PRB | Performance review body of the single european sky

# Performance Review Body
# Annex I – Member States' factsheets

The 2020 monitoring consists of five reports:

1. PRB Monitoring Report 2020
2. **Annex I – Member States' factsheets**
3. Annex II – Member States' detailed analysis for experts
4. Annex III – Safety report
5. Annex IV – Investments report

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# 1 INTRODUCTION

## 1.1 Member States' Factsheets

1 Annex II of the PRB Monitoring Report 2020 aims to provide readers with a snapshot of the 2020 air navigation services performance in each Member State through factsheets that summarise key data into concise charts. The PRB also provides its comments on Member States' performances highlighting any local issues that need to be addressed.

2 The factsheets comprise of three pages, the first page providing the comments from the PRB on the observed performance in each Member State per key performance area (KPA) and is based on the charts shown on the second and third page.

3 The charts shown on the second and third page are split into four sections, one for each KPA and each one has a factual caption that describes an important feature of the data shown.

4 Table 1 presents an example of each graph that is shown in the factsheets with a description of how the reader can interpret the information it is conveying.

## 1.2 Important Notes

### *Safety*

5 For the third reference period (RP3), the European Commission set targets on the effectiveness of safety management (EoSM) for 2024 only. The PRB therefore compares performance in 2020 to the targets set for 2024, which indicates which Member States already achieved the RP3 safety targets or which Member States must improve.

6 The data shown by the PRB is generally on a five-year rolling basis for the purposes of performance comparison, i.e. data is shown for key performance and performance indicators between 2016 and 2020. This means that RP2 (2016-2019) data is shown alongside RP3 (2020) data.

7 In RP3, the levels of safety maturity were rescaled. In RP2, they ranged between level A and E (with level E as the best performance), whereas, the levels now range between A and D (with level D as the best performance). Therefore, the reader should not assume that a Member State achieving level E in 2019 and level D in 2020 had a safety maturity degradation.

8 Considering runway incursion (RI) and separation minima infringement (SMI) occurrence rates, comparison between 2020 and previous years should be done with caution. Within RP3, only occurrences with safety impact are reportable, not all occurrences as was the case in RP2. It should also be noted that rates at the local level are sensitive to the actual number of occurrences and a number of movements or flight hours and just one occurrence in 2020 may result in relatively high rate.

### *Environment*

9 In RP2, Union-wide environment target was broken down into FAB level reference values. The PRB shows the FAB level reference values between 2016 and 2019 and national horizontal flight efficiency indicator (KEA) reference values for 2020. This is because the draft 2019 performance plans were not formally adopted and remain provisional .[1] All provisional environment targets other than Poland's and FABEC's are equivalent to the local reference values.

10 Furthermore, for the terminal performance indicators, the PRB shows the data for regulated airports that reported data only.

### *Capacity*

11 In RP2, delays were measured based on national boundaries, whereas, in RP3 they are measured based on the air navigation service providers' (ANSPs) area of responsibility boundaries. Therefore, the performance between 2016-2019 and 2020 is not directly comparable since the PRB shows the delay data at the national level between 2016 and 2019 and the ANSP boundaries for 2020. For most Member States the difference is negligible, but for the Maastricht Upper Area Control Centre (MUAC) Member States the difference can be significant.

12 In RP2, capacity targets were set at FAB level and optionally broken down into national targets. The PRB shows the FAB level targets between 2016 and 2019 unless national targets were set. For 2020, since the 2019 draft performance plans were not formally adopted, the target shown is actually the local (FAB or ANSP) breakdown values. This is because the draft 2019 performance plans

were not formally adopted and remain provisional.[1] Several performance plans had a provisional capacity target that was not equivalent to the local breakdown value.

*Cost-efficiency*

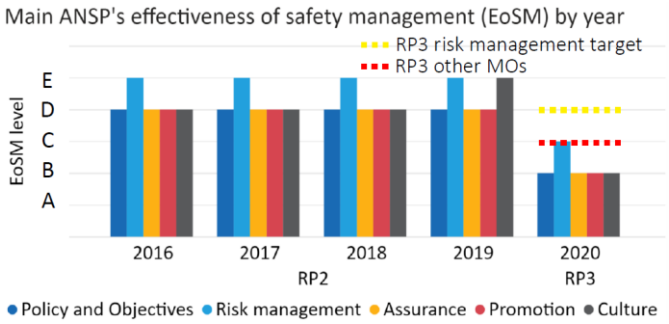
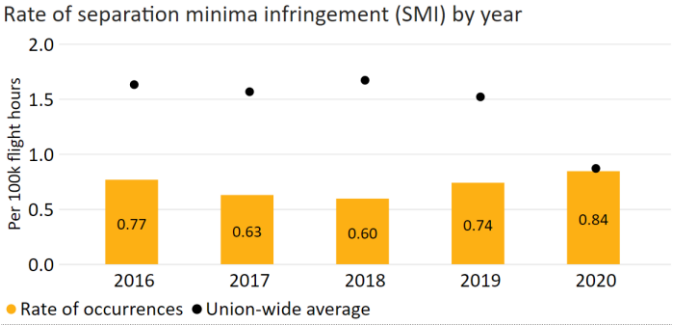
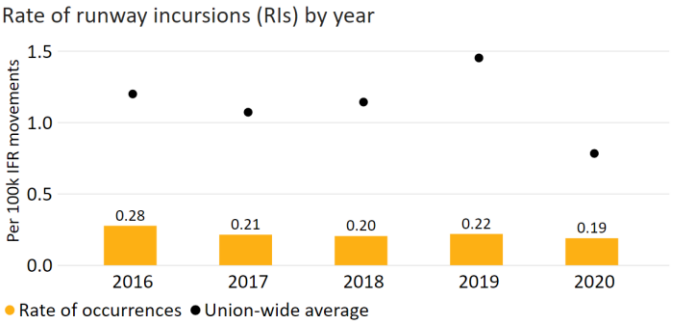
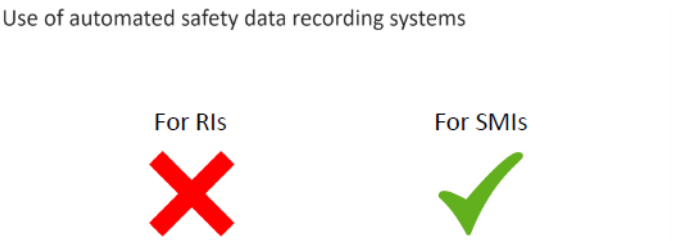
13 Due to the exceptional measures regulation[2], the comparison of determined unit costs and actual unit costs is not possible for 2020 given than 2020 and 2021 are to be treated as a single year. Therefore, in this year's monitoring report the actual costs in 2020 are compared to the actual costs in 2019 to help readers understand cost-efficiency performance in 2020.

*Malta*

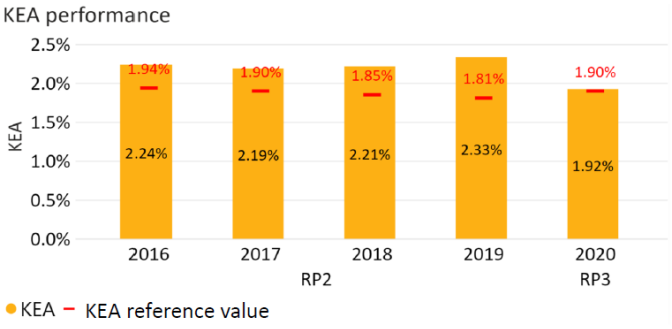
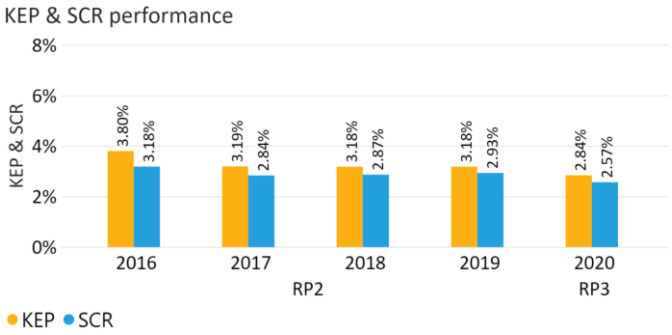
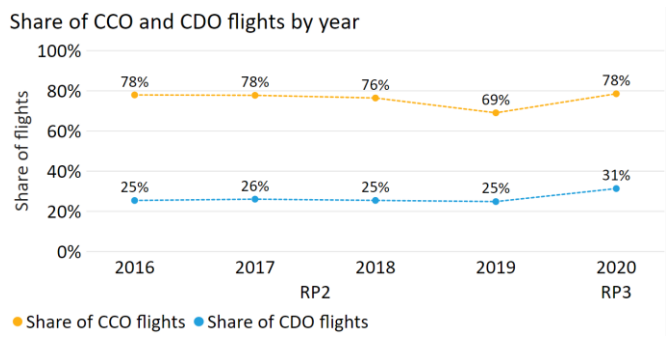
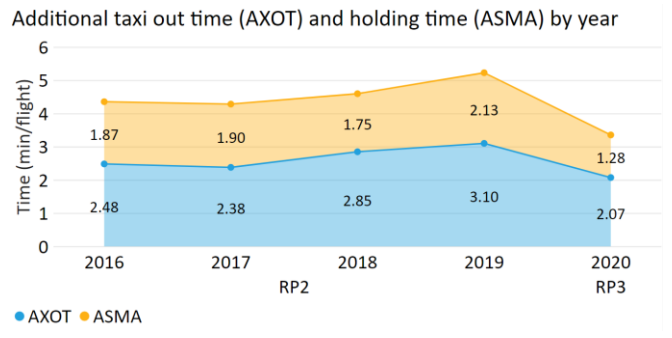
14 Malta was the only Member State that did not submit a monitoring report on time, which meant the PRB was unable to produce a full factsheet for the Member State. Malta must do better to adhere to the legal requirements for reporting data.

[1] The reader can consult Annex II for a comparison of performance against the provisional targets set in the draft 2019 performance plans.
[2] Commission Implementing Regulation (EU) 2020/1627

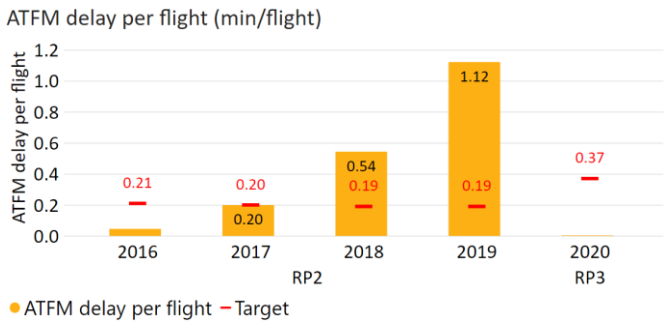
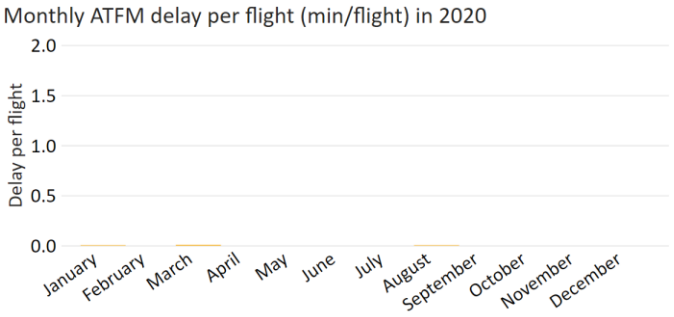
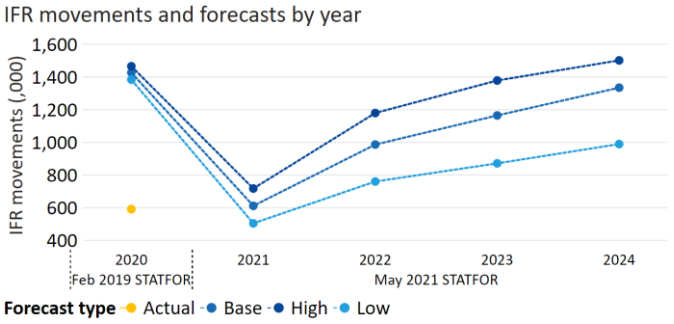
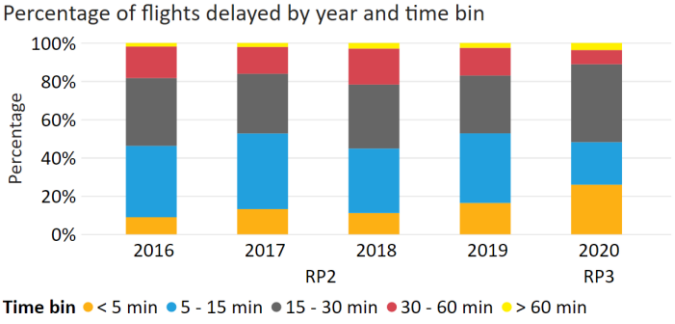
*Table 1 – Description of the various charts shown in the Member States factsheets organised per KPA.*

| KPA | Chart | Description |
|---|---|---|
| Safety |  | Shows the minimum level of EoSM achieved by the Member State's main ANSP.[3] Performance in each safety management objective is shown. The dotted red and yellow lines show the 2024 (RP3) target for each management objective. |
| Safety |  | Shows the rates of occurrence of separation minima infringement (SMI) for the airports in the Member State. The black dots show the Union-wide average rate of occurrences. |
| Safety |  | Shows the rate of occurrences of runway incursions (RIs) for the airports in the Member State. The black dots show the Union-wide average rate of occurrences. |
| Safety |  | Shows whether the Member State used automated safety data recording systems and for which occurrence type it is operational. A red cross indicates the Member State did not use automated systems in 2020 while a green tick indicates that it did. |

[3] The EoSM scores are provided according to the latest scores held by EASA and may be different to those stated in previous monitoring reports. The reader should note the section 1.2, paragraph 7 concerning the safety KPA when interpreting this graph.

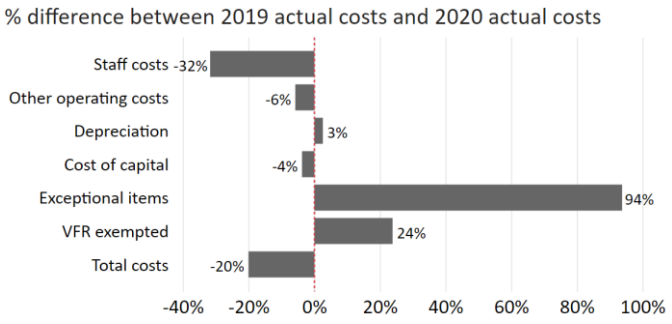
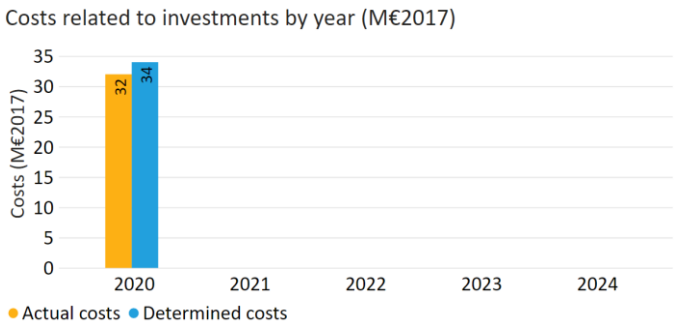
| KPA | Chart | Description |
|---|---|---|
| Environment |  | Shows the achieved horizontal flight inefficiency (KEA) and the FAB reference value for each year between 2016 and 2020. For 2020, the reference value shown is at a national level.[4] |
| Environment |  | Shows the planned horizontal flight inefficiency (KEP) and shortest constrained route (SCR) between 2016 and 2020. |
| Environment |  | Shows the share of flights that conducted fully continuous climb (CCO) and descent operations (CDO) - as defined by the Eurocontrol taskforce on vertical flight efficiency - at the Member States' regulated airports between 2016 and 2020.[5] |
| Environment |  | Shows the average additional time to taxi-out and additional holding time spent by airspace users at regulated airports between 2016 and 2020. |

[4] Between 2016 and 2019 the FAB reference values are shown as Member States submitted FAB-level performance plans for RP2. For 2020, the national reference values are shown other than for FABEC Member States where the 2020 FAB level reference value is shown.
[5] European CCO/CDO task force's definition of CCO/CDO can be found here.

| KPA | Chart | Description |
|---|---|---|
| Capacity |  | Shows the average yearly en route air traffic flow management (ATFM) delay incurred per flight by airspace users flying in the Member State's airspace between 2016 and 2020.[6] Between 2016 and 2019, the national or FAB capacity targets are shown with red lines, but for 2020 the red line is the local (ANSP or FAB) breakdown value.[7] |
| Capacity |  | Shows the average monthly en route ATFM delay incurred per flight by airspace users flying in the Member State's airspace in 2020. |
| Capacity |  | Shows the actual number of instrument flight rules (IFR) movements managed by the Member State in 2020 in relation to the high, base and low forecasts from the 2019 STATFOR February forecast (for 2020) and May STATFOR 2021 forecast for 2021 onwards. |
| Capacity |  | Shows the share of flights that were delayed by time category between 2016 and 2020. |

[6] Data between 2016-2019 is based on FIR (national) boundaries while 2020 data is based on AUA (ANSP area of responsibility) boundaries. The reader should note the section 1.2, paragraph 11 and 12 concerning the capacity KPA when interpreting this graph.

[7] The local breakdown value is shown for 2020 since the draft 2019 performance plans were not formally adopted.

| KPA | Chart | Description |
|---|---|---|
| Cost-efficiency |  | Shows the comparison of the changes in actual costs across various cost categories between 2019 and 2020 at charging zone level. |
| Cost-efficiency |  | Shows the comparison of the determined costs related to investments in the 2019 draft performance plan and the actual costs related to investments for 2020[8] at main ANSP level. |

[8] As mentioned in the main 2020 monitoring report, the data labels in the graphs are displayed without decimals, minor inconsistencies between the data in the text and the graphs may appear due to rounding.

## Comments from the Performance Review Body:

### Safety:

- Austro Control did not achieve the RP3 targets for the EoSM in any of the safety management objectives in 2020.
- Based on the maturity achieved at the end of RP2, the EoSM performance is lower than expected (Austro Control exceeded the targets in all management objectives and was among the best performing ANSPs in 2019). Austro Control needs to improve its maturity by one level on 15 out of 28 EoSM questions to achieve the RP3 targets.
- The improvements to achieve the next levels of maturity have been identified and included in Austro Control's specific improvement plan that will be implemented during 2021.
- The overall safety performance of Austro Control is stable and the rate of occurrences are lower than previous years.
- Austro Control should improve its safety management system by implementing automated safety data recording systems.

### Environment:

- Austria achieved a KEA performance of 1.92% compared to its reference value of 1.90% and, therefore, did not contribute positively towards achieving the Union-wide target.
- The NSA explained that KEA is highly sensitive to traffic, which on some days increased to 80% of summer 2019 levels and caused KEA to exceed 2%. Moreover, adverse weather and airspace users' choice for longer routes were said to affect the results.
- However, the PRB notes that Austria's daily traffic variation data shows that it managed at 63% of its 2019 summer traffic levels. Thus, the reasoning is not consistent with the data.
- Only one out of six Austrian airports that are regulated reported terminal data.
- While the share of flights operating CCO/CDO at Austrian airports improved in 2020 compared to 2019, the CCO performance was at a similar level as 2017 despite less terminal congestion. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 36% compared to 2019.

### Capacity:

- Austro Control registered near to zero minute of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.37.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Austria.
- The NSA reported that on-the-job training of ATCOs was interrupted due to the pandemic. This, together with the reported changes in maternity leave and some ATCOs leaving unexpectedly, resulted in almost 5% less ATCO FTEs than planned by the end of 2020.
- Based on the analysis of previous capacity profiles, the PRB estimates that Austria will face a capacity gap when IFR movements rise above 80% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

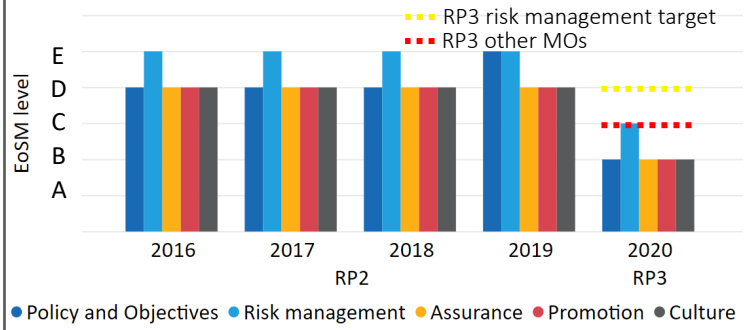
- The 2020 actual service units (1,509K) were 55% lower than the actual service units in 2019 (3,325K).
- Austria had the second highest percentage saving in 2020 across Member States, reducing total costs in 2020 by 42M€$_{2017}$ (-20%) compared to 2019 actual costs. The greatest reduction has been staff costs, with a decrease of 46M€$_{2017}$ (-32%), due to reduction of overtime, salary, hiring freeze and public funding of short time work.
- Exceptional costs in 2020 are 5M€$_{2017}$ (+94%) higher compared to 2019 actual costs, in line with the 2019 draft performance plan (due to inclusion of cost exempt stemming from RP2).
- Austro Control spent 32M€$_{2017}$ in 2020 related to cost of investments, 5% less than planned in the 2019 draft performance plan (34M€$_{2017}$). The reduction is due to a lower cost of capital driven by a lower asset base.

# Austria Factsheet



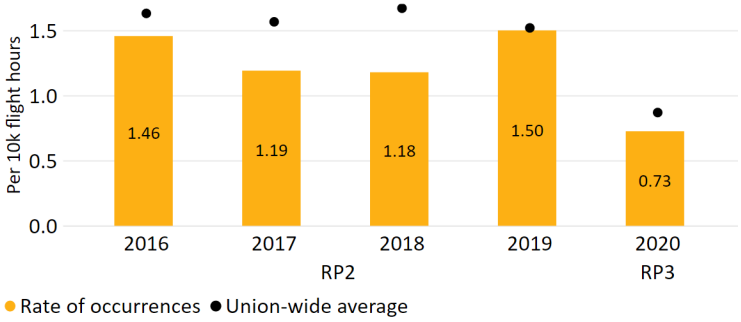
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



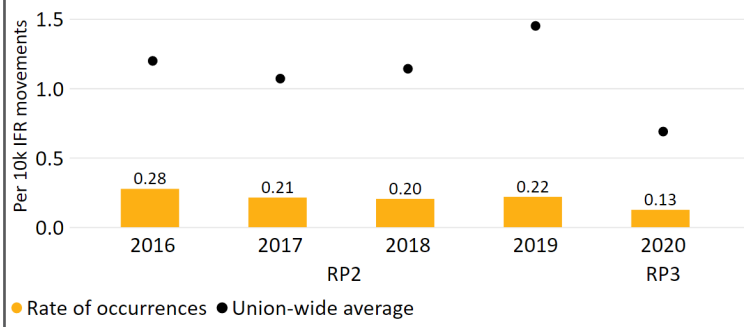

Austro Control did not achieve the RP3 targets for the EoSM in any safety management objectives in 2020.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) per flight hour decreased in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



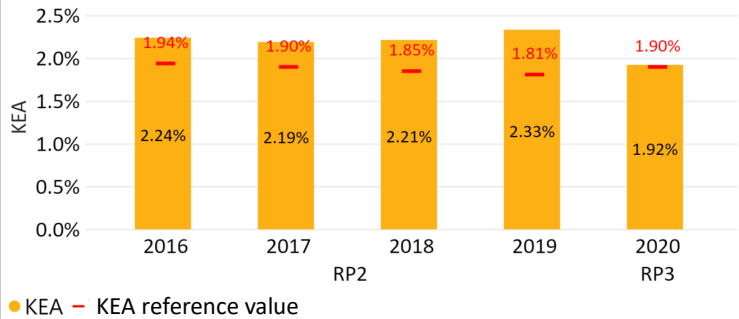

The rate of runway incursion (RI) per movement decreased in 2020 relative to 2019.

Use of automated safety data recording systems


Austria does not use automated safety data recording systems neither for RIs nor SMIs.

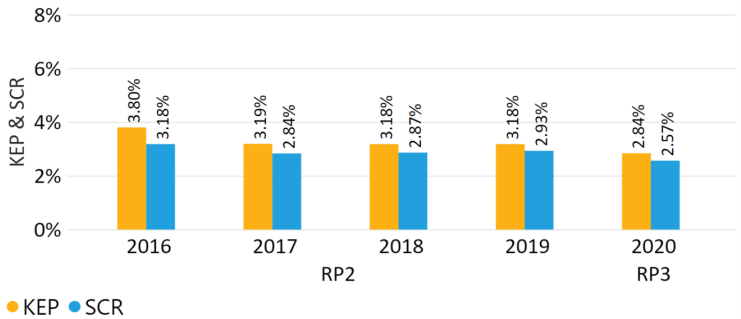
## Environment

KEA performance



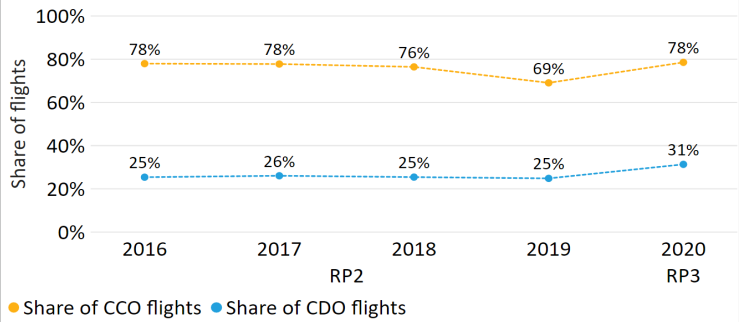

Austria did not achieve its 2020 KEA reference value by 0.02 percentage points, but performance improved relative to 2019.

KEP & SCR performance



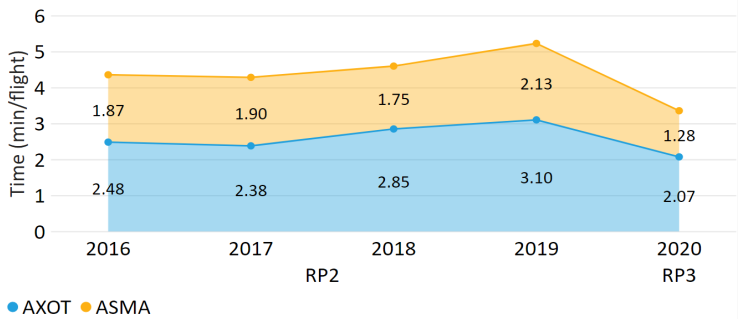

Austria was able to make shorter constrained routes available to airspace users who were then able to plan shorter routes in 2020.

Share of CCO and CDO flights by year




The share of flights conducting CDO/CCO at Austrian airports improved in 2020 relative to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



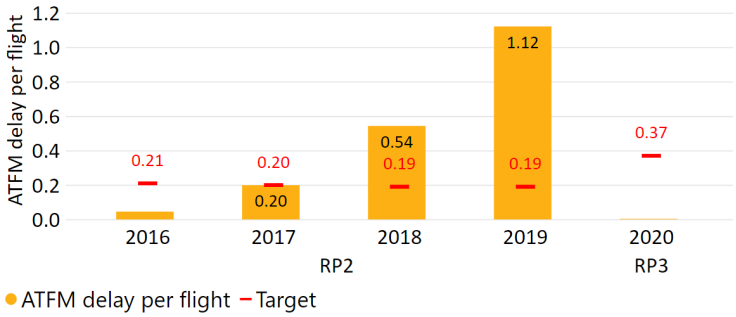

Terminal airspace users spent an additional 3.35 minutes per flight either taxiing or holding at Vienna airport.

# Austria Factsheet



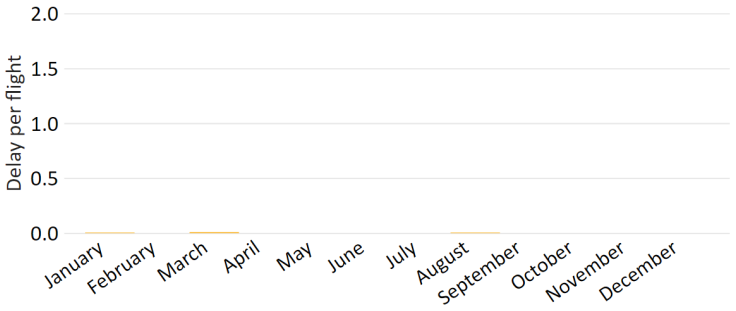
## Capacity

ATFM delay per flight (min/flight)



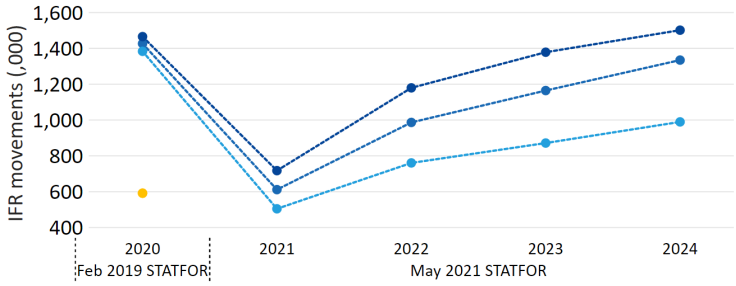

Austro Control recorded negligible delays in 2020 and performed better than its local breakdown value.

Monthly ATFM delay per flight (min/flight) in 2020



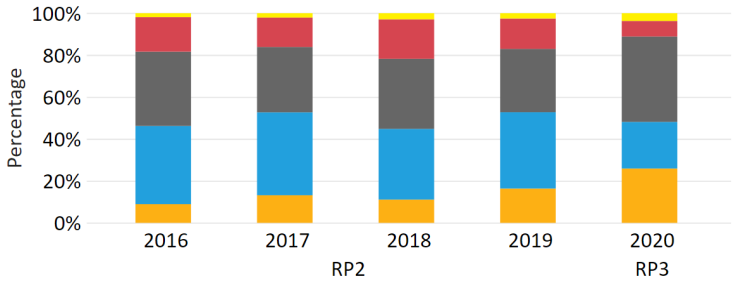

The low level of en route delays meant a monthly statistical analysis of delays was not applicable.

IFR movements and forecasts by year




IFR movements in Austria were 59% less than the 2019 February base forecast in 2020.

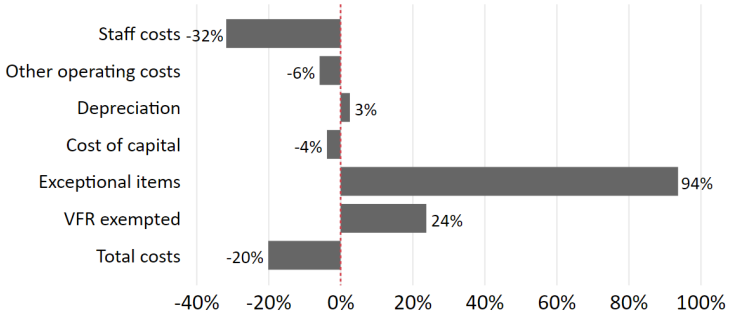
Percentage of flights delayed by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

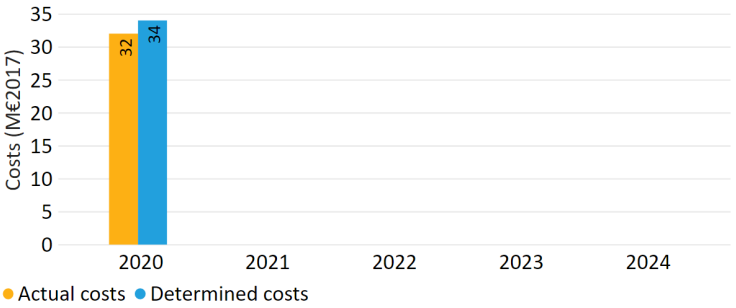
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite the larger variation in exceptional costs, total costs decreased by 20%, fuelled by lower staff costs.

Costs related to investments by year (M€2017)




Austro Control spent 1.6M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- Skeyes did not achieve the RP3 targets on four management objectives in 2020. Safety promotion was the only objective in which Skeyes reached the RP3 target. ANA LUX did not achieve the RP3 targets on any of the five management objectives.
- Skeyes defined a safety development plan that explains how it plans to achieve the RP3 target levels by 2024. The NSA has not identified any issues that would prevent Skeyes from reaching the targets.
- 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.
- Skeyes and ANA LUX should improve its SMS by implementing automated safety data recording systems.

### Environment:

- FABEC stated that half of the Union-wide RAD simplifications applied in 2020 were within FABEC airspace and that eNM measures were not needed. This helped improve the shortest constrained routes within FABEC, but was not sufficient in helping to reach the FAB-level KEA reference value (2.90%) in 2020. At a national level, Belgium and Luxembourg achieved a KEA performance of 3.37% and the FABEC reference value is 2.90%.
- FABEC mentioned that KEA is proportional to delays and stated that this impacted performance. The PRB does not agree with this as FABEC did not experience significant delays in 2020 and Belgium achieved its capacity breakdown value.
- While the share of flights operating CCO/CDO at Brussels airport improved in 2020 compared to 2019, the CDO performance is below the level achieved in 2016 when there was more congestion. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 30% compared to 2019.

### Capacity:

- Skeyes recorded 0.06 minutes of average en route ATFM delay per flight, thus performing better than the local breakdown value of 0.20.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Belgium-Luxembourg. No capacity issues were reported by Belgium-Luxembourg. The number of ATCO FTEs increased by 1% compared to 2019 (2020 planned values were not reported).
- Based on the analysis of previous capacity profiles, the PRB estimates that Belgium-Luxembourg will face a capacity gap once IFR movements rise above 83% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

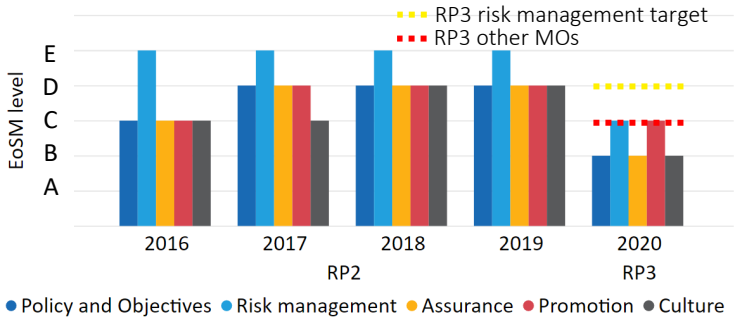
- The 2020 actual service units (1,081K) were 57% lower than the actual service units in 2019 (2,538K).
- Belgium-Luxembourg increased all cost categories in 2020, with 2020 actual costs being 19M€$_{2017}$ (+10%) higher compared to 2019 actuals. Belgium and Luxembourg are one of the few Member States 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 (+48M€$_{2017}$, +323%), (iii) increased MUAC costs, and (iv) increased Eurocontrol costs.
- Skeyes spent 17.6M€$_{2017}$ in 2020 related to cost of investments, 5% less than planned in the 2019 draft performance plan (18.4M€$_{2017}$). A decrease in costs related to new major investments and other new investments was partly offset by an increase in costs related to existing investments.

# Belgium-Luxembourg Factsheet



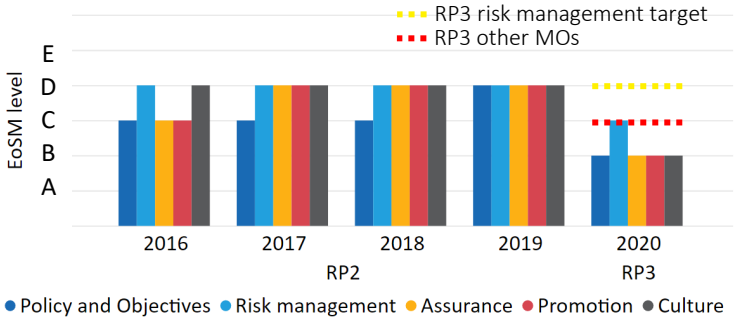
## Safety

Skeyes' effectiveness of safety management (EoSM) by year



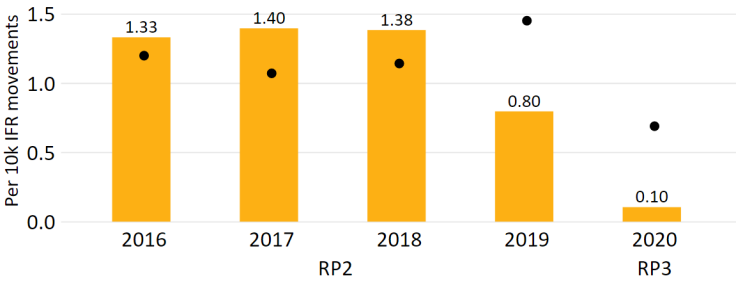

Skeyes achieved the RP3 target for safety promotion but did not achieve the target in any other management objective in 2020.

ANA LUX's effectiveness of safety management (EoSM) by year



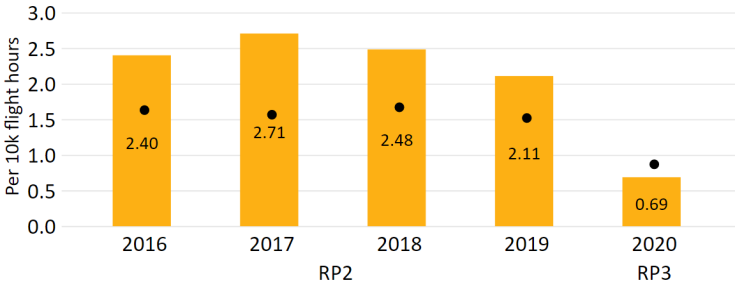

ANA LUX did not achieve the targets for the EoSM in any safety management objective in 2020.

Rate of runway incursions (RIs) by year




Belgium's rate of RIs per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average.

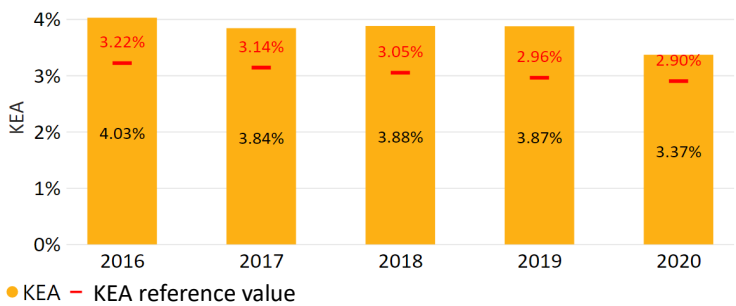
Rate of separation minima infringement (SMI) by year




Belgium's rate of SMIs per flight hour decreased in 2020 relative to 2019. The rate is below the Union-wide average.

