



Performance Review Body Monitoring Report

Croatia - 2020

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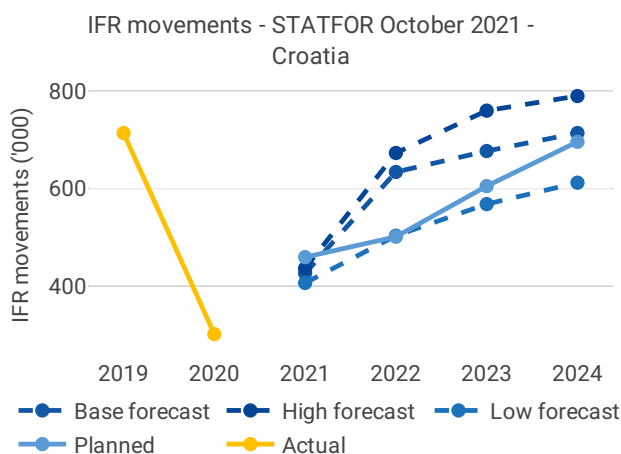
1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/764 of 13 April 2022

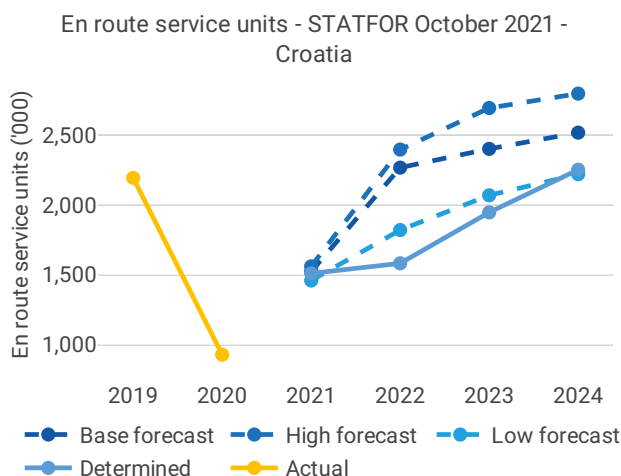
List of ACCs 1 Zagreb ACC	Exchange rate (1 EUR=) 2017: 1 EUR 2020: 1 EUR	Main ANSP • Croatia Control
No of airports in the scope of the performance plan: • ≥80'K 0 • <80'K 0	Share of Union-wide: • traffic (TSUs) 2020 1.8% • en route costs 2020 1.4%	Other ANSPs —
	Share en route / terminal costs 2020 100% / 0%	MET Providers —
	En route charging zone(s) Croatia	
	Terminal charging zone(s) —	

1.2 Traffic (En route traffic zone)



- Croatia recorded 301K actual IFR movements in 2020, -58% compared to 2019 (714K).

- Croatia IFR movements reduced more than the average reduction at Union-wide level (-57%).



- Croatia recorded 929K actual en route service units in 2020, -58% compared to 2019 (2,193K).

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

1.3 Safety (Main ANSP)



- Croatia Control achieved the EoS targets for RP3 on all management objectives except safety risk management and safety policy and objectives.

- The NSA verified and confirmed the achieved levels and identified specific actions to achieve the RP3 EoS target for safety risk management and safety policy and objectives. Thus, performance should improve in 2021.

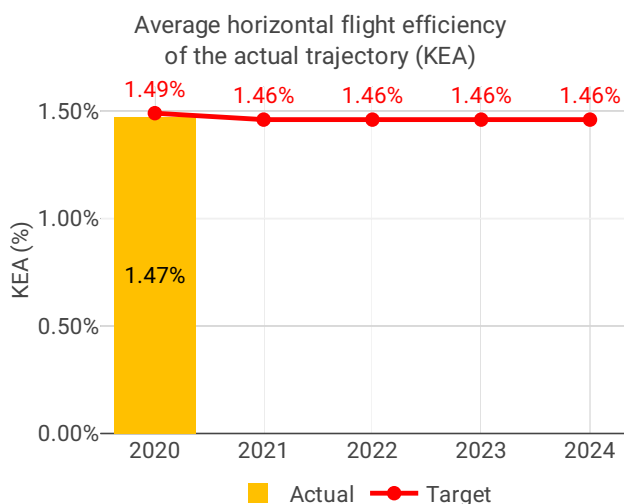
- Based on the maturity achieved at the end of RP2, the EoS performance is lower than expected (Croatia Control exceeded the target on several management objectives, including reaching the highest maturity level for safety policy and objectives in 2019).

Croatia Control needs to improve its maturity by one level on four out of 28 EoS questions to achieve the RP3 targets.

- There was a significant decrease in the rate of separation minima and no occurrences of runway incursions in 2020 compared to 2019. Croatia monitors safety performance using specific automated safety recording tools for SMIs and it is one of only a handful of Member States to do so.

- Croatia Control should improve its SMS by implementing automated safety data recording systems for RIs.

1.4 Environment (Member State)



- Croatia achieved a KEA performance of 1.47% compared to its reference value of 1.49% and therefore contributed positively towards achieving the Union-wide target.

- Uniquely, since 2016 Croatia has managed to improve its shortest constrained route to levels similar to that of KEA, meaning airspace users are flying close to optimum routes within the existing airspace structure.

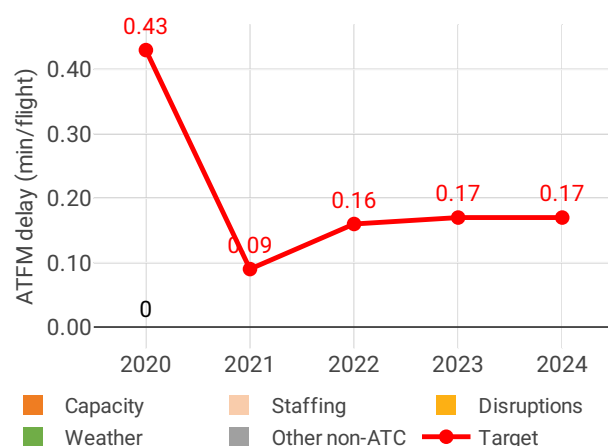
- However, Croatia stated that it does not expect this level of performance to continue as traffic grows and the RAD restrictions it lifted are once again imposed to better manage capacity.

