

# Performance Review Body Monitoring Report

Czech Republic - 2020

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#### **1 OVERVIEW**

#### 1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/772 of 13 April 2022

List of ACCs 1 Prague ACC	<b>Exchange rate (1 EUR=)</b> 2017: 26.3115 CZK 2020: 26.435 CZK	Main ANSP • ANS CR		
No of airports in the scope of the performance plan: • ≥80'K 1 • <80'K 0	Share of Union-wide: • traffic (TSUs) 2020 2.2% • en route costs 2020 1.7% Share en route / terminal costs 2020 85% / 15%	Other ANSPs – MET Providers • CHMI		
	En route charging zone(s) Czech Republic Terminal charging zone(s) Czech Republic			

#### 1.2 Traffic (En route traffic zone)





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



• Czech Republic recorded 1,138K actual en route service units in 2020, -61% compared to 2019 (2,936K).

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

#### 1.3 Safety (Main ANSP)



• ANS CR has already achieved the RP3 EoSM targets and exceeded the targets in three management objectives.

• ANS CR was already achieving high level of maturity during RP2 and has continued to improve the maturity during the first year of RP3.

• The Czech Republic recorded stable performance with respect to occurrences. Separation minima infringement per flight hour increased despite only a single occurrence. The large reduction in flight hours caused the rate to increase. The rate of runway incursion per movement decreased.

• ANS CR monitors safety performance using spe-

cific automated safety recording tools for occurrences and it is one of only a handful of ANSPs to do so.

#### 1.4 Environment (Member State)



• The Czech Republic achieved a KEA performance of 2.18% compared to its reference value of 2.26% and therefore contributed positively towards achieving the Union-wide target.

• The Czech Republic stated that the performance improvement was down to the significant fall in traffic and that the increased proportion of shorthaul flights vs. long-haul flights meant that KEA was favourably influenced. Once normal traffic flows resume, it is unlikely this performance will be maintained.

• Nonetheless, the Czech Republic implemented free route airspace as of February 2021 and restructured its airspace to prepare as best as pos-

sible for a growth in traffic.

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

• The share of flights operating CCO/CDO at Václav Havel Prague airport improved in 2020. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 52% compared to 2019.

#### 1.5 Capacity (Member State)



Average en route ATFM delay per flight by delay groups

0.40 0.40 0.40 0.40 0.40 0.37 ATFM delay (min/flight) 0.30 0.20 0.09 0.10 0.00 2021 2020 2022 2023 2024 Capacity Staffing Disruptions Weather Other non-ATC ---- Target

Average arrival ATFM delay per flight by delay groups

• ANS CR registered near zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.20 minutes of average en route ATFM delay per flight.

• Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 61% below the 2019 levels in the Czech Republic.

• The Czech Republic reported no capacity issues and an increase in ATCO FTEs by 17% compared to 2019. This was due to training activities as well as the relocation of APP controllers to ACC. The actual number ATCO FTEs in 2020 was almost 8% over the planned value.

• Based on the analysis of previous capacity profiles, the PRB estimates the Czech Republic to face a capacity gap once IFR movements rise above 94% of 2019 levels. The PRB recommends that the reported capacity improvement measures are continued before traffic begins to recover.

• The yearly total of sector opening hours in Prague ACC was 36,911, showing a 21.1% decrease compared to 2019.

• Prague ACC registered 8.48 IFR movements per one sector opening hour in 2020, being 52.3% below 2019 levels.

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



• The 2020 actual service units (1,138K) were 61% lower than the actual service units in 2019 (2,904K).

• The Czech Republic reduced total costs in 2020 by 21 M€2017 (-17%) compared to 2019 actual costs. The reduction is mainly due to a decrease of 16 M€2017 (-22%) in staff costs, due to suspension of non-basic wages benefits, reduction of pension contribution, managerial positions and FTEs. Cost of capital also decreased notably by 2.3 M€2017 (-25%) due to a lower asset base and WACC.

• ANS CR spent 28 M€2017 in 2020 related to cost of investments, 29% less than planned in the 2019 draft performance plan (39 M€2017).

• The decrease in cost of investments is due to a reprioritization of investments (main changes occurred in other new investments) to maintain financial stability in response to COVID-19.

#### 2 SAFETY - CZECH REPUBLIC

#### 2.1 PRB monitoring

 ANS CR has already achieved the RP3 EoSM targets and exceeded the targets in three management objectives.