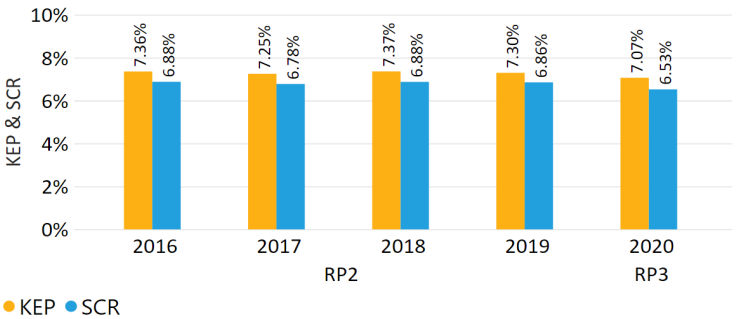
## Environment

KEA performance



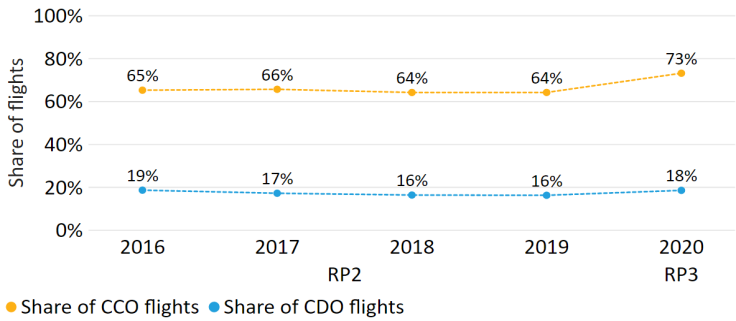

Belgium's KEA performance improved relative to 2019 achieving 3.37% compared to FABEC's reference value of 2.90%.

KEP & SCR performance



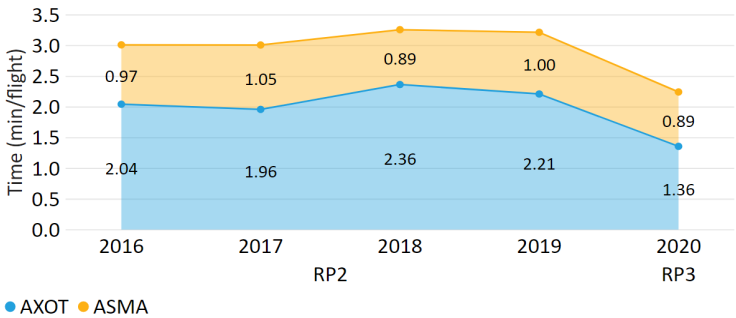

Belgium was able to make shorter constrained routes available to airspace users who subsequently planned to fly shorter routes.

Share of CCO and CDO flights by year




The share of flights conducting CDO/CCO at Belgian airports improved in 2020 relative to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



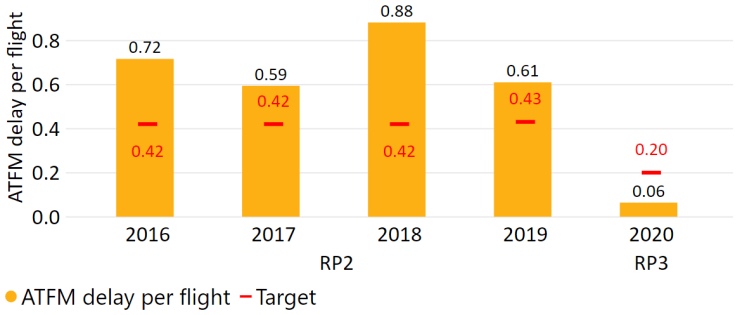

Terminal airspace users spent an additional 2.25 minutes per flight either taxiing or holding at Brussels airport.

# Belgium-Luxembourg Factsheet



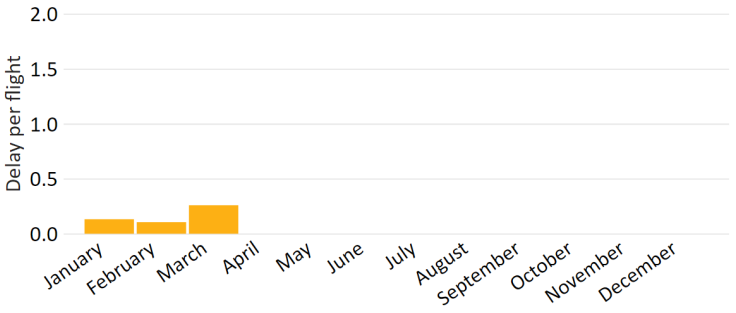
## Capacity

ATFM delay per flight (min/flight)



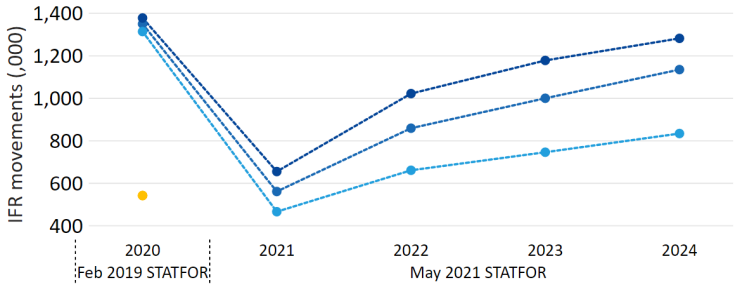

Skeyes recorded 0.06 minutes of delay per flight in 2020 and performed better than its local breakdown value.

Monthly ATFM delay per flight (min/flight) in 2020



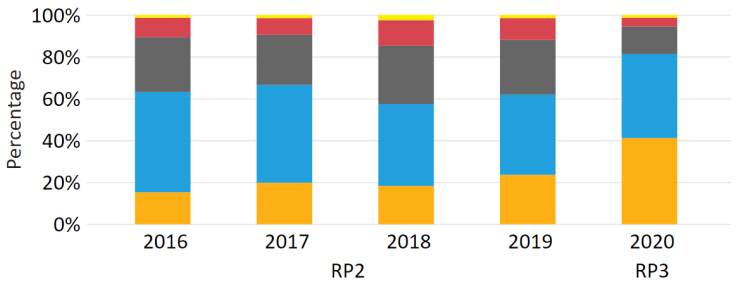

During the first three months, ATC staffing, non-ATC and ATC capacity were the main contributors to delays.

IFR movements and forecasts by year




IFR movements in Belgium-Luxembourg were 60% less than the 2019 February base forecast in 2020.

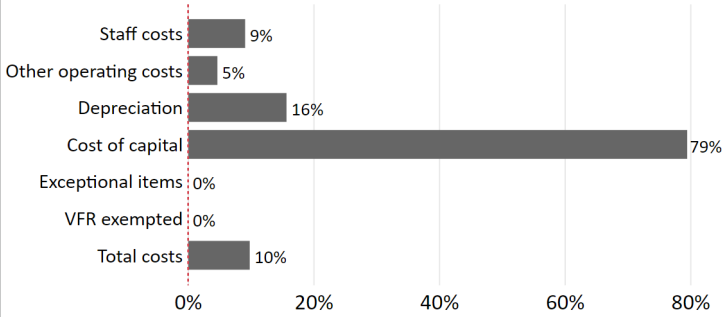
Percentage of en route delays per flight by year and time bin




The percentage of flights delayed by 15 minutes or less increased notably in 2020.

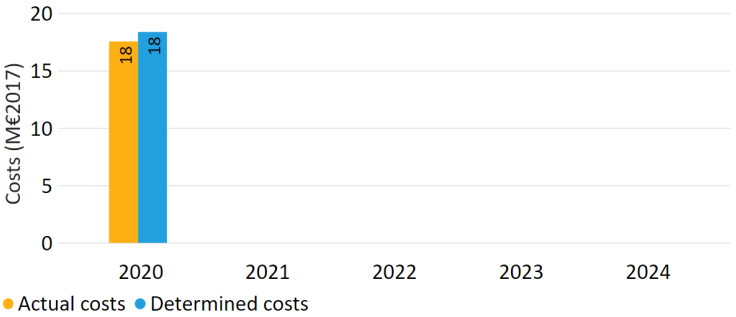
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Belgium-Luxembourg increased all cost categories, leading to 10% higher total costs.

Costs related to investments by year (M€2017)




Skeyes spent 0.8M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- BULATSA achieved the EoSM targets for RP3 on all management objectives except safety risk management. The target was exceeded for safety promotion and safety policy and objectives.
- Bulgaria developed specific safety measures to achieve the acceptable level of safety performance in the National Safety Plan, which will be implemented between 2020 and 2024. Specific actions were undertaken to improve the EoSM level in safety risk management for BULATSA.
- The occurrence performance was good with a lower rate of separation minima infringement in 2020 than in 2019 and no occurrences of runway incursions reported in 2020.
- BULATSA monitors safety performance using specific automated safety recording tools for occurrences and it is one of only a handful of ANSPs to do so.

### Environment:

- Bulgaria achieved a KEA performance of 2.55% compared to its reference value of 1.95% and therefore did not contribute positively towards achieving the Union-wide target.
- The significant deterioration in performance during 2019 was caused by new data reported to the NM by Turkey, which caused the KEA to vary without significant underlying change in operational performance.
- The NSA identified the Crimea crisis as well as airspace users' preference for longer routes that helps avoiding delays or adverse wind patterns as reasons for its underperformance.
- Bulgaria will not implement any remedial measures and seems to absolve any responsibility to improve KEA now that it offers free route airspace and plans to implement all initiatives stipulated in the ERNIP and NOP.
- Bulgaria has no airports that are regulated under the RP3 performance and charging scheme.

### Capacity:

- BULATSA registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.17.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Bulgaria.
- The NSA reported some early issues in adapting the rostering scheme due to the pandemic but managed to resolve these without generating delays.
- ATCOs were also relocated to work on running projects, thus resulting in a reduction of over 5% of ATCO FTEs compared to 2019 (2020 planned values were not reported).

### Cost-efficiency:

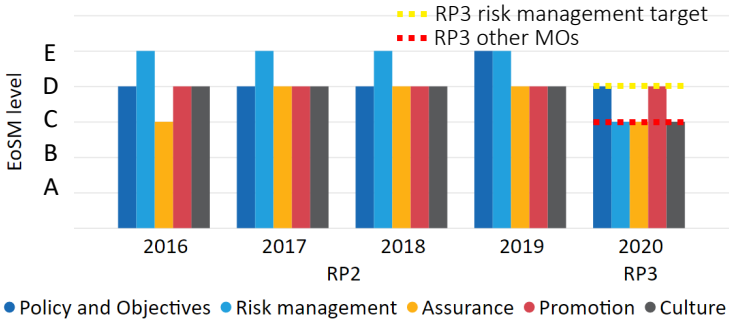
- The 2020 actual service units (1,766K) were 56% lower than the actual service units in 2019 (4,021K).
- Bulgaria reduced total costs in 2020 by 15M€$_{2017}$ (-14%) compared to 2019 actual costs. The reduction is mainly due to a decrease of 13M€$_{2017}$ (-18%) in staff costs, attributable to a reduction of 30% in salaries.
- Cost of capital in 2020 increased by 0.3M€$_{2017}$ (+3%) due to an increase of the asset base.
- BULATSA spent 18M€$_{2017}$ in 2020 related to cost of investments, 9% less than planned in the 2019 draft performance plan (19M€$_{2017}$). The decrease is induced by a lower asset base than planned in the 2019 draft performance plan.

# Bulgaria Factsheet



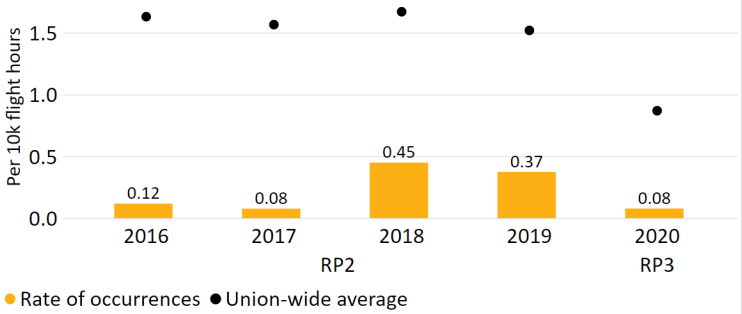
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



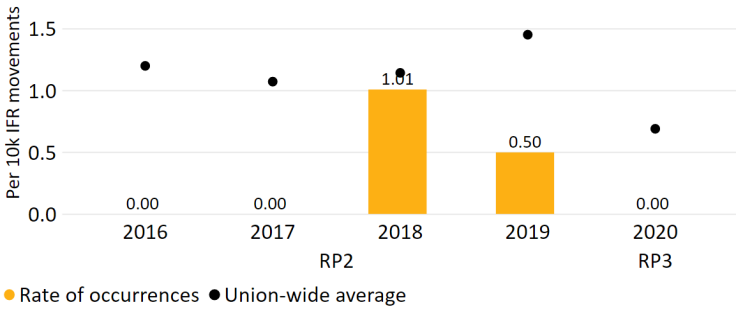

BULATSA did not achieve the EoSM target for safety risk management but achieved the targets for all other MOs in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour decreased significantly in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



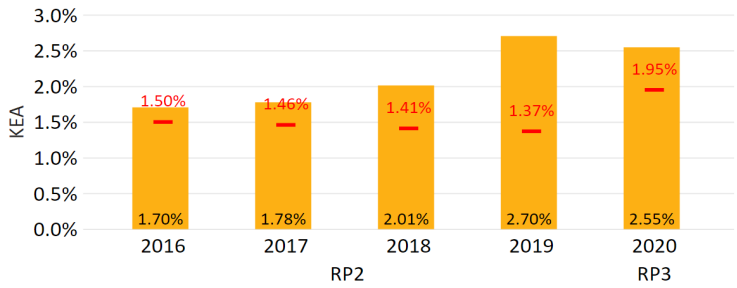

Bulgaria did not record any RI in 2020.

Use of automated safety data recording systems


Bulgaria uses automated safety data recording systems for recording of SMIs and RIs.

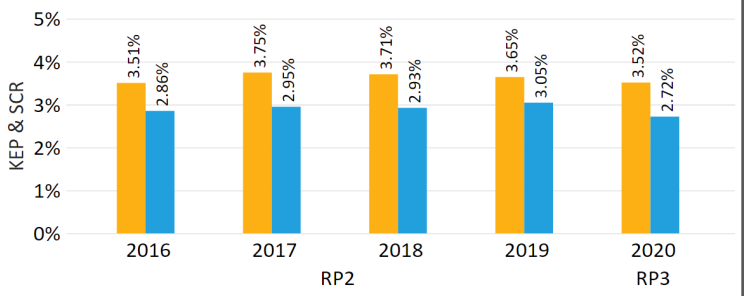
## Environment

KEA performance




Bulgaria did not achieve its 2020 KEA reference value by 0.6 percentage points, but performance improved relative to 2019.

KEP & SCR performance




Bulgaria was able to make shorter constrained routes available to airspace users who subsequently planned to fly shorter routes.

No Bulgarian airport is regulated under the performance and charging scheme.

Bulgaria did not declare any of its airports as subject to the performance and charging regulations.

No Bulgarian airport is regulated under the performance and charging scheme.

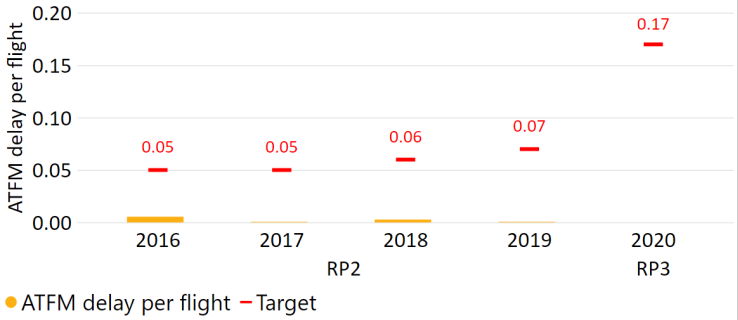
Bulgaria did not declare any of its airports as subject to the performance and charging regulations.

# Bulgaria Factsheet



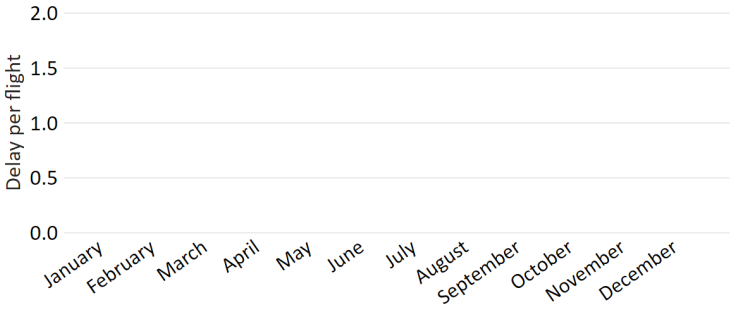
## Capacity

ATFM delay per flight (min/flight)



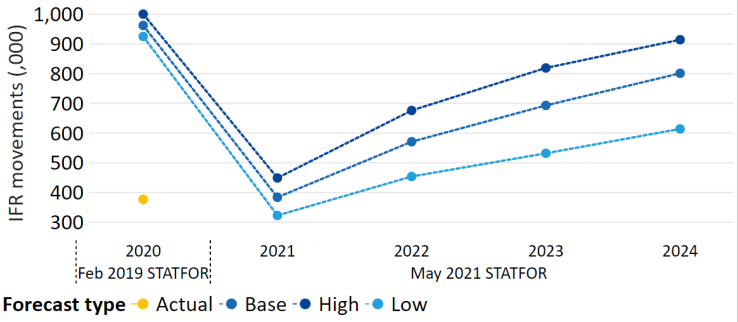

BULATSA recorded zero delays on average in 2020, thus performing better than the local breakdown value.

Monthly ATFM delay per flight (min/flight) in 2020



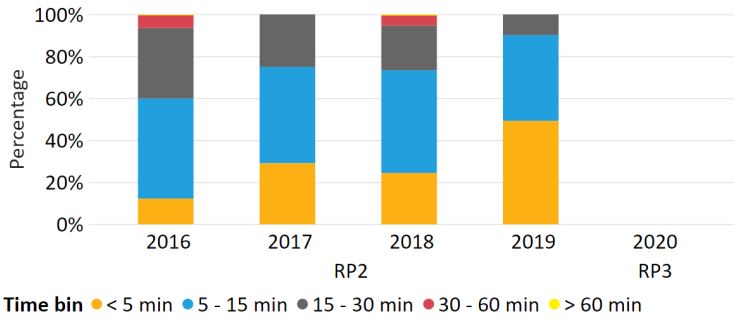

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Bulgaria were 61% less than the 2019 February base forecast in 2020.

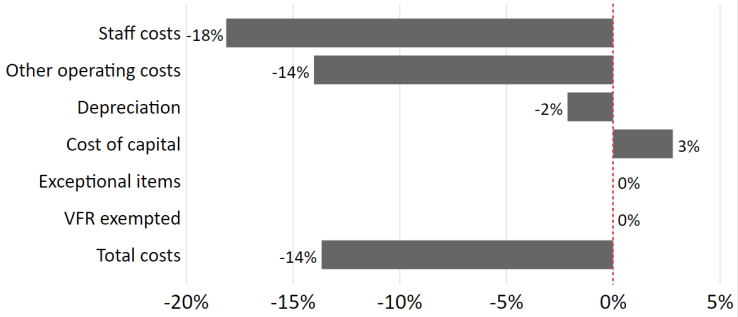
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

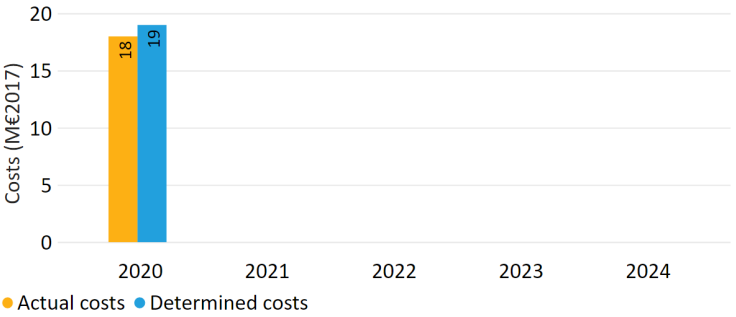
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Bulgaria reduced total costs by 14%, mainly driven by a reduction in staff costs.

Costs related to investments by year (M€2017)




BULATSA spent 1.7M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- 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.

### Environment:

- 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.

### Capacity:

- Croatia Control registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.33.
- 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.

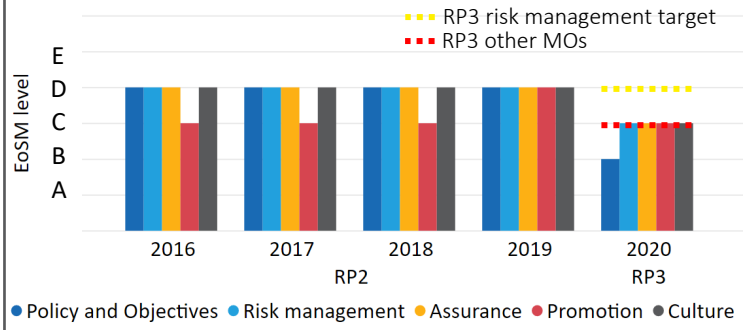
### Cost-efficiency:

- 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 3M€$_{2017}$ (-3%) compared to 2019 actual costs. The reduction in costs is driven by a reduction of 4M€$_{2017}$ (-20%) in other operating costs, due to the postponement and freeze of ATCO trainings, missions, maintenance and utilities.
- Croatia Control spent 16M€$_{2017}$ in 2020 related to cost of investments, 8% less than planned in the 2019 draft performance plan (18M€$_{2017}$). 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.

# Croatia Factsheet

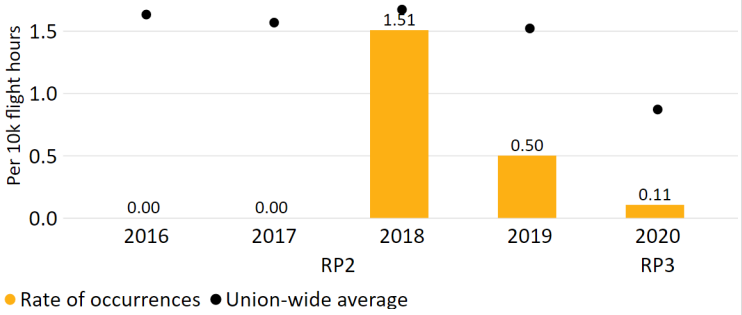
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



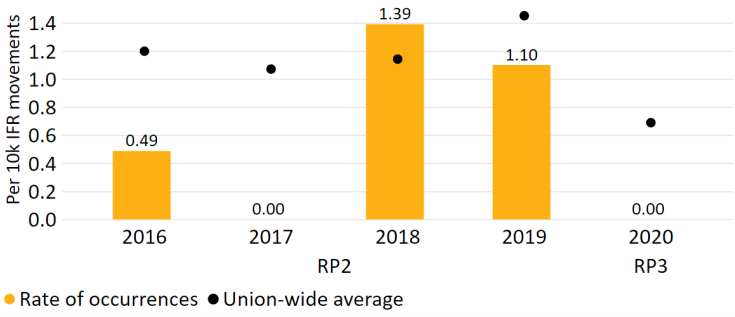

Croatia Control did not achieve the RP3 targets for safety risk management and safety policy and objectives.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) per flight hour decreased significantly in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



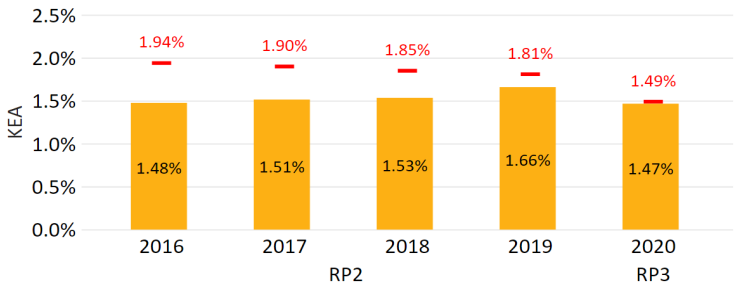

Croatia did not record any RI in 2020.

Use of automated safety data recording systems


Croatia uses the automated safety data recording systems for SMIs.

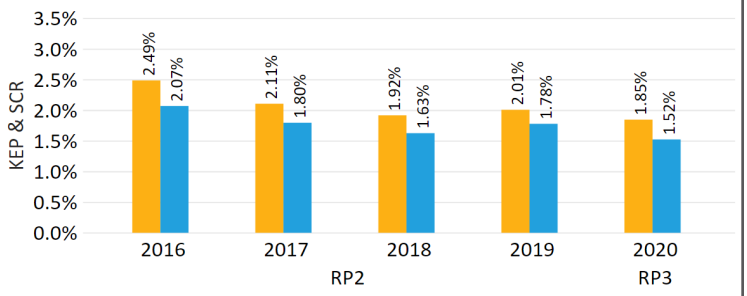
## Environment

KEA performance




Croatia achieved its 2020 KEA reference value by 0.02 percentage points, and performance improved relative to 2019.

KEP & SCR performance




Croatia was able to make shorter constrained routes available to airspace users who subsequently planned to fly shorter routes.

No Croatian airport is regulated under the performance and charging scheme.

Croatia did not declare any of its airports as subject to the performance and charging regulations.

No Croatian airport is regulated under the performance and charging scheme.

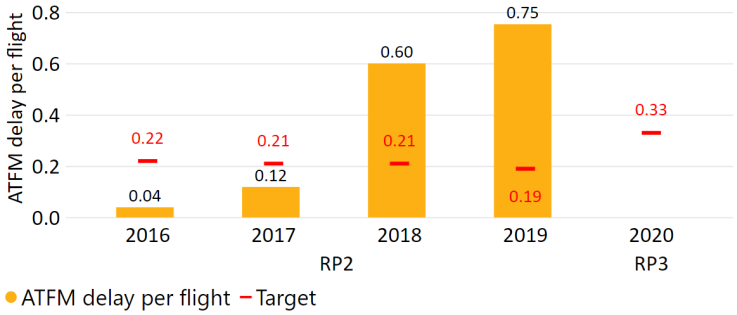
Croatia did not declare any of its airports as subject to the performance and charging regulations.

# Croatia Factsheet



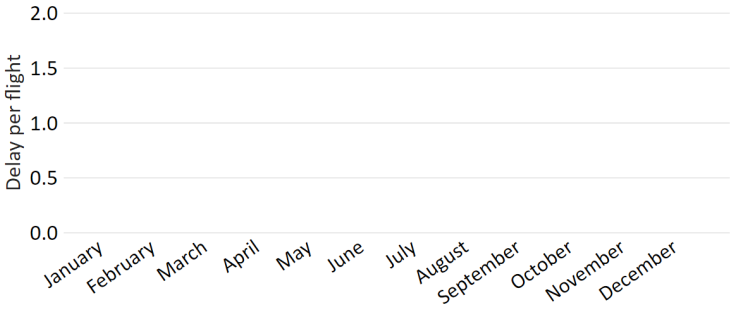
## Capacity

ATFM delay per flight (min/flight)



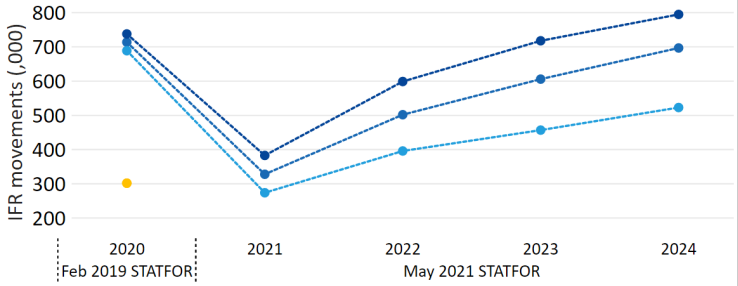

Croatia Control recorded zero delays on average in 2020 and performed better than its local breakdown value of 0.33.

Monthly ATFM delay per flight (min/flight) in 2020



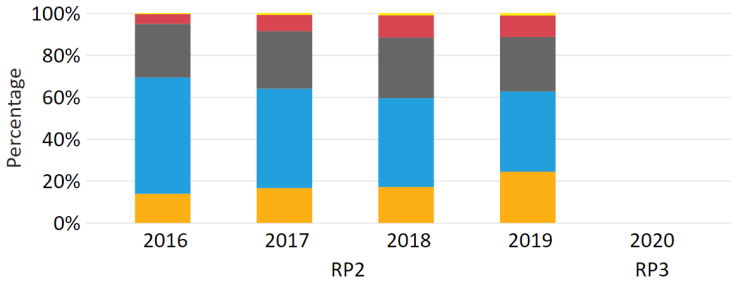

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Croatia were 58% less than the 2019 February base forecast in 2020.

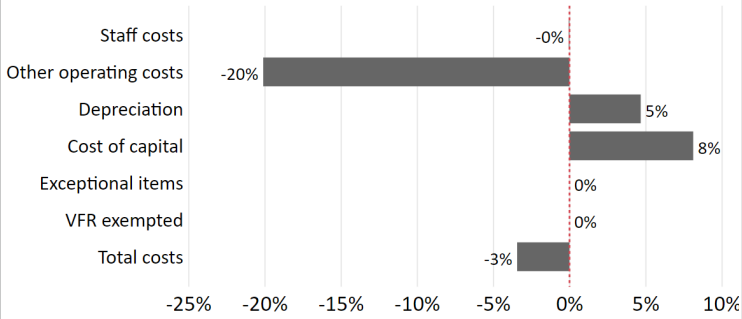
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

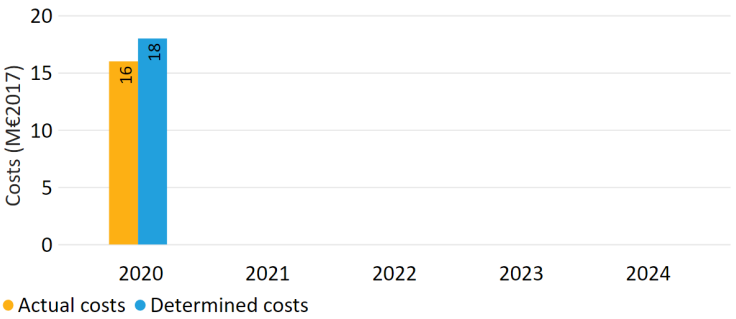
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite variation in cost of capital and depreciation, total costs decreased of by 3%, driven by lower other operating costs.

Costs related to investments by year (M€2017)




Croatia Control spent 1.4M€$_{2017}$ less than planned on costs related to investments in 2020 in response to COVID-19.

## Comments from the Performance Review Body:

### Safety:

- CYATS did not achieve the RP3 targets in any of the safety management objectives. DCAC Cyprus did not achieve the RP2 targets either and were already behind on plans to improve its safety management system (SMS) going into RP3. DCAC Cyprus requires significant improvements in its SMS to achieve the targets for RP3 (maturity must improve by one level in 11 out of 28 EoSM questions).
- The NSA adopted a safety program, which included a clear commitment to improve the safety oversight of DCAC Cyprus. Consequently, DCAC Cyprus initiated improvements in its SMS function – mainly employing additional safety staff – however the actions were halted by the pandemic.
- The PRB believes that achieving the RP3 targets should be feasible, but the NSA must ensure that the established plans are implemented.
- Cyprus recorded lower occurrences of separation minima infringement per flight hour than in 2019 and no occurrences of runway Incursions in 2020.
- CYATS should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Cyprus achieved a KEA performance of 3.89% compared to its reference value of 4.10% and therefore contributed positively towards achieving the Union-wide target.
- Cyprus admitted that the performance improvement was due to the significant fall in traffic and that it does not expect its 2020 performance to continue as traffic grows.
- Improvements already made such as airspace redesign in co-ordination with Israel and Greece are likely to enable more direct routings, but the impact of this is not yet clear since traffic flows were not as expected in 2020.
- Cyprus has no airports that are regulated under the RP3 performance and charging scheme.

### Capacity:

- CYATS registered 0.2 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.36.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 60% below the 2019 levels in Cyprus.
- When comparing the first two months of 2020, traffic was 16% higher than in 2019 but en route ATFM delays increased significantly (+149%). The main delay causes were ATC capacity and ATC staffing.
- Cyprus reported an increasing ATCO FTEs by over 4% compared to 2019 due to reallocation of tower ATCOs to the ACC. Actual ATCO FTEs are 6% below the planned values for 2020 due to postponed recruiting.
- Based on the analysis of previous capacity profiles, the PRB estimates Cyprus will face a capacity gap once IFR movements rise above 90% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

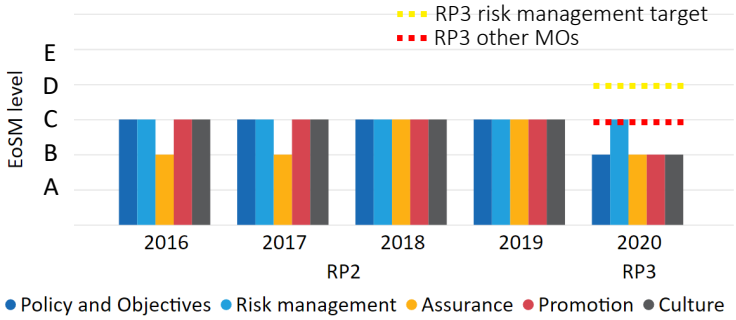
- The 2020 actual service units (853K) were 58% lower than the actual service units in 2019 (2,051K).
- Cyprus reduced total costs in 2020 by 4M€$_{2017}$ (-7%) compared to 2019 actual costs. The reduction is mainly due to a decrease of 2.2M€$_{2017}$ (-10%) in staff costs induced by less overtime, and a lower cost of capital of 2.4M€$_{2017}$ (-53%) due to both lower asset base and WACC.
- Other operating costs increased by 1.4M€$_{2017}$ (+6%) compared to 2019 actual costs due to a correction of cost allocation methodology as already included in the 2019 draft performance plan.
- DCAC Cyprus spent 2.6M€$_{2017}$ in 2020 related to cost of investments, 4% more than planned in the 2019 draft performance plan (2.5M€$_{2017}$).

# Cyprus Factsheet



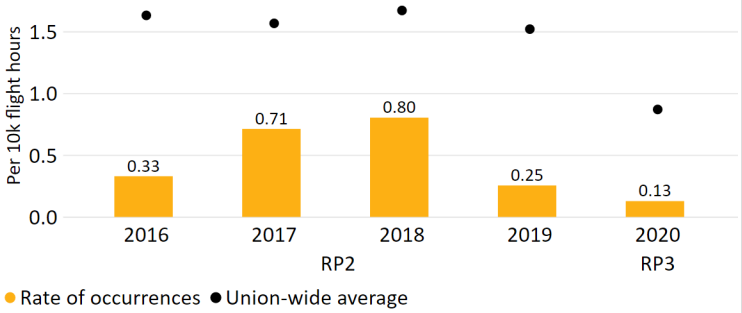
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



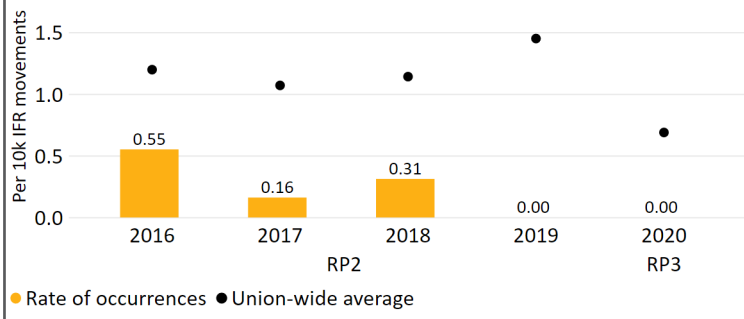

CYATS did not achieve the RP3 targets for the EoSM in any of safety management objectives in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Rate of runway incursions (RIs) by year



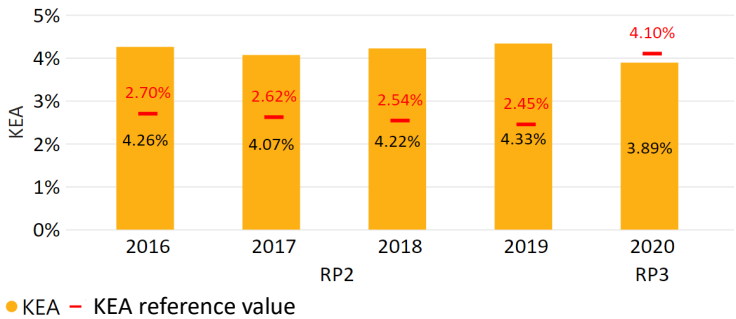

Cyprus did not record any RI occurrences in 2020.

Use of automated safety data recording systems


Cyprus does not use automated safety data recording systems neither for RIs nor SMIs.

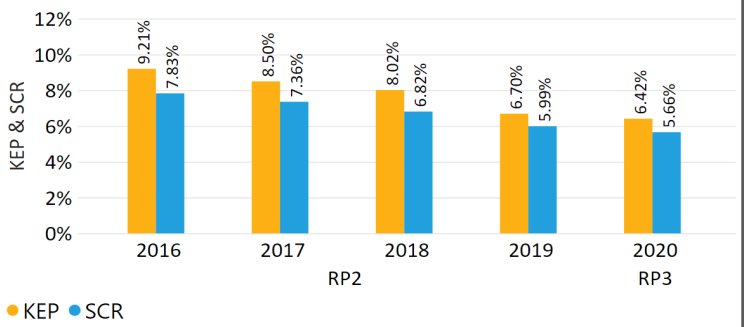
## Environment

KEA performance




Cyprus achieved its 2020 KEA reference value by 0.21 percentage points, and performance improved relative to 2019.

KEP & SCR performance




In 2020, Cyprus made shorter constrained routes available to air-space users who subsequently planned to fly shorter routes.

No Cypriot airport is regulated under the performance and charging scheme.

Cyprus did not declare any of its airports as subject to the performance and charging regulations.

No Cypriot airport is regulated under the performance and charging scheme.

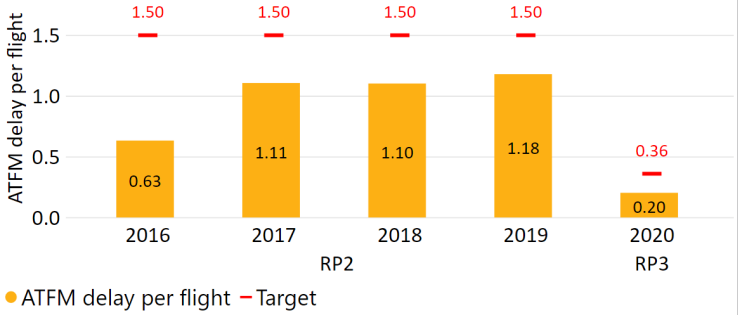
Cyprus did not declare any of its airports as subject to the performance and charging regulations.

# Cyprus Factsheet



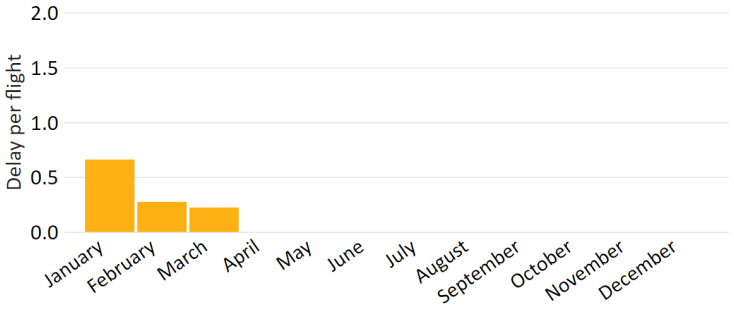
## Capacity

ATFM delay per flight (min/flight)



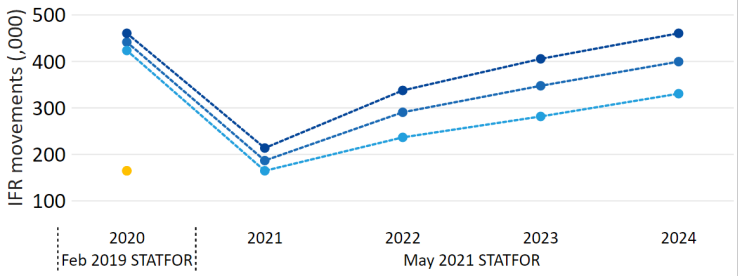

CYATS performed better than the local breakdown value in 2020.

