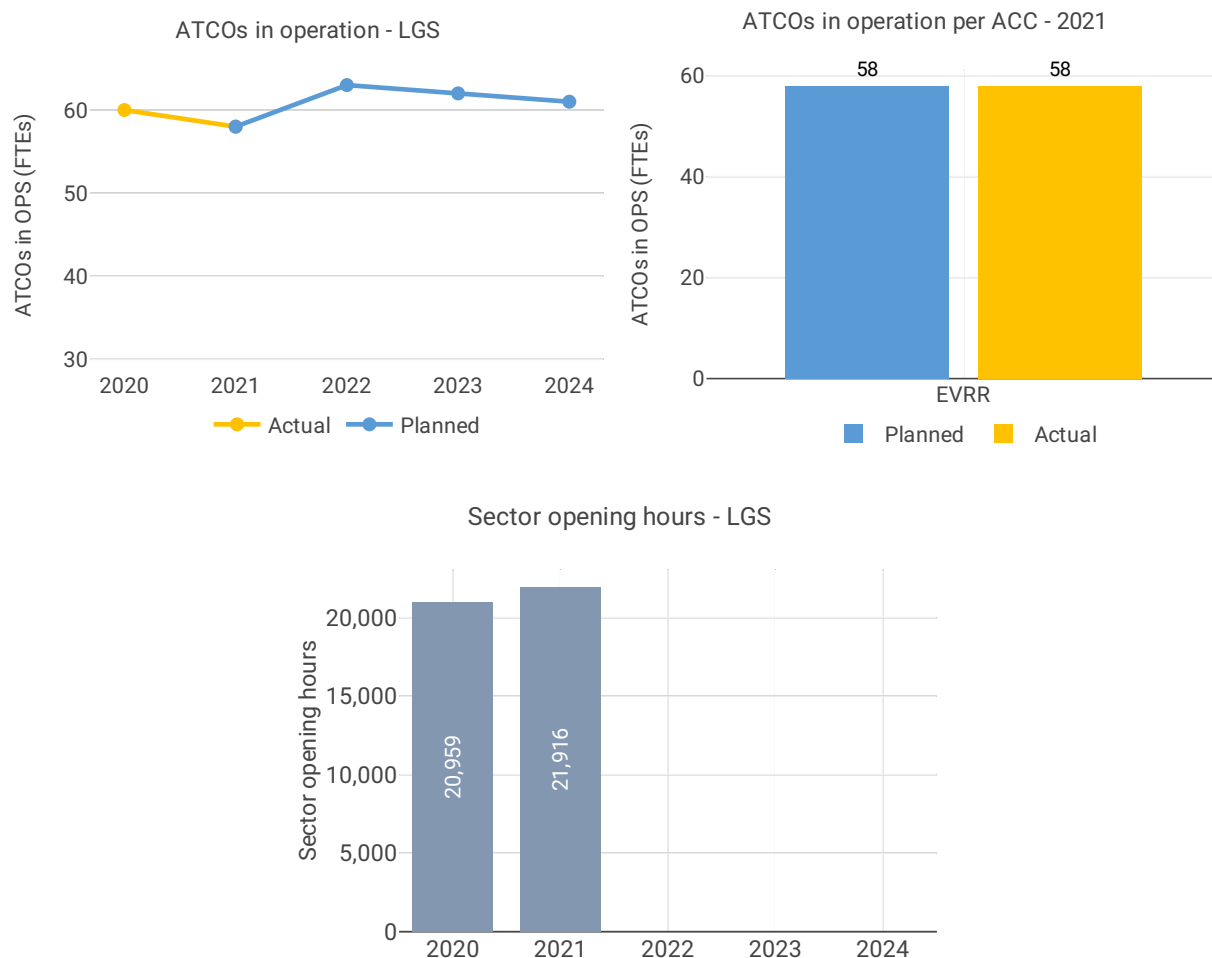
Capacity planning

Currently, LGS capacity planning is adequate and meets the requirements.

Application of Corrective Measures for Capacity (if applicable)

No data available.