- Croatia has no airports that are regulated under

the RP3 performance and charging scheme.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



- Croatia Control registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.43.

- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 58% below the 2019 levels in Croatia.

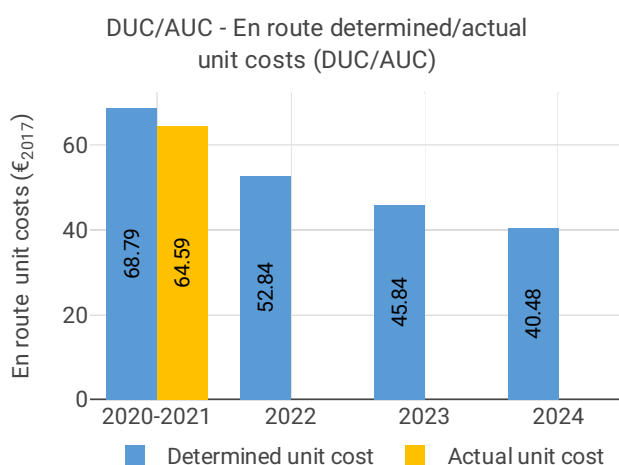
- Croatia reported 14% less ATCO FTEs by the end of 2020 than in 2019. This was due to accelerated ATCO retirement, postponed training activities, a change in paid leave dynamics and allocation of ATCOs to non-operational work.

- Croatia reported that the planned number of ATCOs for 2020 was calculated using the total number of ATCO licenses instead of ATCO FTEs in OPS. Thus, the PRB does not have enough information to estimate potential capacity shortfalls.

- The yearly total of sector opening hours in Zagreb ACC was 20,133, showing a 45.0% decrease compared to 2019.

- Zagreb ACC registered 14.02 IFR movements per one sector opening hour in 2020, being 23.0% below 2019 levels.

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



- The 2020 actual service units (929K) were 58% lower than the actual service units in 2019 (2,192K).

- Croatia had more staff retiring in 2020 compared to 2019, managing as well to reduce total costs in 2020 by 3 M€2017 (-3%) compared to 2019 actual costs. The reduction in costs is driven by a reduction of 4 M€2017 (-20%) in other operating costs, due to the postponement and freeze of ATCO trainings, missions, maintenance and utilities.

- Croatia Control spent 16 M€2017 in 2020 related to cost of investments, 8% less than planned in the 2019 draft performance plan (18 M€2017). The decrease in cost of investments is due to the postponement of significant number of investments, in order to preserve liquidity due to COVID-19.

2 SAFETY - CROATIA

2.1 PRB monitoring

- Croatia Control achieved the EoSM targets for RP3 on all management objectives except safety risk management and safety policy and objectives.

- The NSA verified and confirmed the achieved levels and identified specific actions to achieve the RP3 EoSM target for safety risk management and safety policy and objectives. Thus, performance should improve in 2021.

- Based on the maturity achieved at the end of RP2, the EoSM performance is lower than expected (Croatia Control exceeded the target on several management objectives, including reaching the highest maturity

level for safety policy and objectives in 2019). Croatia Control needs to improve its maturity by one level on four out of 28 EoSM questions to achieve the RP3 targets.

- There was a significant decrease in the rate of separation minima and no occurrences of runway incursions in 2020 compared to 2019. Croatia monitors safety performance using specific automated safety recording tools for SMIs and it is one of only a handful of Member States to do so.
- Croatia Control should improve its SMS by implementing automated safety data recording systems for RIs.

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



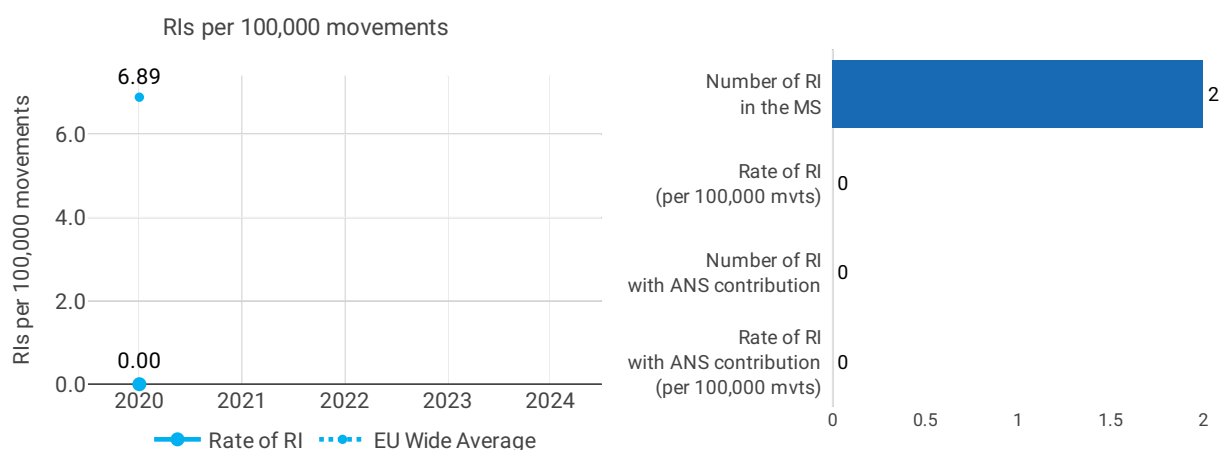
Focus on EoSM

Three out of five EoSM components of the ANSP meet the 2024 target level. Two components, namely “Safety Policy and Objectives” and “Safety Risk Management”, are below 2024 target levels and are expected to improve in the next years of RP3.