• ANS CR was already achieving high level of maturity during RP2 and has continued to improve the maturity during the first year of RP3.

• The Czech Republic recorded stable performance with respect to occurrences. Separation minima infringement per flight hour increased despite only a single occurrence. The large reduction in flight hours caused the rate to increase. The rate of runway incursion per movement decreased.

• ANS CR monitors safety performance using specific automated safety recording tools for occurrences and it is one of only a handful of ANSPs to do so.

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



#### EoSM - ANS CR

#### Focus on EoSM

Four out of five EoSM components of the ANSP meet, or exceed, already the 2024 target level. Only the component "Safety Policy and Objectives" is below 2024 target level. All in all, one question out of 28 is below the target level.

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



#### **3 ENVIRONMENT - CZECH REPUBLIC**

#### 3.1 PRB monitoring

• The Czech Republic achieved a KEA performance of 2.18% compared to its reference value of 2.26% and therefore contributed positively towards achieving the Union-wide target.

• The Czech Republic stated that the performance improvement was down to the significant fall in traffic and that the increased proportion of short-haul flights vs. long-haul flights meant that KEA was favourably influenced. Once normal traffic flows resume, it is unlikely this performance will be maintained.

• Nonetheless, the Czech Republic implemented free route airspace as of February 2021 and restructured its airspace to prepare as best as possible for a growth in traffic.

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

• The share of flights operating CCO/CDO at Václav Havel Prague airport improved in 2020. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 52% 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)





KEP & SCR (monthly, compared to KEA)



#### 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

### Focus on ASMA & AXOT

#### ΑΧΟΤ

The performance regarding additional taxi-out times at Prague (LKPR) had been worsening in the past years, driven by the performance in the winter months (probably associated to de-icing procedures). In 2020 the performance in January and February was already better than in 2019, and then this was followed by an extremely low average additional taxi-out time of 0.26 min/dep. between April and October. At the end of the year though, these times increased and nearly reached 2 min/dep in December, maybe again related to de-icing procedures. According to the Czech Republic's monitoring report: *The additional taxi-out time is influenced by the design of the taxiways at Prague. The STOP bars for crossing RWY 12/30 implemented in the past on LKPR have proven to be a very effective measure.* 

#### ASMA

Like the additional taxi-out times, the additional times in the terminal airspace drastically decreased in 2020 (LKPR; 2019: 1.47 min/arr.; 2020: 0.67 min/arr.) and from April onwards, these times remained well below the 0.40 min/arr.

According to the Czech Republic's monitoring report: *If traffic permits the aircrafts are allowed for direct routing.* 

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



#### **Focus CDOs**

Despite having no officially published CDO procedures, Brno-Tuřany (LKTB) and Ostrava (LKMT) have higher shares of CDO flights than the overall RP3 value in 2020 (32.5%) (LKTB: 38.4%; LKMT: 35.2%). Prague (LKPR) has 27.8% and Karlovy Vary 13.1% of CDO flights.

	Airport level														
	Additional taxi-out time (PI#3)						Additional ASMA time (PI#4)				Share of arrivals applying CDO (PI#5)			า#5)	
Airport Name	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Prague/Ruzyne	1.36	NA	NA	NA	NA	0.67	NA	NA	NA	NA	28%	NA	NA	NA	NA
Karlovy Vary	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13%	NA	NA	NA	NA
Ostrava	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35%	NA	NA	NA	NA
Brno Turany	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39%	NA	NA	NA	NA

#### 3.4 Civil-Military dimension



RAI & RAU via available conditional routes (PIs#7 & 8)





#### Focus on Civil-Military dimension

#### Update on Military dimension of the plan

There is a significant impact of MIL activities on the ENV indicators. The military has the lead role in the AMC, the ANSPs has no power to evaluate the airspace reservation by the military. In any case, the implementation of FUA is regularly evaluated through monitoring organized by the CAA. The administrators of the individual TRA / TSA (mostly represented by MAA) submit the evaluation of the plans and the activation of these airspaces on a monthly basis to CAA, and any deficiencies are addressed within the ASMCG meetings or individually with specific administrators, if needed.

Airspace Charter of the Czech Republic describes the competent authorities (CIV and MIL), their responsibilities and principles by which a joint civilian-military body (ASM Committee - ASMC) carries out strategic planning for the use of the Czech Republic airspace. The Charter incorporates as annexes the descriptions of processes used to provide high quality services to airspace users and ATS providers through safe, accurate and timely planning, approval and promulgation of national airspace management measures and international cooperation. The Airspace Charter was updated in 2020.