4.2.2 Other indicators

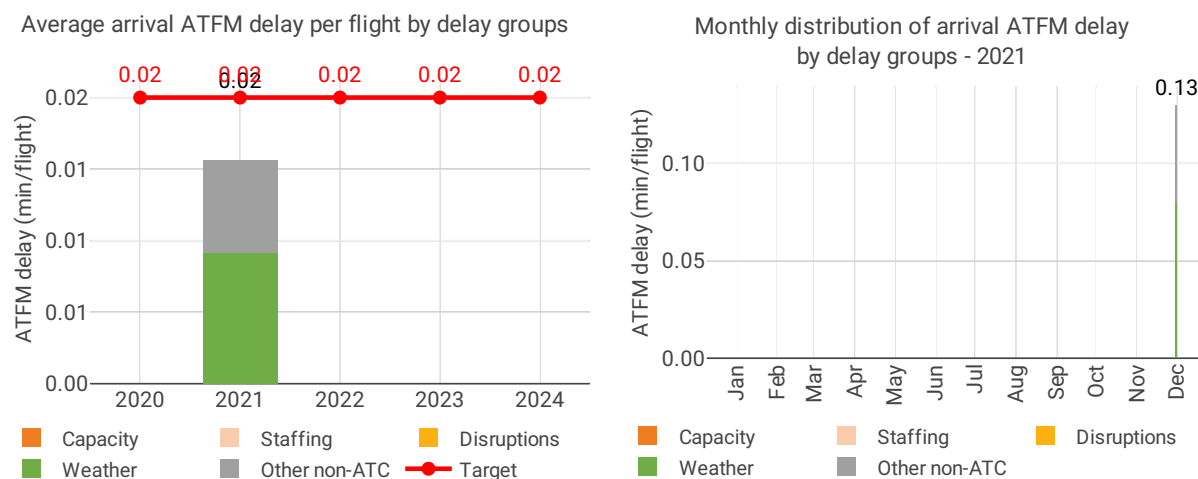


Focus on ATCOs in operations

N/A

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)



Focus on arrival ATFM delay

Latvia identified 4 airports as subject to RP3 monitoring. In accordance with IR (EU) 2019/317 and the traffic figures at these 4 airports, pre-departure delays are not monitored and the capacity performance monitoring focuses on arrival ATFM delay and slot adherence. Traffic at these Latvian airports in 2021 was still 55% lower than in 2019.

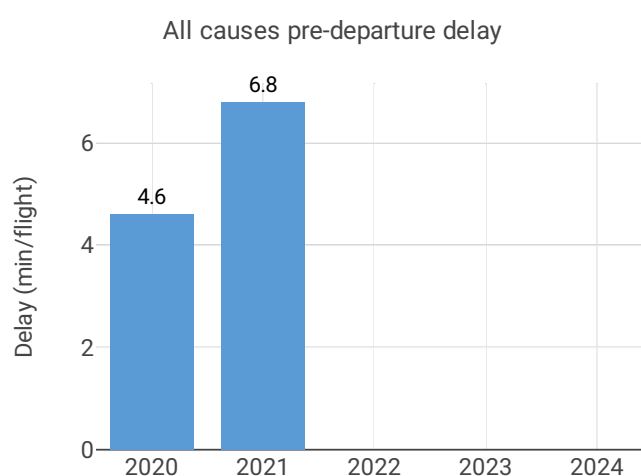
Average arrival ATFM delays in 2021 was 0.02 min/arr, compared to 0 min/arr in 2020. ATFM slot adherence has slightly improved (2021: 98.8%; 2020: 98.4%).

Only Riga (EVRA) registered some delays in 2021, all in December, attributed to accident/incident and weather. This resulted in an annual average for Riga of 0.02 min/arr.

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										
Airport name	Avg arrival ATFM delay (KPI#2)					Slot adherence (PI#1)				
	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020
Liepaya	NA	NA	NA	NA	NA	100.0%	NA%	NA%	NA%	NA
Riga	0.02	NA	NA	NA	NA	98.8%	NA%	NA%	NA%	98.4%

Airport name	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020
Liepaya	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Riga	0.03	NA	NA	NA	NA	6.8	NA	NA	NA	4.6

Focus on performance indicators at airport level

ATFM slot adherence

With the drastic drop in traffic, the share of regulated departures from Latvian airports virtually disappeared until July 2021. Riga's ATFM slot compliance was 98.8%, a slight improvement with respect to the already good value in 2020 (98.4%). With regard to the 1.2% of flights that did not adhere, 0.5% was early and 0.7% was late. EVVA did not have any regulated departures and EVLA had only 2, with a 100% slot adherence.

According to the Latvian monitoring report: *Slight improvement was registered in adherence to ATFM slot due to ATCOs experience enhancement.*

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 any airport in Latvia.

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 any airport in Latvia.