Monthly ATFM delay per flight (min/flight) in 2020




During the first three months, ATC capacity and ATC staffing caused most of the delays.

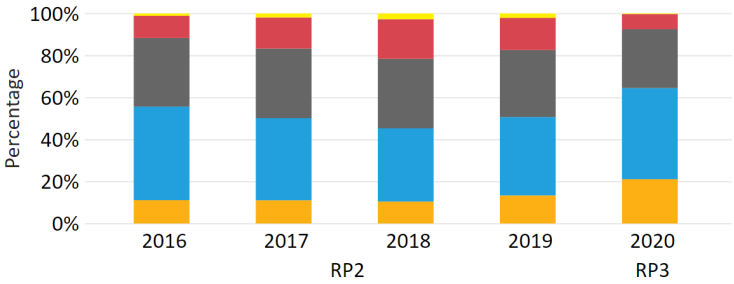
IFR movements and forecasts by year




**Forecast type** Actual Base High Low

IFR movements in Cyprus were 63% less than the 2019 February base forecast in 2020.

Percentage of en route delays per flight by year and time bin

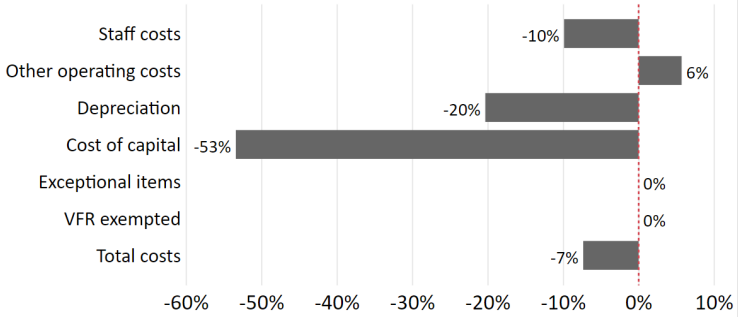



**Time bin** < 5 min 5 - 15 min 15 - 30 min 30 - 60 min > 60 min

The percentage of flights delayed by 15 minutes or less increased notably in 2020.

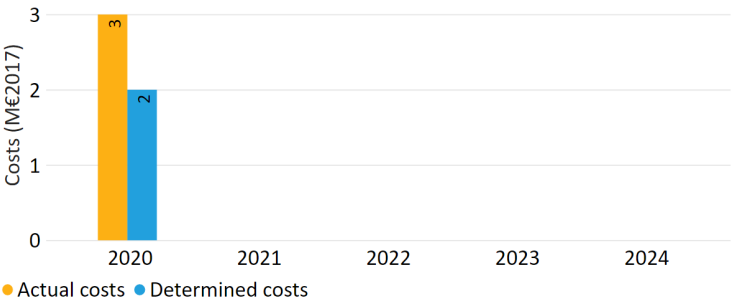
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite the variation in other operating costs due to a correction of cost allocation methodology, total costs decreased by 7%.

Costs related to investments by year (M€2017)




DCAC Cyprus spent 93K€$_{2017}$ more than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- 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.

### Environment:

- 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.

### Capacity:

- 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.

### Cost-efficiency:

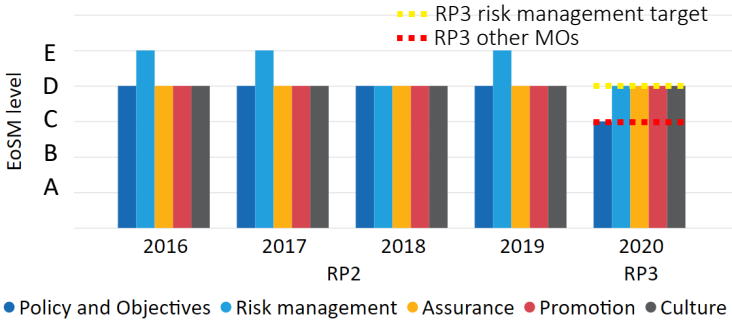
- The 2020 actual service units (1,138K) were 61% lower than the actual service units in 2019 (2,904K).
- The Czech Republic reduced total costs in 2020 by 21M€$_{2017}$ (-17%) compared to 2019 actual costs. The reduction is mainly due to a decrease of 16M€$_{2017}$ (-22%) in staff costs, due to suspension of non-basic wages benefits, reduction of pension contribution, managerial positions and FTEs. Cost of capital also decreased notably by 2.3M€$_{2017}$ (-25%) due to a lower asset base and WACC.
- ANS CR spent 28M€$_{2017}$ in 2020 related to cost of investments, 29% less than planned in the 2019 draft performance plan (39M€$_{2017}$).
- The decrease in cost of investments is due to a re-prioritization of investments (main changes occurred in other new investments) to maintain financial stability in response to COVID-19.

# The Czech Republic Factsheet



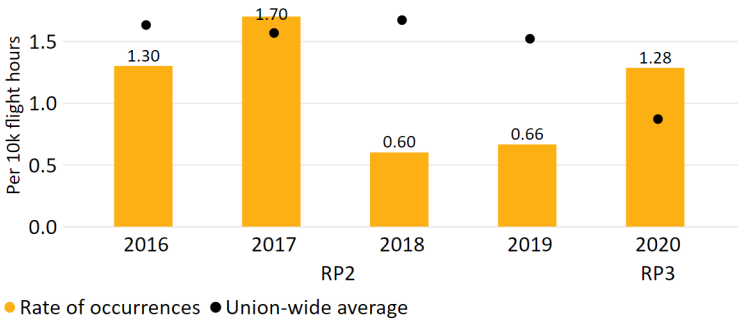
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



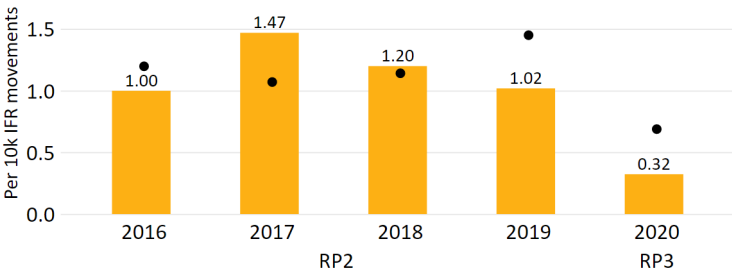

ANS CR achieved the RP3 EoSM target levels in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour increased in 2020 with only a single occurrence because traffic reduced.

Rate of runway incursions (RIs) by year



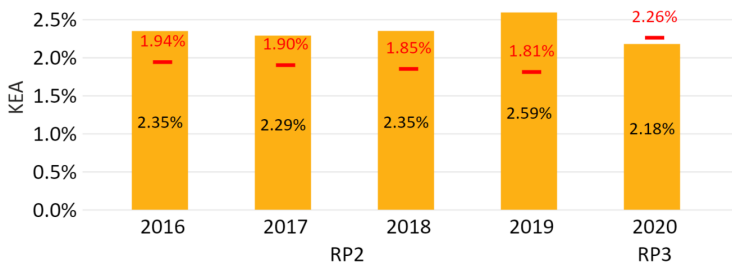

The rate of RI per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Use of automated safety data recording systems


The Czech Republic uses the automated safety data recording systems for SMIs and RIs.

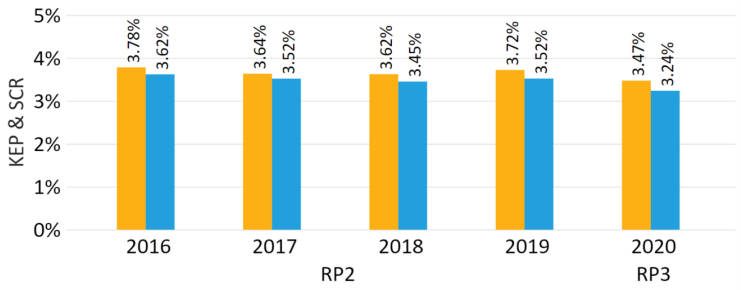
## Environment

KEA performance



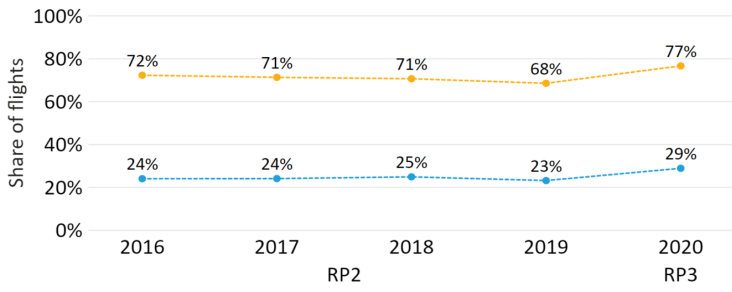

The Czech Republic achieved its 2020 KEA reference value by 0.08 percentage points.

KEP & SCR performance



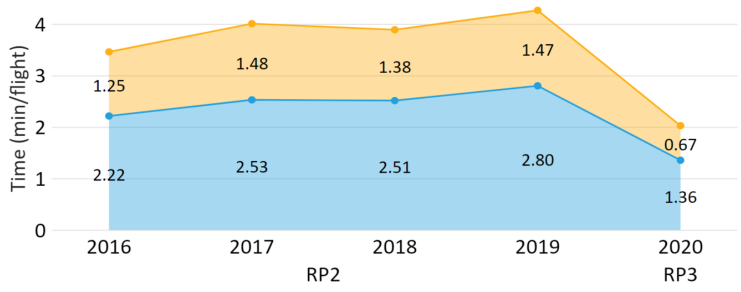

The Czech Republic made shorter constrained routes available to airspace users who planned to fly shorter routes.

Share of CCO and CDO flights by year




Czech Republic improved its CDO and CCO performance in 2020 to its best rolling 5-year performance.

Additional taxi out time (AXOT) and holding time (ASMA) by year



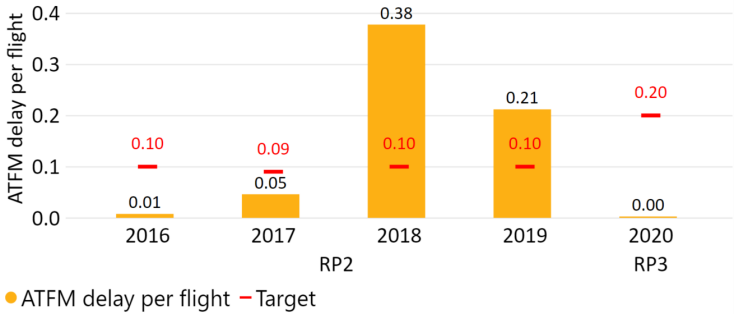

Terminal airspace users spent an additional 2.03 minutes per flight either taxiing or holding at Václav Havel Prague airport.

# The Czech Republic Factsheet



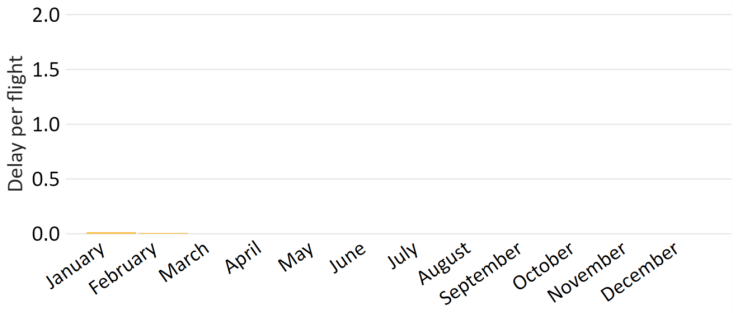
## Capacity

ATFM delay per flight (min/flight)



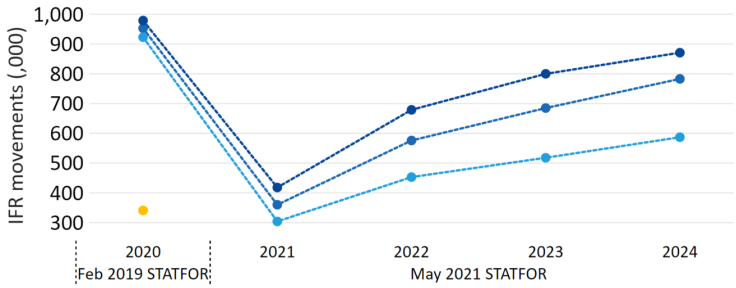

ANS CR recorded near zero delays on average in 2020, thus performing better than the local breakdown value.

Monthly ATFM delay per flight (min/flight) in 2020



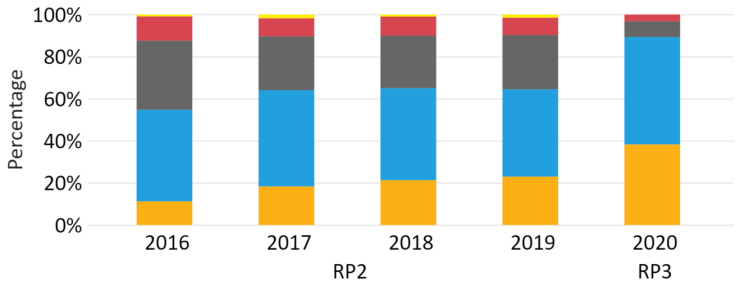

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in the Czech Republic were 64% less than the 2019 February base forecast in 2020.

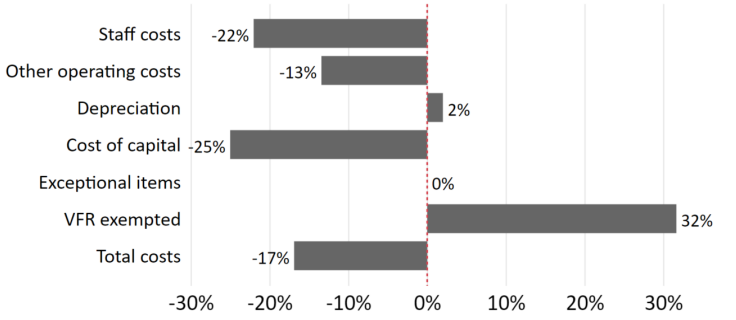
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

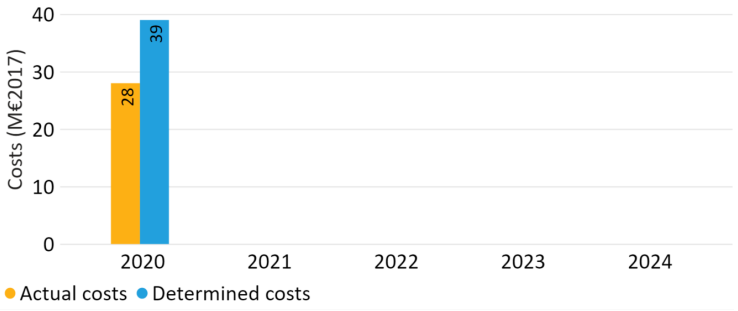
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




The Czech Republic reduced total costs by 17%, mainly driven by a reduction in staff costs.

Costs related to investments by year (M€2017)




ANS CR spent 11M€$_{2017}$ less than planned on costs related to investments in 2020 due to re-prioritisation of investments.

## Comments from the Performance Review Body:

### Safety:

- NAVIAIR did not achieve the RP3 targets for the EoSM in any of the safety management objectives.
- Based on the maturity achieved at the end of RP2, the EoSM performance is lower than excepted (NAVIAIR exceeded the targets in all but one management objective in 2019). NAVIAIR needs to improve its maturity by one level in six out of 28 EoSM questions and by two levels in one question to achieve the RP3 targets, which should be feasible.
- Denmark recorded stable performance with respect to occurrences. The rate of separation minima infringements and of runway incursion per movements remained below the Union-wide average rate.
- NAVIAIR should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Denmark achieved a KEA performance of 1.12% compared to its reference value of 1.21% and therefore contributed positively towards achieving the Union-wide target.
- While Denmark stated that the significant fall in traffic boosted its KEA performance and that it expects that performance will worsen as traffic grows, there were no major operational or structural changes made in 2020 to help ensure the performance can be sustained as best as possible.
- While the share of flights operating CCO/CDO at Copenhagen airport improved in 2020 compared to 2019, the CCO performance remained stable. Around half of all arrivals at Copenhagen airports completed a CDO procedure, which is one of the best Union-wide performance.
- The additional time airspace users spent taxiing or holding in terminal airspace reduced by 37% compared to 2019.

### Capacity:

- NAVIAIR registered near zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.14.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 59% below the 2019 levels in Denmark.
- Denmark reported no capacity issues and ATCO numbers remained flat at the 2019 value in line with previous plans.

### Cost-efficiency:

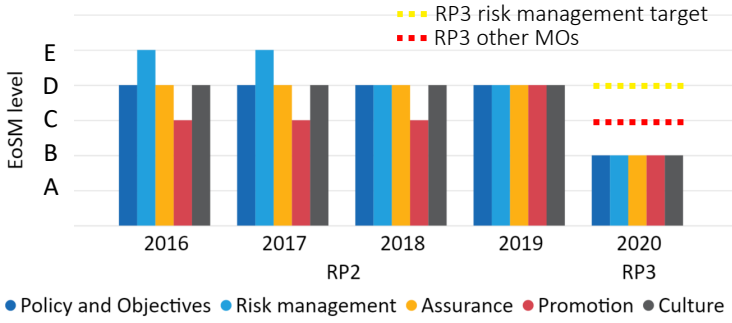
- The 2020 actual service units (717K) were 57% lower than the actual service units in 2019 (1,679K).
- Denmark increased total costs in 2020 by 1.4M€$_{2017}$ (+2%) compared to 2019 actual costs. The main driver of the increase is staff costs, with costs being 5.4M€$_{2017}$ higher (+10%), due to costs associated with voluntary resignations. Moreover, cost of capital increased by 2.5M€$_{2017}$ (+63%).
- Exceptional costs decreased by 7.2M€$_{2017}$ (-354%), the reason being unclear since the NSA stated that such decrease is supposed to reflect cost reductions that have not yet been decided.
- NAVIAIR shows a perfect execution of its investment plans, with 2020 actual cost of investments being equal to the investment plans (21M€$_{2017}$).

# Denmark Factsheet



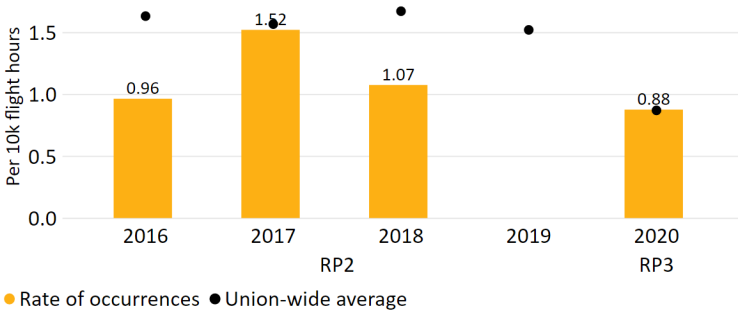
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



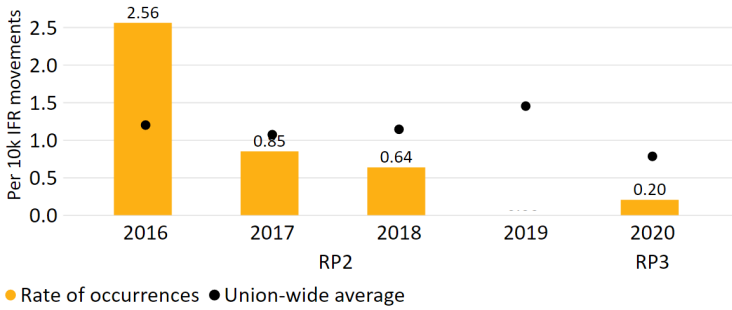

NAVIAIR did not achieve the targets for the EoSM in any of safety management objectives in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour decreased in 2020 relative to 2018 (no data available for 2019).

Rate of runway incursions (RIs) by year



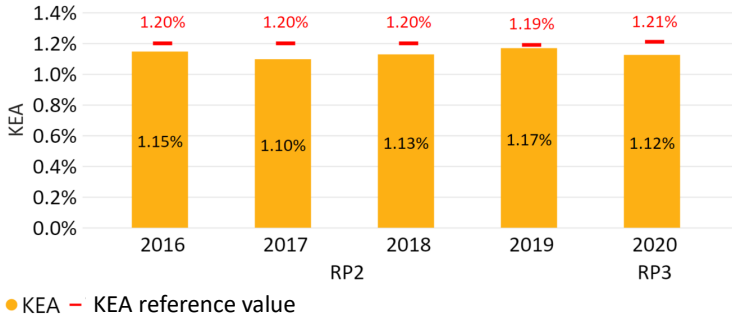

The rate of RI per movement decreased in 2020 relative to 2018 (no data available for 2019).

Use of automated safety data recording systems


Denmark does not use automated safety data recording systems neither for RIs nor SMIs.

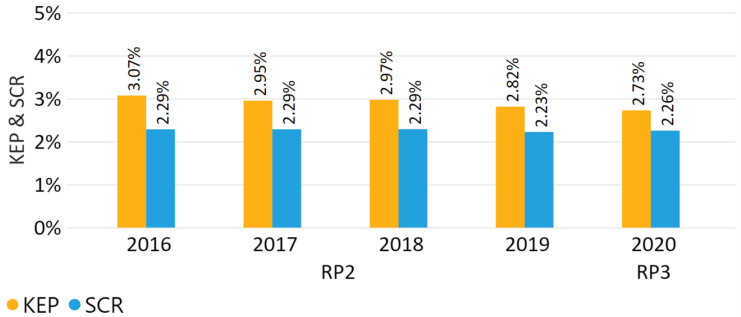
## Environment

KEA performance



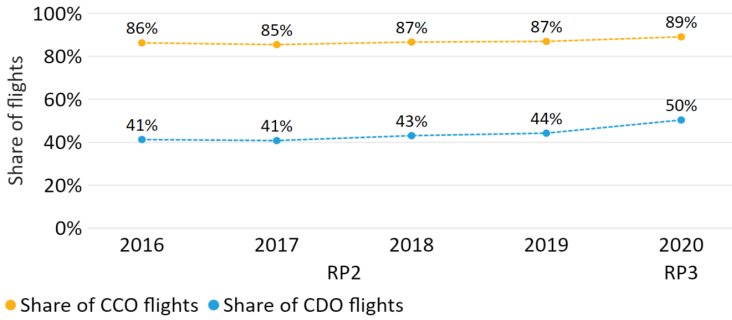

Denmark achieved its 2020 KEA reference value by 0.09 percentage points, and performance improved relative to 2019.

KEP & SCR performance



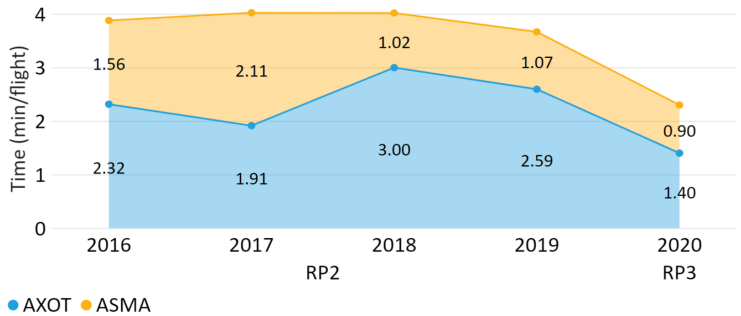

Denmark did not make shorter constrained routes available to airspace users, but planned routes were still shorter in 2020.

Share of CCO and CDO flights by year




Denmark improved its CDO and CCO performance in 2020 relative to 2019 (particularly CDO performance).

Additional taxi out time (AXOT) and holding time (ASMA) by year



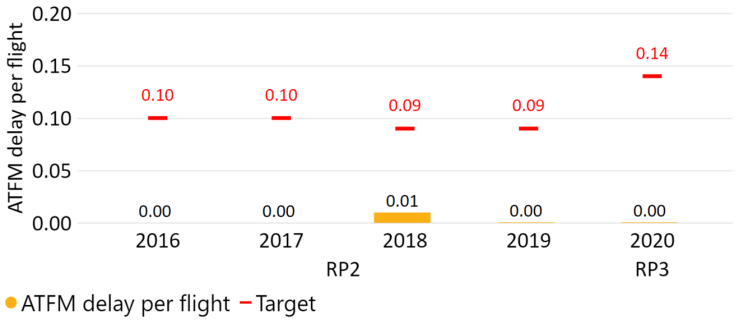

Terminal airspace users spent an additional 2.30 minutes per flight either taxiing or holding at Danish airports.

# Denmark Factsheet



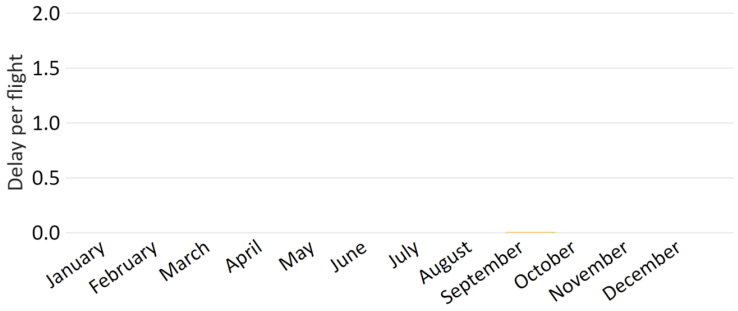
## Capacity

ATFM delay per flight (min/flight)



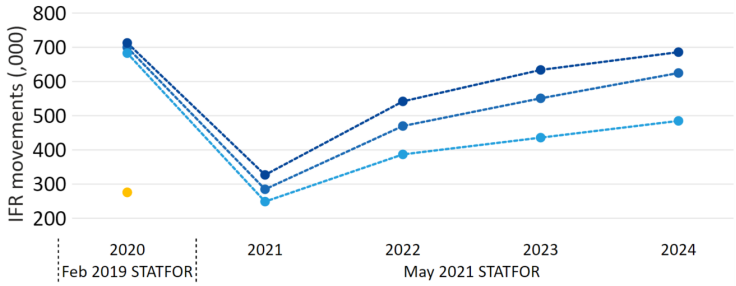

NAVIAIR recorded near zero delays on average in 2020 and performed better than the local breakdown value of 0.14.

Monthly ATFM delay per flight (min/flight) in 2020



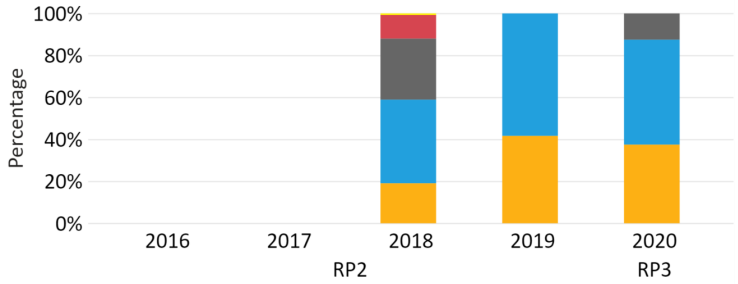

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Denmark were 61% less than the 2019 February base forecast in 2020.

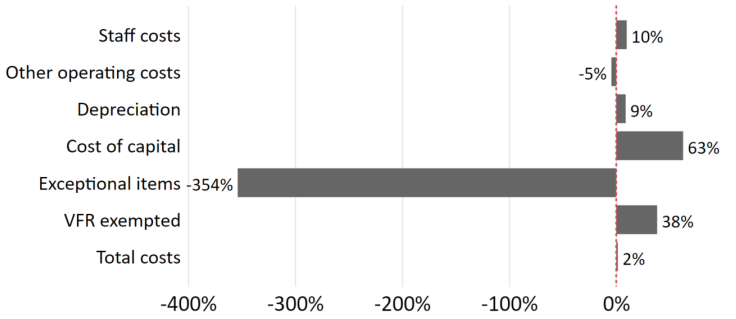
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

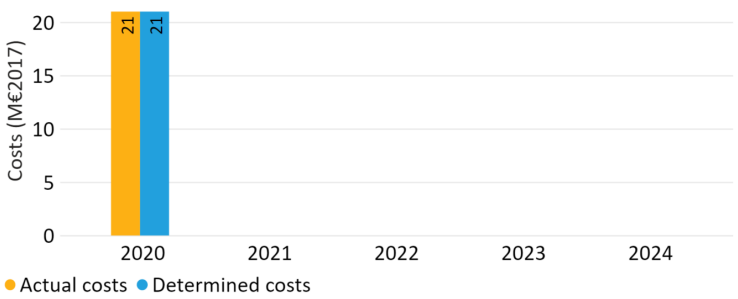
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite a significant decrease in exceptional costs, total costs increased by 2%, driven by higher staff costs.

Costs related to investments by year (M€2017)




NAVIAIR 2020 costs related to investments are in line with what was originally planned in 2019 draft performance plan.

## Comments from the Performance Review Body:

### Safety:

- EANS has already achieved the RP3 EoSM targets and exceeded the targets in two management objectives. Even so, measures for further improvements are included in EANS' Safety Strategy. The measures are mostly derived to achieve compliance with Commission Implementing Regulation (EU) 2017/373.
- EANS was already achieving high levels of maturity during RP2 and continued to improve the maturity during first year of RP3.
- Estonia recorded stable performance with respect to occurrences. Separation minima infringement per flight hour increased slightly due to the reduction in flight hours and the rate of runway incursion per movement decreased.
- EANS should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Estonia achieved a KEA performance of 1.21% compared to its reference value of 1.33% and therefore contributed positively towards achieving the Union-wide target.
- Estonia offers airspace users a cross-border free route airspace with its partners in NEFAB and DK-SE FAB and stated that overflying traffic is as direct as it can be. The data confirms this since the KEA performance is similar to the shortest constrained routes in 2020.
- Only one out of two Estonian airports that are regulated reported terminal data.
- The share of flights operating CCO/CDO at Estonian airports remained similar in 2020 compared to 2019. However, the performances are still class leading with more than 60% of all arrivals completing a CDO landing.
- Airspace users spent the same amount of additional time taxiing or holding in terminal airspace in 2020 as they did in 2019, i.e. the reduction in traffic did not help improve performance. Although the additional times are quite small at 1.29 minutes per flight, some improvement should have been possible given the lack of congestion.

### Capacity:

- EANS registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.05.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 58% below the 2019 levels in Estonia.
- Estonia reported no capacity issues and a 25% drop in ATCO FTE numbers compared to 2019. Actual ATCO FTE numbers are also almost 17% below the planned value in 2020. Estonia did not report any specific drivers behind the ATCO FTE number reduction, however, no ATCO FTEs were reported to have stopped working in OPS.

### Cost-efficiency:

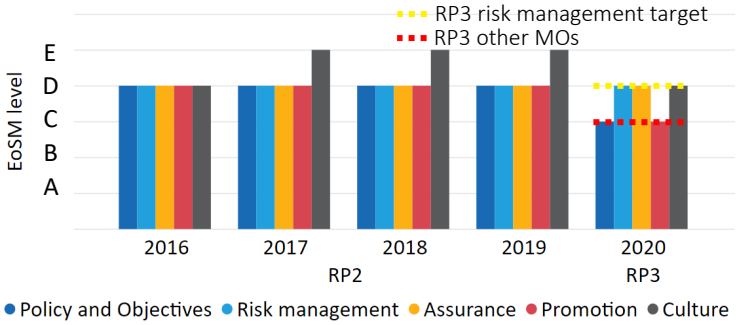
- Estonia experienced the third most limited decrease in service units across Member States, with 2020 actual service units (419K) being 53% lower than the actual service units in 2019 (897K).
- Estonia reduced total costs in 2020 by 2.7M€$_{2017}$ (-9%) compared to 2019 actual cost. The reduction is mainly induced by a reduction of 1M€$_{2017}$ (-7%) in staff costs due to personnel layoffs and a decrease in other operating costs of 1.1M€$_{2017}$ (-14%) (e.g. due to cancellation of trainings and reduction in travel expenses).
- EANS spent 3.2M€$_{2017}$ in 2020 related to cost of investments, 45% less than planned in the 2019 draft performance plan (5.7M€$_{2017}$). The decrease is attributable to the postponement of most of 2020 investments to 2022 onwards.

# Estonia Factsheet



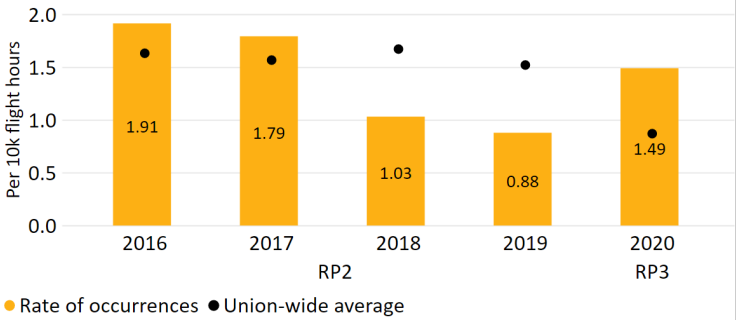
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



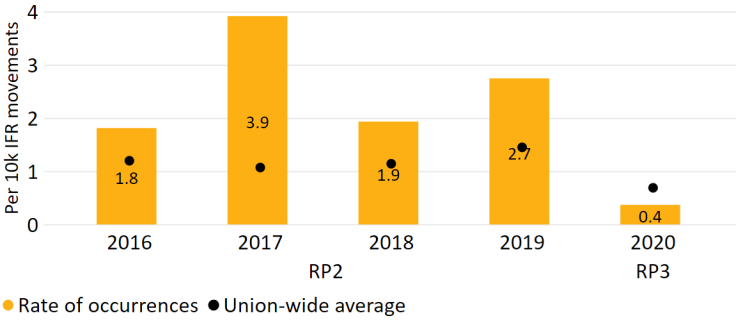

EANS achieved the EoSM target levels in all safety management objectives in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour increased in 2020 despite fewer occurrences of SMI than 2019 due to reduced traffic.

Rate of runway incursions (RIs) by year



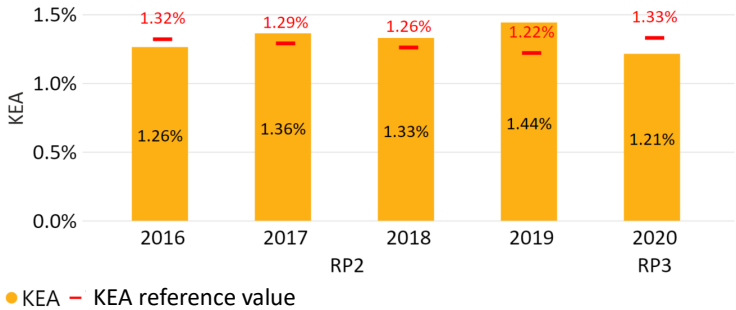

The rate of RI per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Use of automated safety data recording systems


Estonia does not use automated safety data recording systems neither for RIs nor SMIs.

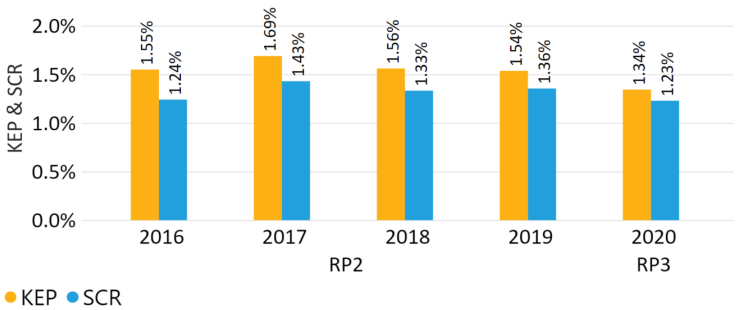
## Environment

KEA performance



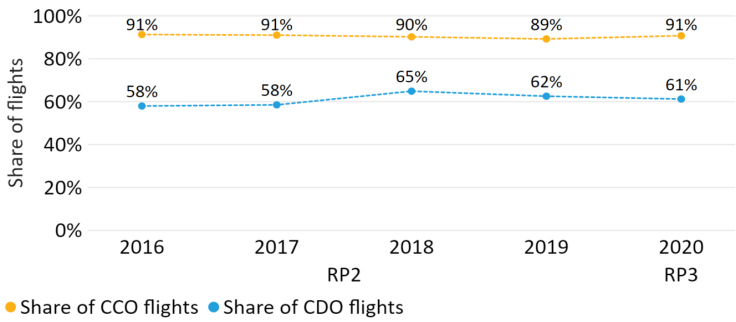

Estonia achieved its 2020 KEA reference value by 0.12 percentage points, and performance improved relative to 2019.

KEP & SCR performance



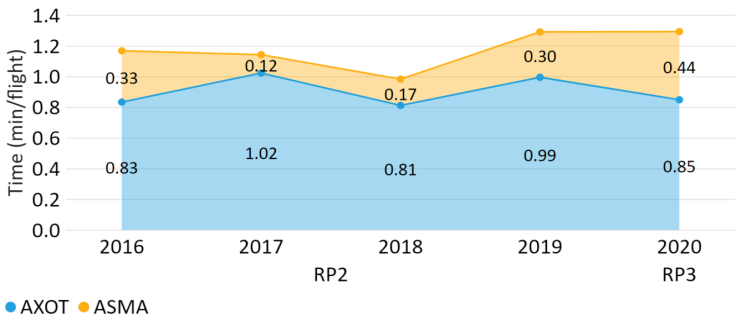

Estonia made shorter constrained routes available to airspace users who planned routes that were shorter in 2020 than in 2019.

Share of CCO and CDO flights by year




Estonia improved its CDO and CCO performance in 2020 compared to 2019. However, CDO performance was better in 2018.

Additional taxi out time (AXOT) and holding time (ASMA) by year



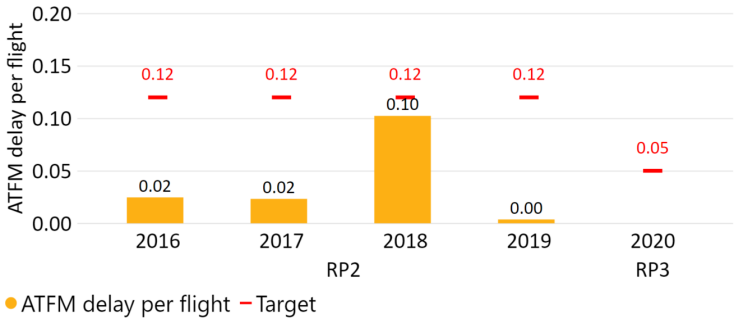

Terminal airspace users spent an additional 1.29 minutes per flight either taxiing or holding at Estonian airports.