The airspace of the Czech Republic is open to flights and it is divided in accordance with the rules contained in Sections 44 - 44c) of Act No. 49/1997. Pursuant to Section 44(2) of the Act, the CAA issues, in agreement with the Ministry of Defence and after consulting the Person in charge of the exercise of governmental authority in the matters of sports aircrafts and parachutes, measures of general nature under the Administrative Procedure Code on division of the airspace of the Czech Republic to ensure safe conduct of flights and efficient provision of air services. In fulfilment of that mandate, the CAA takes into account, where possible, the FUA specifications described in "EUROCONTROL Specifications for the Application of the Flexible Use of Airspace (FUA)". Consultation with airspace users, service providers and other relevant bodies is conducted with the aim of obtaining consensus, wherever possible, before making changes in the planning or design of airspace management. The consultations are performed in a transparent way following a predefined procedure. The ASMC ensures effective cooperation at all levels through the ASM Consultation Group (ASMCG). In application of Regulation (EC) No 2150/2005, the ASMC cooperates very closely with NSA and takes into account the findings and relevant corrective measures resulting from control activities (e.g. CAA, MAA, EASA). In accordance with ICAO requirements, the CAA publishes the airspace management policy and implementation of new airspace structures and follow-up procedures or their changes so that all airspace users and ATS providers have sufficient time to comply with the new requirements. Within its competencies, the ASMC supports the implementation of performance schemes. The conclusions adopted by the ASMC contributes to meeting the relevant performance targets and complying with EU-wide performance targets.

Dynamic Airspace Management is realized at ASM Level 2 and/or ASM Level 3. Areas published in AIP CR / MIL AIP or other pre-arranged areas can be used under FUA rules as AUP manageable with UUP function updates.

The ATM systems of the Airforces are directly connected to the ANS CR systems in order to present current status of reserved areas to the ATCOs. The AIM/AIS provider promulgates the planning status of the airspaces concerned in AISVIEW web tool, which serves for airspace users as an information source. On the local level the FUA is addressed within the AMC activities, on the FAB CE level the DAM/STAM projects are in progress. The AMC is newly certificated under the EU 2017/373. The regulation 2150/2005 is fully implemented within the Czech Republic.

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

Environment: The communication with the NM system is processed by subsystem WALDO with manual insertion through CIAM in present time. The national tool (like LARA) allowing direct communication with the NM systems is under development (solution developed under the SESAR project). The implementation of this tool is delayed due to the implementation of a new DPS system Top Sky /NEOPTERYX (Feb 2022). All stakeholders (NSA, military and ANSP) are in regular discussion on possible mitigation of negative effects of military activities on the civil aviation (i.e. FUA) though the consultation Group ASM (ASMCG). The Airspace Charter of the Czech Republic was updated in 2020.

Capacity: The traffic complexity manager (a tool developed with the SESAR support) was put into full operational use in 2020. The tool is predicting traffic load in particular sectors (including military activities) and thus allowing for better ATCOs usage and improvement in capacity area.

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

Dynamic Airspace Management is realized at ASM Level 2 and/or ASM Level 3. Areas published in AIP CR / MIL AIP or other pre-arranged areas can be used under FUA rules as AUP manageable with UUP function updates. FUA evaluation is performed monthly by individual TRA / TSA administrators and reported to the CAA. Deficiencies are addressed both within the ASMCG meetings and individually with individual administrators, if needed.

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

No data available

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

No data available

### 4 CAPACITY - CZECH REPUBLIC

#### 4.1 PRB monitoring

• ANS CR registered near zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.20 minutes of average en route ATFM delay per flight .

• Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 61% below the 2019 levels in the Czech Republic.

• The Czech Republic reported no capacity issues and an increase in ATCO FTEs by 17% compared to 2019. This was due to training activities as well as the relocation of APP controllers to ACC. The actual number ATCO FTEs in 2020 was almost 8% over the planned value.

• Based on the analysis of previous capacity profiles, the PRB estimates the Czech Republic to face a capacity gap once IFR movements rise above 94% of 2019 levels. The PRB recommends that the reported capacity improvement measures are continued before traffic begins to recover.

• The yearly total of sector opening hours in Prague ACC was 36,911, showing a 21.1% decrease compared to 2019.

• Prague ACC registered 8.48 IFR movements per one sector opening hour in 2020, being 52.3% below 2019 levels.