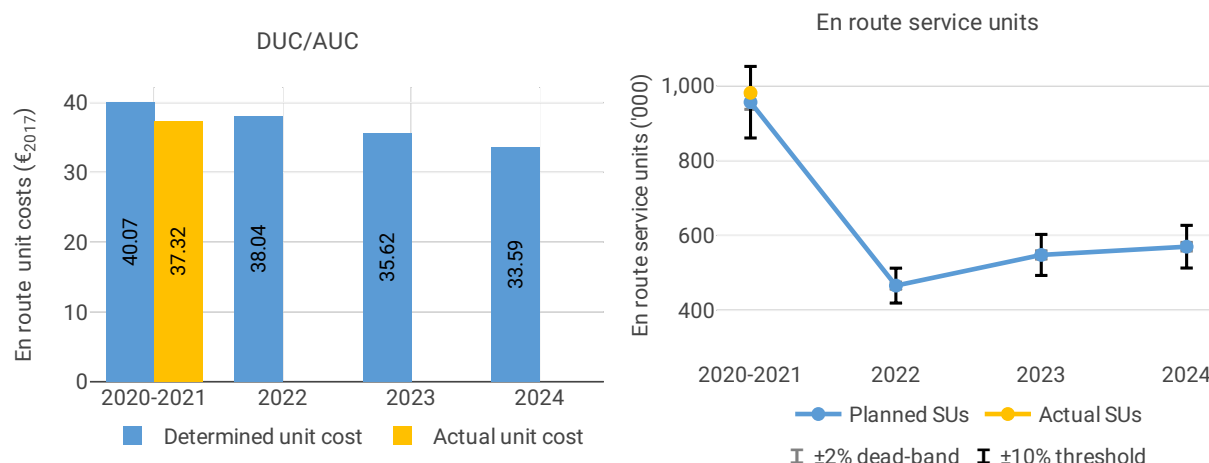
5 COST-EFFICIENCY - LATVIA

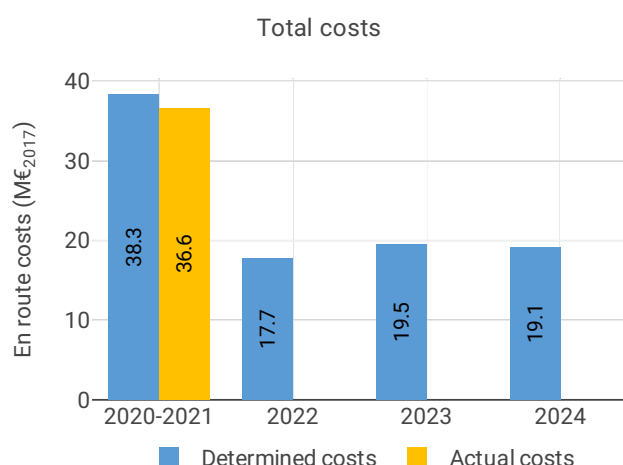
5.1 PRB monitoring

- The en route 2020/2021 actual unit cost of Latvia was 37.32 €2017, -6.9% lower than the determined unit cost (40.07 €2017). The terminal actual unit cost was 288.43 €2017, -4.2% lower than the determined unit cost (301.22 €2017).
- The en route 2021 actual service units (542K) were +4.8% higher than determined (517K).
- In 2021, actual total costs of Latvia were -1.7 M€2017 (-8.8%) lower than determined. The reduction was mainly driven by lower staff costs (-0.7 M€2017, or -6.2%) resulting from a reduction of 21 headcounts, and by lower other operating costs (-0.5 M€2017, or -13%) due to a decrease of trainings and business trips.
- LGS spent 5.7 M€2017 in 2021 related to costs of investments, -6.2% less than determined (6.0 M€2017), due to the fact that only ongoing projects proceeded as planned.
- The en route actual unit cost incurred by users in 2020/2021 was 41.61€, while the terminal actual unit cost incurred by users was 312.59€.

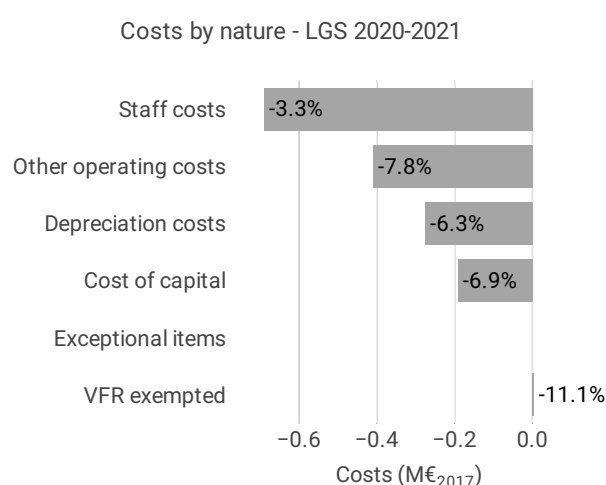
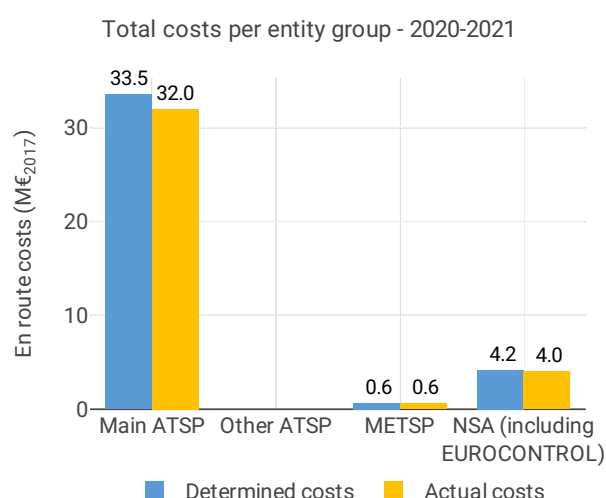
5.2 En route charging zone

5.2.1 Unit cost (KPI#1)





Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	38	NA	NA	NA
Determined costs	40	20	23	23
Difference costs	-2	NA	NA	NA
Inflation assumptions				
Determined inflation rate	NA	10.0%	3.9%	3.1%
Determined inflation index	NA	119.7	124.3	128.1
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 lower by -6.9% (or -2.75€2017) than the planned DUC. This results from the combination of higher than planned TSUs (+2.6%) and lower than planned en route costs in real terms (by -4.4%, or -1.7 M€2017).

En route service units

The difference between actual and planned TSUs (+2.6%) falls outside the $\pm 2\%$ dead band, but does not exceed the $\pm 10\%$ threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional en route revenues is therefore shared between the ATSP and the airspace users, with the ATSP (LGS) retaining an amount of +0.7 M€2017.