# Estonia Factsheet



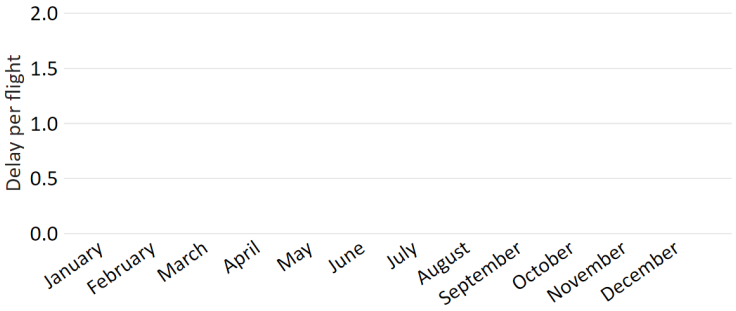
## Capacity

ATFM delay per flight (min/flight)



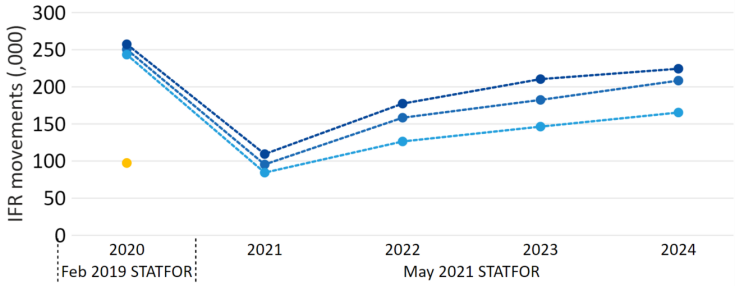

EANS recorded zero delays on average in 2020, thus performing better than the local breakdown value.

Monthly ATFM delay per flight (min/flight) in 2020



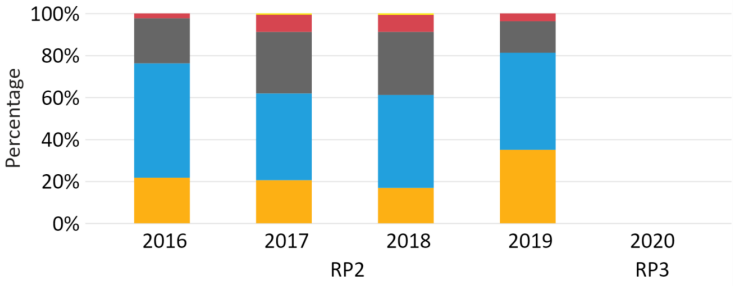

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Estonia were 62% less than the 2019 February base forecast in 2020.

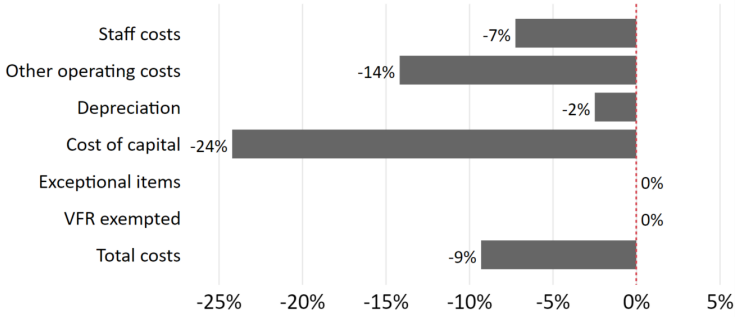
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

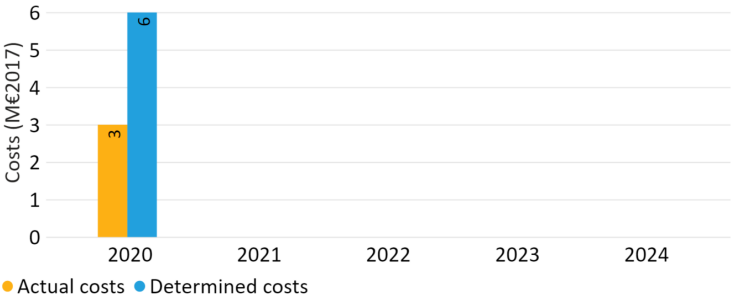
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Saving efforts in all cost categories have led to a 9% reduction in total costs.

Costs related to investments by year (M€2017)




EANS spent 2.6M€$_{2017}$ less than planned on costs related to investments in 2020 due to postponement of investments.

## Comments from the Performance Review Body:

### Safety:

- ANS Finland achieved the RP3 EoSM targets in four management objectives and must improve in only one area: safety risk management. According to its 2019 draft performance plan, ANS Finland should have achieved the RP3 targets in 2020.
- The reason for not achieving the target on safety risk management is under assessment by the Finnish Transport and Communications Agency. No circumstances have been identified as of yet that should prevent ANS Finland from reaching the target.
- Compared to the maturity achieved at the end of RP2, the EoSM performance has remained stable as ANS was only deficient in safety risk management in 2019. ANS Finland has two out of three EoSM questions to improve on safety risk management, which should be feasible during RP3.
- Finland recorded good performances with respect to safety occurrences. Lower rates of both SMIs and RIs were achieved in 2020 compared with 2019, although SMI performance was higher than the Union-wide average.
- ANS Finland should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Finland achieved a KEA performance of 0.88% compared to its reference value of 0.97% and therefore contributed positively towards achieving the Union-wide target.
- Finland offers airspace users cross-border free route airspace with NEFAB and DK-SE FABs and stated that overflying traffic was as direct as possible.
- The share of flights operating CCO/CDO at Vantaa airport remained similar in 2020 compared to 2019. However, the performance is still class leading among Union-wide regulated airports with 60% of all arrivals completing a CDO landing.
- The additional time airspace users spent taxiing or holding in terminal airspace reduced by 30% although most of this was due to improvements to airfield queuing. Since time spent holding in terminal airspace is approximately three times more fuel inefficient than taxiing, Vantaa airport should seek to improve this further going forward.

### Capacity:

- ANS Finland registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.09.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 58% below the 2019 levels in Finland.
- Finland reported no capacity issues and a 32% drop in ATCO FTE numbers compared to 2019 and also compared to 2020 planned values. Finland did not report any specific drivers behind the ATCO FTE number reduction, however, only two ATCO FTEs are reported to have stopped working in OPS.

### Cost-efficiency:

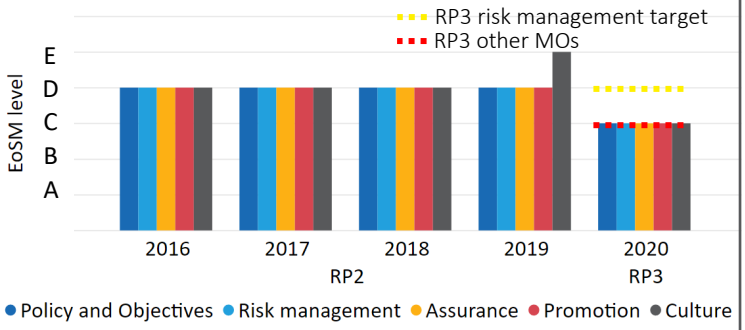
- The 2020 actual service units (462K) were 54% lower than the actual service units in 2019 (1,012K).
- Finland reduced total costs in 2020 by 4.5M€$_{2017}$ (-11%) compared to 2019 actual costs. The main driver of this reduction has been staff costs, with a decrease of 3.4M€$_{2017}$ (-15%), due for instance to temporary lay-offs and cancellation of bonuses.
- Cost of capital increased by 247K€$_{2017}$ (+45%), due to combination of a higher WACC and asset base (due to higher current assets).
- ANS Finland spent 5.9M€$_{2017}$ in 2020 related to cost of investments, 19% less than planned in the 2019 draft performance plan (7.3M€$_{2017}$). The decrease is induced by a lower asset base than planned in the 2019 draft performance plan.

# Finland Factsheet



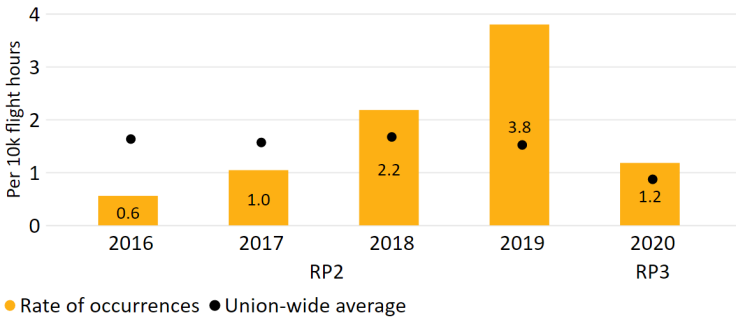
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



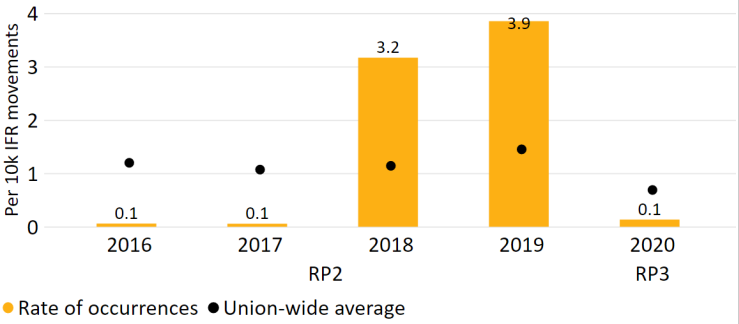

ANS Finland did not achieve the target for safety risk management but achieved the targets for all other MOs in 2020.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) per flight hour decreased in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



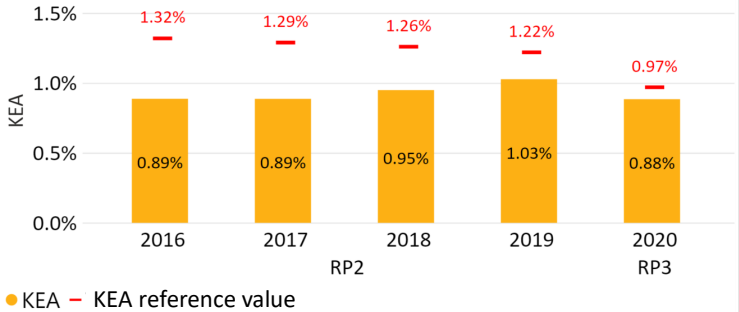

The rate of runway incursion (RI) per movement decreased in 2020 relative to 2019.

Use of automated safety data recording systems


Finland does not use automated safety data recording systems neither for RIs nor SMIs.

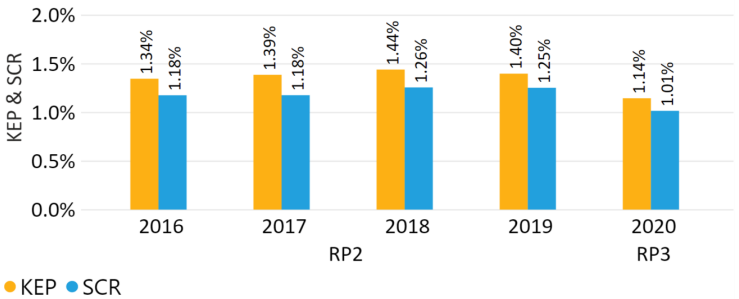
## Environment

KEA performance



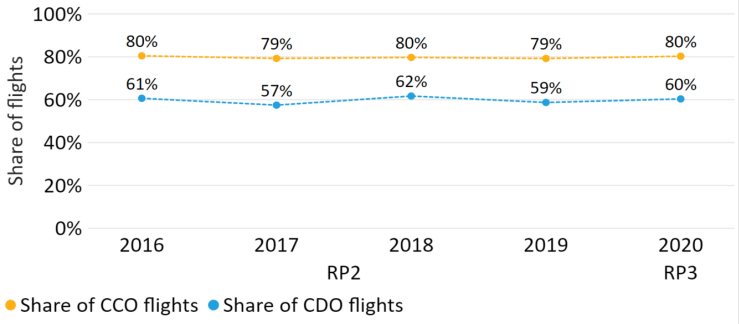

Finland achieved its 2020 KEA reference value by 0.09 percentage points, and performance improved relative to 2019.

KEP & SCR performance



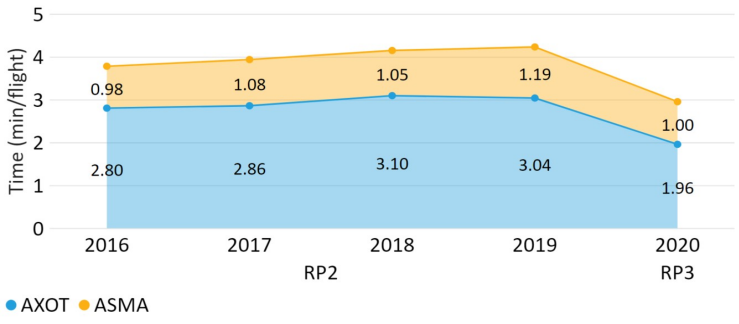

Finland made shorter constrained routes available to airspace users who planned routes that were shorter in 2020 than in 2019.

Share of CCO and CDO flights by year




Finland improved its CDO and CCO performance in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



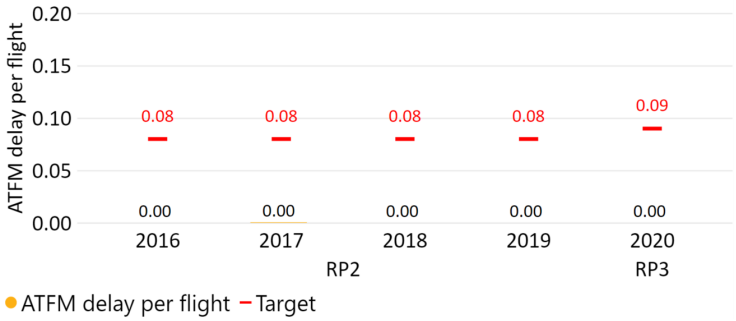

Terminal airspace users spent an additional 2.96 minutes per flight either taxiing or holding at Vantaa airport.

# Finland Factsheet



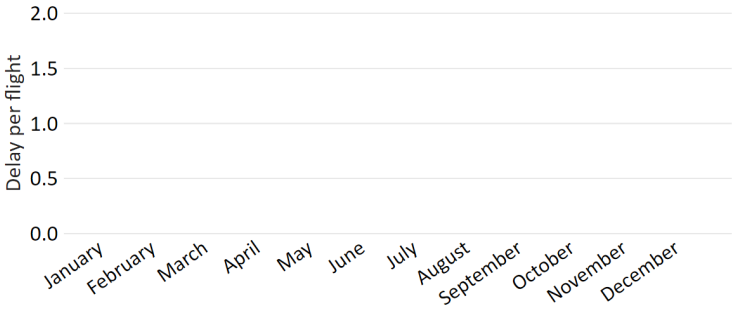
## Capacity

ATFM delay per flight (min/flight)



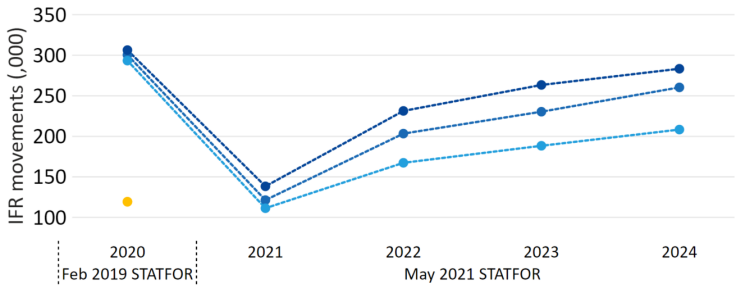

ANS Finland recorded zero delays on average in 2020, thus performing better than the local breakdown value.

Monthly ATFM delay per flight (min/flight) in 2020



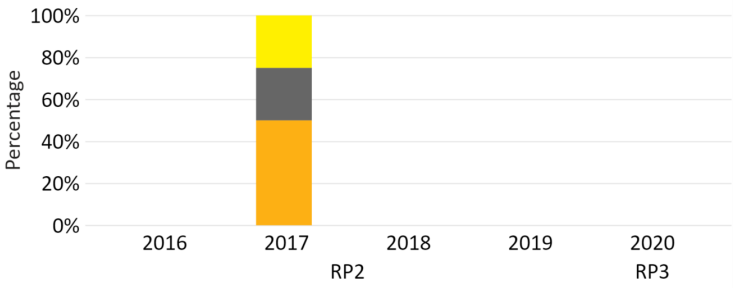

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Finland were 60% less than the 2019 February base forecast in 2020.

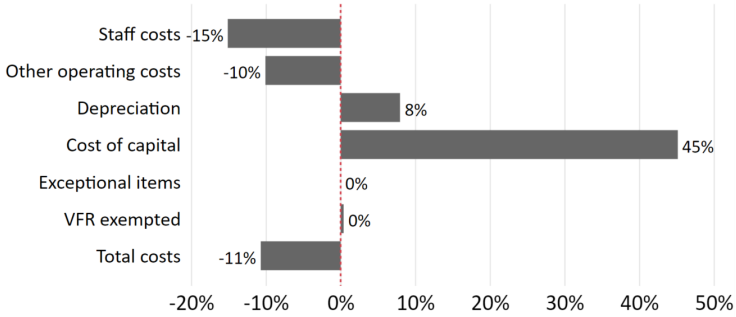
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

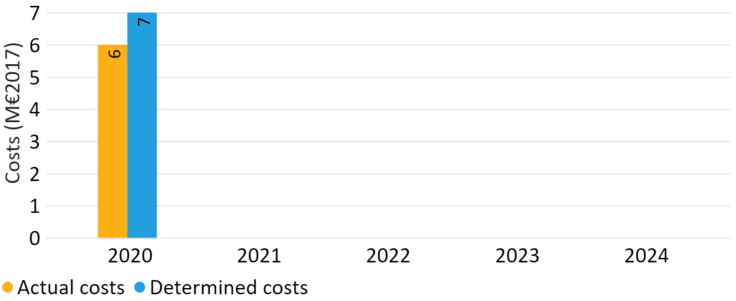
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite the increase in depreciation costs and cost of capital, total costs decreased by 11%, driven by a reduction in staff costs.

Costs related to investments by year (M€2017)




ANS Finland spent 1.4M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- DSNA achieved the EoSM RP3 targets in all management objectives except for safety culture. The performance of DSNA in 2020 is consistent with the maturity levels reached in the last year of RP2 and therefore there was no specific performance improvement.
- DSNA initiated activities to measure safety culture levels within its complex organisational structure and established an ANSP action plan, which the NSA considers appropriate and sufficient to reach targets by the end of RP3.
- The PRB acknowledges that measuring safety culture maturity in a complex organisation is challenging and DSNA only needs to improve the maturity level in one question out of 28 EoSM questions.
- The rate of occurrences were considerably lower in 2020 for both RIs and SMIs. DSNA should improve its SMS by implementing automated safety data recording systems for RIs.

### Environment:

- FABEC stated that half of the Union-wide RAD simplifications applied in 2020 were within FABEC airspace and that eNM measures were not needed. This helped improve the shortest constrained routes within FABEC, but was not sufficient in helping to reach the FAB-level KEA reference value (2.90%) in 2020.
- FABEC also mentioned that KEA is proportional to delays and stated that this had an impact on the environment performance. The PRB does not agree with this as FABEC did not experience significant delays in 2020, but France itself did generate significant delays in the first quarter of 2020.
- At national level, France achieved a KEA performance of 3.25% compared to FABEC's reference value of 2.90%.
- A specific factor that contributed negatively to France's 2020 KEA performance was that military training activities continued at a high level. However, France stated that the unpredictability of military training requirements means it cannot accurately reserve airspace and that the current performance is likely the best it is able to achieve.
- Only five out of 52 French airports that are regulated reported terminal data. The share of flights operating CDO at French airports worsened in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 40% compared to 2019.

### Capacity:

- France did not contribute positively towards the FABEC breakdown value: DSNA registered 0.61 minutes of average en route ATFM delay per flight during 2020, thus not achieving the local breakdown value of 0.43.
- Bordeaux, Marseille and Reims ACCs produced significantly fewer delays than in 2019, Brest ACC generated only 0.03 minutes less average delay and Paris ACC generated 0.17 minutes more average delay than in 2019, mostly due to industrial action.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 59% below the 2019 levels in France.
- The NSA reported that the new national pension scheme law introduced by the government was the reason DSNA staff used industrial action. The industrial action caused most of the delays in 2020.
- Based on the analysis of previous capacity profiles, the PRB estimates that France will face a capacity gap once IFR movements rise above 85% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

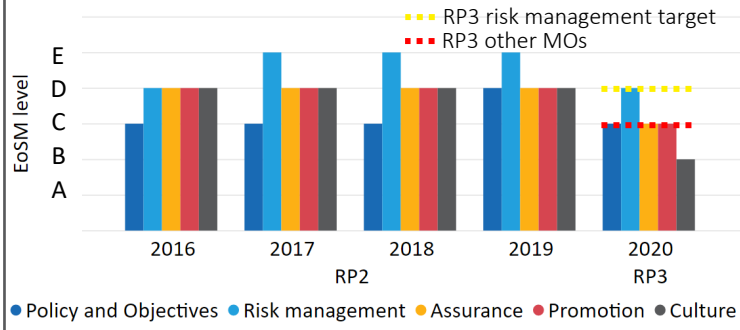
- The 2020 actual service units (8,547K) were 61% lower than the actual service units in 2019 (21,837K).
- France reduced total costs in 2020 by only 7M€$_{2017}$ (-1%) compared to 2019 actual costs.
- DSNA spent 302M€$_{2017}$ in 2020 related to costs of investments, 6% less than planned in the 2019 draft performance plan (323M€$_{2017}$). The reduction can be attributable to a lower depreciation and cost of capital than planned.

# France Factsheet



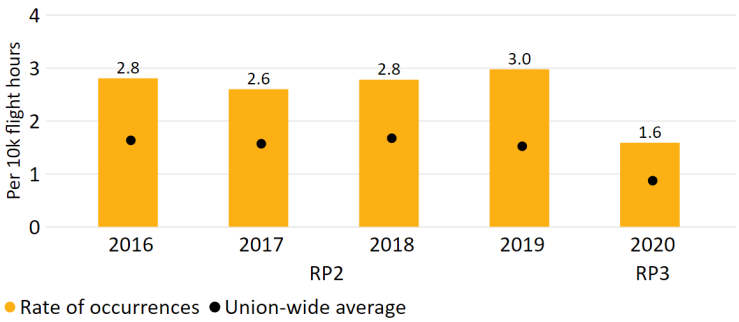
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



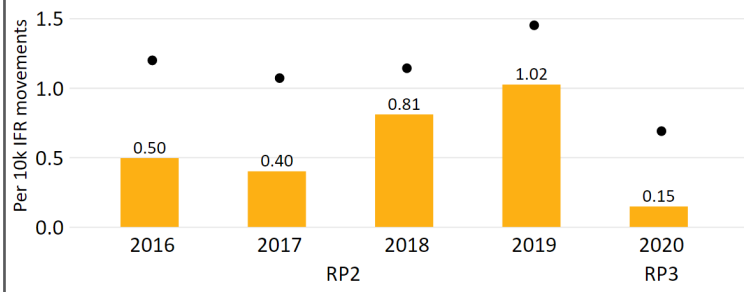

DSNA achieved all the safety management objectives target levels aside from safety culture.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) per flight hour decreased in 2020 relative to 2019 by 45%.

Rate of runway incursions (RIs) by year



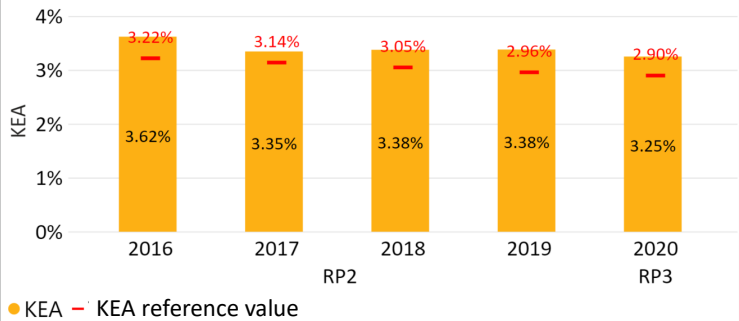

The rate of runway incursion (RI) per movement decreased in 2020 relative to 2019 by 80%.

Use of automated safety data recording systems


France uses the automated safety data recording systems for SMIs.

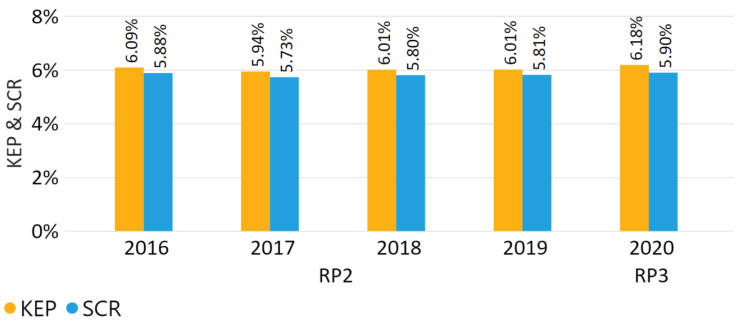
## Environment

KEA performance



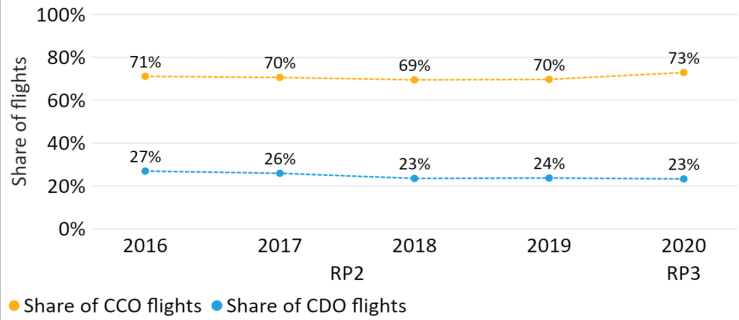

France's KEA performance improved relative to 2019 achieving 3.25%. FABEC's 2020 reference value is 2.90%.

KEP & SCR performance



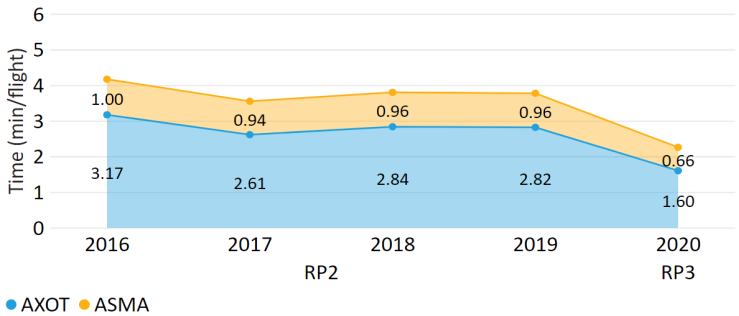

France did not make shorter constrained routes available so airspace users planned longer routes in 2020 than in 2019.

Share of CCO and CDO flights by year




France's CDO performance worsened in 2020 compared to 2019. However, it is a similar performance as achieved in the past.

Additional taxi out time (AXOT) and holding time (ASMA) by year



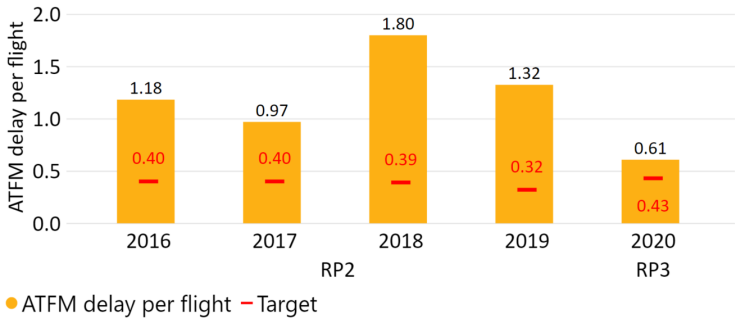

Terminal airspace users spent an additional 2.26 minutes per flight either taxiing or holding at French airports.

# France Factsheet



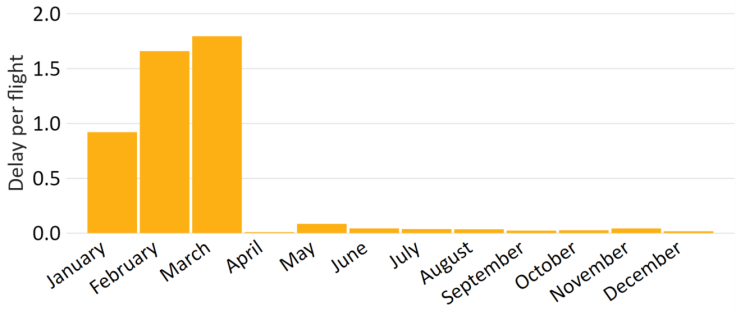
## Capacity

ATFM delay per flight (min/flight)



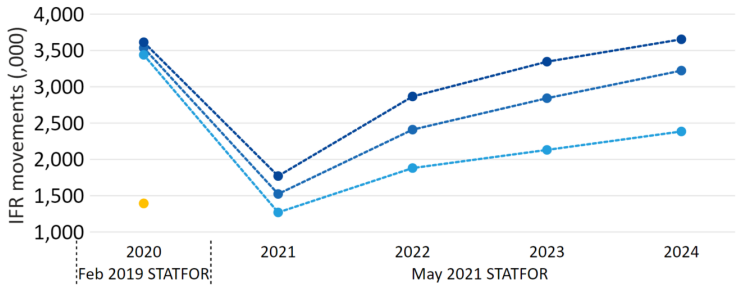

DSNA recorded 0.61 minutes of delay on average in 2020, and performed worse than the local breakdown value of 0.43

Monthly ATFM delay per flight (min/flight) in 2020



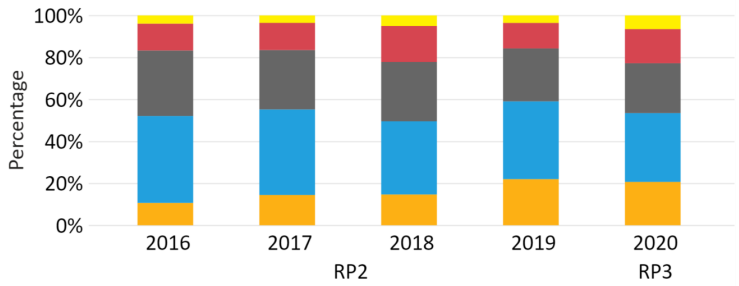

Delays were mostly driven by ATC industrial action in January, February and March.

IFR movements and forecasts by year




IFR movements in France were 61% less than the 2019 February base forecast in 2020.

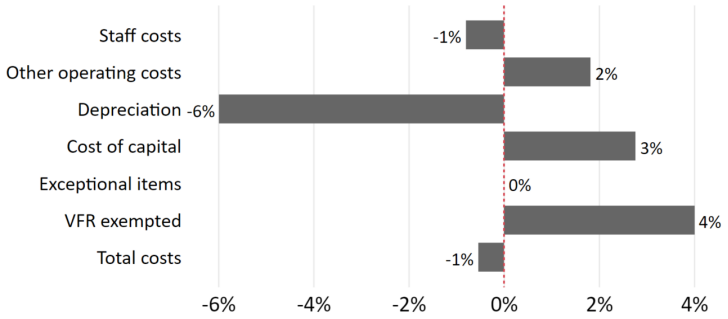
Percentage of en route delays per flight by year and time bin




In 2020, there was a shift in the distribution of delays towards delays with longer duration, i.e. longer than 30 minutes.

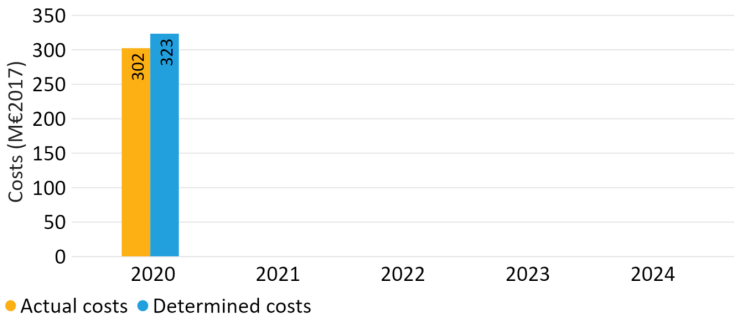
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Poor saving efforts have led to a 1% reduction in total costs.

Costs related to investments by year (M€2017)




DSNA spent 20M€$_{2017}$ less than planned on costs related to investments in 2020 due to reduced costs of existing investments.

## Comments from the Performance Review Body:

### Safety:

- DFS achieved the RP3 EoSM targets in two out of five management objectives. DFS still needs to improve safety risk management, safety assurance and safety promotion.
- The EoSM performance is lower than expected based on the maturity achieved at the end of RP2 when DFS exceeded the target on most management objectives. This may reflect a conservative approach used by DFS when assessing maturity using the new EoSM definition in RP3.
- Since DFS needs to improve maturity by one level on five EoSM questions (out of 28) to achieve the RP3 targets, the PRB considers this feasible. However, the NSA did not provide any actions or correcting measures that are being considered/implemented to improve the EoSM performance. The PRB encourages the NSA to establish these as soon as possible.
- Germany recorded lower rates of both SMIs and RIs in 2020 compared with 2019.
- DFS should improve its SMS by implementing automated safety data recording systems.

### Environment:

- FABEC stated that half of the Union-wide RAD simplifications applied in 2020 were within FABEC airspace and that eNM measures were not needed. This helped improve the shortest constrained routes within FABEC, but was not sufficient in helping to reach the FAB-level KEA reference value (2.90%) in 2020.
- At a national level, Germany achieved a KEA performance of 2.37% and the FABEC reference value is 2.90% in 2020.
- Karlsruhe Upper Area Control Centre and MUAC, in cooperation with other German ACCs, seized the opportunity of the significant fall in traffic to shorten routes and improve flight profiles in Europe's busiest airspace. This had a distinct impact that led to shorter constrained routes and improved performance relative to 2019.
- The share of flights operating CCO/CDO at German airports improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 36% compared to 2019.

### Capacity:

- DFS recorded 0.18 minutes of en route ATFM delay per flight in 2020 and performed better than its local breakdown value of 0.52.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 56% below the 2019 levels in Germany. When analysing the first two months of 2020, there were slightly less IFR movements than in 2019 (-2%) but delays reduced more notably (-41%).
- Germany reported some capacity issues in the early months of 2020 due to the lack of qualified ATCOs. Germany reported a decrease in the number of ATCO FTEs by 4%, 1%, 1% and 2% in Bremen, Karlsruhe, Langen and Münich ACCs respectively.
- Based on the analysis of previous capacity profiles, the PRB estimates Germany will face a capacity gap once IFR movements rise above 80% of 2019 levels. The PRB recommends that capacity improvement measures should be implemented.

### Cost-efficiency:

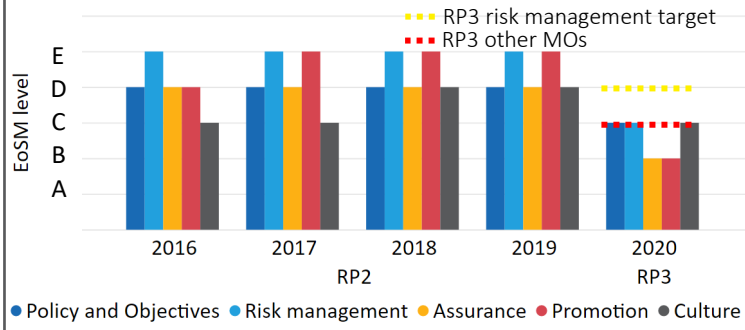
- The 2020 actual service units (6,792K) were 55% lower than the actual service units in 2019 (15,155K).
- Germany reduced total costs in 2020 by only 21M€$_{2017}$ (-2%) compared to 2019 actual costs. The reduction was mainly driven by a 33M€$_{2017}$ lower cost of capital (-58%), resulting from a lower WACC due to a change in capital structure.
- Germany increased other operating costs by 18M€$_{2017}$ (+15%) due to "many unspecified individual measures".
- DFS spent 87M€$_{2017}$ in 2020 related to costs of investments, 3% less than planned in the 2019 draft performance plan (90M€$_{2017}$).The reduction is mainly driven by a decrease in costs related to existing investments. Moreover, most of new major investments (which were planned for later years of the reference period) have been either postponed or the planning has been revised in order to achieve long term costs savings in response to COVID-19.

# Germany Factsheet



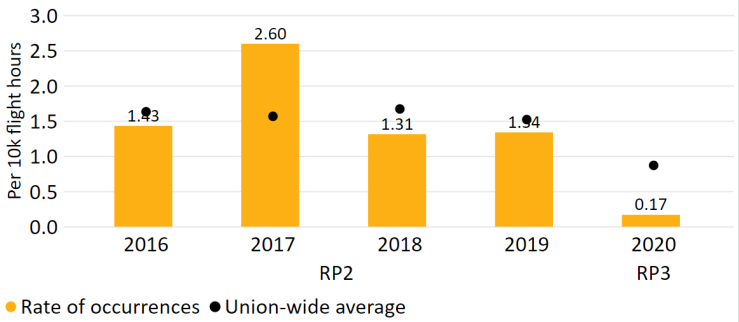
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



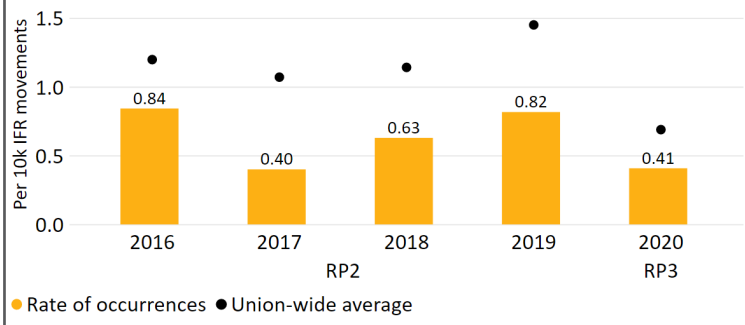

DFS achieved the targets for safety culture and safety policy and objectives but not the other MOs in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMIs per flight hour decreased in 2020 relative to 2019. The rate is below the Union-wide average.

Rate of runway incursions (RIs) by year



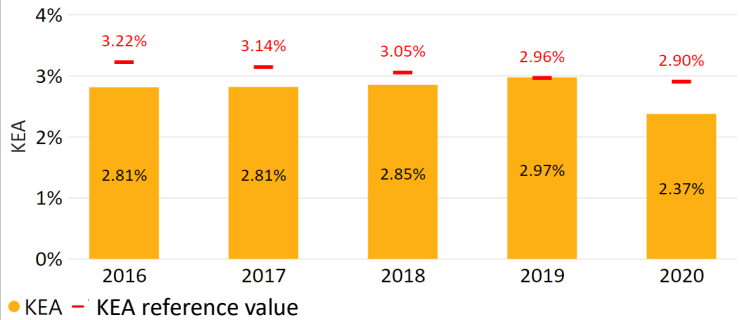

The rate of runway incursion (RI) per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average.

Use of automated safety data recording systems


Germany does not use automated safety data recording systems neither for RIs nor SMIs.