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)



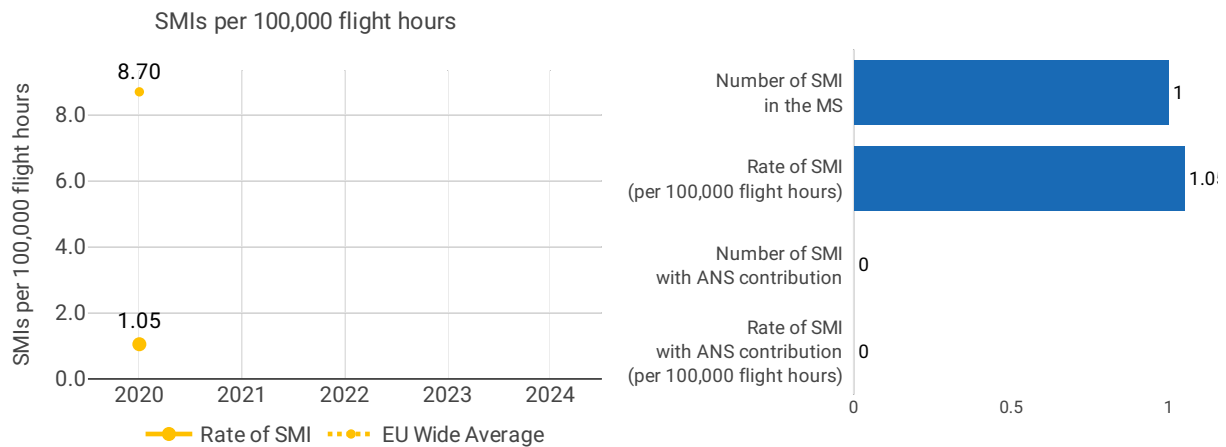
Rate of RIs per 100,000 airport movements - Croatia

#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Zagreb	NA	NA	NA

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	Croatia Control	106,693	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	Croatia Control	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	✓