En route costs by entity

Actual real en route costs for 2020-2021 are -4.4% (-1.7 M€2017) lower than planned. This result is driven by the main ANSP, LGS (-4.7%, or -1.6 M€2017), the MET service provider (-0.2% or -0.002 M€2017) and the NSA/EUROCONTROL costs (-3.3%, or -0.1 M€2017).

En route costs for the main ANSP at charging zone level

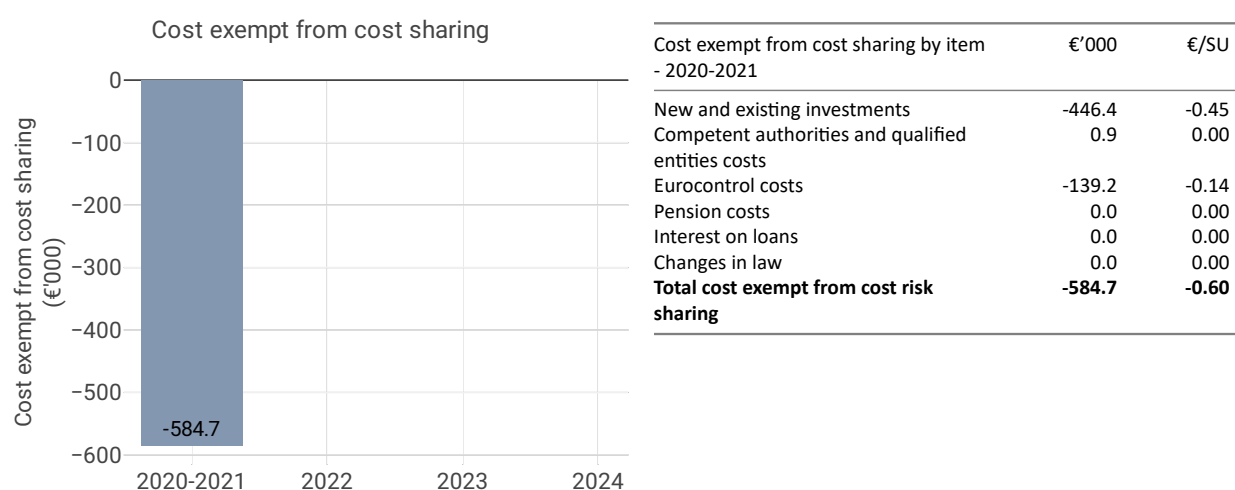
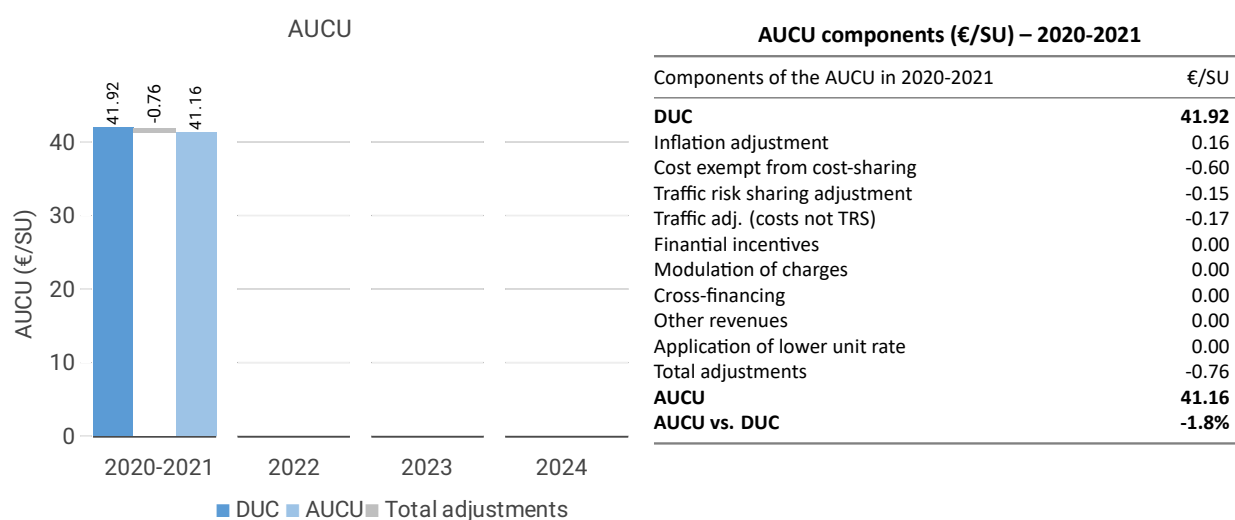
Lower than planned en route costs in real terms for LGS in 2020-2021 (-4.7%, or -1.6 M€2017 lower) results from:

- lower staff costs (-3.3%), "due to reduced headcounts by 6.1% of FTEs. At the same time, LGS did increase remuneration of several staff categories due to enormous pressure from trade unions;"
- lower other operating costs (-7.8%), "mostly by scaling down of the training and business trips;"
- lower depreciation (-6.3%), "As in FY 2020 the ANSP did invest only in the critical part of the services and