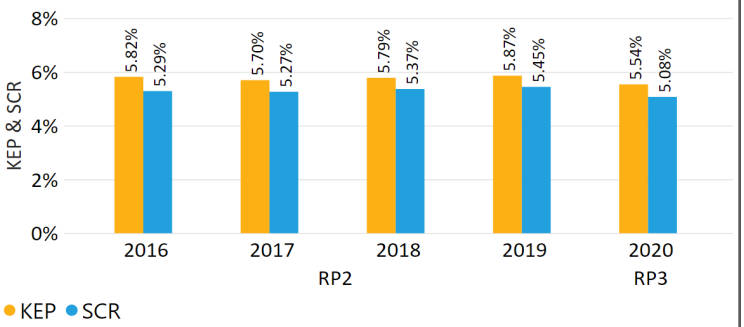
## Environment

KEA performance



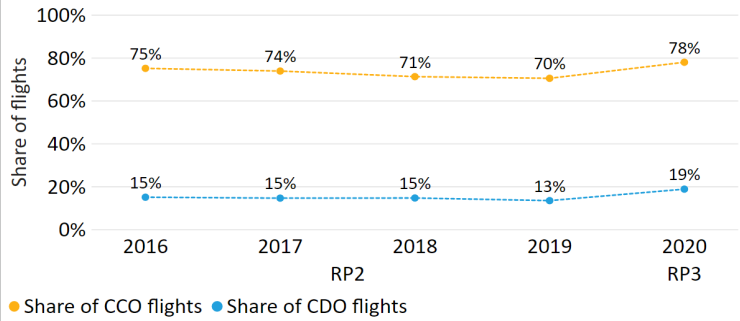

Germany's KEA performance improved relative to 2019 achieving 2.37% compared to FABEC's reference value of 2.90%.

KEP & SCR performance



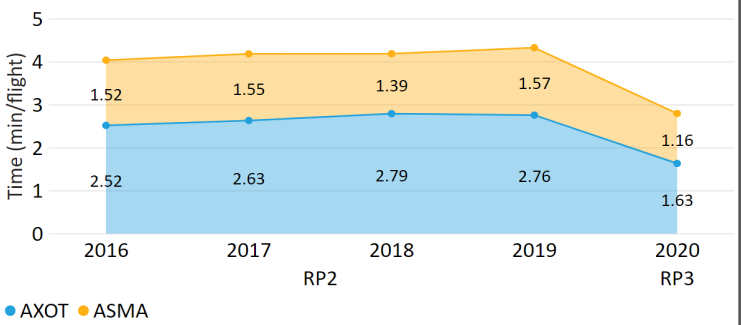

Germany made shorter constrained routes available and airspace users planned to use these shorter routes in 2020.

Share of CCO and CDO flights by year




Germany's CCO/CDO performance improved in 2020 compared to 2019. However, CDO performance is still low.

Additional taxi out time (AXOT) and holding time (ASMA) by year



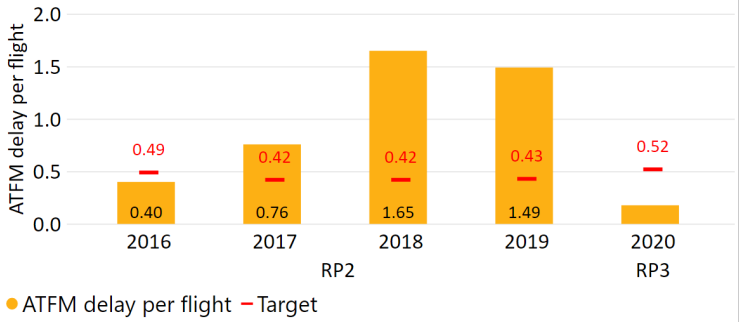

Terminal airspace users spent an additional 2.79 minutes per flight either taxiing or holding at German airports.

# Germany Factsheet



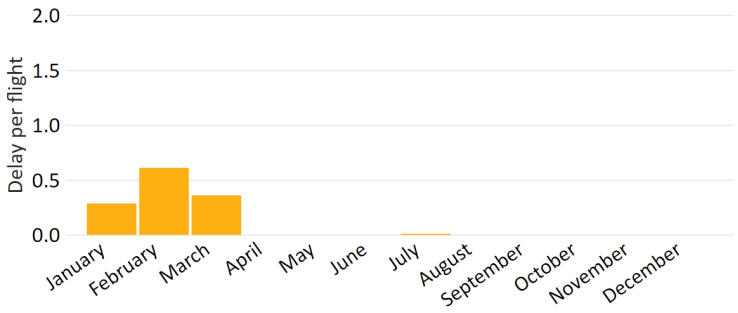
## Capacity

ATFM delay per flight (min/flight)



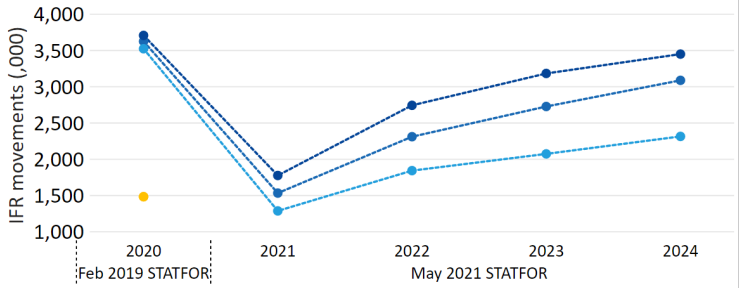

DFS recorded 0.18 minutes of delay on average in 2020 and performed better than the local breakdown value of 0.52.

Monthly ATFM delay per flight (min/flight) in 2020



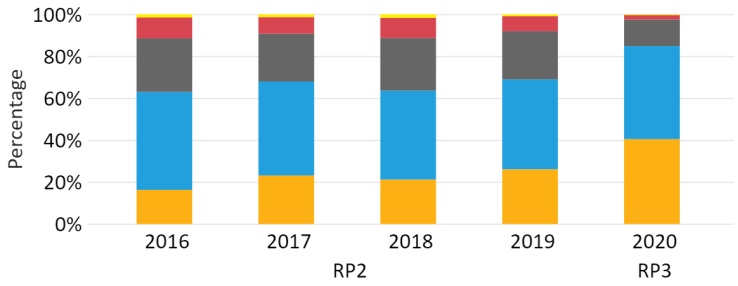

Delays in the first three months were primarily caused by ATC capacity and ATC staffing.

IFR movements and forecasts by year




IFR movements in Germany were 59% less than the 2019 February base forecast in 2020.

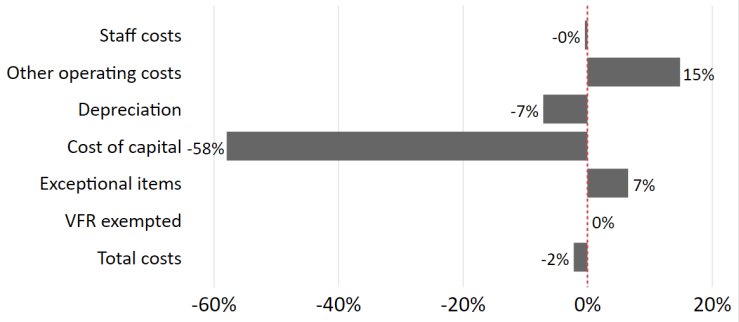
Percentage of en route delays per flight by year and time bin




The percentage of flights with delays less than 5 minutes have increased.

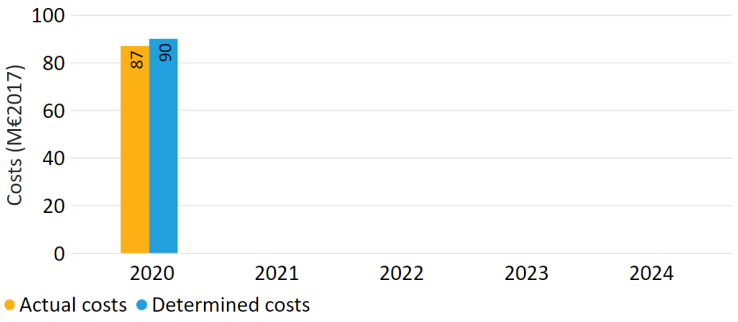
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Poor saving efforts have led to a 2% reduction in total costs.

Costs related to investments by year (M€2017)




DFS spent 2.9M€$_{2017}$ less than planned on costs related to investments in 2020 due to reduced costs of existing investments.

## Comments from the Performance Review Body:

### Safety:

- HCAA achieved the RP3 EoSM target for safety promotion in 2020, but remained below the targets on the other four management objectives.
- Specific measures to improve maturity during 2020 were identified but were suspended due to the pandemic situation. Significant initiatives are still planned both by the NSA and the ANSP to restructure and improve the safety function in the organisations, which the PRB will closely monitor in 2021.
- HCAA must improve maturity by one level in five out of 28 EoSM questions and by two levels in one EoSM question to achieve its RP3 targets.
- The rates of occurrences are below Union-wide level for both RIs and SMIs, but the rate of SMI increased in 2020.
- HCAA should improve its SMS by implementing automated safety data recording systems for occurrences.

### Environment:

- Greece achieved a KEA performance of 2.51% compared to its reference value of 1.94% and therefore did not contribute positively towards achieving the Union-wide target.
- Greece stated that the reduction in overflights, which normally have a better KEA, affected their national results. The PRB does not consider this justification sufficient since other Member States still achieved their targets and were affected by reduced overflights like Greece was but still managed to achieve their reference values.
- Given the fall in traffic, Greece stated that area reservations by the military increased, which affected KEA. Since Greece did not report the hours of area reservation vs. actual usage, it is not possible to say whether this was the case. However, Greece should improve its flexible use of airspace as it is an anomalous result to not improve KEA performance given the drop in traffic.
- The share of flights operating CCO/CDO improved in 2020. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 34% compared to 2019.

### Capacity:

- HCAA registered 0.02 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.34.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Greece.
- Greece reported that the number of ATCO FTEs decreased by 9% in 2020 compared to 2019 which represents a 32% deficit when compared to the 2020 planned values. Due to amended recruitment plans, only two ATCO FTEs started working in OPS in 2020 compared to the initially planned 59.
- Based on the analysis of previous capacity profiles, the PRB estimates Greece will face a capacity gap once IFR movements rise above 92% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

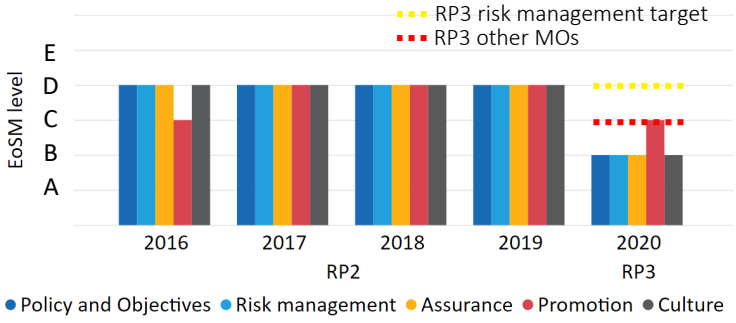
- The 2020 actual service units (2,756K) were 54% lower than the actual service units in 2019 (6,004K).
- Greece reduced total costs in 2020 by 17M€$_{2017}$ (-12%) compared to 2019 actual costs. The reduction in total costs is primarily driven by a decrease in staff costs of 21M€$_{2017}$ (-19%), resulting from changes in the ATCO recruitment plan and reduced traffic dependent staff costs.
- NSA SAR costs are included for the first time and mainly responsible for the increase in other operating costs and cost of capital of 1.9M€$_{2017}$ (+7%) and 2.4M€$_{2017}$ (+184%) respectively.
- HCAA spent 1.7M€$_{2017}$ in 2020 related to costs of investments, 38% less than planned in the 2019 draft performance plan (2.8M€$_{2017}$). The reduction is due to a lower cost of capital and depreciation resulting from a lower asset base than originally planned.

# Greece Factsheet



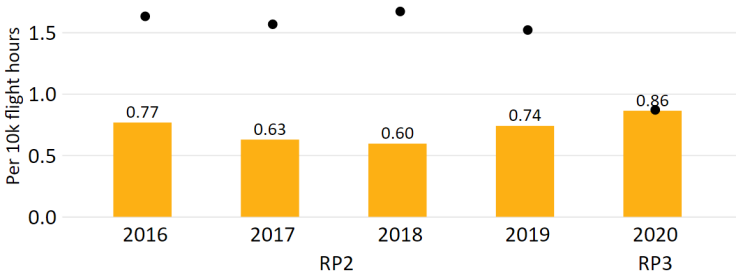
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



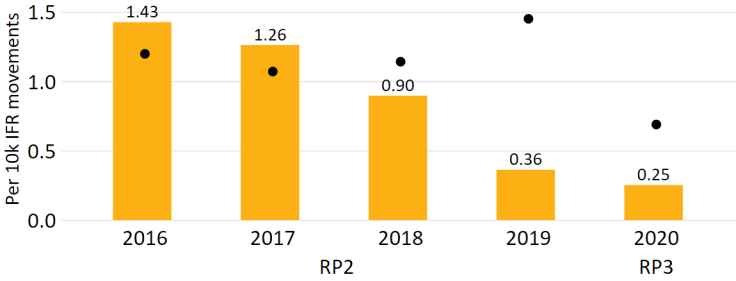

HANSP achieved the target for safety promotion, but it did not achieve the RP3 targets for other management objectives in 2020.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) per flight hour marginally increased in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



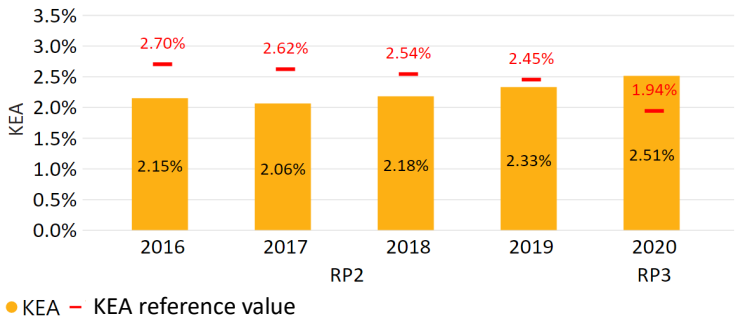

The rate of runway incursion (RI) per movement decreased in 2020 relative to 2019.

Use of automated safety data recording systems


Greece does not use automated safety data recording systems neither for RIs nor SMIs.

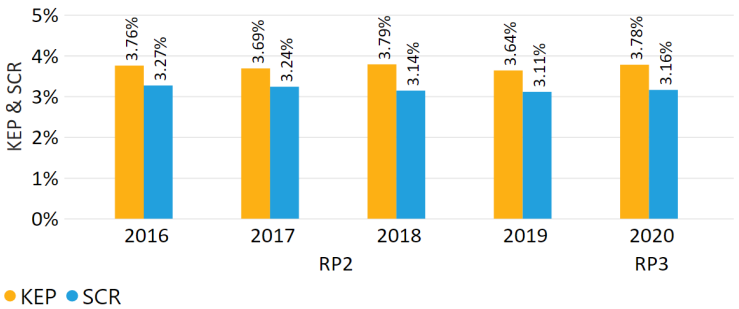
## Environment

KEA performance



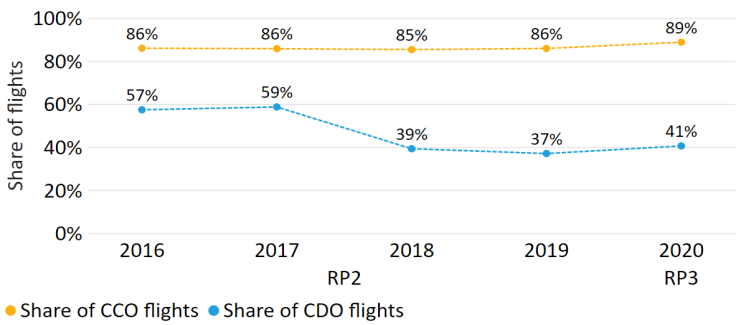

Greece did not achieve its 2020 KEA reference value by 0.57 percentage points, and performance worsened relative to 2019.

KEP & SCR performance



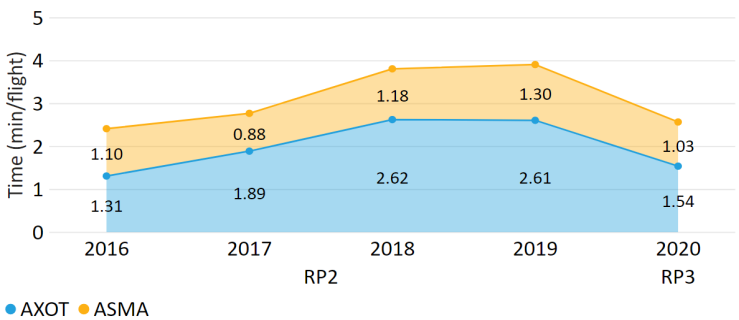

Greece did not make shorter constrained routes available so airspace users planned longer routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Greece's CDO/CCO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



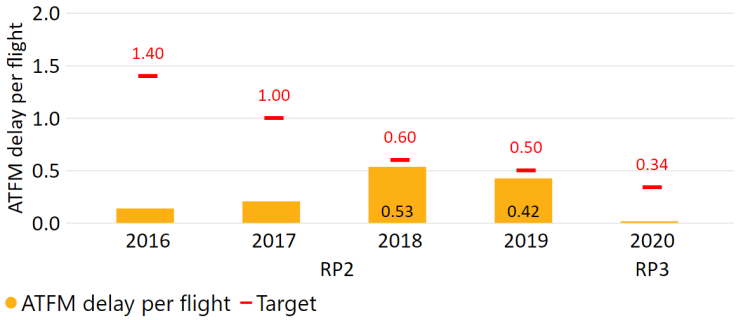

Terminal airspace users spent an additional 2.57 minutes per flight either taxiing or holding at Athens airport.

# Greece Factsheet



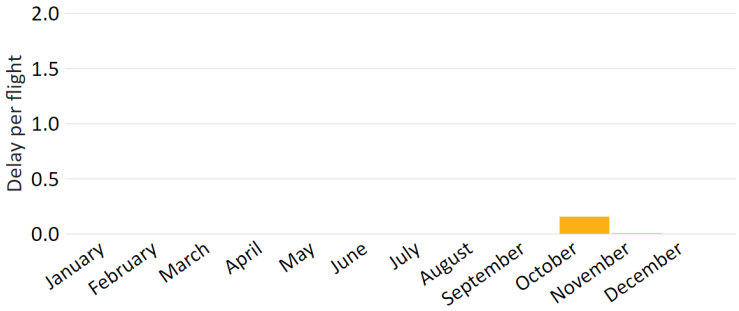
## Capacity

ATFM delay per flight (min/flight)



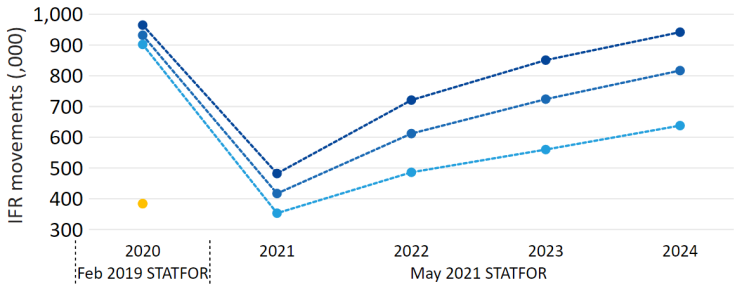

HCAA recorded negligible delays in 2020 and performed better than the local breakdown value of 0.34.

Monthly ATFM delay per flight (min/flight) in 2020



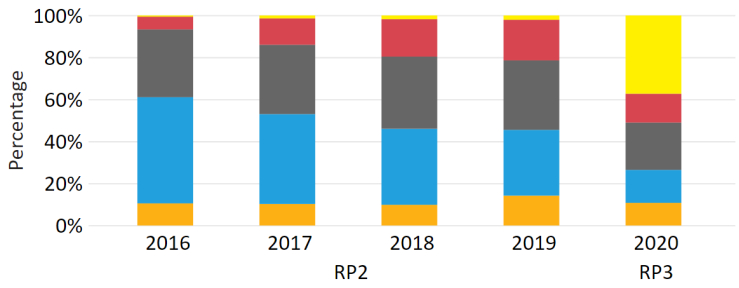

A limited amount of delays were generated during October due to ATC related technical disruptions.

IFR movements and forecasts by year




IFR movements in Greece were 59% less than the 2019 February base forecast in 2020.

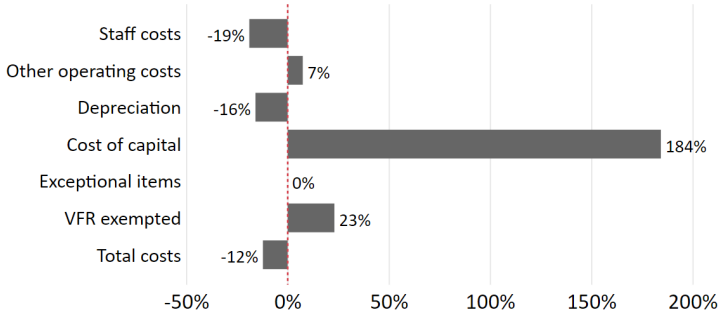
Percentage of en route delays per flight by year and time bin




The percentage of flights with delays longer than 60 minutes increased by 35 percentage points compared to 2019.

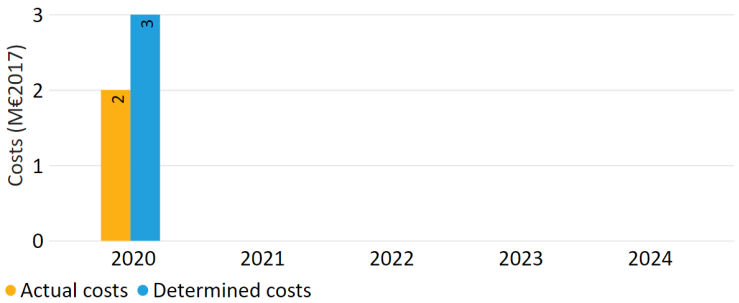
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite an increase in other operating costs and cost of capital, total costs decreased by 12% due to staff cost containments.

Costs related to investments by year (M€2017)




HCAA spent 1M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- HungaroControl has already achieved its RP3 EoSM target levels in all management objectives. The achieved maturity exceeds the maturity Hungary planned to achieve in 2020 in its 2019 draft performance plan in four out of five safety objectives.
- The PRB commends that compared with the maturity level reached during RP2, HungaroControl has continued to improve the maturity of its safety management during the first year of RP3 and now exceeds the RP3 targets.
- Hungary recorded a good performance with respect to safety occurrences with lower rates of SMIs with respect to 2019 and no occurrences of RIs in 2020. Both rates are below the Union-wide averages.
- HungaroControl should improve its SMS by implementing automated safety data recording systems for RIs.

### Environment:

- Hungary achieved a KEA performance of 1.51% compared to its reference value of 1.45% and therefore did not contribute positively towards achieving the Union-wide target.
- Hungary did not explain why its performance fell short of 1.45%. Instead it was stated that removed RAD restrictions and improved cross-border free route airspace should have helped achieve the targets.
- Given that cross-border free route operation within SEE FRA is being expanded, Hungary has stated it plans to take no further remedial measures. The PRB believes that as the shortest constrained route in 2020 was higher than in 2018, Hungary must analyse why a less efficient airspace was made available in 2020 during low traffic and reconsider whether any remedial measures should be taken.
- The share of flights operating CCO/CDO at Budapest airport improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 38% compared to 2019.

### Capacity:

- HungaroControl registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.14.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Hungary.
- Hungary reported no capacity issues and a 4% decrease in the number of ATCO FTEs in 2020 compared to 2019. This represents an 8% decrease compared to the planned number of ATCO FTEs in 2020. The decrease was driven by the fact that training of ACC controllers could not be completed due to the lack of traffic in 2020. Hungary plans to complete these trainings in 2021.
- Based on the analysis of previous capacity profiles, the PRB estimates Hungary will face a capacity gap once IFR movements rise above 77% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

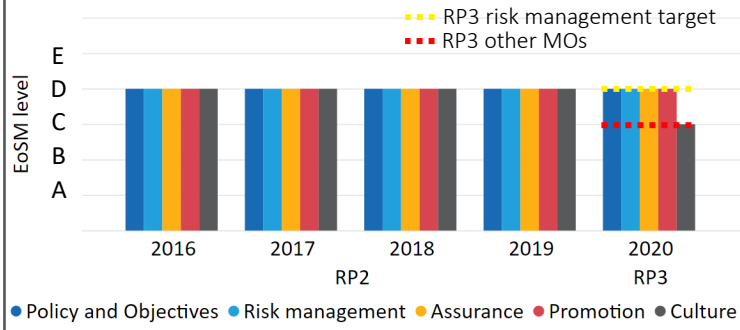
- The 2020 actual service units (1,423K) were 54% lower than the actual service units in 2019 (3,124K).
- Hungary reduced total costs in 2020 by 9.4M€$_{2017}$ (-10%) compared to 2019 actual costs. The reduction is driven by a decrease in staff costs of 4.5M€$_{2017}$ (-9%) due to reduced benefits related to performance and a lower social contribution tax rate. Other operating costs also decreased notably of 4M€$_{2017}$ (-12%), due to postponement of ATCO trainings and less travels.
- Hungary decreased all cost categories except for depreciation. The increase of 1M€$_{2017}$ (+10%) in depreciation costs is explained by the NSA by changes in useful life, price increases due to exchange rate effect, upgrade of Matias ATM system and new IT devices.
- HungaroControl spent 24M€$_{2017}$ in 2020 related to costs of investments, 18% less than planned in the 2019 draft performance plan (29M€$_{2017}$). The reduction is explained by a lower cost of capital resulting from a lower asset base and WACC than originally planned.

# Hungary Factsheet



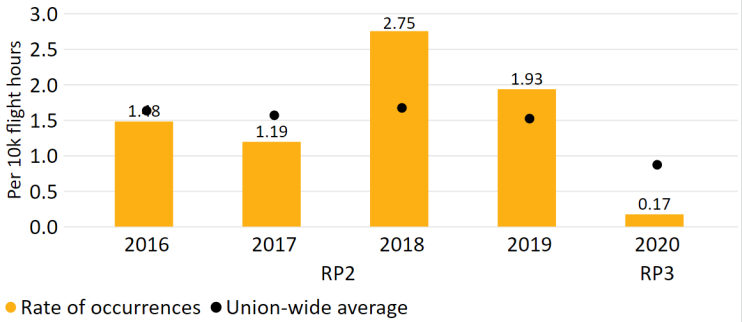
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



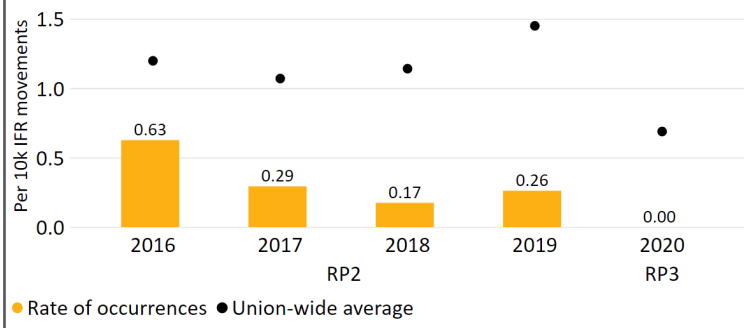

HungaroControl achieved the EoSM target levels in 2020.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) decreased in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



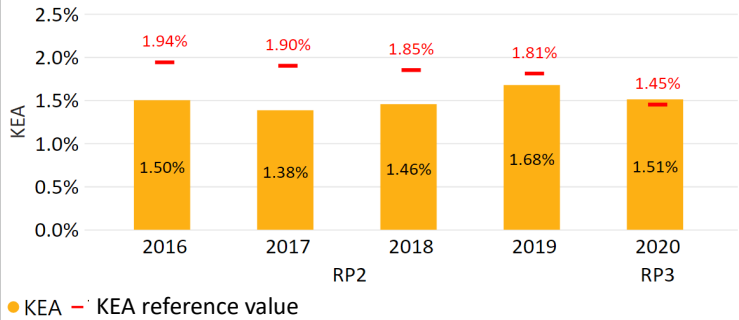

No runway incursions (RIs) were reported in Hungary in 2020.

Use of automated safety data recording systems


Hungary uses the automated safety data recording systems for SMIs.

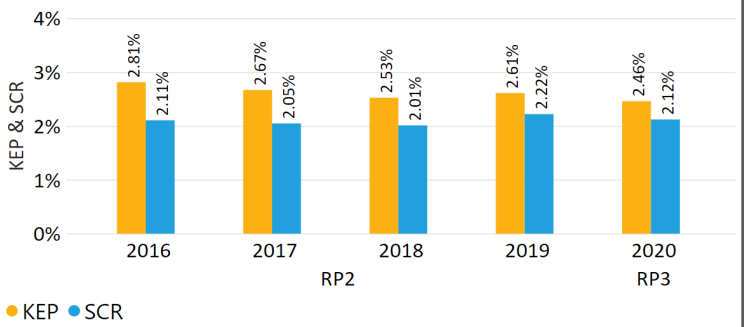
## Environment

KEA performance



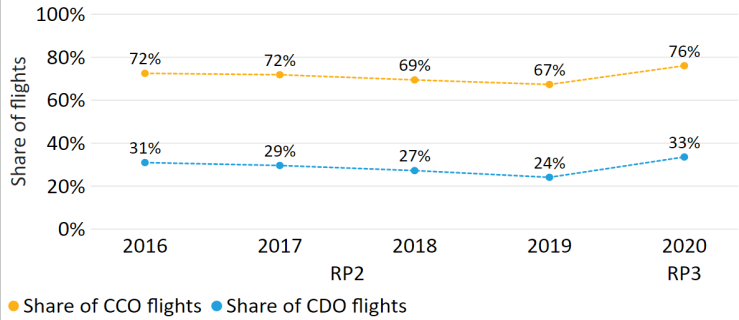

Hungary did not achieve its 2020 KEA reference value by 0.06 percentage points, but performance improved relative to 2019.

KEP & SCR performance



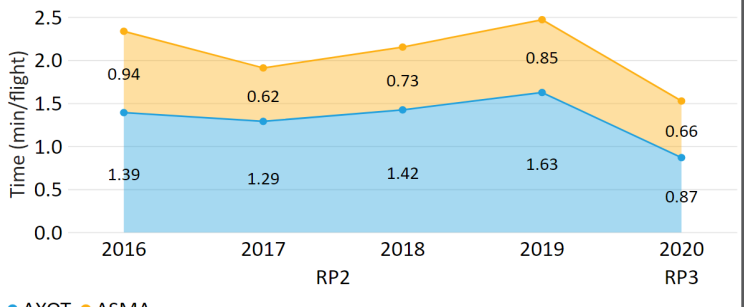

Hungary made shorter constrained routes available and enabled airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Hungary's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year

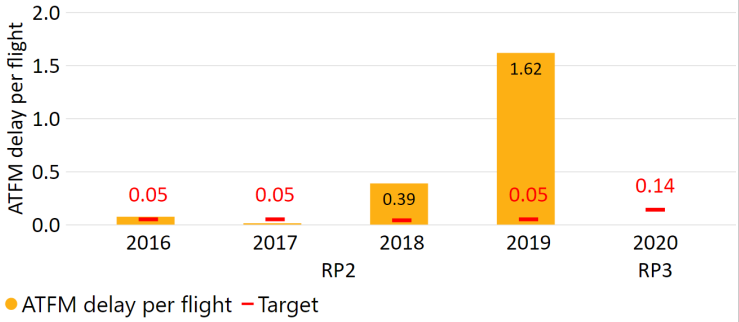



Terminal airspace users spent an additional 1.53 minutes per flight either taxiing or holding at Budapest airport.

# Hungary Factsheet

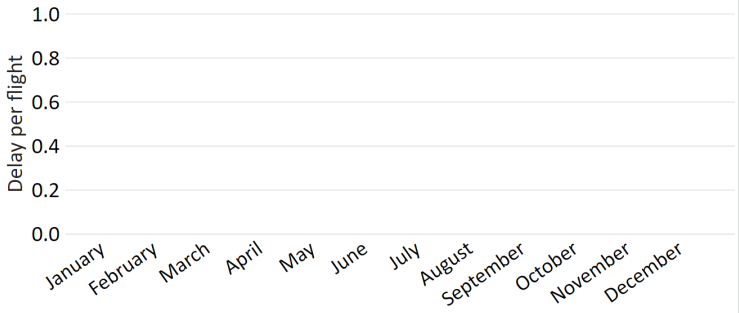
## Capacity

ATFM delay per flight (min/flight)



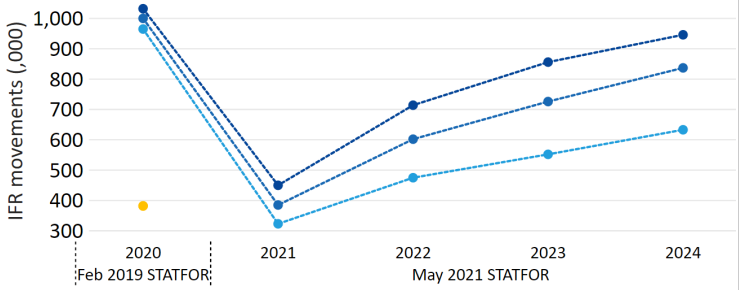

HungaroControl recorded zero delay on average in 2020 and performed better than the local breakdown value of 0.14.

Monthly ATFM delay per flight (min/flight) in 2020



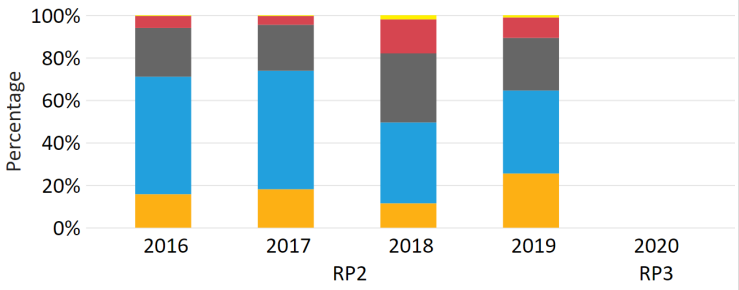

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Hungary were 62% less than the 2019 February base forecast in 2020.

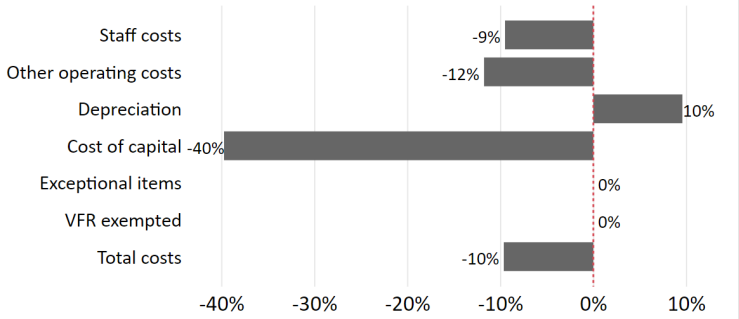
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

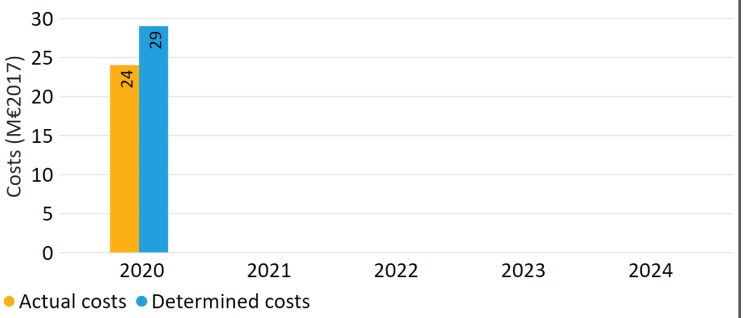
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite an increase in depreciation costs, total costs decreased by 10% due to containments in staff and other operating costs.

Costs related to investments by year (M€2017)




HungaroControl spent 5.4M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- IAA ANSP achieved the RP3 EoSM targets in four out of five management objectives. It missed its target for safety risk management despite planning to achieve the target in 2020.
- The PRB notes that IAA ANSP only need to improve the maturity level in one out of 28 EoSM questions related to the safety risk management objective to achieve its target. Ensuring compliance with Commission Implementing Regulation (EU) 2017/373 should provide this improvement.
- Ireland recorded stable performance with respect to safety occurrences with marginally lower rates of SMIs and RIs in 2020 compared with 2019. Both rates of occurrences are below the Union-wide average rates.
- IAA ANSP should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Ireland achieved a KEA performance of 1.11% compared to its reference value of 1.56% and therefore contributed positively towards achieving the Union-wide target.
- The PRB is looking forward to reviewing future performance as Ireland is planning to support the introduction of free route airspace in the UK and review its airspace structure — both initiatives should realise more environmental benefits.
- Only two out of three Irish airports that are regulated reported terminal data.
- The share of flights operating CCO/CDO at Irish airports improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 63% compared to 2019.
- Ireland should seek to improve its high level of CDO performance during its plan to review approach procedures to support vertical flight efficiency.

### Capacity:

- IAA ANSP registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.07.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 60% below the 2019 levels in Ireland.
- Ireland reported no capacity issues and a 3% decrease in ATCO FTE numbers in 2020 compared to 2019 for both Dublin and Shannon ACCs. This decrease was driven by a 4.5-day working week between July-October 2020 and job sharing measures between the two ACCs as part of cost containment measures. Training classes in 2020 were also cancelled.

### Cost-efficiency:

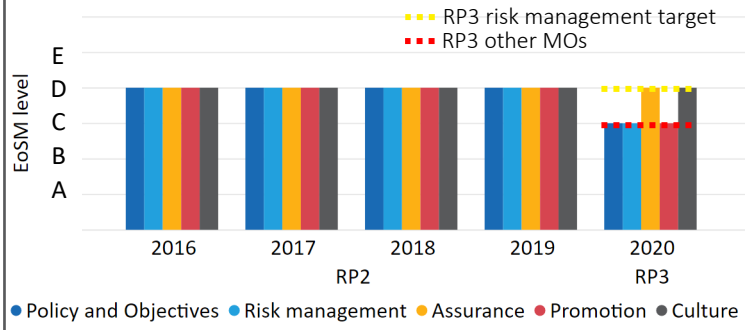
- The 2020 actual service units (1,988K) were 57% lower than the actual service units in 2019 (4,607K).
- In 2020 Ireland reduced total costs by 8.4M€$_{2017}$ (-7%) compared to 2019 actual costs. The main driver of the reduction is the 4M€$_{2017}$ lower staff costs (-6%), due to the reduction of the working week, employment wage subsidy scheme and the reduction of overtime.
- The cost of capital decreased by 2.5M€$_{2017}$(-58%), due to a lower WACC.
- IAA ANSP spent 12M€$_{2017}$ in 2020 related to costs of investments, 53% less than planned in the 2019 draft performance plan (25M€$_{2017}$). The decrease is due to a lower WACC and a lower asset base.