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

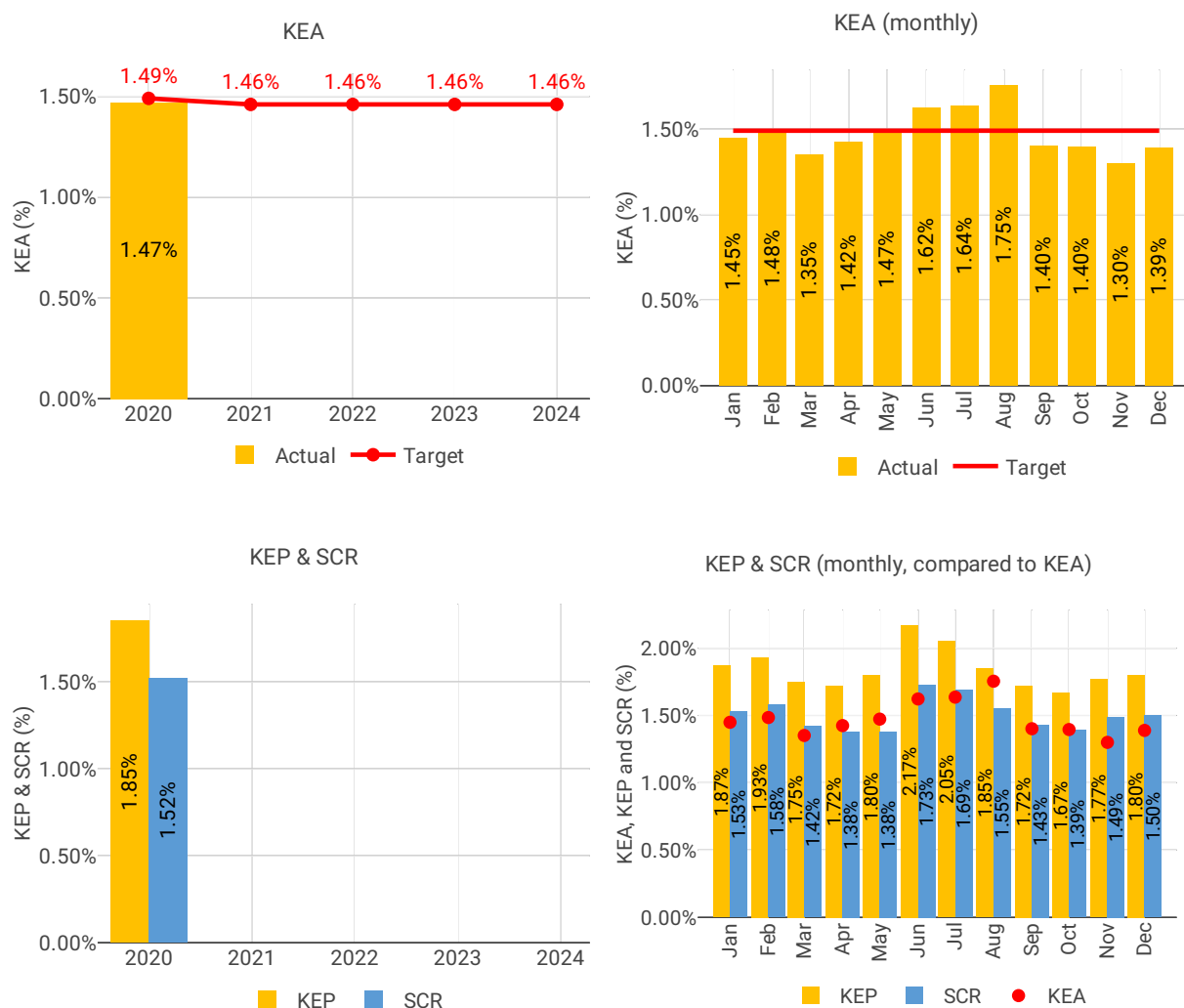
3 ENVIRONMENT - CROATIA

3.1 PRB monitoring

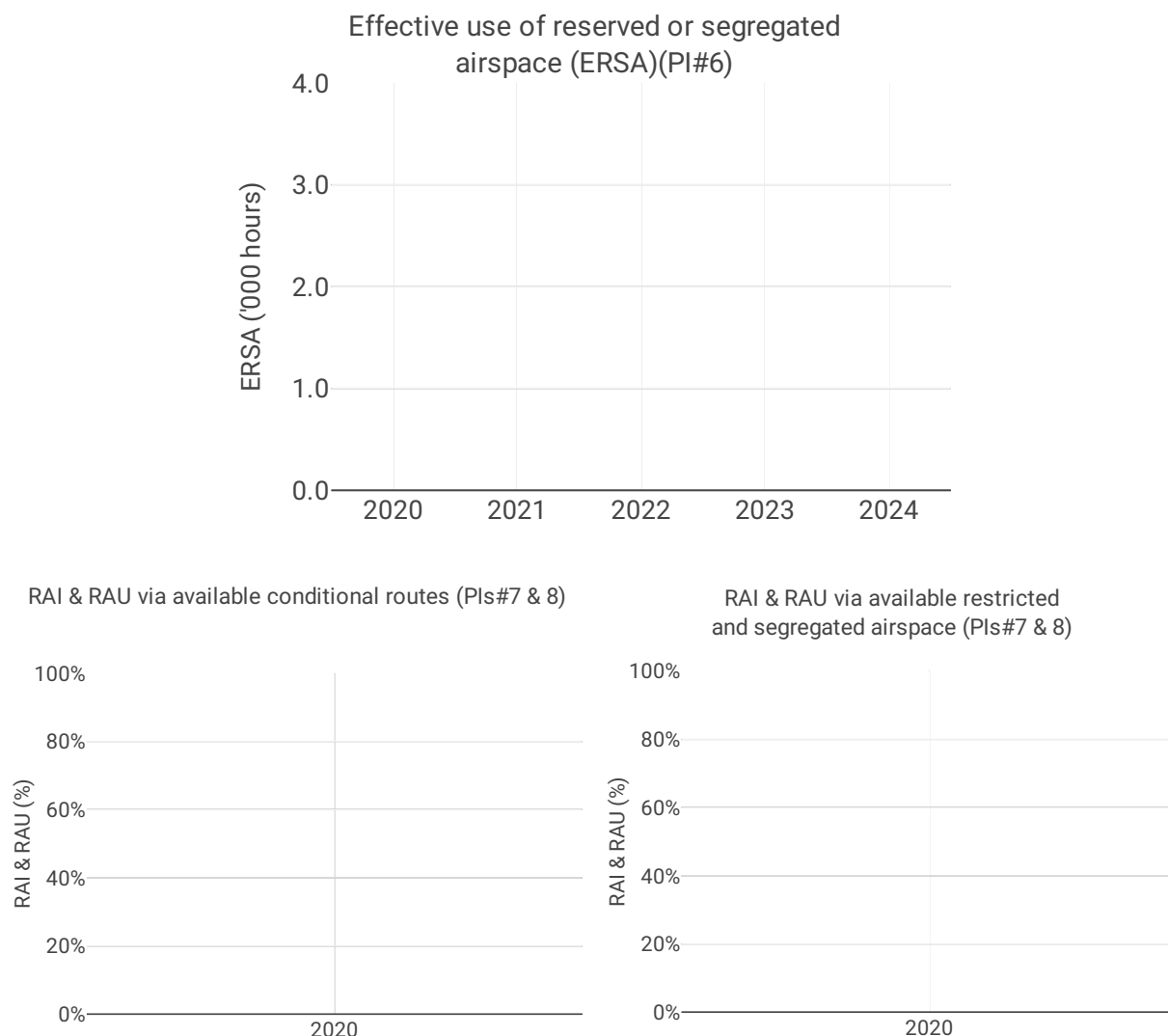
- Croatia achieved a KEA performance of 1.47% compared to its reference value of 1.49% and therefore contributed positively towards achieving the Union-wide target.
- Uniquely, since 2016 Croatia has managed to improve its shortest constrained route to levels similar to that of KEA, meaning airspace users are flying close to optimum routes within the existing airspace structure.
- However, Croatia stated that it does not expect this level of performance to continue as traffic grows and the RAD restrictions it lifted are once again imposed to better manage capacity.
- Croatia has no airports that are regulated under the RP3 performance and charging scheme.

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 Civil-Military dimension



Focus on Civil-Military dimension

Update on Military dimension of the plan

The impact of military dimension on the environment KPA may have been very low due to significant decrease of military activities and air traffic affected by COVID-19 crisis.

Military - related measures implemented or planned to improve environment and capacity

FUA restrictions and CDRs have been implemented which are managed by AMC on ASM Level 2 and notified to NM but were sparsely used or required due to significant decrease of military activities and air traffic affected by COVID-19 crisis.

Initiatives implemented or planned to improve PI#6

The Network Manager shall provide on a monthly basis the data required for the monitoring of this indicator for monitoring referred to COMMISSION IMPLEMENTING REGULATION (EU) 2019/317 point 6 of Annex VI. The data are not yet available on the NM/PRU dashboards for local level and can not be monitored at local level.

Initiatives implemented or planned to improve PI#7

The Network Manager shall provide on a monthly basis the data required for the monitoring of this indicator for monitoring referred to COMMISSION IMPLEMENTING REGULATION (EU) 2019/317 point 6 of Annex VI. The data are not yet available on the NM/PRU dashboards for local level and can not be monitored at local level.

Initiatives implemented or planned to improve PI#8

The Network Manager shall provide on a monthly basis the data required for the monitoring of this indicator for monitoring referred to COMMISSION IMPLEMENTING REGULATION (EU) 2019/317 point 6 of Annex VI. The data are not yet available on the NM/PRU dashboards for local level and can not be monitored at local level.