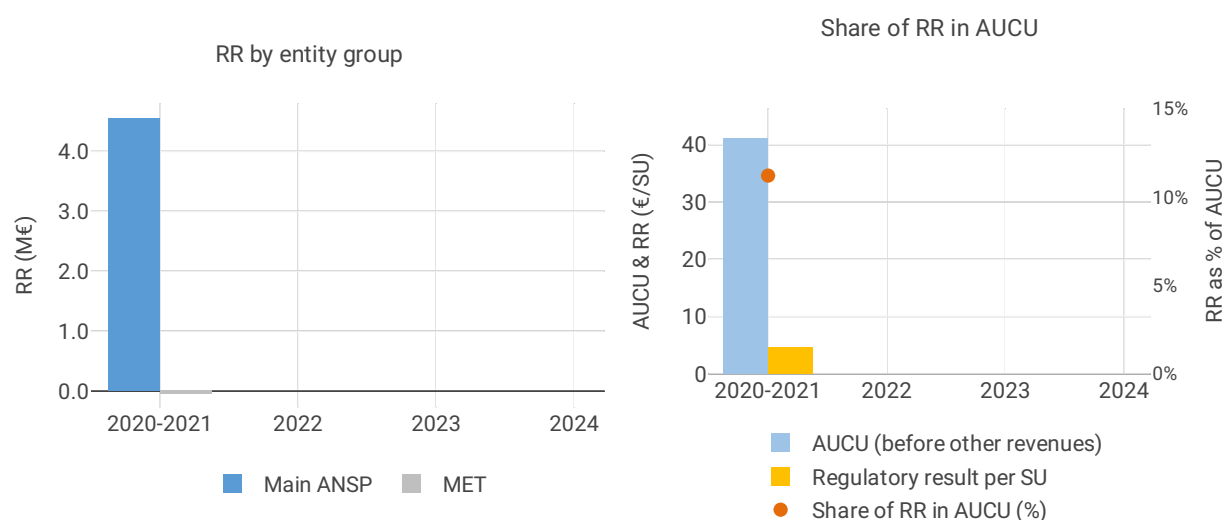
could not afford to undertake large scale investments with long-term benefits;”

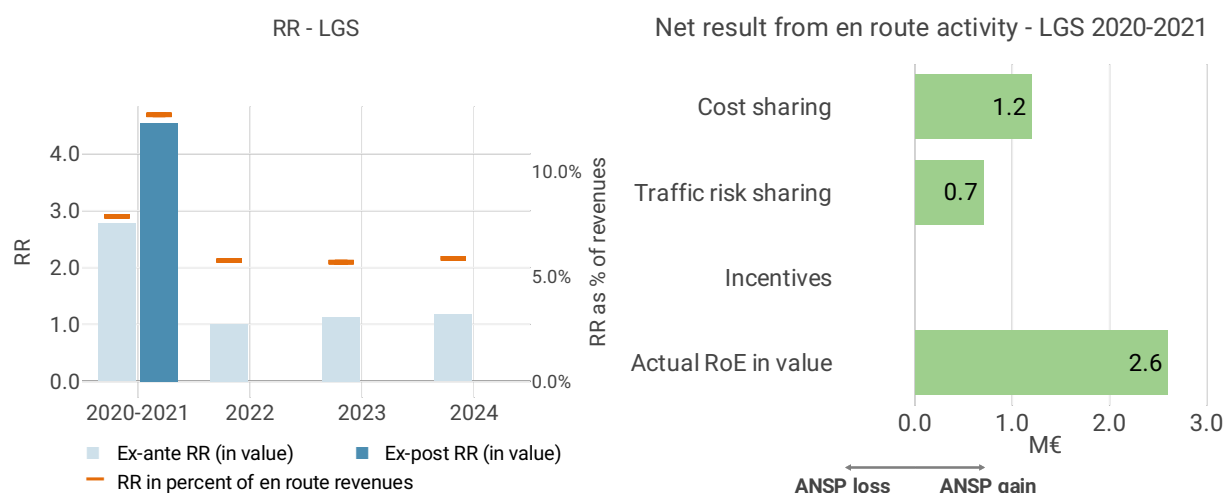
- lower cost of capital (-6.9%), same as for depreciation;
- lower deduction for VFR exempted flights (-11.1%).

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



5.2.3 Regulatory result (RR)





Focus on regulatory result

LGS net gain on en route activity in the Latvia charging zone in the combined year 2020-2021