# Ireland Factsheet



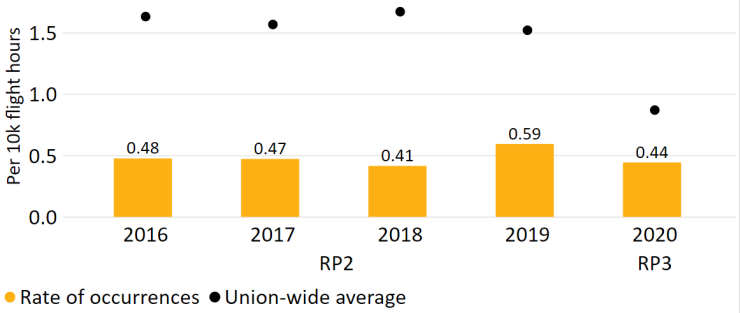
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



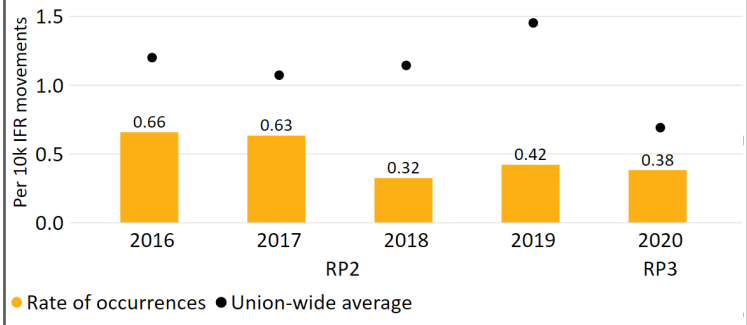

IAA ANSP did not achieve the EoSM target for safety risk management but achieved the targets for all other MOs.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) decreased in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



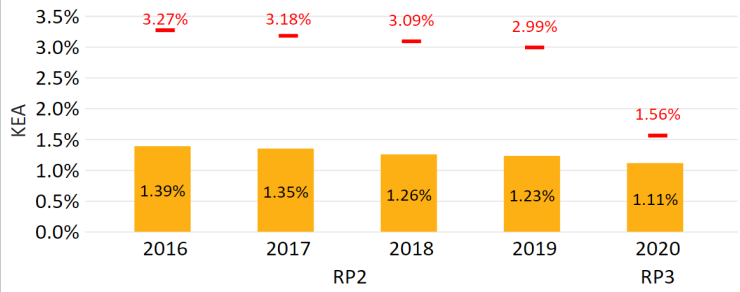

The rate of runway incursions (RI) decreased in 2020 relative to 2019.

Use of automated safety data recording systems


Ireland does not use automated safety data recording systems neither for RIs nor SMIs.

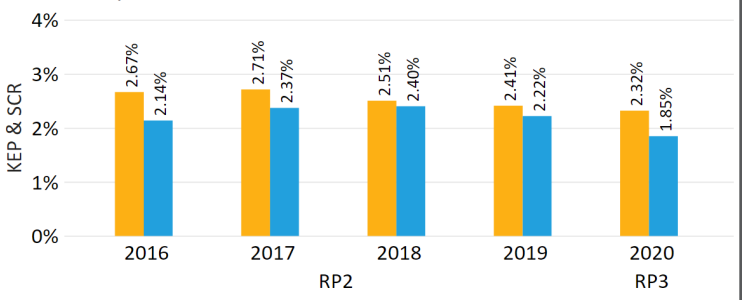
## Environment

KEA performance



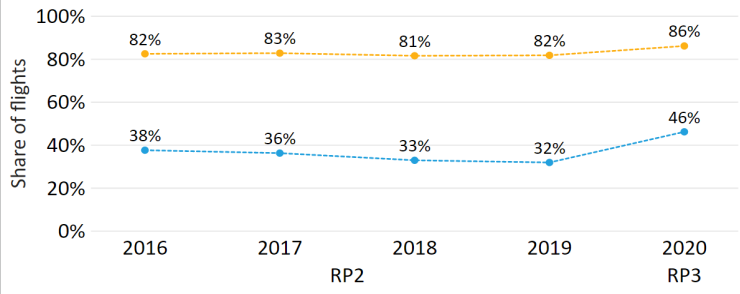

Ireland achieved its 2020 KEA reference value by 0.45 percentage points, and performance improved relative to 2019.

KEP & SCR performance



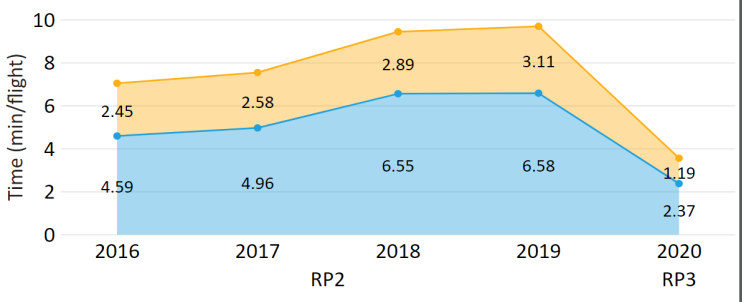

Ireland made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Ireland's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



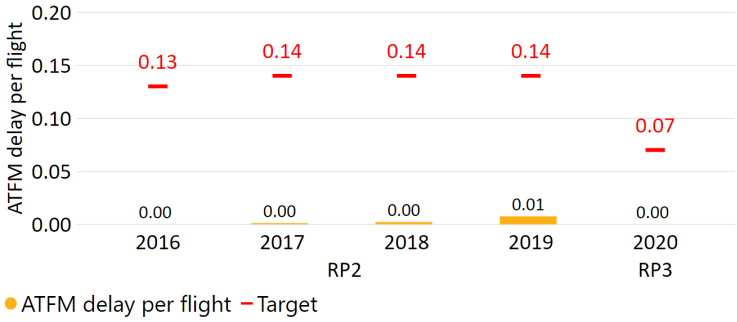

Terminal airspace users spent an additional 3.56 minutes per flight either taxiing or holding at Irish airports.

# Ireland Factsheet



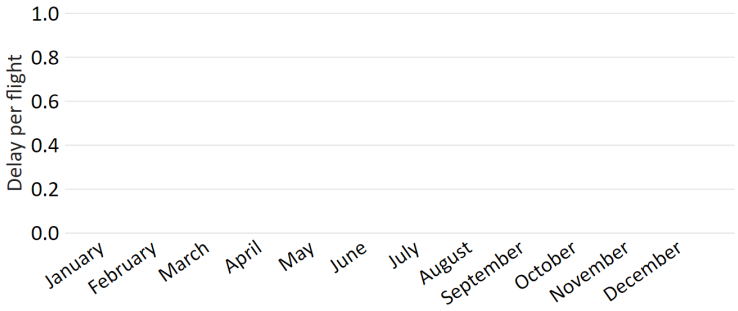
## Capacity

ATFM delay per flight (min/flight)



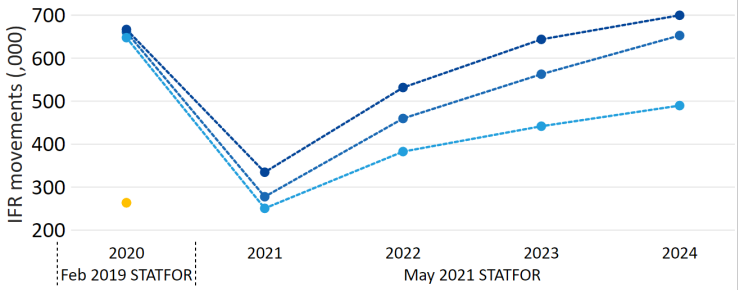

IAA ANSP recorded zero delays on average in 2020 and performed better than the local breakdown value of 0.07

Monthly ATFM delay per flight (min/flight) in 2020



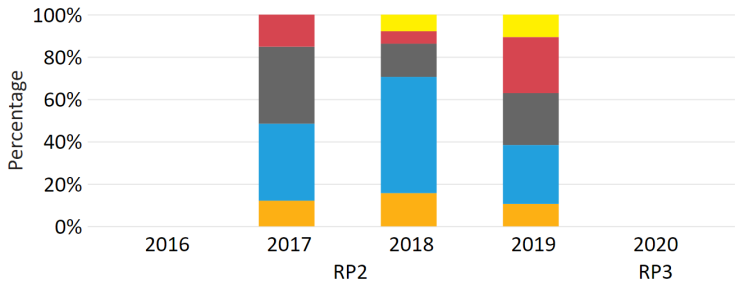

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Ireland were 66% less than the 2019 February base forecast in 2020.

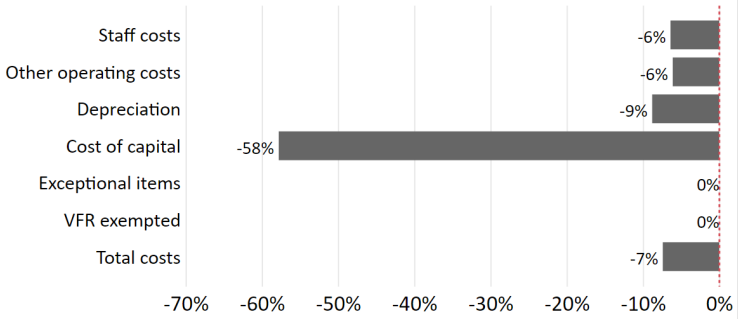
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

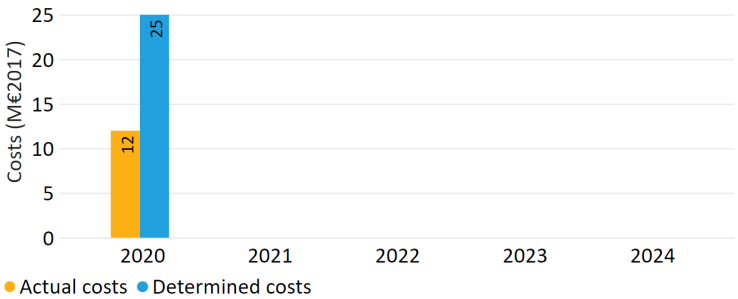
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Saving efforts in all cost categories have led to a 7% reduction in total costs.

Costs related to investments by year (M€2017)




IAA ANSP spent 13.4M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- ENAV achieved the RP3 EoSM targets in 2020 and exceeded the target maturity for the safety assurance objective. The achieved levels are consistent with what was planned in the draft 2019 performance plan.
- Italy recorded better performance with respect to safety occurrences compared to 2019 with lower rates of SMIs and RIs in 2020 compared to 2019.
- ENAV should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Italy achieved a KEA performance of 2.85% compared to its reference value of 2.83% and therefore did not contribute positively towards achieving the Union-wide target.
- Italy did not provide further explanations of its performance within the monitoring report, which is disappointing as the PRB expects the NSA to provide complete monitoring reports.
- While the share of flights operating CCO/CDO at Italian airports improved in 2020 compared to 2019, the CDO performance was below the level achieved in 2016, which suggests there was not a specific focus to improve this metric.
- The additional time airspace users spent taxiing or holding in terminal airspace reduced by 53% compared to 2019.

### Capacity:

- ENAV registered 0.01 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.25.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 60% below the 2019 levels in Italy.
- Italy reported no capacity issues and did not submit any data regarding ATCO FTE numbers.

### Cost-efficiency:

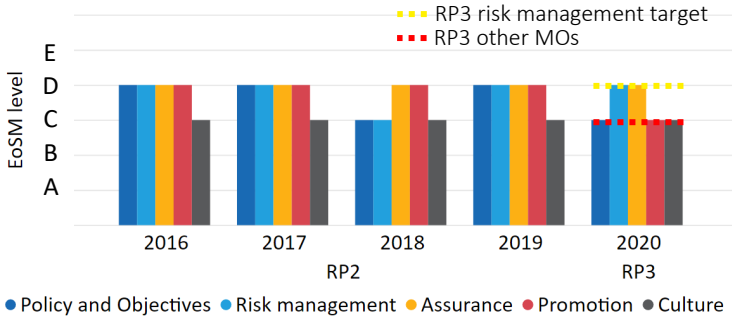
- The 2020 actual service units (3,990K) were 60% lower than the actual service units in 2019 (10,060K).
- In 2020, Italy reduced total costs by 62M€$_{2017}$ (-10%) compared to 2019 actual costs. Italy capped its cost of capital in order to achieve such result. Moreover, Italy reduced staff costs by 30M€$_{2017}$ (-9%) due to an increase of days of holidays, the suspension of the management incentive scheme, a decrease of overtime, costs for unused holidays, trips allowances and social security contribution.
- ENAV spent 77M€$_{2017}$ in 2020 related to costs of investments, 38% less than planned in the 2019 draft performance plan (124M€$_{2017}$). Such decrease is partially due the national restrictions in relation to COVID-19.

# Italy Factsheet



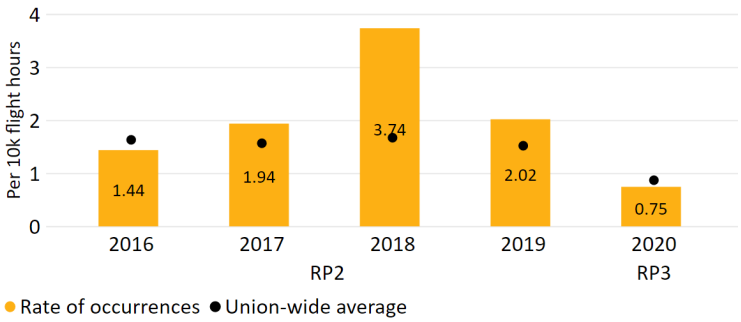
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



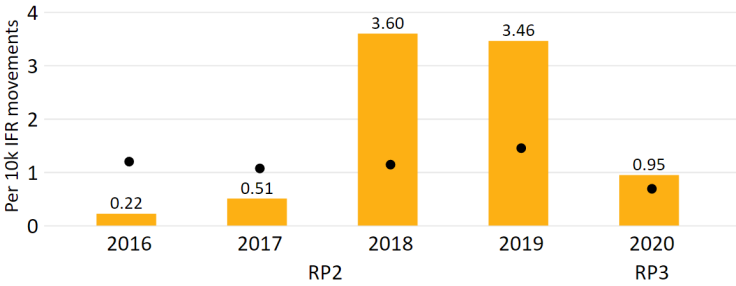

ENAV achieved the EoSM target levels in 2020.

Rate of separation minima infringement (SMI) by year




The rate of separation minima infringement (SMI) per flight hour decreased in 2020 relative to 2019.

Rate of runway incursions (RIs) by year



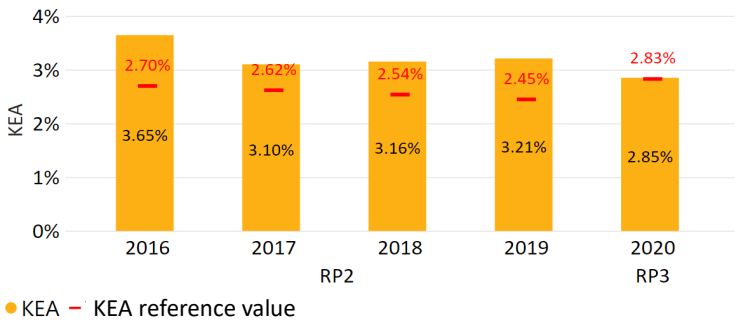

The rate of runway incursion (RI) per movement decreased in 2020 relative to 2019.

Use of automated safety data recording systems


Italy does not use automated safety data recording systems neither for RIs nor SMIs.

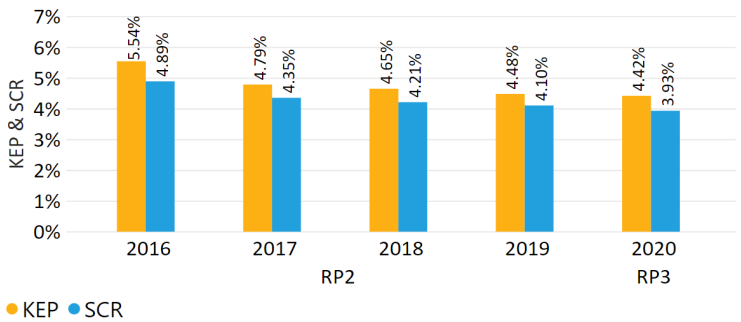
## Environment

KEA performance



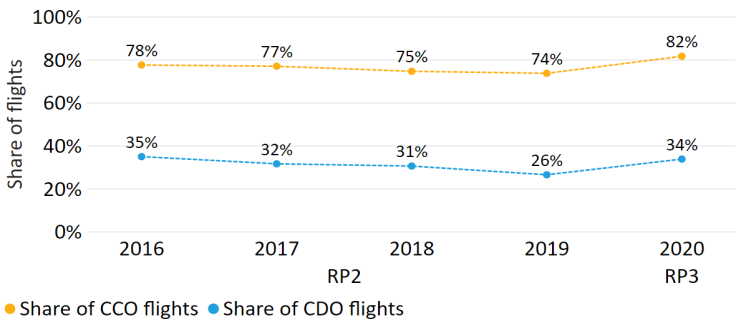

Italy did not achieve its 2020 KEA reference value by 0.02 percentage points, but performance improved relative to 2019.

KEP & SCR performance



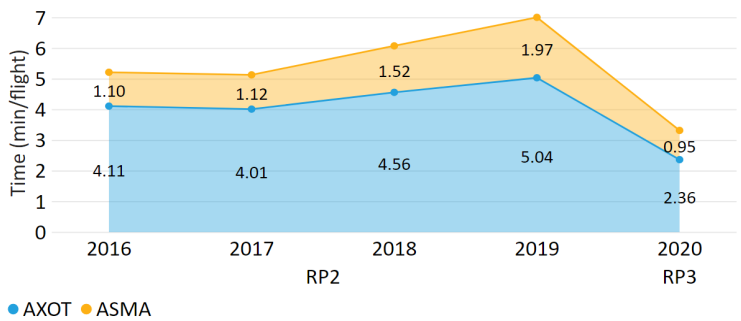

Italy made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Italy's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



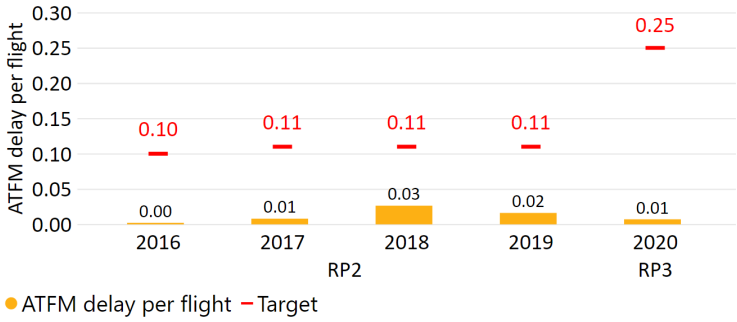

Terminal airspace users spent an additional 3.31 minutes per flight either taxiing or holding at Italian airports.

# Italy Factsheet



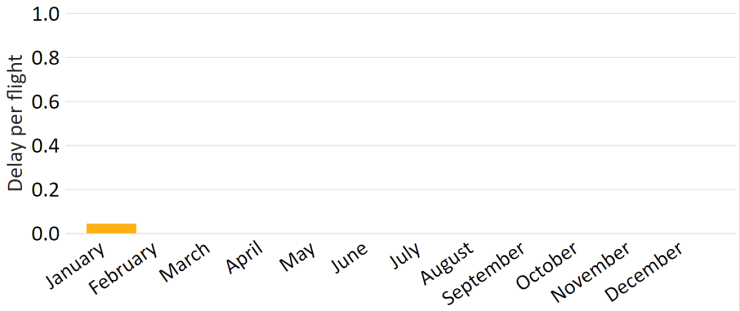
## Capacity

ATFM delay per flight (min/flight)



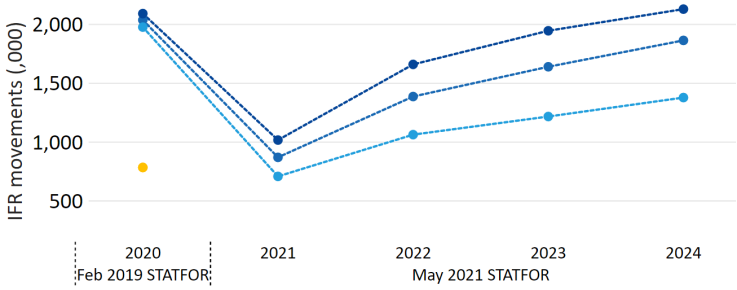

ENAV generated 0.01 minutes of delay on average in 2020 and performed better than the local breakdown value of 0.25

Monthly ATFM delay per flight (min/flight) in 2020



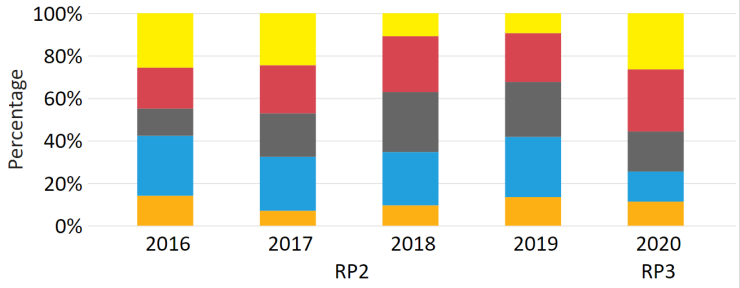

A limited amount of delays were generated during January due to ATC related industrial actions.

IFR movements and forecasts by year




IFR movements in Italy were 62% less than the 2019 February base forecast in 2020.

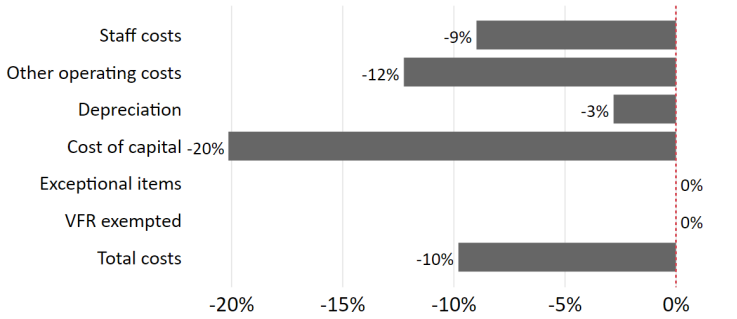
Percentage of en route delays per flight by year and time bin




The percentage of flights with delays longer than 60 minutes increased by 17 percentage points.

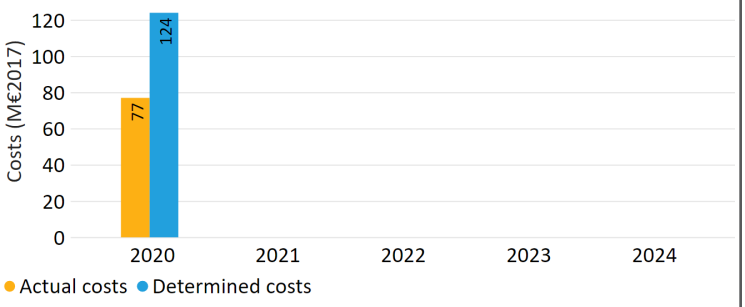
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Saving efforts in all cost categories have led to a 10% reduction in total costs.

Costs related to investments by year (M€2017)




ENAV spent 47M€$_{2017}$ less than planned on costs related to investments due to postponements related to national restrictions.

## Comments from the Performance Review Body:

### Safety:

- LGS achieved its RP3 EoSM targets in four out of five management objectives. Improvements are still needed in the safety risk management objective, but the achieved levels are consistent with what was planned in the draft 2019 performance plan.
- The main measures the NSA plan to improve performance rely on further implementation of the Commission Implementing Regulation (EU) 2017/373.
- The PRB notes that compared with the maturity level reach during RP2, LGS continued to improve the maturity of its safety management during the first year of RP3. For the safety risk management objective, LGS needs to improve in two EoSM questions to achieve the target, which should be feasible through an increased compliance with the regulation.
- Latvia recorded stable performance with respect to safety occurrences with marginally higher rates of SMIs in 2020 with respect to 2019 and no occurrences of RIs in 2020.
- LGS should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Latvia achieved a KEA performance of 1.24% compared to its reference value of 1.30% and therefore contributed positively towards achieving the Union-wide target.
- As well as benefitting from lower traffic levels, Latvia will implement A-CDM in 2021, which is expected to deliver almost 1,000 tons of $CO_2$ savings per year. However, the KEA performance in 2020 was worse than in 2016 and since the shortest constrained routes in Latvia in 2020 were 1.14%, the PRB believes further improvements (in addition to the already good performance) are possible.
- Only one out of four Latvian airports that are regulated reported terminal data.
- The share of flights operating CCO/CDO at Latvian airports worsened in 2020 compared to 2019. Latvia's commitment to implementing PBN should improve this performance in the future. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 20% compared to 2019.

### Capacity:

- LGS registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.06.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 56% below the 2019 levels in Latvia.
- Latvia reported no capacity issues and an increase of 5% in ATCO FTE numbers in 2020 compared to 2019 values.

### Cost-efficiency:

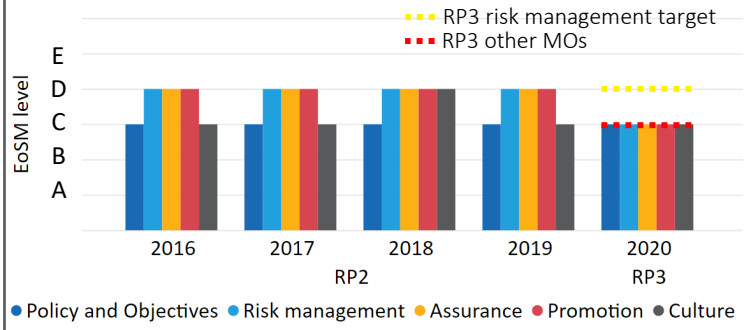
- The 2020 actual service units (439K) were 54% lower than the actual service units in 2019 (951K).
- In 2020, Latvia reduced total costs by 3.5M€$_{2017}$ (-16%) compared to 2019 actual costs. The reduction was mainly driven by 2.4M€$_{2017}$ lower staff costs (-17%) resulting from the termination of collective agreements and reduction of full time equivalents and working hours.
- LGS spent 3.6M€$_{2017}$ in 2020 related to costs of investments, 62% less than planned in the 2019 draft performance plan (9.5M€$_{2017}$).
- The underspending in costs of investments is attributable to the postponement of new investment projects.

# Latvia Factsheet



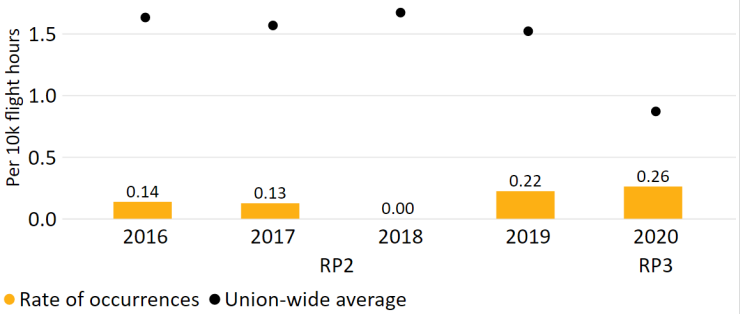
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



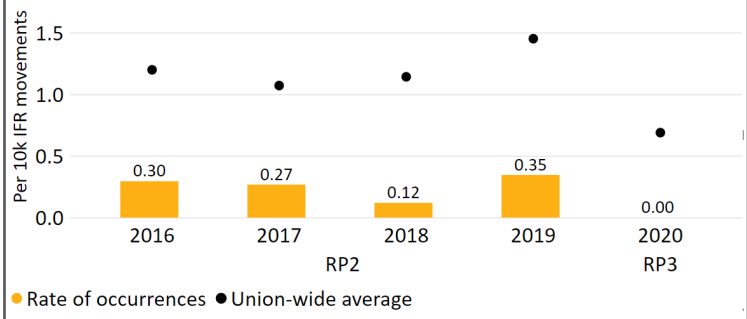

LGS did not achieve the target for safety risk management but achieved the targets for all other safety management objectives.

Rate of separation minima infringement (SMI) by year




The rate of SMI marginally increased in 2020 compared with 2019 even with only a single occurrence due to reduced traffic.

Rate of runway incursions (RIs) by year



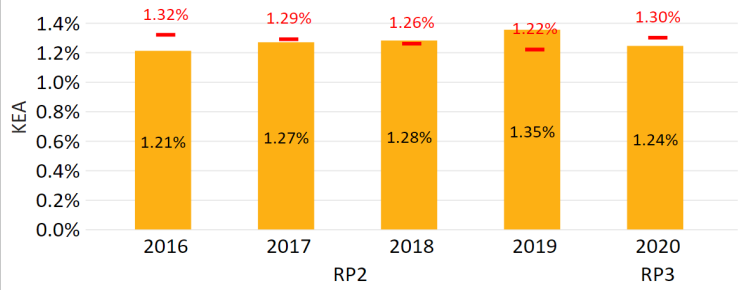

Latvia did not record any runway incursion (RI) occurrences in 2020.

Use of automated safety data recording systems


Latvia does not use automated safety data recording systems neither for RIs nor SMIs.

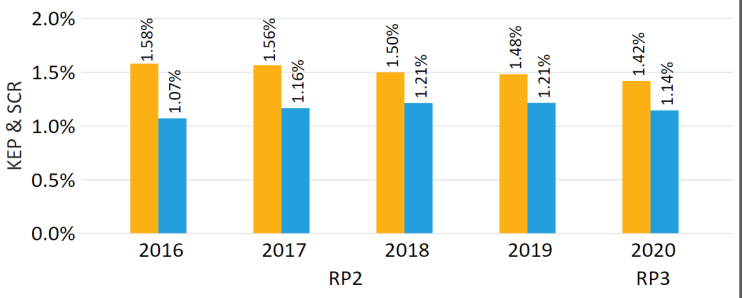
## Environment

KEA performance



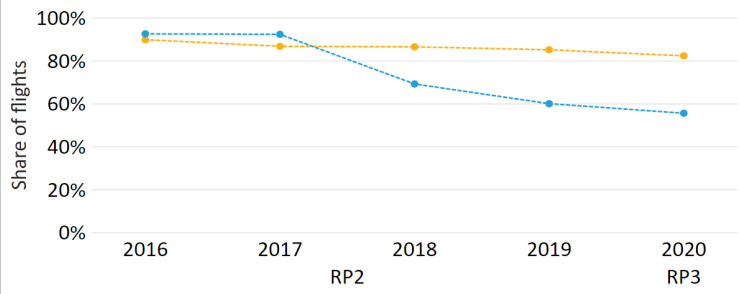

Latvia achieved its 2020 KEA reference value by 0.06 percentage points, and performance improved relative to 2019.

KEP & SCR performance



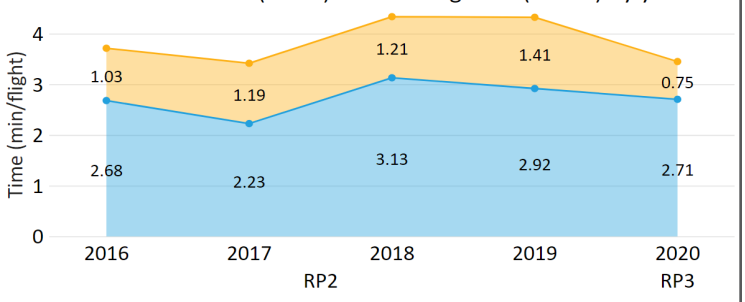

Latvia made shorter constrained routes available enabling air-space users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Latvia's CCO/CDO performance worsened in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



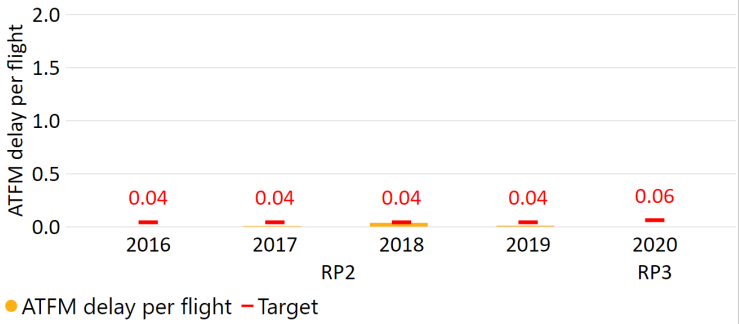

Terminal airspace users spent an additional 3.46 minutes per flight either taxiing or holding at Riga airport.

# Latvia Factsheet



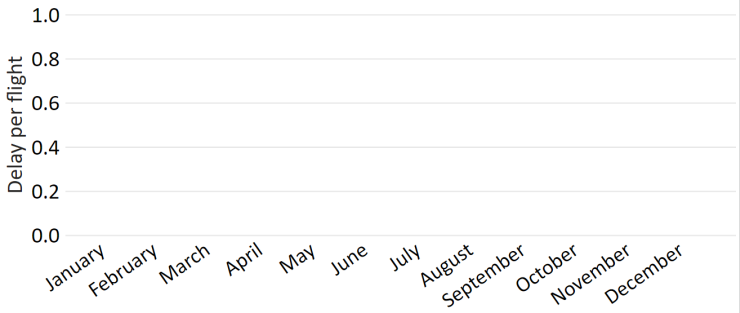
## Capacity

ATFM delay per flight (min/flight)



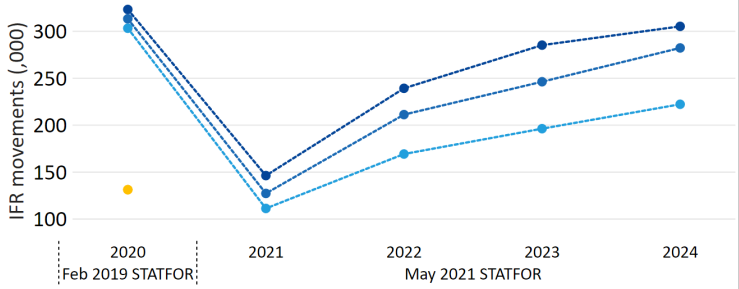

LGS recorded zero delays on average in 2020 and performed better then the local breakdown value of 0.06.

Monthly ATFM delay per flight (min/flight) in 2020



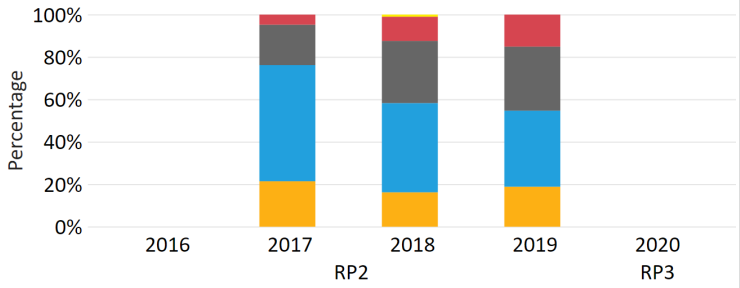

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Latvia were 59% less than the 2019 February base forecast in 2020.

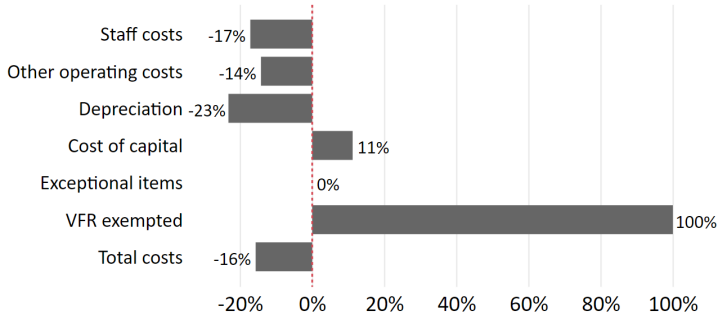
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

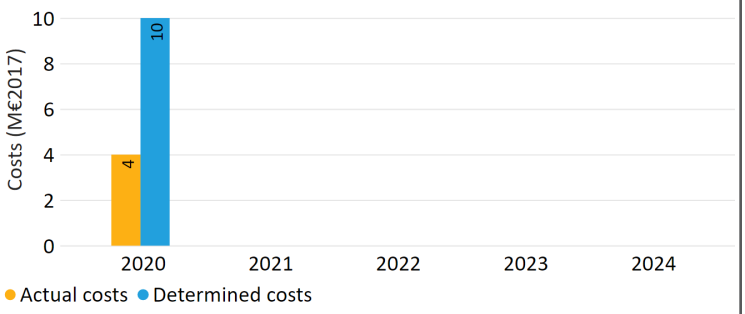
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Saving efforts in all cost categories except cost of capital have led to a 16% reduction in total costs.

Costs related to investments by year (M€2017)




LGS spent 5.9M€$_{2017}$ less than planned on costs related to investments in 2020 due to delays of new investments.

## Comments from the Performance Review Body:

### Safety:

- SE Oro Navigacjia achieved the RP3 EoSM targets in 2020 and exceeded the target in the safety policy and objectives and safety promotion objectives. The achieved levels are better than what was planned in the 2019 draft performance plan.
- Compared with the maturity level reached in RP2, SE Oro Navigacjia has continued to improve the maturity of its safety management during the first year of RP3 and achieved the RP3 targets before planned.
- In terms of safety occurrences, Lithuania reported a lower rate of SMIs and a higher rate of RIs in 2020 compared to 2019. According to Lithuania's adopted acceptable and tolerated levels of safety, the 2020 rates of occurrences are at an acceptable level of safety.
- SE Oro Navigacjia should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Lithuania achieved a KEA performance of 1.90% compared to its reference value of 1.90% and therefore contributed positively towards achieving the Union-wide target.
- Lithuania stated that its performance was achieved because of low traffic in 2020 and that due to its geographical location near Kaliningrad and Belarus, the good KEA performance will not be sustained given the new geo-political tensions that arose in 2021.
- However, given that the SCR in 2020 was 1.59%, even with existing inefficient traffic patterns the KEA can improve. Lithuania has admitted it does not have the relevant tools to analyse SCR at an individual flight level to apply further measures to improve performance, but it is working to build this capability in 2021.
- Lithuania has no airports that are regulated under the RP3 performance and charging scheme.

### Capacity:

- SE Oro Navigacija registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.05.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 54% below the 2019 levels in Lithuania.
- Lithuania reported no capacity issues and only a minor variation in ATCO FTE numbers.

### Cost-efficiency:

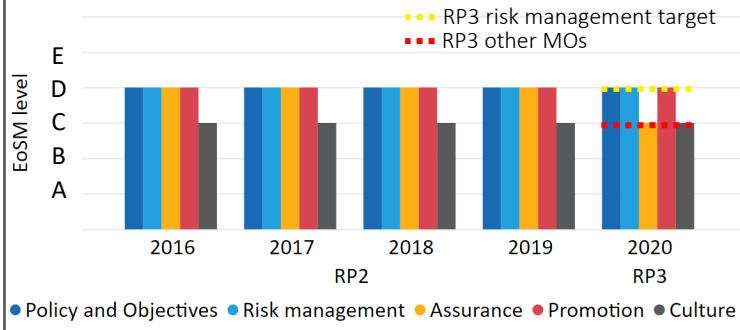
- Lithuania faced the smallest decrease in traffic across Member States. The 2020 actual service units (333K) were 46% lower than the actual service units in 2019 (621K).
- In 2020 Lithuania reduced total costs by 3.2M€$_{2017}$ (-14%) compared to 2019 actual costs. Staff costs were the main driver of the decrease with a reduction of 2.5M€$_{2017}$ (-17%), due to the suspension of hiring for non-critical positions and cutting of variable salary.
- SE Oro Navigacija spent 3.8M€$_{2017}$ in 2020 related to costs of investments, 43% less than planned in the 2019 draft performance plan (6.7M€$_{2017}$).
- SE Oro Navigacija postponed and stopped some of its investments due to COVID-19 crisis. Moreover, the NSA reported that the new AFTN system and voice communication system were bought at competitive prices decreasing its actual costs.