#### 4.2 En route performance

#### En route ATFM delay (KPI#1) 4.2.1

Monthly distribution of en route ATFM delay by delay groups - 2020 0.20 0.01 0.20 0.01 ATFM delay (min/flight) ATFM delay (min/flight) 0.01 0.15 0.11 0.11 0.11 0.01 0.10 0.00 0.05 0.00 0.00 0 0.00 0.00 Feb Mar May Jun Νον Dec Jan Apr Jul Aug Sep Oct 2021 2020 2022 2023 2024 Capacity Staffing Disruptions Capacity Staffing Disruptions Weather Other non-ATC Weather Other non-ATC ---- Target

Average en route ATFM delay per flight by delay groups

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



#### Focus on en route ATFM delay

#### Summary of capacity performance

The Prague FIR experienced a traffic reduction of 61% from 2019 levels, to 340k flights. The traffic level was accommodated with negligible en route ATFM delays to airspace users.

#### NSA's assessment of capacity performance

There was no delay recorded in the Czech Republic due to significantly lower traffic caused by the COVID crisis.

#### Monitoring process for capacity performance

The monitoring process is based on quarterly monitoring reports prepared by ANS CR. These are based on the company Annual plan and cover all KPA.

#### **Capacity planning**

All measures are aiming to increase capacity so that the traffic level of 2019 can be managed without additional costs (excessive overtimes and high ATFM delays). The next years of the RP3 aiming on capacity increase in accordance with the requirements of NM. ATCOs training was realized in the maximum possible range (with regard to traffic levels) and in accordance with to 'ATS optimisation' project. The main projects Neopteryx and 'ATS optimisation' project are being deployed while main benefits are expected in RP4). Within capacity planning, the key project 'ATS optimisation' project (centralization of APP and better use of operational staff as described in the PP2019).

The reported increase in ATCOs is a consequence of the above transfer of ATCOs from APP and ACC.

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

#### No data available

#### 4.2.2 Other indicators







#### Focus on ATCOs in operations

ANS CR had 13 employees holding licence but being assigned to other duties, with 4.3 FTE dedicated to ATS provisioning.

#### 4.3 Terminal performance

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

Average arrival ATFM delay per flight by delay groups





#### Focus on arrival ATFM delay

There are four airports in Czech Republic subject to RP3 monitoring. According to the traffic figures at these 4 airports, only Prague (LKPR) must be monitored for pre-departure delays.

The Airport Operator Data Flow is fully established at Prague 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 the ensemble of these airports decreased by 63% in 2020. Arrival ATFM delays were only observed in Prague and only in the month of January. Slot adherence is almost 95% for Prague. The other airports had almost no regulated departures and all of those adhered to the STW.

The national average arrival ATFM delay at Czech airports in 2020 was 0.07 min/arr, even lower than the 0.16 min/arr in 2019 (-55%).

Only Prague (LKPR: 2019: 0.18 min/arr.; 2020: 0.09 min/arr.) registered delays in 2020, all in January, and 100% of these regulations were 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.

### All causes pre-departure delay

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



Air	port	leve

		Avg arrival ATF	M delay (KPI#2)			Slot adhere	nce (PI#1)	
Airport name	2020	2021	2022	2023	2020	2021	2022	2023
Brno Turany	NA	NA	NA	NA	100.0%	NA%	NA%	NA%
Karlovy Vary	NA	NA	NA	NA	100.0%	NA%	NA%	NA%
Ostrava	NA	NA	NA	NA	100.0%	NA%	NA%	NA%
Prague/Ruzyne	0.09	NA	NA	NA	94.7%	NA%	NA%	NA%

		ATC pre depart	ure delay (PI#2)	)	All causes pre departure delay (PI#3)			
Airport name	2020	2021	2022	2023	2020	2021	2022	2023
Brno Turany	NA	NA	NA	NA	NA	NA	NA	NA
Karlovy Vary	NA	NA	NA	NA	NA	NA	NA	NA
Ostrava	NA	NA	NA	NA	NA	NA	NA	NA
Prague/Ruzyne	0.22	NA	NA	NA	8.3	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 Czech airports virtually disappeared as of April. The annual figures are therefore driven by the performance in the first trimester.

Only 81 departures in total from Brno-Tuřany (LKTB), Karlovy Vary (LKKV) and Ostrava (LKMT) were regulated in the entire year, with a 100% compliance.

The national average, driven by Prague, was 94.9%. With regard to the 4.2% of flights that did not adhere, 3.9% was early and 1.2% was late.