4 CAPACITY - CROATIA

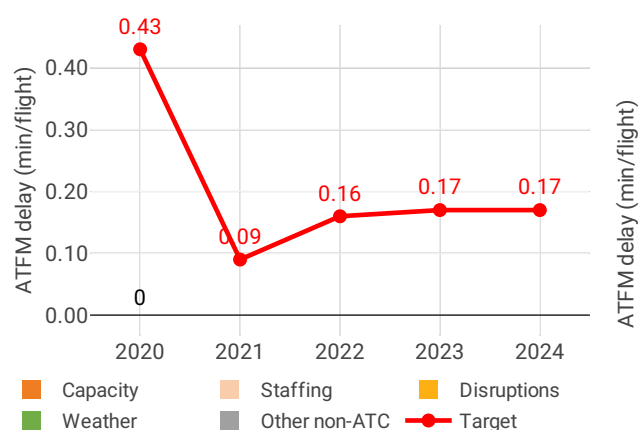
4.1 PRB monitoring

- Croatia Control registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.43.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 58% below the 2019 levels in Croatia.
- Croatia reported 14% less ATCO FTEs by the end of 2020 than in 2019. This was due to accelerated ATCO retirement, postponed training activities, a change in paid leave dynamics and allocation of ATCOs to non-operational work.
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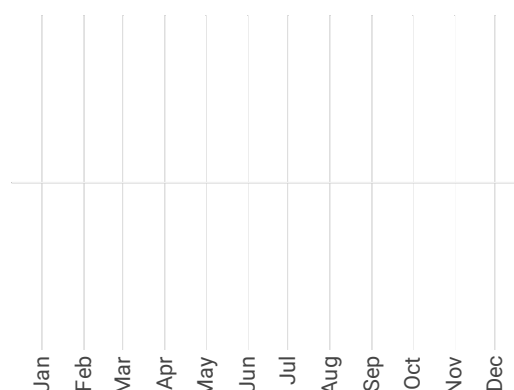
4.2 En route performance

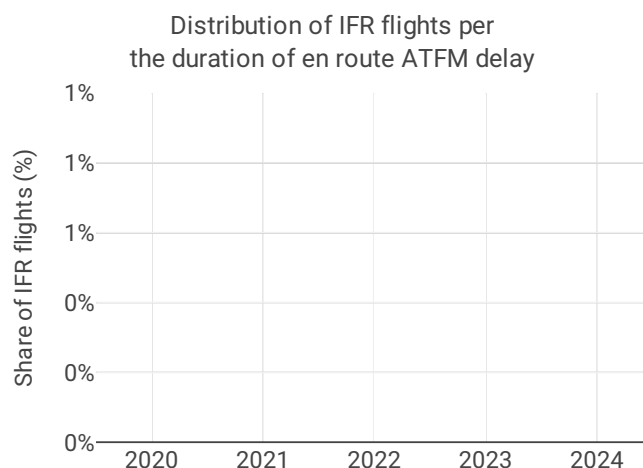
4.2.1 En route ATFM delay (KPI#1)

Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2020





Focus on en route ATFM delay

Summary of capacity performance

The Zagreb FIR experienced a traffic reduction of 58% from 2019 levels, to 301k flights. The traffic level was accommodated with negligible en route ATFM delays to airspace users.

NSA's assessment of capacity performance

The results are in line with traffic indicators and expectations. In the pandemic year 2020 there were no challenges for LDZO [Zagreb] ACC capacities.

Monitoring process for capacity performance

Monitoring of all available KPI's and PI's is done through the PRU portal which is considered as the main source of information.

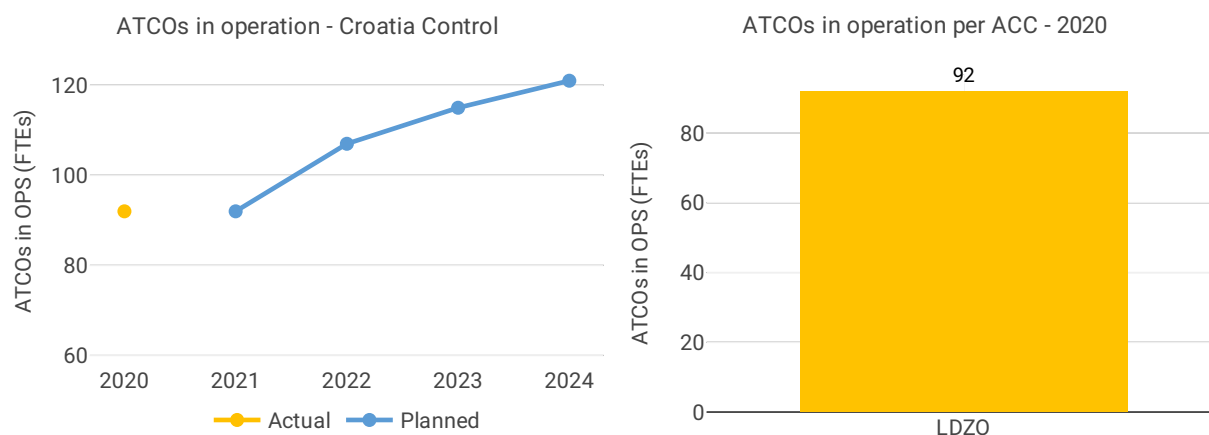
Capacity planning

Capacity planning is done in line with NM's initiative for development of a rolling NOP document in which short-term capacity and demand on the Network level is described. The expected traffic outlook is given for six weeks ahead and revised weekly, while capacity is adapted to traffic demand and reported to NM which assesses the efficiency for planned period. In the planning process on local level, several departments are involved in strategic and tactical development of the plan.