# Lithuania Factsheet



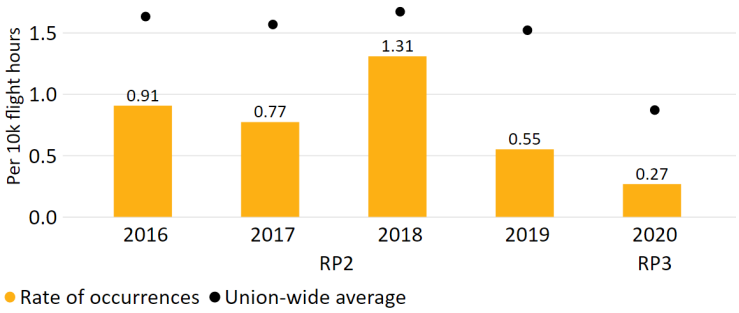
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



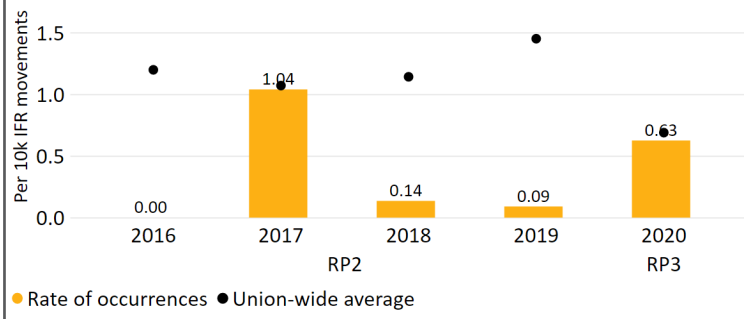

SE Oro Navigacjia achieved the EoSM target levels on all management objectives in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Rate of runway incursions (RIs) by year



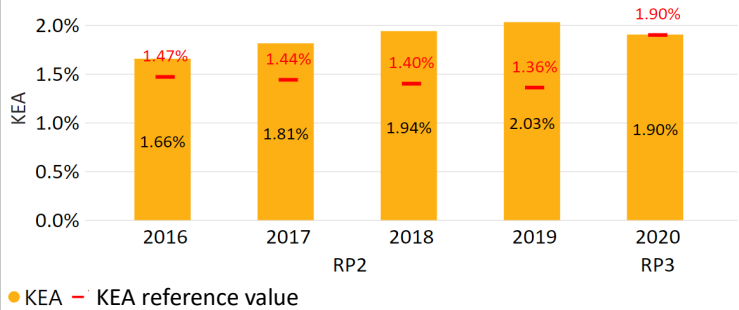

The rate of RIs per movement increased in 2020 relative to 2019 despite fewer occurrences.

Use of automated safety data recording systems


Lithuania does not use automated safety data recording systems neither for RIs nor SMIs.

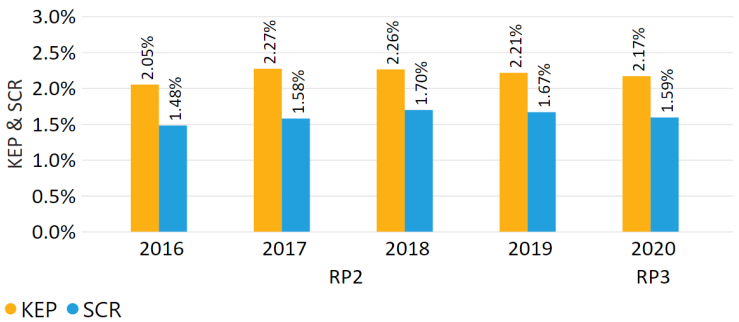
## Environment

KEA performance




Lithuania achieved its 2020 KEA reference value by 0.00 percentage points, and performance improved relative to 2019.

KEP & SCR performance




Lithuania made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

No Lithuanian airport is regulated under the performance and charging scheme.

Lithuania did not declare any of its airports as subject to the performance and charging regulations.

No Lithuanian airport is regulated under the performance and charging scheme.

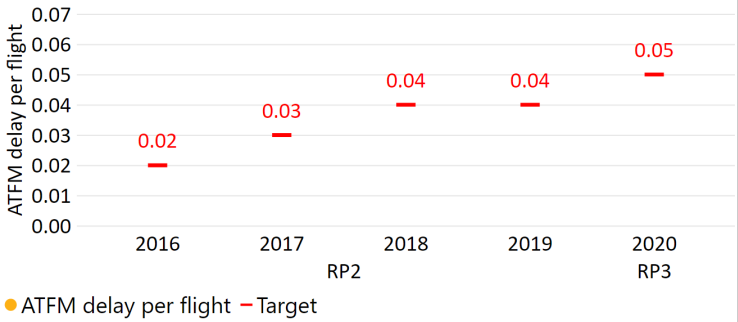
Lithuania did not declare any of its airports as subject to the performance and charging regulations.

# Lithuania Factsheet



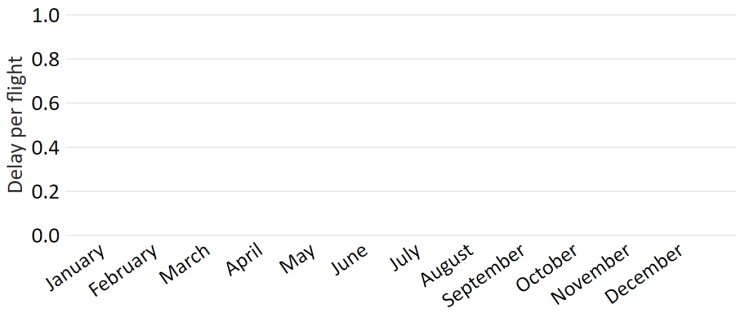
## Capacity

ATFM delay per flight (min/flight)



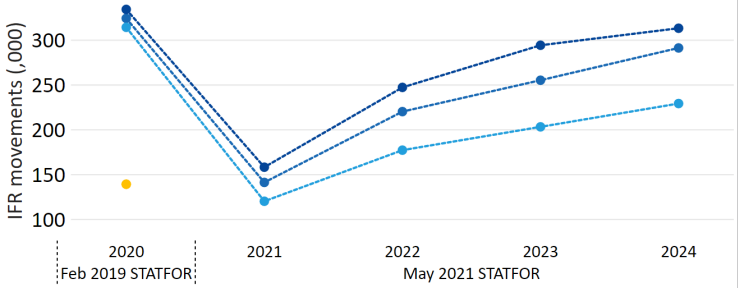

SE Oro Navigacija recorded zero delays on average in 2020 and performed better than the local breakdown value of 0.05.

Monthly ATFM delay per flight (min/flight) in 2020



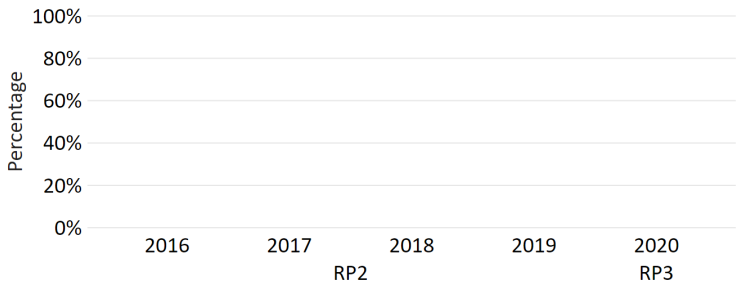

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Lithuania were 57% less than the 2019 February base forecast in 2020.

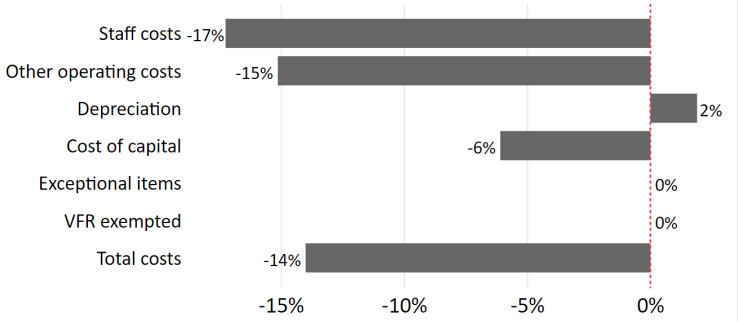
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

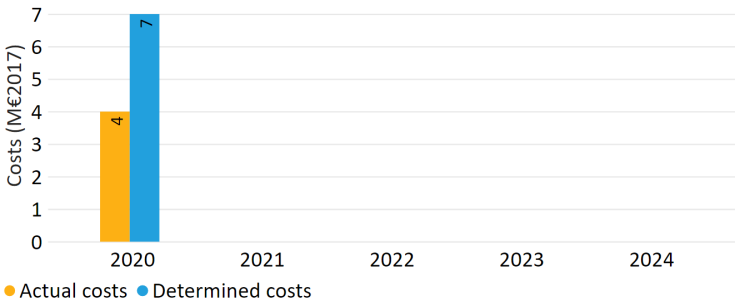
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Saving efforts in all cost categories except depreciation have led to a 14% reduction in total costs.

Costs related to investments by year (M€2017)




SE Oro Navigacija spent 2.9M€$_{2017}$ less than planned on costs related to investments in 2020 due to delays in investments.

## Comments from the Performance Review Body:

### Safety:

- MATS achieved the RP3 EoSM targets in 2020 and exceeded the target in the safety policy and objectives and safety promotion objectives.
- Malta must do better to ensure it properly, completely, and punctually delivers its monitoring data according to the performance and charging regulation.

### Environment:

- Malta achieved a KEA performance of 2.53% compared to its reference value of 1.46% and therefore did not contribute positively towards achieving the Union-wide target.
- Malta must do better to ensure it properly, completely, and punctually delivers its monitoring data according to the performance and charging regulation. No qualitative information was provided to justify its performance, which fell short of its reference value.

### Capacity:

- MATS registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.02.
- Malta must do better to ensure it properly, completely, and punctually delivers its monitoring data according to the performance and charging regulation.

### Cost-efficiency:

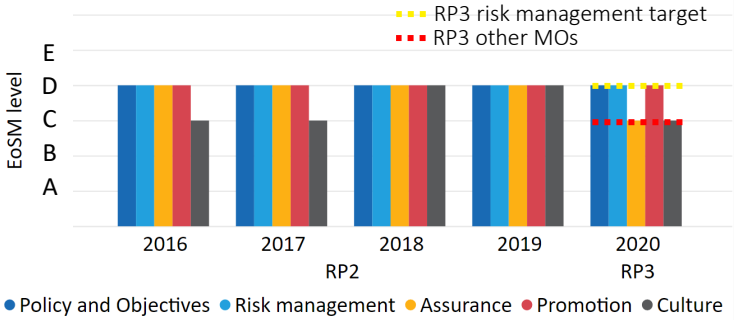
- The 2020 actual service units (396K) were 60% lower than the actual service units in 2019 (996K).
- Malta reduced total costs in 2020 by 2.4M€$_{2017}$ (-11%) compared to 2019 actual costs. The main driver of this reduction is the 1.9M€$_{2017}$ lower staff costs (-17%), resulting from the suspension of the overtime of all employees.
- MATS spent 2.6M€$_{2017}$ in 2020 related to costs of investments, 51% less than planned in the 2019 draft performance plan (5.3M€$_{2017}$). The NSA noted that MATS suspended all projects in 2020 as a result of COVID-19 crisis.

# Malta Factsheet



## Safety

Main ANSP's effectiveness of safety management (EoSM) by year




MATS achieved the RP3 EoSM target levels on all management objectives in 2020.

Malta submitted its monitoring data late and therefore the PRB was unable to analyse SMI occurrences.

Malta should ensure it complies with its legal obligations to provide monitoring data on time.

Malta submitted its monitoring data late and therefore the PRB was unable to analyse RI occurrences.

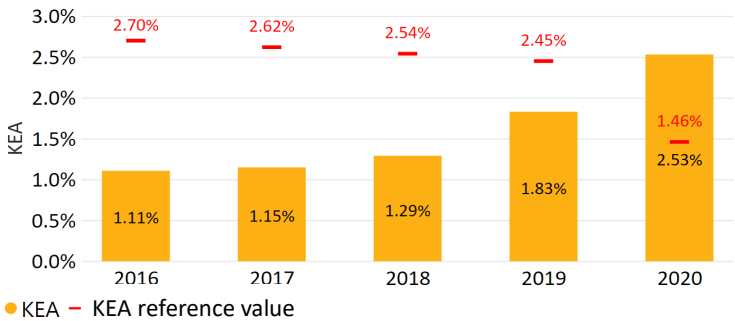
Malta should ensure it complies with its legal obligations to provide monitoring data on time.

Malta submitted its monitoring data late and therefore the PRB was unable to analyse use of safety data recording systems.

Malta should ensure it complies with its legal obligations to provide monitoring data on time.

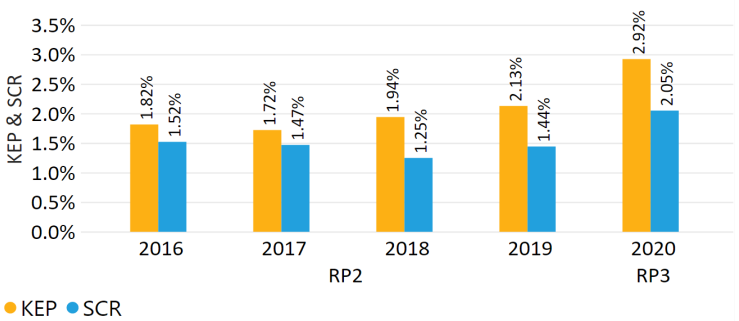
## Environment

KEA performance



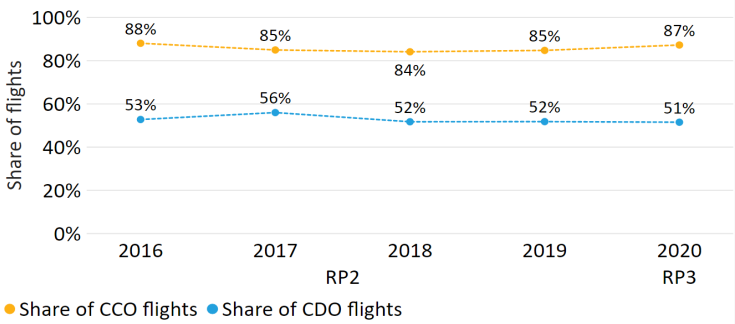

Malta did not achieve its 2020 KEA reference value by 1.07 percentage points, and performance worsened relative to 2019.

KEP & SCR performance



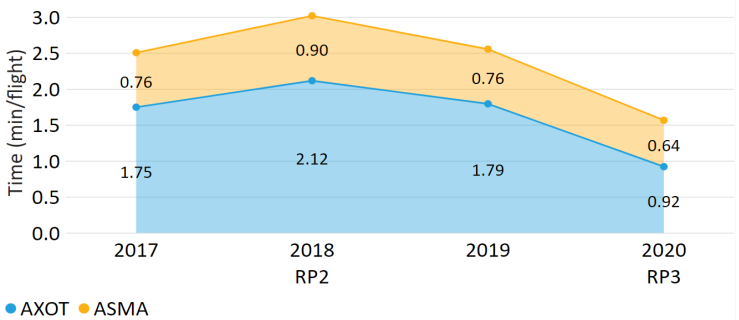

Malta has a lower SCR than KEP suggesting that airspace users need to make better use of Maltese airspace.

Share of CCO and CDO flights by year




The share of flights conducting CDO/CCO at Malta's airport remained stable in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



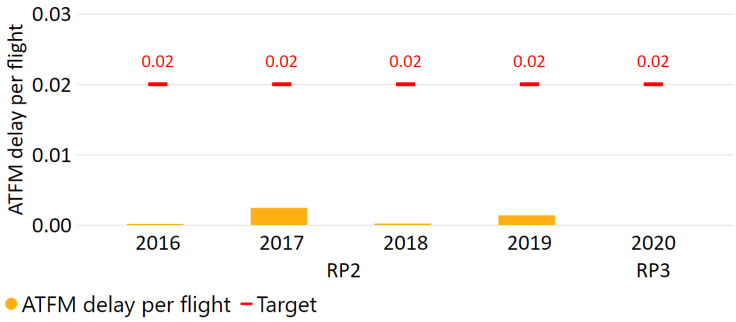

Terminal airspace users spent an additional 1.56 minutes per flight either taxiing or holding at Malta International Airport.

# Malta Factsheet



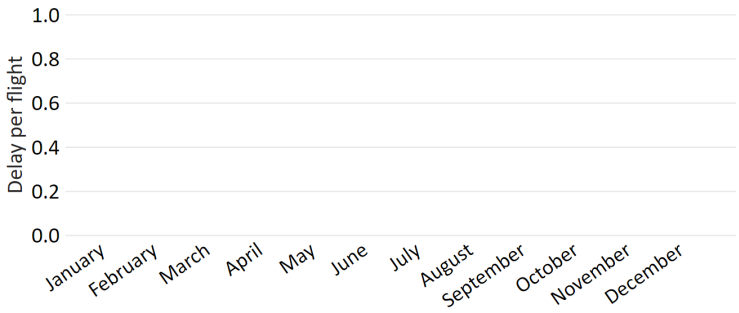
## Capacity

ATFM delay per flight (min/flight)



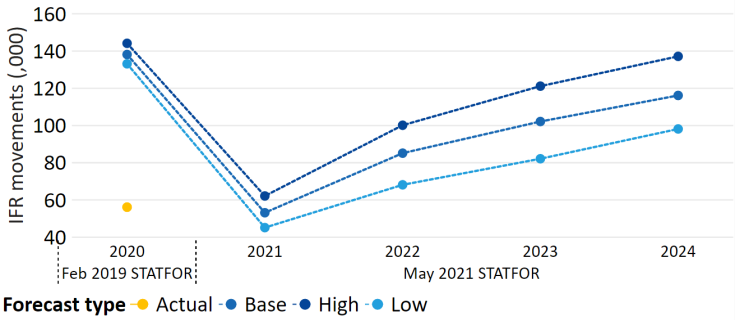

MATS recorded zero delays on average in 2020 and performed better than the local breakdown value of 0.02.

Monthly ATFM delay per flight (min/flight) in 2020



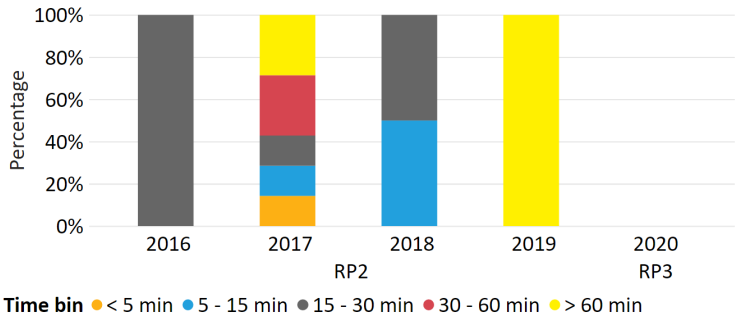

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Malta were 59% less than the 2019 February base forecast in 2020.

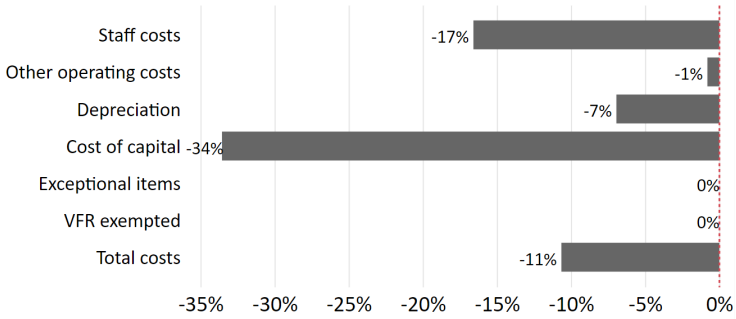
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

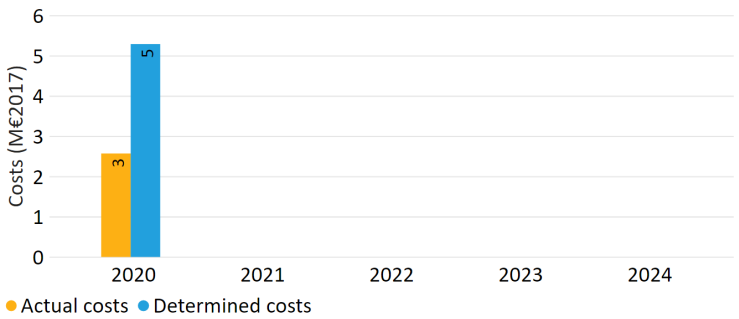
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Cost savings in all cost categories led to an 11% decrease in total costs, primarily driven by a decrease in staff costs.

Costs related to investments by year (M€2017)




MATS spent 2.7M€$_{2017}$ less than planned on costs related to investments in 2020 due to the suspension of all projects in 2020.

## Comments from the Performance Review Body:

### Safety:

- LVNL achieved its EoSM target in four out of five safety management objectives. The safety risk management objective was the only objective to not reach the target.
- The NSA explained that a limited update is required to the safety risk management process to achieve the RP3 target.
- LVNL's 2020 EoSM performance is consistent with the safety maturity achieved at the end of RP2. The need to implement improvements in the safety risk management objective was anticipated and a small improvement will ensure that LVNL will achieve the EoSM targets before the end of RP3.
- The Netherlands recorded a higher rate of SMIs, which is unusual compared to other Member States and not what was expected considering the reduced level of traffic. On the other hand, the rate of RIs fell by more than 90% in 2020 compared to 2019.
- LVNL should improve its SMS by implementing automated safety data recording systems for RIs and SMIs.

### Environment:

- FABEC stated that half of the Union-wide RAD simplifications applied in 2020 were within FABEC airspace and that eNM measures were not needed. This helped improve the shortest constrained routes within FABEC, but was not sufficient in helping to reach the FAB-level KEA reference value (2.90%) in 2020.
- At national level, the Netherlands achieved a KEA performance of 2.63% and the FABEC reference value is 2.90%.
- While the KEA performance in the Netherlands improved relative to 2019, the SCR was stable.
- Only one out of four Dutch airports that are regulated reported terminal data.
- The share of flights operating CCO/CDO at Dutch airports improved in 2020 compared to 2019, although it still requires further improvement as less than 30% of flights conduct CDOs.
- The additional time airspace users spent taxiing or holding in terminal airspace reduced by 43% compared to 2019.

### Capacity:

- LVNL registered 0.01 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.13.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 55% below the 2019 levels in the Netherlands.
- The Netherlands reported no capacity issues and a 2% increase in ATCO FTE numbers in 2020 compared to 2019 values.

### Cost-efficiency:

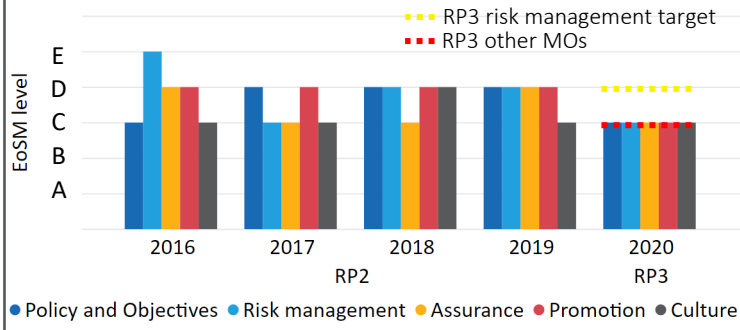
- The 2020 actual service units (1,480K) were 55% lower than the actual service units in 2019 (3,314K).
- The Netherlands increased total costs in 2020 by 3.7M€$_{2017}$ (+2%) compared to 2019 actual costs. Moreover, the Netherlands did not achieve the cost-efficiency targets in 2019.
- The cost increase is mainly due to the increase in MUAC staff costs due to high indexation and ATCOs negotiations on remuneration and the new Polaris building that has been put into operation.
- LVNL spent 20M€$_{2017}$ in 2020 related to costs of investments, 2% less than planned in the 2019 draft performance plan (21M€$_{2017}$). The underspending is due to issues with practical execution of projects due to COVID-19.

# The Netherlands Factsheet



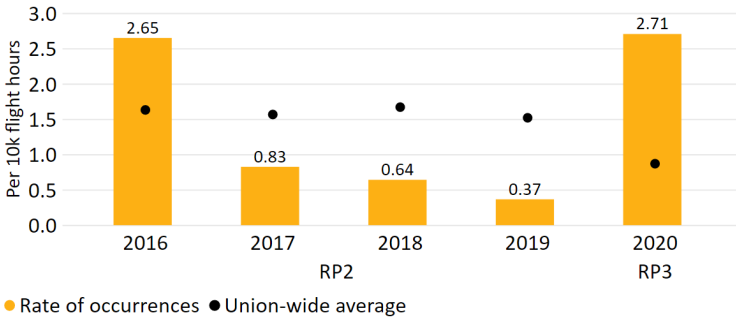
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



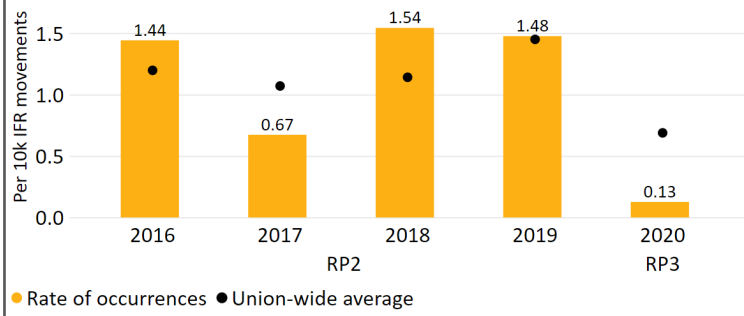

LVNL did not achieve the target for safety risk management but achieved the targets for all other safety management objectives.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour increased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Rate of runway incursions (RIs) by year



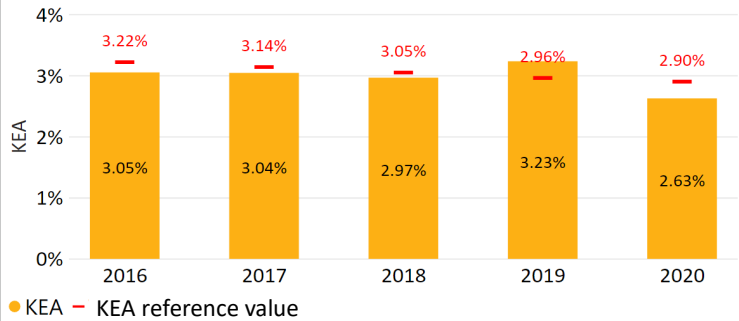

The rate of RI per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Use of automated safety data recording systems


MUAC uses automated safety data recording systems for SMIs.

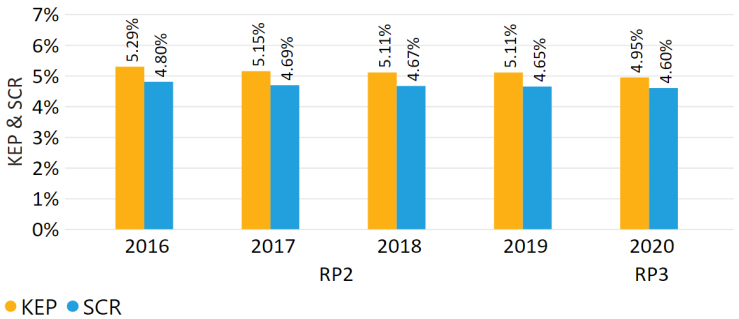
## Environment

KEA performance



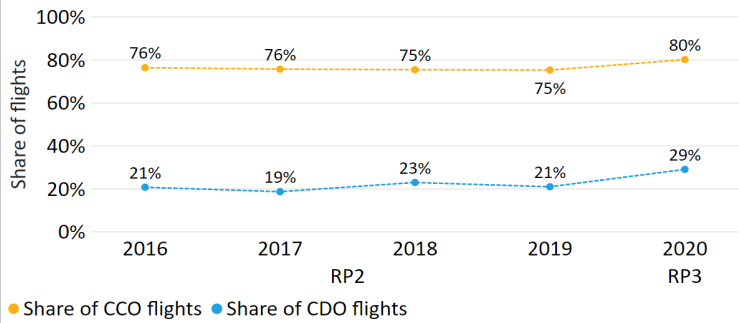

The Netherlands' KEA performance improved relative to 2019 achieving 2.63% compared to FABEC's reference value of 2.90%.

KEP & SCR performance



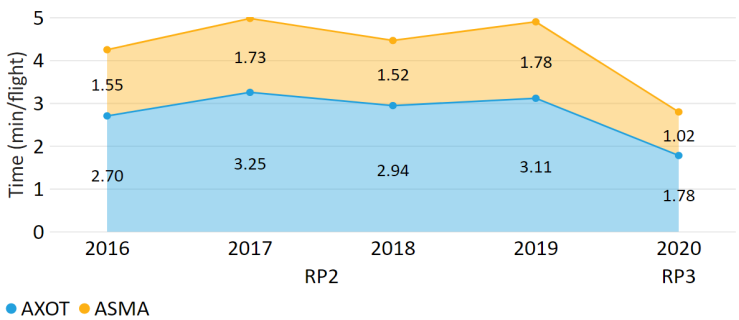

The Netherlands made shorter constrained routes available enabling airspace users to plan shorter routes in 2020.

Share of CCO and CDO flights by year




The Netherlands' CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



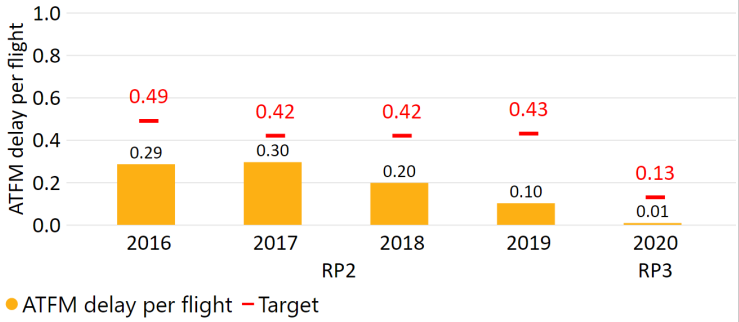

Terminal airspace users spent an additional 2.80 minutes per flight either taxiing or holding at Amsterdam airport.

# The Netherlands Factsheet



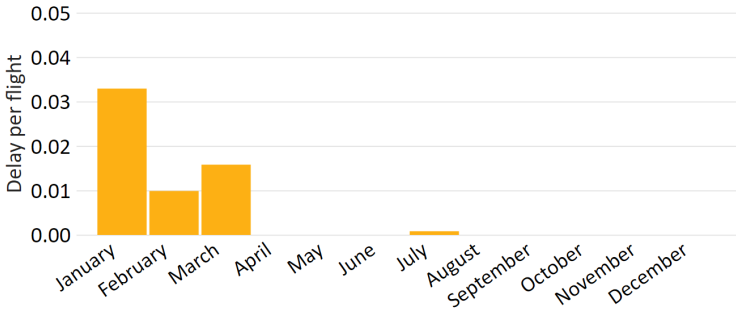
## Capacity

ATFM delay per flight (min/flight)



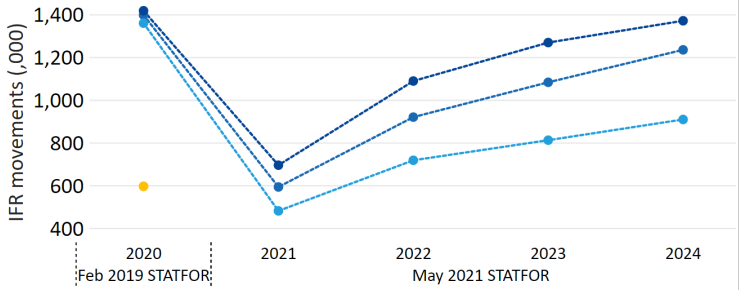

LVNL recorded 0.01 minutes of delay on average in 2020 and performed better than the local breakdown value of 0.13

Monthly ATFM delay per flight (min/flight) in 2020




The reasons behind the small delays were ATC capacity and ATC staffing with weather also contributing to delays.

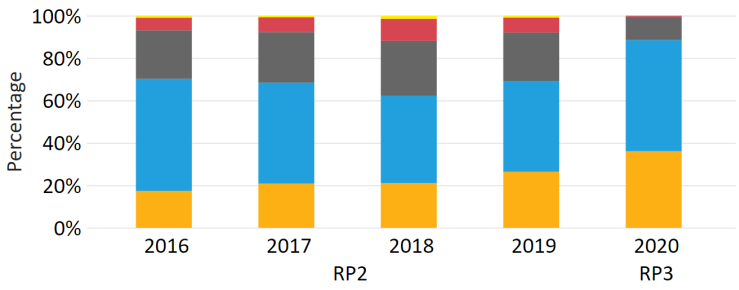
IFR movements and forecasts by year




**Forecast type** Actual Base High Low

IFR movements in the Netherlands were 57% less than the 2019 February base forecast in 2020.

Percentage of en route delays per flight by year and time bin

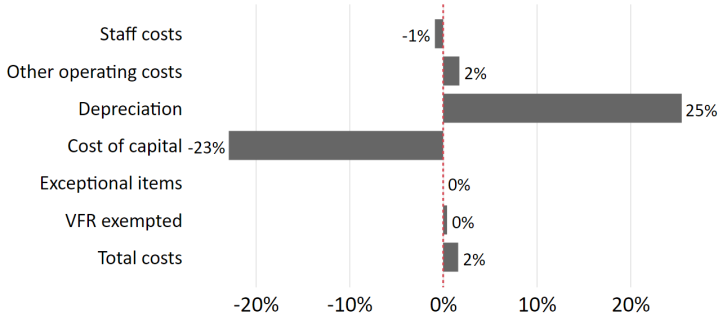



**Time bin** < 5 min 5 - 15 min 15 - 30 min 30 - 60 min > 60 min

The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

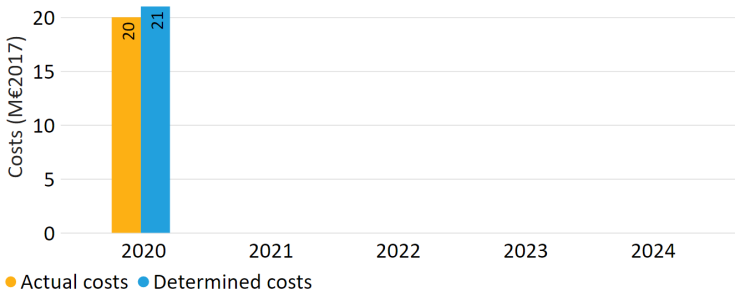
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Total costs of the Netherlands increased by 2% due to the new Polaris building and the increase in MUAC staff cost.

Costs related to investments by year (M€2017)




LVNL spent 0.5M€$_{2017}$ less than planned on costs related to investments in 2020, due to practical execution issues.

## Comments from the Performance Review Body:

### Safety:

- Avinor achieved the RP3 EoSM targets in 2020, exceeding the target maturity for safety culture. The achieved levels are better than what was planned in the draft 2019 performance plan for 2020.
- The NSA explained that significant initiatives are underway in the area of performance monitoring and safety culture to ensure continuous improvement of Avinor's safety management function.
- Norway recorded a higher rate of SMIs and lower rate of RIs in 2020 compared to 2019. However, both rates remain above Union-wide averages again in 2020.
- Avinor should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Norway achieved a KEA performance of 1.52% compared to its reference value of 1.43% and therefore did not contribute positively towards achieving the Union-wide target.
- Norway stated that possible reasons for missing the targets includes airspace users flying inefficient routes to benefit from cheaper unit rates, airspace restrictions, weather and other factors.
- Norway should investigate the reason in more detail as the given reasons are too broad. For example, the shortest constrained route has been at similar levels since 2018, suggesting that Norway has not been able to improve its airspace availability.
- Only one out of four Norwegian airports that are regulated reported the complete terminal data.
- The share of flights operating CCO/CDO at Norwegian airports improved in 2020 compared to 2019 and is one of the top performances Union-wide with 68% of flights conducting CDOs. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 33% compared to 2019.

### Capacity:

- Avinor registered 0.01 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.18.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 42% below the 2019 levels in Norway.
- Norway reported some minor capacity issues due to technical equipment failure.
- It also reported a decrease of 20%, 30%, and 29% in ATCO FTE numbers in Bodo, Oslo, and Stavanger ACCs respectively in 2020 compared to 2019 values. These decreases were due to cost containment measures mostly in the form of furloughs and some voluntary redundancy agreements.

### Cost-efficiency:

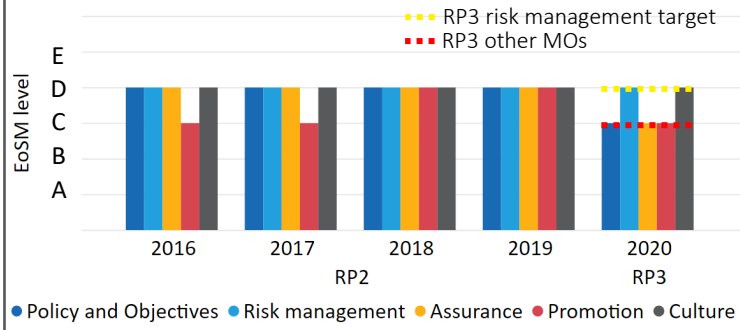
- The 2020 actual service units (1,230K) were 50% lower than the actual service units in 2019 (2,436K), making Norway the second least affected Member State by COVID-19 in terms of service units.
- Norway reduced total costs in 2020 by 13M€$_{2017}$ (-11%) compared to 2019 actual costs. The main driver of this reduction is the 14M€$_{2017}$ lower staff costs (-17%), resulting from furloughs, reduction in staff and overtime, lower salaries for management, travel and consultancy fees.
- Depreciation increased by 2.5M€ (+32%) due to a change in allocation method. Assets are now allocated to the services they are supporting instead of the cost-centre used in the ANSP asset base.
- Avinor spent 16M€$_{2017}$ in 2020 related to costs of investments, 11% more than planned in the 2019 draft performance plan (14M€$_{2017}$). The increase is induced by a higher depreciation and cost of capital than planned, due to a higher asset base and WACC than originally planned.