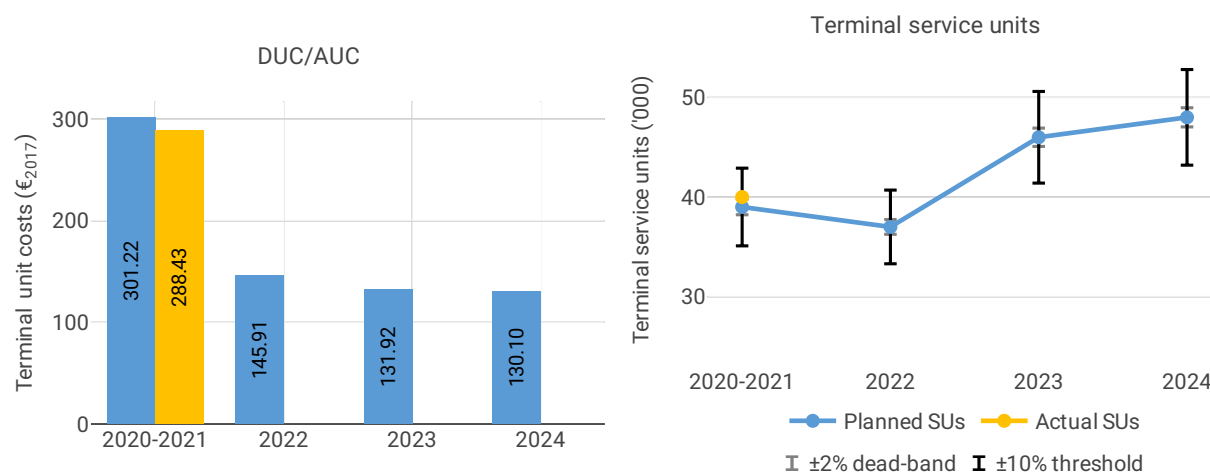
LGS's net gain amounts to +2.4 M€, as a combination of a gain of +1.7 M€ arising from the cost sharing mechanism and a gain of +0.7 M€ arising from the traffic risk sharing mechanism.

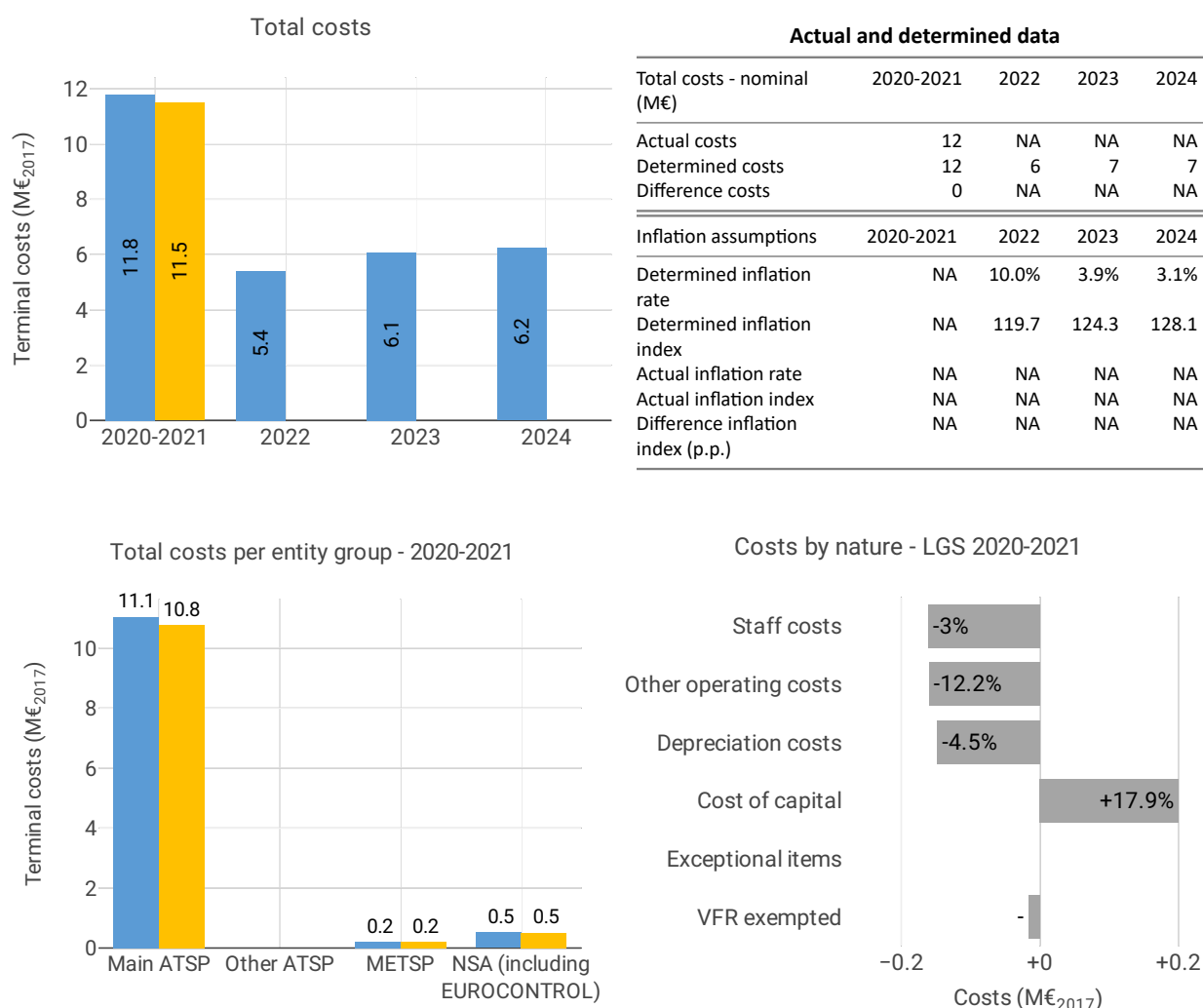
LGS overall regulatory results (RR) for the en route activity

Ex-post, the overall RR taking into account the net gain from the en route activity mentioned above (+2.4 M€) and the actual RoE (+2.6 M€) amounts to +5.0 M€ (13.8% of the en route revenues). The resulting ex-post rate of return on equity is 12.7%, which is higher than the 6.6% planned in the PP.