#### ATC pre-departure delay

The quality of the airport data reported by Prague (the only Czech airport subject to monitoring of this indicator) is too low, preventing the calculation of this indicator.

The calculation of the ATC pre-departure delay is based on the data provided by the airport operators through the Airport Operator Data Flow (APDF) which is properly implemented at Prague.

However, there are several quality checks before EUROCONTROL can produce the final value which is established as the average minutes of pre-departure delay (delay in the actual off block time) associated to the IATA delay code 89 (through the APDF, for each delayed flight, the reasons for that delay have to be transmitted and coded according to IATA delay codes.

However, sometimes the airport operator has no information concerning the reasons for the delay in the off block, or they cannot convert the reasons to the IATA delay codes. In those cases, the airport operator might:

- Not report any information about the reasons for the delay for that flight (unreported delay)

- Report a special code to indicate they do not have the information (code ZZZ)

- Report a special code to indicate they do not have the means to collect and/or translate the information (code 999)

To be able to calculate with a minimum of accuracy the PI for a given month, the minutes of delay that are not attributed to any IATA code reason should not exceed 40% of the total minutes of pre-departure delay observed at the airport.

Finally, to be able to produce the annual figure, at least 10 months of valid data is requested by EUROCON-TROL.

The share of unidentified delay reported by Prague was well above 40% since April 2020, preventing the calculation of this indicator, due to the special traffic composition. Prague had proper reporting before the pandemic.

#### All causes pre-departure delay

Prague is the only Czech airport subject to the monitoring of this indicator.

The total (all causes) delay in the actual off block time at Prague in 2020 was 8.30 min/dep. The higher delays per flight were observed in the first trimester of the year and then back in November and December. This performance indicator has been introduced in the performance scheme for the first time this year, so no evolution with respect to 2019 can be analysed.

#### 5 COST-EFFIENCY - CZECH REPUBLIC

#### 5.1 PRB monitoring

• The 2020 actual service units (1,138K) were 61% lower than the actual service units in 2019 (2,904K).

• The Czech Republic reduced total costs in 2020 by 21 M€2017 (-17%) compared to 2019 actual costs. The reduction is mainly due to a decrease of 16 M€2017 (-22%) in staff costs, due to suspension of non-basic wages benefits, reduction of pension contribution, managerial positions and FTEs. Cost of capital also decreased notably by 2.3 M€2017 (-25%) due to a lower asset base and WACC.

• ANS CR spent 28 M€2017 in 2020 related to cost of investments, 29% less than planned in the 2019 draft performance plan (39 M€2017).

• The decrease in cost of investments is due to a reprioritization of investments (main changes occurred in other new investments) to maintain financial stability in response 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	196	NA	NA	NA
Determined costs	203	118	126	128
Difference costs	-7	NA	NA	NA
Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	2.0%	2.0%	2.0%
Determined inflation index	NA	112.8	115	117.3
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 - ANS CR 2020-2021



#### Focus on unit cost

#### AUC vs. DUC

In the combined year 2020-2021, the en route AUC (2,016.56 CZK2017 or 76.64  $\in$ 2017) was lower by - 3.5% (-74.07 CZK2017 or -2.82  $\in$ 2017) comparing to the DUC (2,090.64 CZK2017 or 79.46  $\in$ 2017). This was the sole effect of the lower than planned en route costs in real terms (-3.5%, -179.2 MCZK2017 or -6.8 M $\in$ 2017).

#### En route service units

There is no difference in the number of TSU, as the figures used in the final version of the RP3 PP for the forecasted traffic for years 2020 and 2021 were in line with actuals.

#### En route costs by entity

Actual en route costs are -3.5% lower than planned (-6.8 M€2017) which is mainly driven by the lower by -3.6% (or -5.8 M€2017) costs for the main ANSP (ANS Czech Republic) and for the NSA/EUROCONTROL, -4.4% (or -1.1 M€2017). Actual 2020-2021 costs for METSP were slightly above plan (+2.1%).

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

The lower than planned en route costs in real terms for ANS CR (-3.6%, or -5.8 M€2017) result from:

- lower than planned staff costs by -1.4% (or -1.3 M€2017);
- lower other operating costs by -15.9% (or -3.8 M€2017);
- lower depreciation by -0.3% (or -0.1 M€2017); and
- lower cost of capital by -3.5% (or -0.5 M€2017);
- slightly higher deduction for VFR exempted flights (+3.0%).