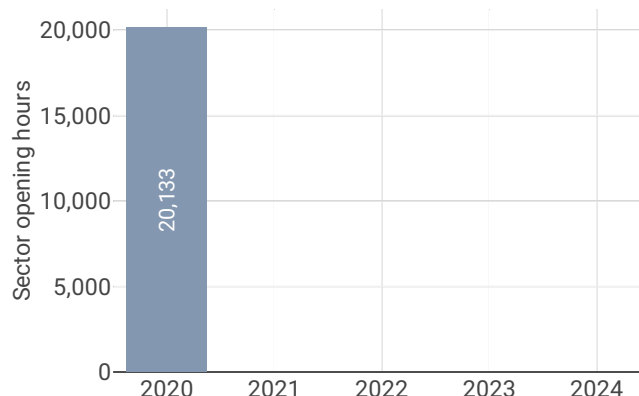
Application of Corrective Measures for Capacity (if applicable)

No data available.

4.2.2 Other indicators



Sector opening hours - Croatia Control



Focus on ATCOs in operations

Factors influencing no of ATCOs include: partial reallocation of ATCOs to other duties (projects); cost containment measures; and the accelerated retirement of ATCOs, during COVID pandemic.

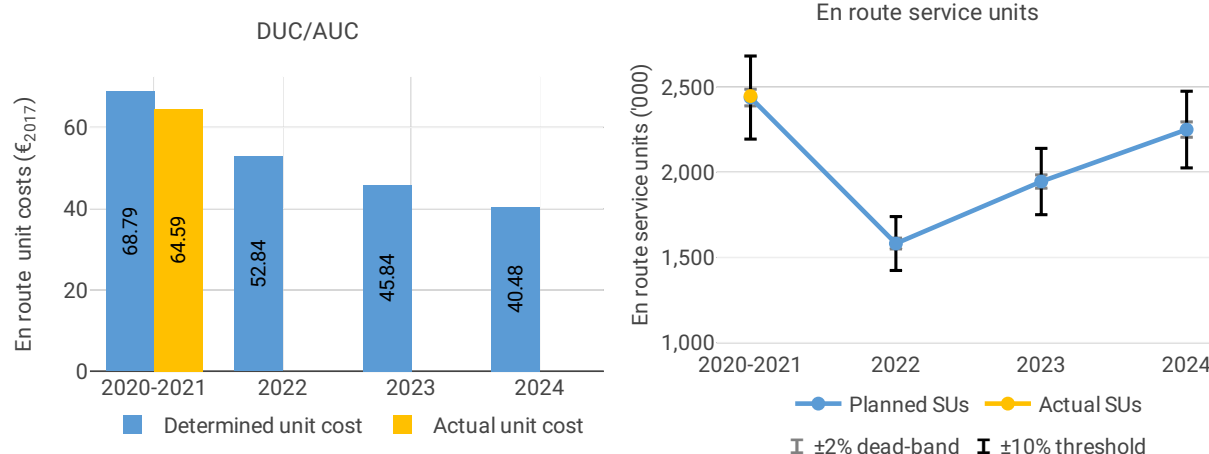
5 COST-EFFICIENCY - CROATIA

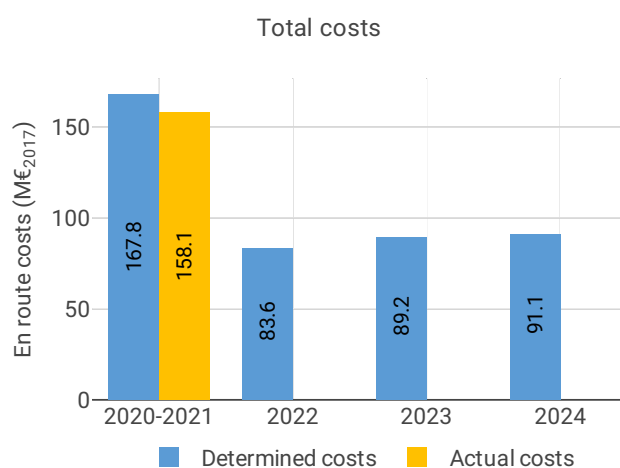
5.1 PRB monitoring

- The 2020 actual service units (929K) were 58% lower than the actual service units in 2019 (2,192K).
- Croatia had more staff retiring in 2020 compared to 2019, managing as well to reduce total costs in 2020 by 3 M€2017 (-3%) compared to 2019 actual costs. The reduction in costs is driven by a reduction of 4 M€2017 (-20%) in other operating costs, due to the postponement and freeze of ATCO trainings, missions, maintenance and utilities.
- Croatia Control spent 16 M€2017 in 2020 related to cost of investments, 8% less than planned in the 2019 draft performance plan (18 M€2017). The decrease in cost of investments is due to the postponement of significant number of investments, in order to preserve liquidity due to COVID-19.