5.3 Terminal charging zone

5.3.1 Unit cost (KPI#1)





Focus on unit cost

AUC vs. DUC

In the combined year 2020-2021, the terminal AUC was -4.2% (or -12.79€2017) lower than the planned DUC. This results from the combination of higher than planned TNSUs (+1.8%) and lower than planned terminal costs in real terms (-2.6%, or -0.3 M€2017).

Terminal service units

The difference between actual and planned TNSUs (+1.8%) falls within the $\pm 2\%$ dead band. Hence the resulting additional revenue is kept by the ANSPs..

Terminal costs by entity

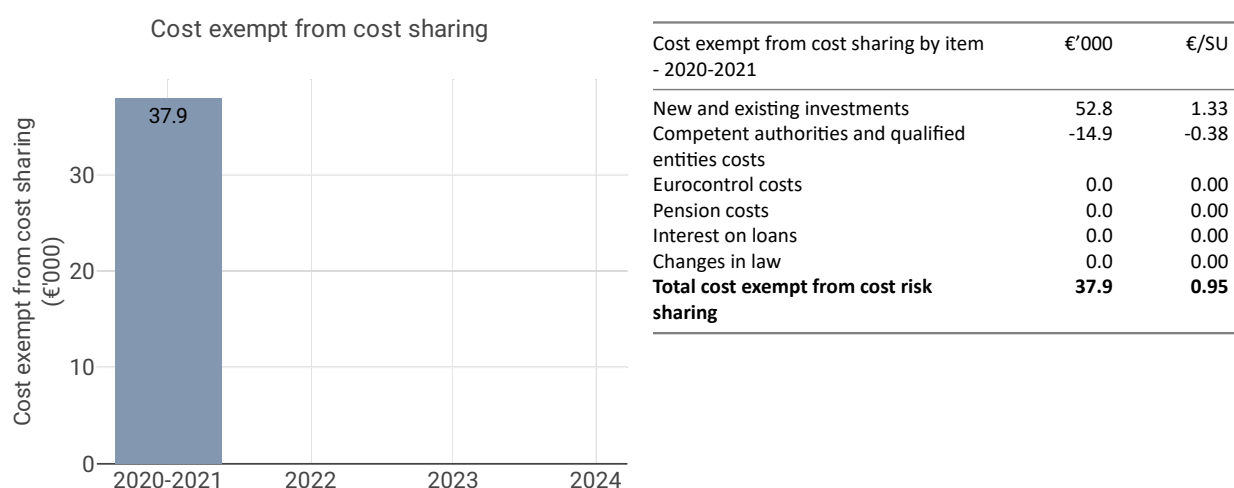
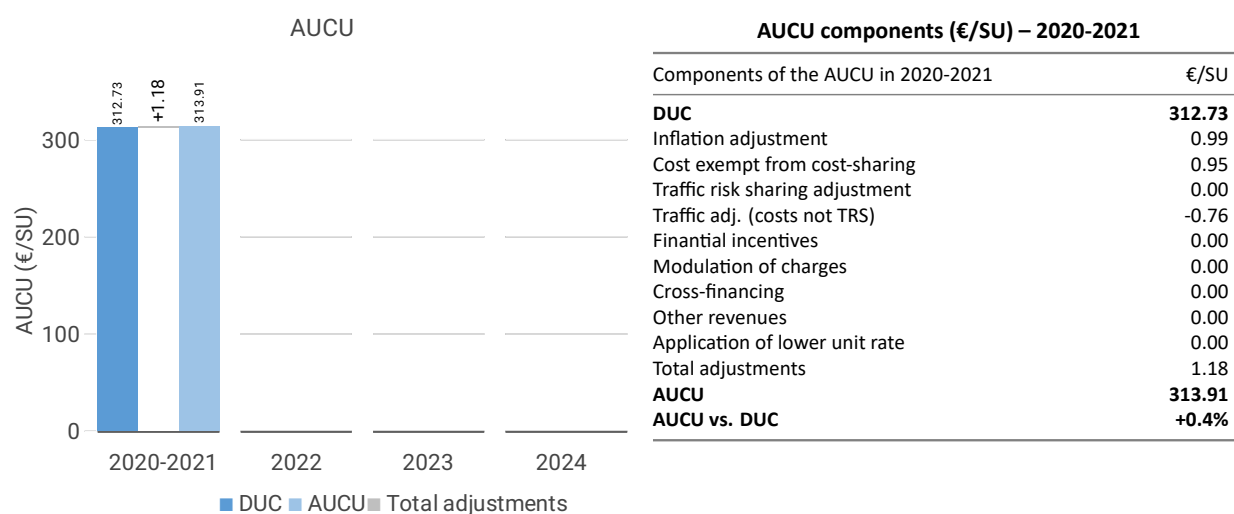
Actual real terminal costs are -2.6% (-0.3 M€2017) lower than planned. This is driven by the main ANSP, LGS (-2.6%, or -0.3 M€2017) and the NSA costs (-2.8%, or -0.01 M€2017).