The lower execution of costs in 2020-2021 were the effect of measures implemented by ANS CR, and in particular: cancelation of benefits, limitation of the contribution to supplementary pension savings, reduction of basic salary and reduction in the number of staff. In the area of other operating costs the travel, maintenance and training costs were reduced.

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





Cost exempt from cost sharing by item - 2020-2021	€′000	€/SU
New and existing investments	-610.3	-0.25
Competent authorities and qualified entities costs	11.3	0.00
Eurocontrol costs	-1,188.8	-0.49
Pension costs	57.3	0.02
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	-1,730.4	-0.72

#### 5.2.3 Regulatory result (RR)





Net result from en route activity - ANS CR 2020-2021



#### Focus on regulatory result

#### ANS CR's net gain on activity in the en route charging zone in the combined year 2020-2021

ANS CR's net gain amounts to +152.1 MCZK (or +5.9 M€) and fully resulting form the gains from the cost sharing mechanism.

#### ANS CR's 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 (+152.1 MCZK) and the actual RoE (+353.7 MCZK or +13.6 M€) amounts to +505.8 MCZK or +19.5 M€ (11.2% of

the en route revenues). The resulting ex-post rate of return on equity is 9.9%, which is higher than the 7.0% planned in the PP.

#### 5.3 Terminal charging zone

#### 5.3.1 Unit cost (KPI#1)







Actual and determined data

Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	31	NA	NA	NA
Determined costs	32	17	20	21
Difference costs	-1	NA	NA	NA
Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	2.0%	2.0%	2.0%
Determined inflation index	NA	112.8	115	117.3
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 - ANS CR 2020-2021



#### Focus on unit cost

#### AUC vs. DUC

In the combined year 2020-2021, the terminal AUC (12,769.02 CZK2017 or 485.30  $\notin$ 2017) was lower by -3.2% (or -427.91 CZK2017 or -16.26  $\notin$ 2017) comparing to the DUC (13,196.93 CZK2017 or 501.57  $\notin$ 2017). This was in particular, the effect of the lower than planned terminal costs in real terms (-3.5%, -28.2 MCZK2017 or -1.1 M $\notin$ 2017).

#### Terminal service units

The difference between planned and actual TNSUs (-0.3%) falls within the  $\pm 2\%$  dead band. Hence, the resulting loss is borne by the main ANSP.

#### Terminal costs by entity

Actual terminal costs are -3.5% lower than planned (-1.1 M $\in$ 2017) which is mainly driven by the lower costs for ANS CR (-3.7% or -1.1 M $\in$ 2017). The differences in the actual costs for NSA and METSP are not significant, and correspond to -1.5% and -0.7% respectively.

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

The lower than planned terminal costs in real terms for ANS CR (-3.7%, or -1.1 M€2017) result from:

- lower than planned staff costs by -1.2% (or -0.2 M€2017);
- lower other operating costs by -15.8% (or -0.7 M€2017);
- lower depreciation by -0.8% (or -0.1 M€2017);

- deduction of the VFR exempted flights (-0.1 M€2017), while no deduction was foreseen in the PP. The lower execution of costs in 2020-2021 were the effect of measures implemented by ANS CR, and in particular: cancelation of benefits, limitation of the contribution to supplementary pension savings, reduction of basic salary and reduction in the number of staff. In the area of other operating costs the travel, maintenance and training costs were reduced. Cost of capital was not charged to the airspace users in 2020-2021.

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





Cost exempt from cost sharing by item - 2020-2021	€′000	€/SU
New and existing investments	-69.2	-1.15
Competent authorities and qualified	-8.1	-0.13
entities costs		
Eurocontrol costs	0.0	0.00
Pension costs	5.5	0.09
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk	-71.8	-1.20
sharing		

#### 5.3.3 Regulatory result (RR)





Share of RR in AUCU



Net result from terminal activity - ANS CR 2020-2021



#### Focus on regulatory result

## ANS CR's net gain and overall regulatory result (RR) on activity in the terminal charging zone in the combined year 2020-2021

ANS CR's net gain amounts to +27.0 MCZK (or +1.1 M $\in$ ) and is the result of the gain from the cost sharing mechanism (+29.6 MCZK), and a loss from the traffic risk sharing mechanism (-2.6 MCZK). As ANS CR did not charge the cost of capital to the airspace users in 2020 and 2021, the overall RR for terminal activity in 2020-2021 corresponds to the net gain as mentioned above (+27.0 MCZK or +1.1 M $\in$ ).