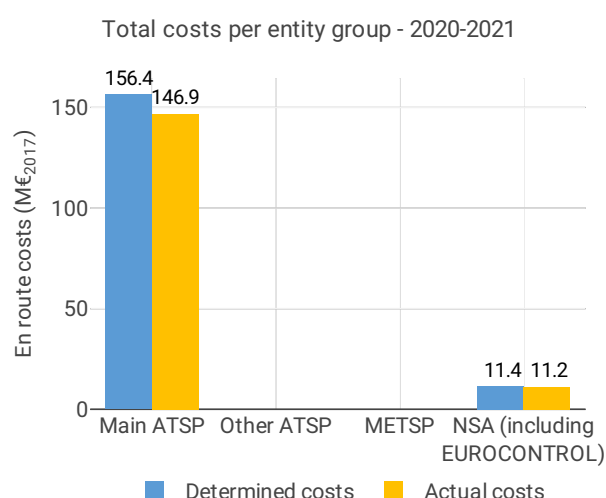
5.2 En route charging zone

5.2.1 Unit cost (KPI#1)

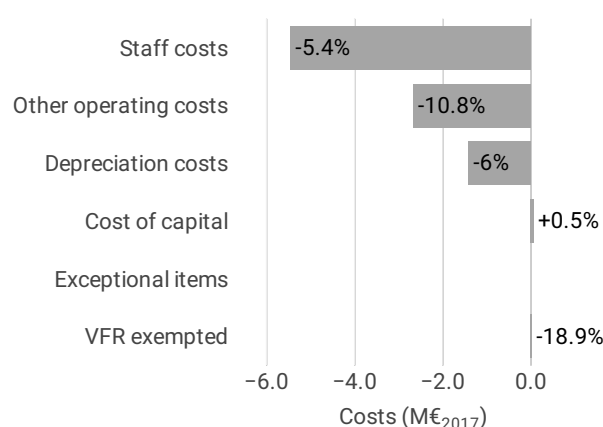




Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	162	NA	NA	NA
Determined costs	171	86	94	97
Difference costs	-9	NA	NA	NA
Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	1.1%	1.9%	2.2%
Determined inflation index	NA	104.3	106.3	108.7
Actual inflation rate	NA	NA	NA	NA
Actual inflation index	NA	NA	NA	NA
Difference inflation index (p.p.)	NA	NA	NA	NA



Costs by nature - Croatia Control 2020-2021



Focus on unit cost

AUC vs. DUC

In the combined year 2020-2021, the en route AUC (486.67 HRK₂₀₁₇ or 65.22 €₂₀₁₇) was lower by -6.1% (-31.62 HRK₂₀₁₇ or -4.24 €₂₀₁₇) comparing with the DUC (518.29 HRK₂₀₁₇ or 69.46 €₂₀₁₇). This was mainly the effect of the lower than planned en route costs in real terms (-5.8%, -73.0 MHRK₂₀₁₇ or -9.8 M€₂₀₁₇).

En route service units

The actual TSUs slightly exceed the planned level (+0.3%) and is within the ±2% dead-band which result in additional gains kept by the ANSP.

En route costs by entity

Actual en route costs are -5.8% lower than planned (-9.8 M€₂₀₁₇) which is mainly driven by the lower costs for Croatia Control (-6.1% or -9.6 M€₂₀₁₇). Actual 2020-2021 NSA/EUROCONTROL costs are lower by -1.7% (or 0.2 M€₂₀₁₇).

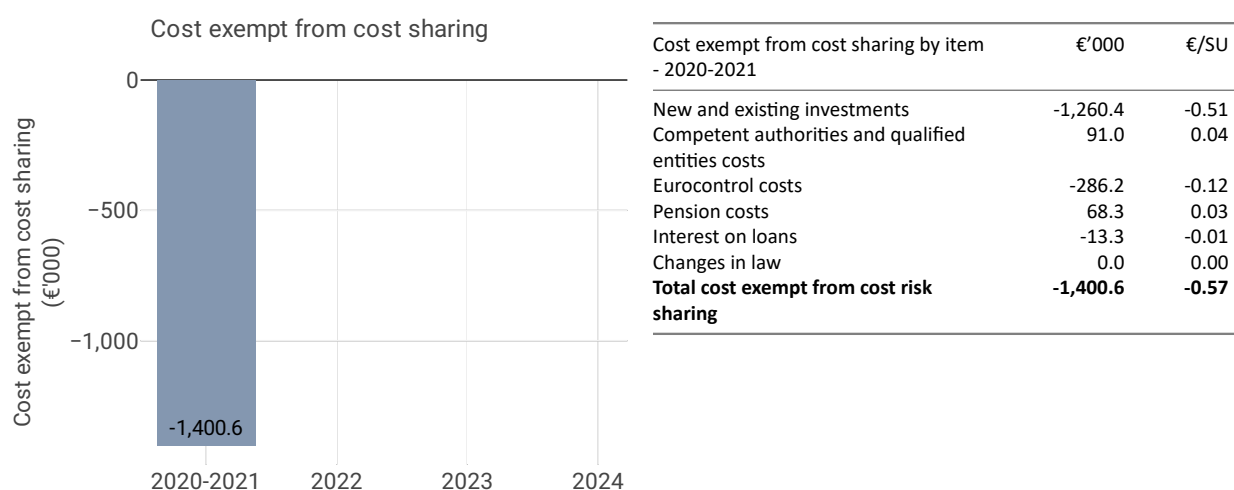
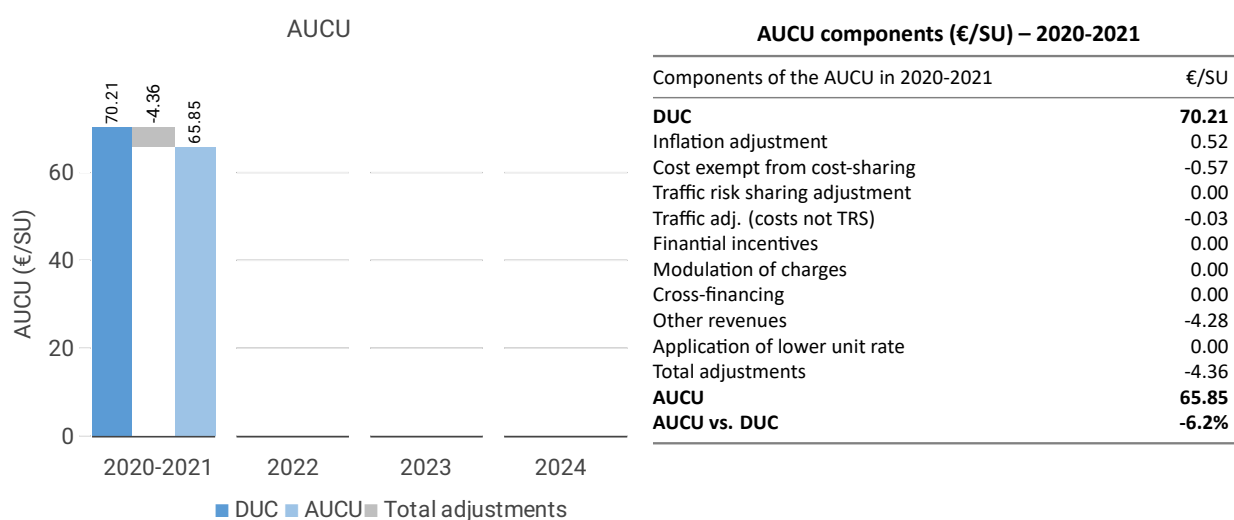
En route costs for the main ANSP at charging zone level