Terminal costs for the main ANSP at charging zone level

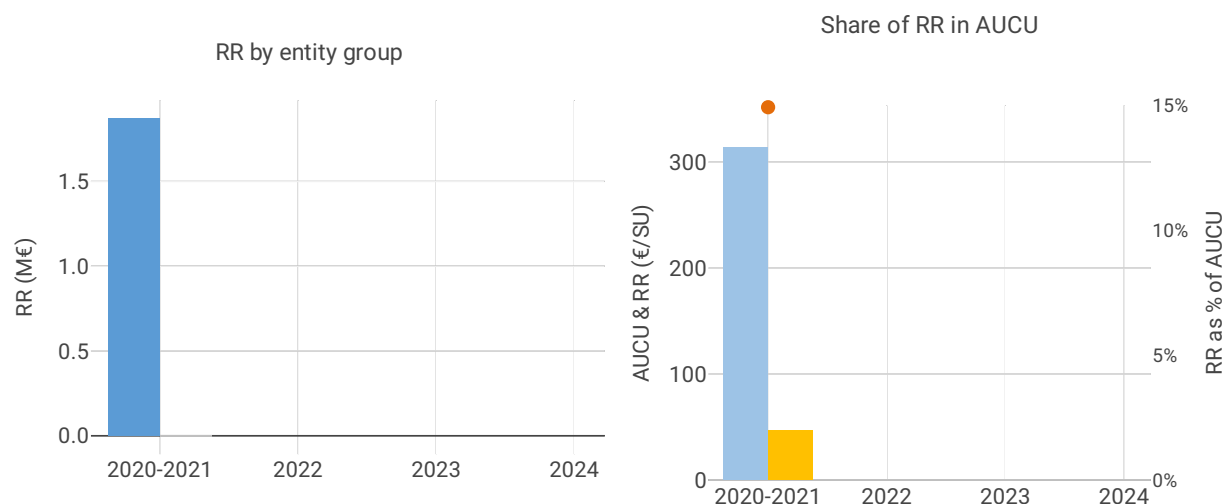
The lower than planned terminal costs in real terms for LGS (-2.6%, or -0.3 M€2017) result from:

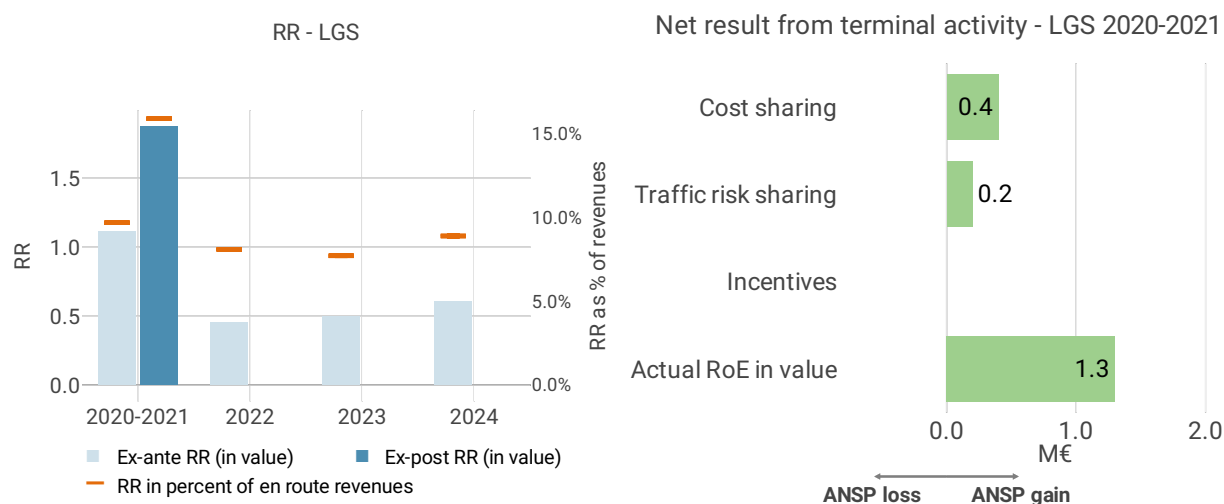
- lower staff costs (-3.0%), "due to reduced headcounts by 6.1% of FTEs. At the same time, LGS did increase remuneration of several staff categories due to enormous pressure from trade unions;"
- lower other operating costs (-12.2%), "mostly by scaling down of the training and business trips;"
- lower depreciation (-4.5%), "As in FY 2020 the ANSP did invest only in the critical part of the services and could not afford to undertake large scale investments with long-term benefits;"
- higher cost of capital (+17.9%), driven by the use of higher asset base (+18.9%) to compute cost of capital.
- deduction for VFR exempted flights.

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



5.3.3 Regulatory result (RR)





Focus on regulatory result

LGS net gain on activity in the Latvia terminal charging zone in the combined year 2020-2021

LGS's net gain amounts to +0.5 M€ due to gains of +0.3 M€ from the cost sharing mechanism and of +0.2 M€ from the traffic risk sharing mechanism.

LGS 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 (+0.5 M€) and the actual RoE (+1.3 M€) amounts to +1.8 M€ (15.5% of the terminal revenues). The resulting ex-post rate of return on equity is 9.1%, which is higher than the 6.6% planned in the PP.