The lower than planned en route costs in real terms for Croatia Control (-6.1%, or -9.6 M€₂₀₁₇) result from:

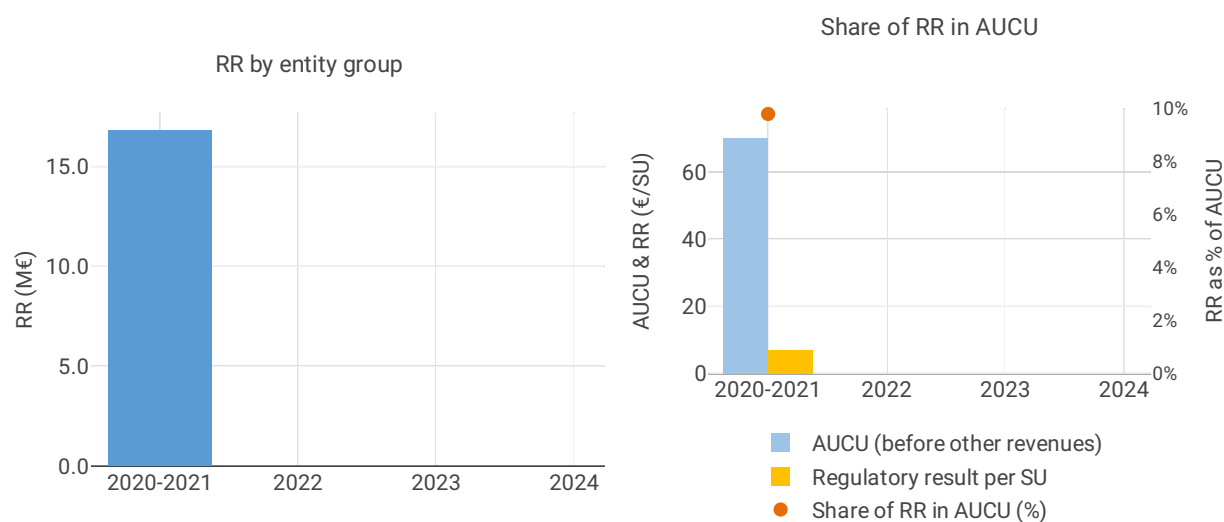
- lower than planned, by -5.4% (-5.5 M€₂₀₁₇) en route staff costs mainly resulting from the hiring freeze and salary cuts;
- lower en-route other operating costs (by -10.8% or -2.7 M€₂₀₁₇), due to the limitation of expenses, including staff trainings, business trips and maintenance expenses;
- lower, by -6.0% (-1.4 M€₂₀₁₇) depreciation due to redefinition of CAPEX planning;

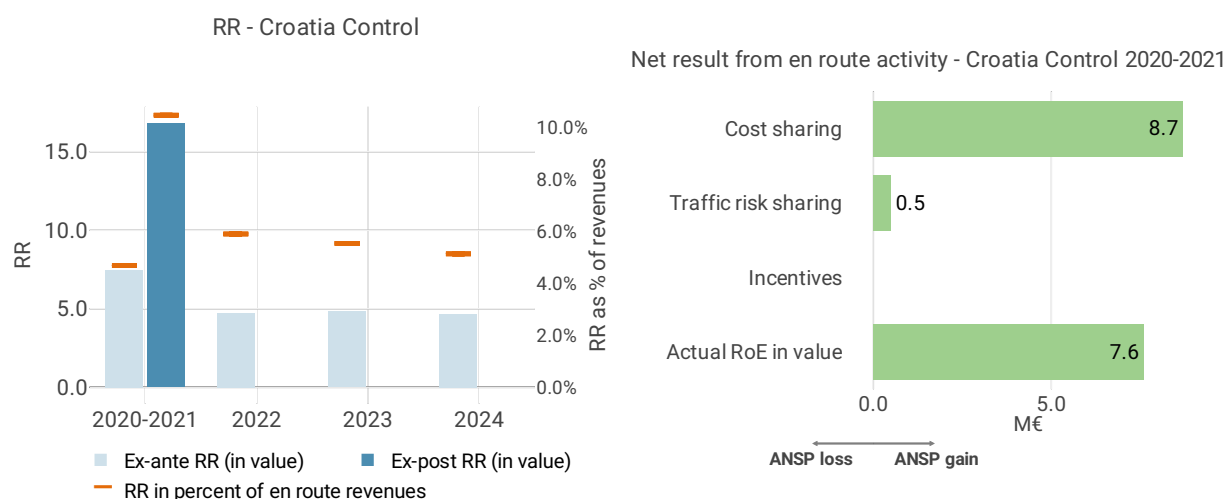
- slightly higher, by +0.5% (+0.04 M€2017) cost of capital; and,
- lower deduction of costs of exempted VFR flights (-18.9%).

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



5.2.3 Regulatory result (RR)





Focus on regulatory result

Croatia Control net gain on activity in the en route charging zone in the combined year 2020-2021

Croatia Control's net gain amounts to +69.1 MHRK or +9.2 M€, mainly due to gains of +65.2 MHRK from the cost sharing mechanism, and gains of +3.9 MHRK from the traffic risk sharing mechanism.

Croatia Control 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 (+9.2M€) and the actual RoE (+57.1 MHRK or +7.6 M€) amounts to +126.2 MHRK or + 16.8 M€ (10.4% of the en route revenues). The resulting ex-post rate of return on equity is 13.5% which is higher than the 6.1% planned in the PP.