# Norway Factsheet



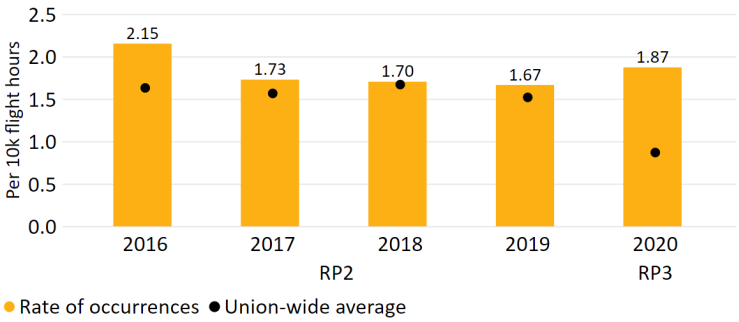
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



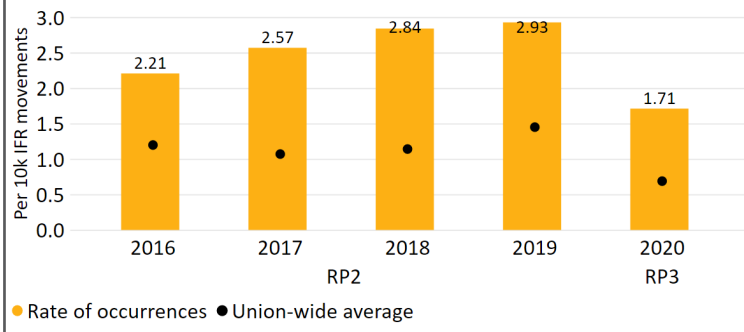

Avinor achieved the EoSM target levels in 2020.

Rate of separation minima infringement (SMI) by year




The rate of SMI increased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Rate of runway incursions (RIs) by year



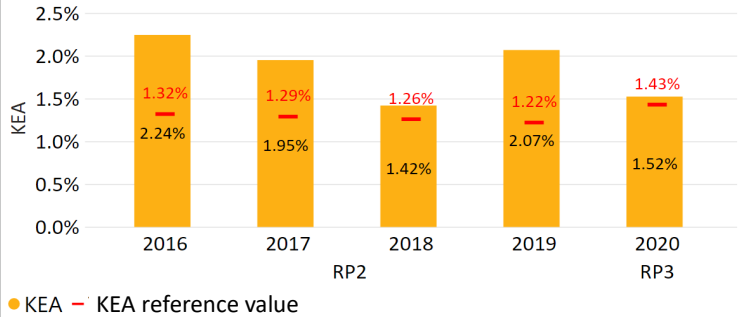

The rate of RIs decreased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Use of automated safety data recording systems


Norway does not use automated safety data recording systems neither for RIs nor SMIs.

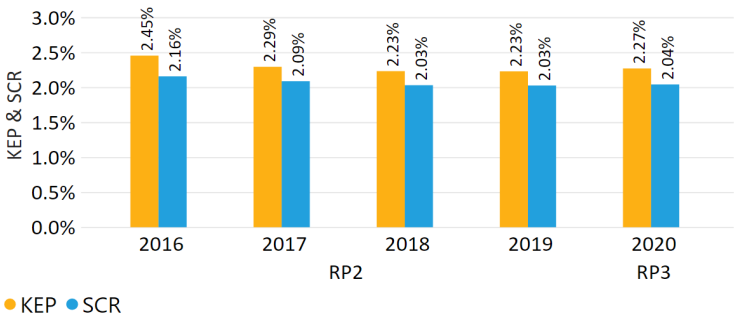
## Environment

KEA performance



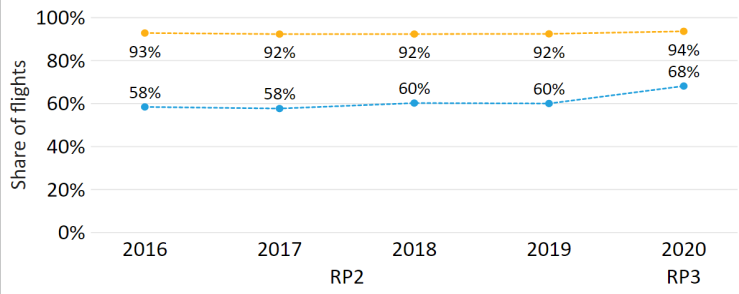

Norway did not achieve its 2020 KEA reference value by 0.09 percentage points, but performance improved relative to 2019.

KEP & SCR performance



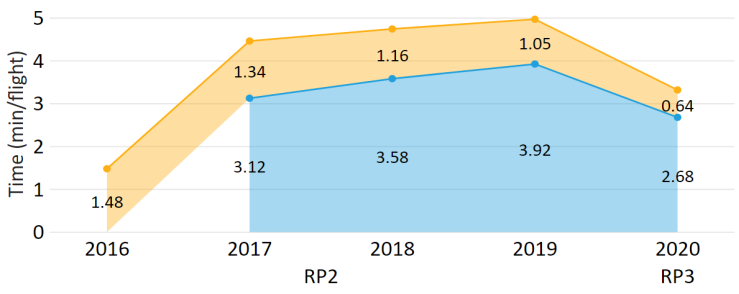

Norway did not make shorter constrained routes available leading airspace users to plan longer routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Norway's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



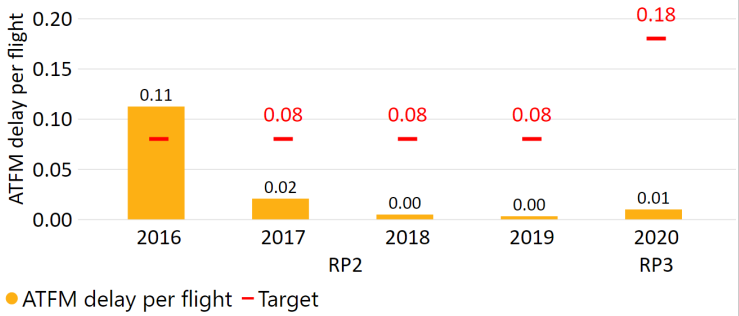

Terminal airspace users spent an additional 3.32 minutes per flight either taxiing or holding at Oslo airport.

# Norway Factsheet



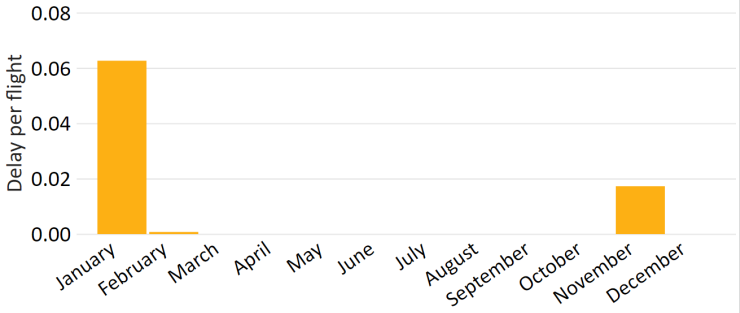
## Capacity

ATFM delay per flight (min/flight)



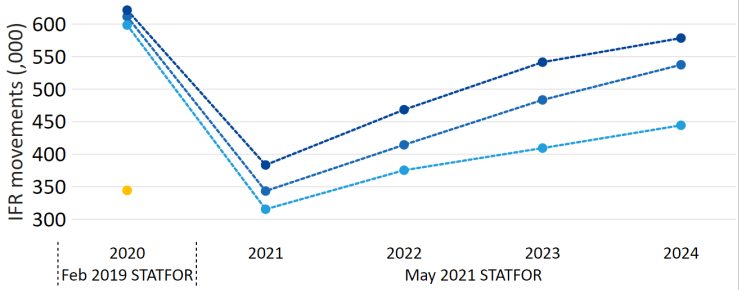

Avinor recorded 0.01 minutes of delay on average in 2020 and performed better than the local breakdown value of 0.18.

Monthly ATFM delay per flight (min/flight) in 2020



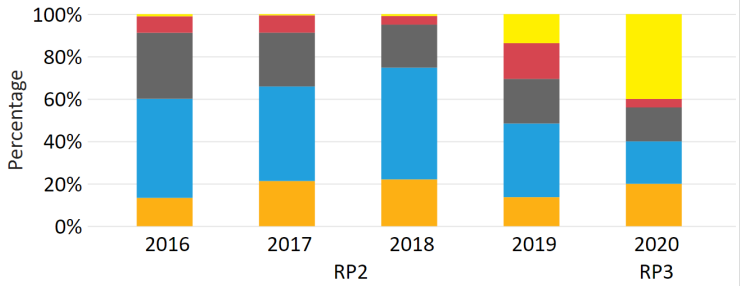

The negligible amount of delays was generated by ATC related technical disruptions.

IFR movements and forecasts by year




IFR movements in Norway were 43% less than the 2019 February base forecast in 2020.

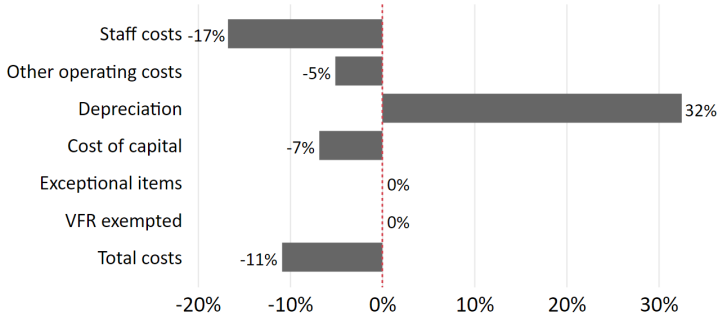
Percentage of en route delays per flight by year and time bin




The percentage of flights with delays longer than 60 minutes has increased by 26% percentage points compared to 2019.

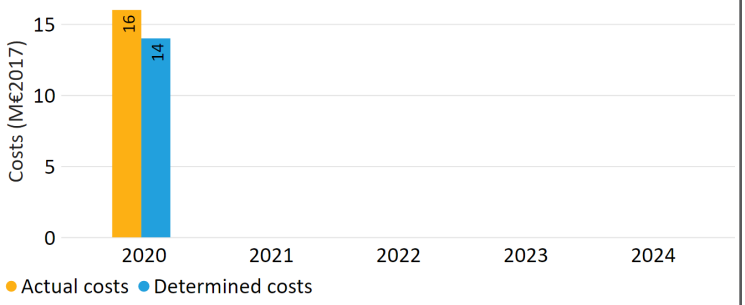
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite an increase in depreciation costs, total costs decreased by 11%, mainly due to staff cost containments.

Costs related to investments by year (M€2017)




Avinor ANS spent 1.6M€$_{2017}$ more than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- PANSA achieved the RP3 EoSM targets in 2020 and exceeded the target maturity for safety culture and safety promotion.
- The achieved levels are better than what was planned for 2020 in the draft 2019 performance plan. PANSA continued to implement the improvements initiated in RP2 and documented in the internal "SMS development roadmap".
- Two other ANSPs included in the Poland's draft 2019 performance plan (Warmia i Mazury sp. z o.o. and Port Lotniczy Bydgoszcz S.A.) achieved the target on four out of five safety objectives with both needing to improve in the safety risk management objective.
- Poland recorded stable performance with respect to safety occurrences with a marginally higher rate of SMIs and a lower rate of RIs in 2020 compared to 2019.

### Environment:

- Poland achieved a KEA performance of 1.67% compared to its reference value of 1.67% and therefore contributed positively towards the Union-wide target.
- The NSA stated that this performance will not be sustainable as IFR movements continue to grow. Performance in 2020 was affected by airspace users avoiding Ukrainian airspace and the definition of the KEA indicator means that this type of rerouting can significantly affect performance.
- The PRB believes that if Poland implements cross-border free route airspace in 2022 and restructures its TMA, the performance can be sustained and this should be the ultimate aim of the NSA.
- Only one out of 15 Polish airports that are regulated reported terminal data.
- The share of flights operating CCO/CDO at Polish airports improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 42% compared to 2019.

### Capacity:

- PANSA registered near to zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.3.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 59% below the 2019 levels in Poland.
- Poland reported no capacity issues and an almost 2% decrease in ATCO FTE numbers in 2020 compared to 2019 values. This represents an almost 8% deficit of ATCO FTEs compared to 2020 planned values and was driven by ATCOs being reallocated to perform other duties, as well as prolonged training due to the low traffic situation.
- The NSA reported to have continued all capacity improvement measures.

### Cost-efficiency:

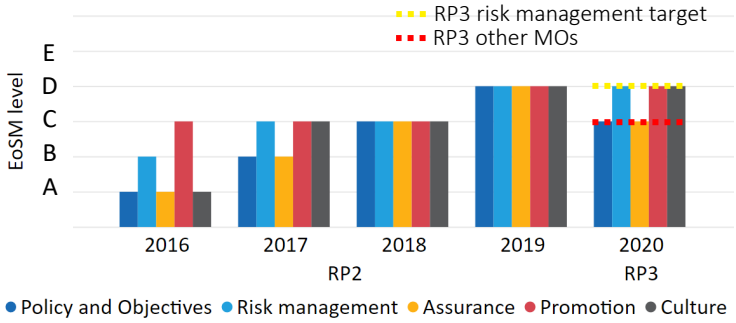
- The 2020 actual service units (2,146K) were 57% lower than the actual service units in 2019 (4,959K).
- In 2020, Poland reduced total costs by 11M€$_{2017}$ (-6%) compared to 2019 actual costs. The reduction was mainly driven by a decrease of 16M€$_{2017}$ (-13%) in staff costs due to furloughs, temporary suspension of hiring, contribution to the occupational pension scheme and group insurance, reduction of overtimes and bonuses.
- PANSA spent 43M€$_{2017}$ in 2020 related to costs of investments, 10% less than planned in the 2019 draft performance plan (48M€$_{2017}$). The NSA reported that this reduction is attributable to both savings to meet financial capabilities and restrictions impacting the ability to execute some investments.

# Poland Factsheet



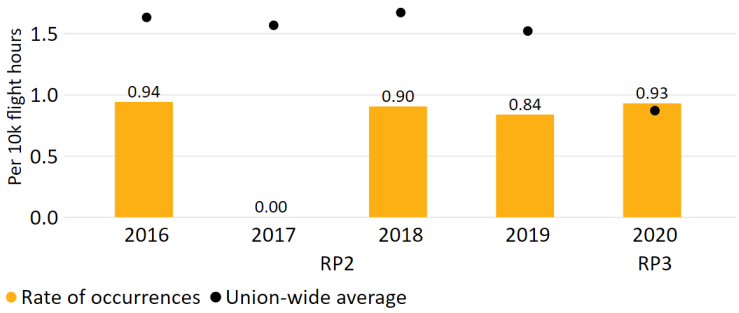
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



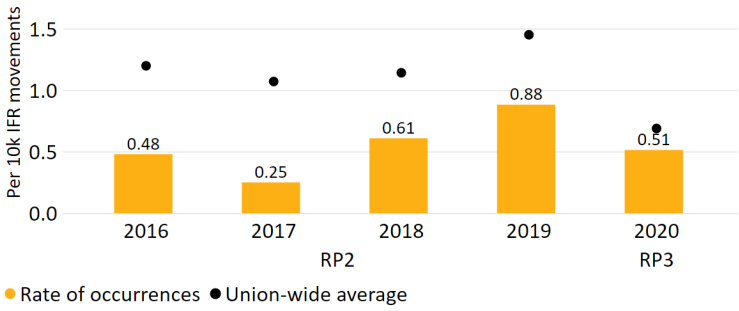

PANSA achieved the RP3 EoSM target levels in 2020 and exceeded them in safety promotion and safety culture.

Rate of separation minima infringement (SMI) by year




The rate of SMIs marginally increased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Rate of runway incursions (RIs) by year



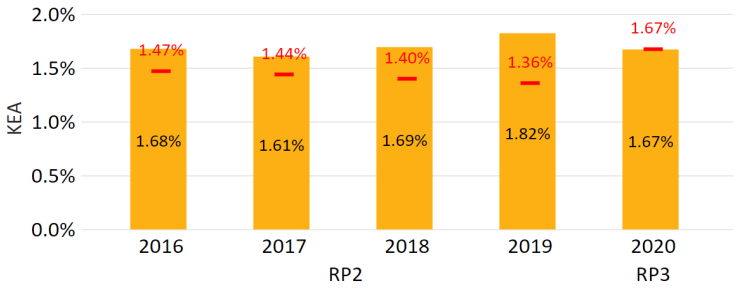

The rate of RI per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Use of automated safety data recording systems


Poland does not use automated safety data recording systems neither for RIs or SMIs.

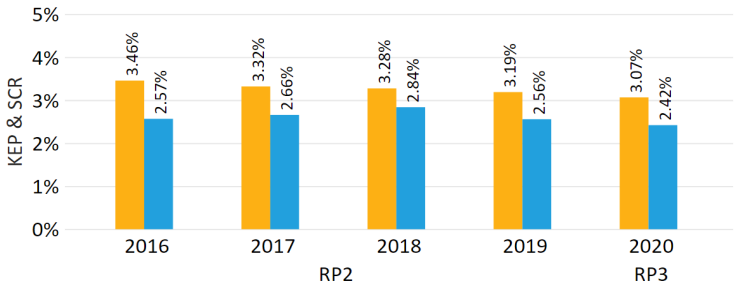
## Environment

KEA performance



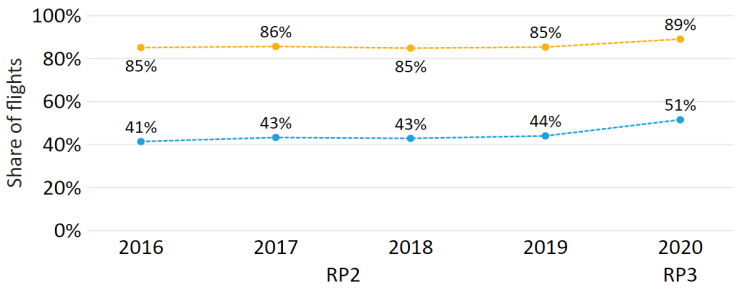

Poland achieved its 2020 KEA reference value by 0.00 percentage points, and performance improved relative to 2019.

KEP & SCR performance



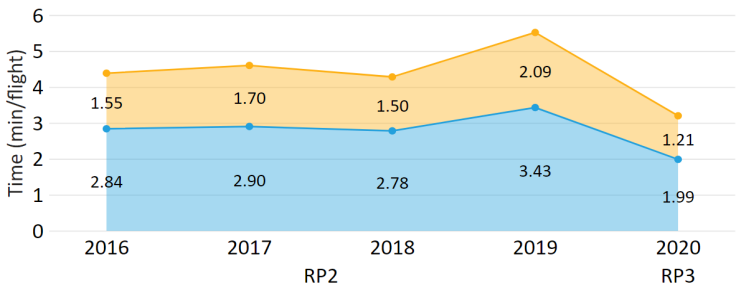

Poland made shorter constrained routes available enabling air-space users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Poland's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



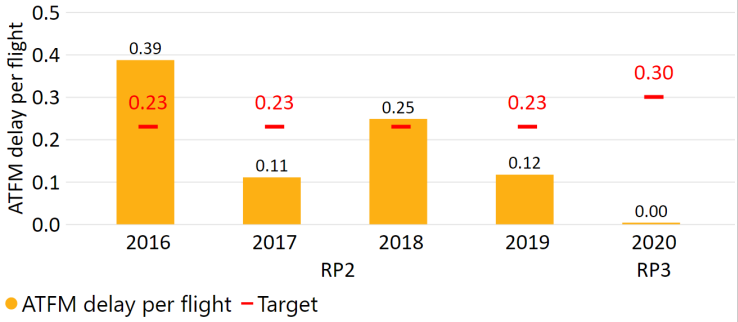

Terminal airspace users spent an additional 3.20 minutes per flight either taxiing or holding at Warsaw airport.

# Poland Factsheet



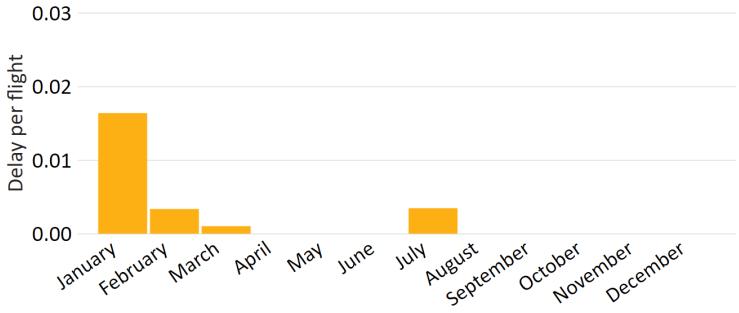
## Capacity

ATFM delay per flight (min/flight)



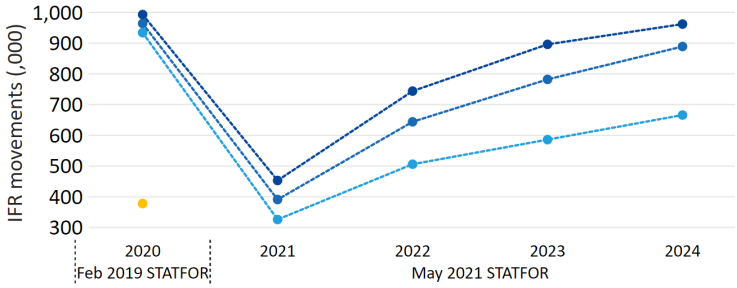

PANSA recorded near zero delays on average in 2020 and performed better than the local breakdown value of 0.3

Monthly ATFM delay per flight (min/flight) in 2020




Limited delays were generated due to ATC capacity during January and February. Delays in July were related to Krakow APP.

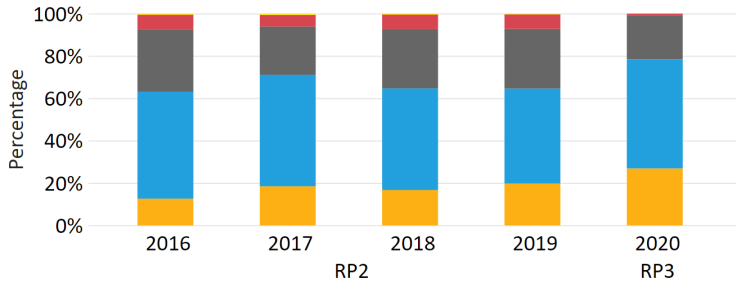
IFR movements and forecasts by year




**Forecast type** Actual Base High Low

IFR movements in Poland were 61% less than the 2019 February base forecast in 2020.

Percentage of en route delays per flight by year and time bin

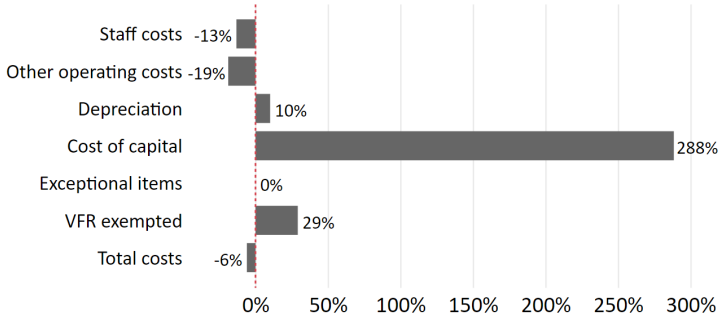



**Time bin** < 5 min 5 - 15 min 15 - 30 min 30 - 60 min > 60 min

The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

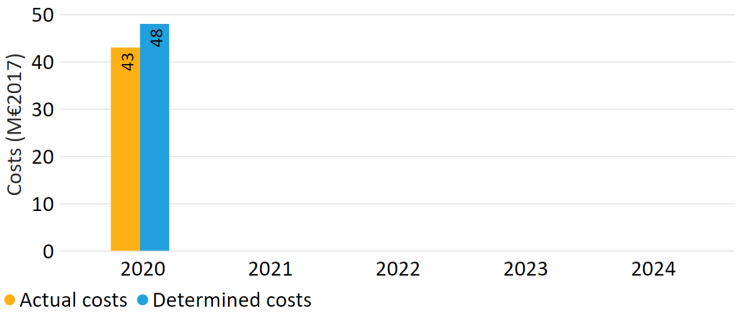
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Total costs decreased by 6%, driven by saving efforts in staff and other operating costs.

Costs related to investments by year (M€2017)




PANSA spent 4.9M€$_{2017}$ less than planned on costs related to investments in 2020, due to COVID-19.

## Comments from the Performance Review Body:

### Safety:

- NAV Portugal achieved the RP3 EoSM targets in 2020 and exceeded the targets in two out of five management objectives. The achieved levels are better than what was planned in the draft 2019 performance plan.
- The NSA said that NAV Portugal will continue to make every effort to maintain and improve the current safety performance levels and defined a set of measures to achieve this.
- Portugal recorded good performance with respect to safety occurrences with no occurrences recorded for SMIs or RIs. This improved the already low rate of SMIs and RIs recorded in 2019.
- NAV Portugal should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Portugal achieved a KEA performance of 1.79% compared to its reference value of 1.76% and therefore did not contribute positively towards achieving the Union-wide target.
- The NSA stated that thee reason for Portugal did not achieve the reference value is that the measurement of KEA performance was biased in 2020 since traffic was very low.
- However, KEA is linearly proportional to IFR movements and therefore less traffic generally improves performance. Indeed, Portugal admitted this in its performance plan. The performance in the first three months of 2020 was an issue that the NSA should seek to address.
- Only three out of 10 Portuguese airports that are regulated reported terminal data.
- The share of flights operating CCO/CDO at Portuguese airports improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 39% compared to 2019.

### Capacity:

- NAV Portugal registered 0.25 minutes of average en route ATFM delay per flight, thus not achieving the local breakdown value of 0.23.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 59% below the 2019 levels in Portugal.
- Portugal reported that delays were generated by the transition to the provisional OPS room, associated works in the main OPS room, and the implementation of social distancing measures, which all reduced the available capacity.
- When comparing the first two months of 2020, the traffic was slightly lower than in 2019 (-2%) but en route ATFM delay increased by 38%.
- Portugal reported an almost 2% increase in ATCO FTE numbers in 2020 compared to 2019 values but this is still 8% less than planned for 2020.
- Portugal reported no rectifying measures to improve capacity performance.

### Cost-efficiency:

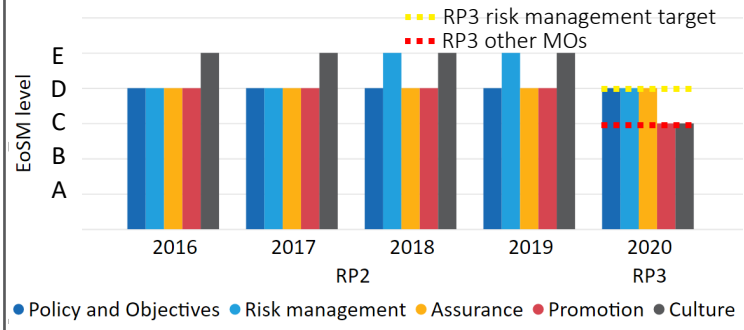
- Portugal is the third most affected Member State by COVID-19 in terms of traffic decrease. In 2020, the actual service units (1,556K) were 61% lower than the actual service units in 2019 (4,034K).
- Portugal had the third highest percentage saving in 2020 across all Member States, with a 28M€$_{2017}$ (-20%) reduction in 2020 actual total costs compared to 2019 actual costs. The reduction is mainly driven by a decrease in staff costs of 28M€$_{2017}$ (-26%), resulting from wage freezes, impact on pension plan liabilities and reduction in overtime.
- NAV Portugal spent 13M€$_{2017}$ in 2020 related to cost of investments, 4% less than planned in the 2019 draft performance plan (14M€$_{2017}$). The reduction can be attributable to a lower cost of capital due to a lower asset base and a reduction of the WACC.

# Portugal Factsheet



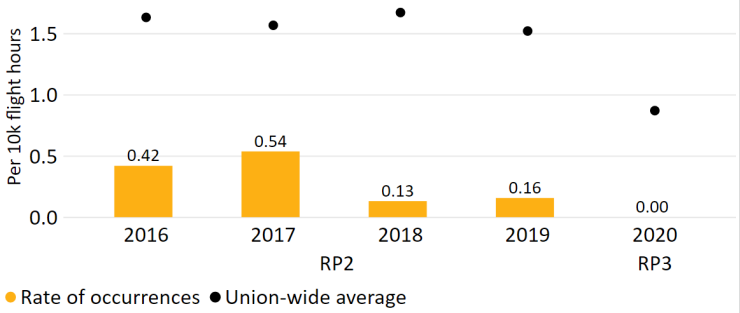
## Safety

### Main ANSP's effectiveness of safety management (EoSM) by year



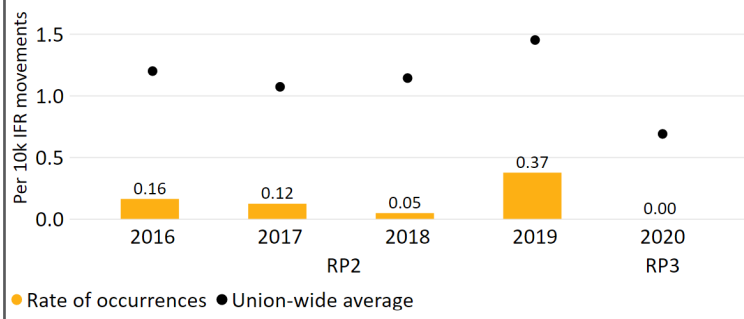

NAV Portugal achieved the RP3 EoSM target levels in 2020 and exceeded them in two safety management objectives.

### Rate of separation minima infringement (SMI) by year




Portugal did not record any separation minima infringement (SMI) occurrences in 2020.

### Rate of runway incursions (RIs) by year



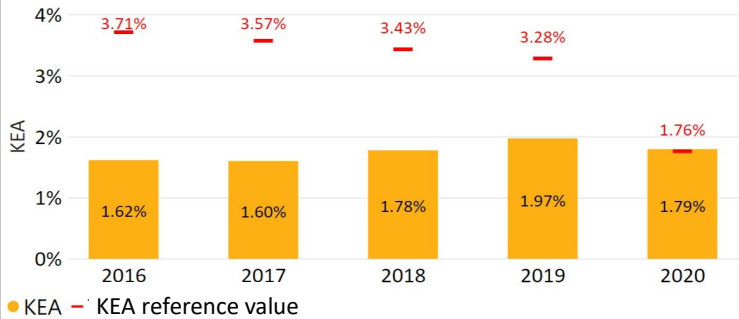

Portugal did not record any runway incursion (RI) occurrences in 2020.

### Use of automated safety data recording systems


Portugal does not use automated safety data recording systems neither for RIs nor SMIs.

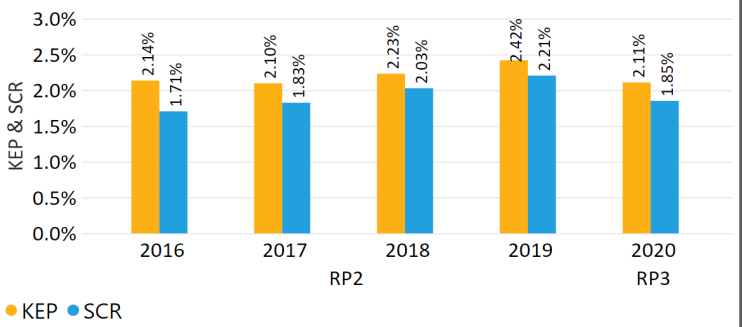
## Environment

### KEA performance



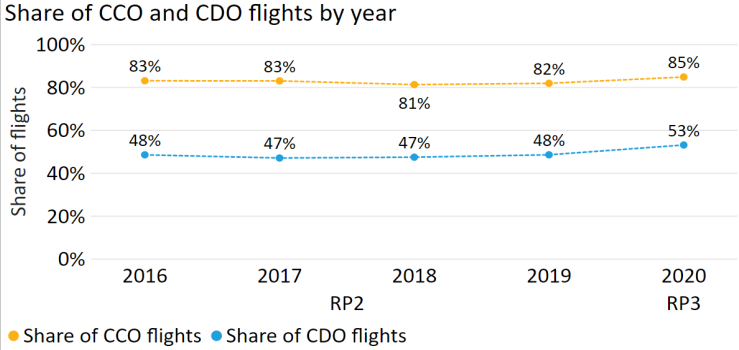

Portugal did not achieve its 2020 KEA reference value by 0.03 percentage points, but performance improved relative to 2019.

### KEP & SCR performance



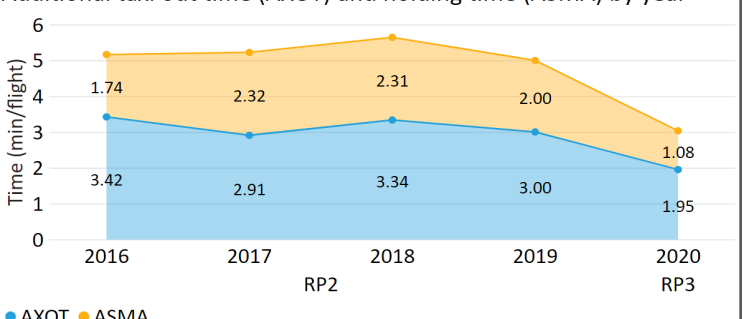

Portugal made shorter constrained routes available enabling air-space users to plan shorter routes in 2020 compared to 2019.

### Share of CCO and CDO flights by year




Portugal's CCO/CDO performance improved in 2020 compared to 2019. However, it is a similar performance as achieved in the past.

### Additional taxi out time (AXOT) and holding time (ASMA) by year



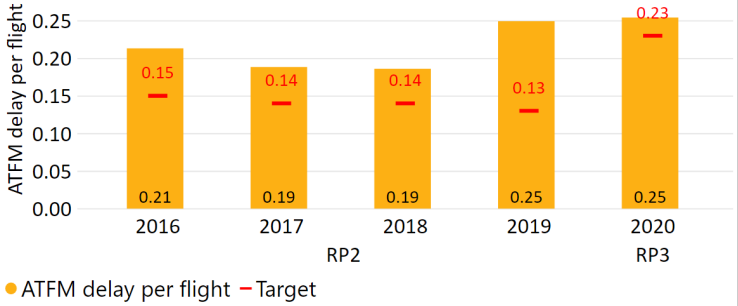

Terminal airspace users spent an additional 3.03 minutes per flight either taxiing or holding at Portuguese airports.

# Portugal Factsheet



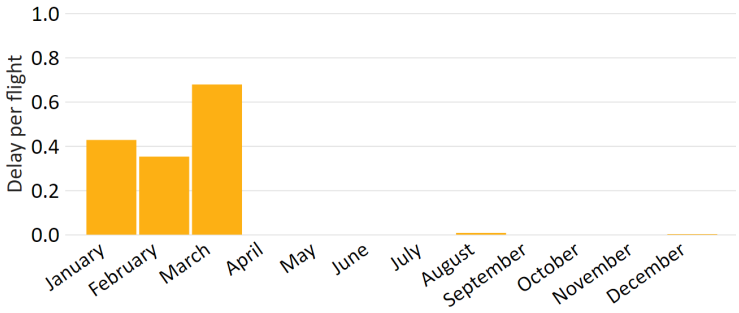
## Capacity

ATFM delay per flight (min/flight)



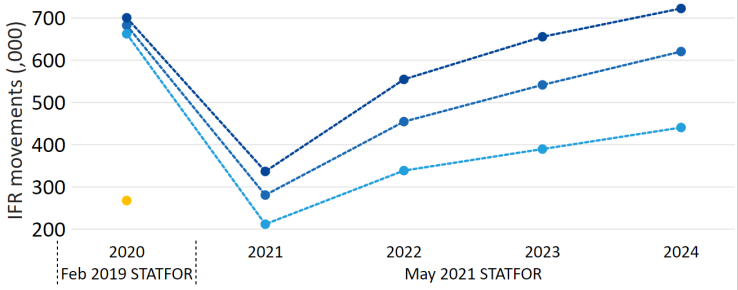

NAV Portugal recorded 0.25 minutes of delay on average and performed worse than the local breakdown value of 0.23.

Monthly ATFM delay per flight (min/flight) in 2020



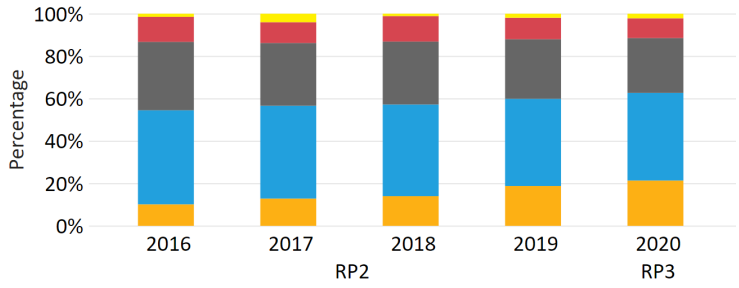

During the first three months, delays were caused mainly by ATC capacity and other non-ATC reasons (COVID-19 restrictions).

IFR movements and forecasts by year




IFR movements in Portugal were 61% less than the 2019 February base forecast in 2020.

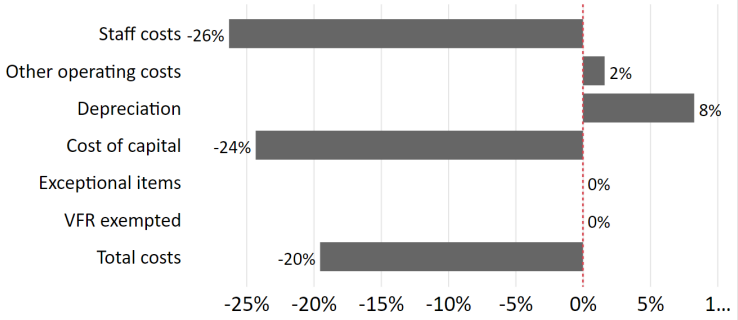
Percentage of en route delays per flight by year and time bin




The percentage of delayed flights with less than 5 minutes of delay increased by 2 percentage points compared to 2019.

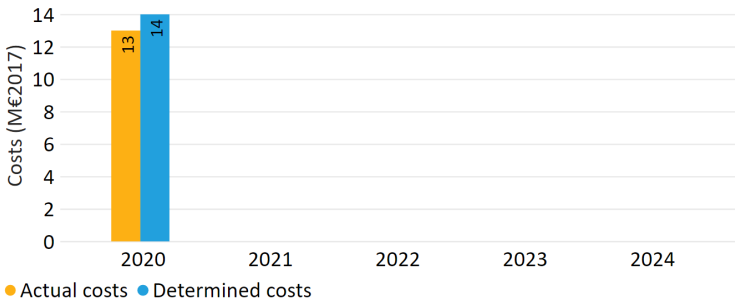
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite an increase in depreciation and other operating costs, total costs decreased by 20% due to staff cost containments.

Costs related to investments by year (M€2017)




NAV Portugal spent 0.5M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- ROMATSA achieved the RP3 EoSM targets in 2020 and exceeded the targets for two out of five management objectives. The achieved levels are better than what was planned in the draft 2019 performance plan. ROMATSA together with the NSA have implemented various measures and corrective actions to reach such high level of maturity.
- Romania recorded a good performance with respect to occurrences with no reported occurrences of RIs and lower rate of SMIs in 2020 compared to 2019. Romania remained below Union-wide rates for both SMIs and RIs in 2020.
- ROMATSA should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Romania achieved a KEA performance of 2.17% compared to its reference value of 1.55% and therefore did not contribute positively to the Union-wide target.
- Given that Romania's KEA performance was the same as the shortest constrained routes and offers free route airspace, performance can only improve if flights stop re-routing to avoid Ukrainian airspace. The design of the KEA indicator means such deviations significantly impact performance.
- Nonetheless, ATS routes that still exist within Romania should be removed and the PRB notes that there is an ongoing initiative to begin this work.
- Only one out of two Romanian airports that are regulated reported terminal data fully since 2017.
- The share of flights operating CCO/CDO at Romanian airports improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 21% compared to 2019.

### Capacity:

- ROMATSA registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.14.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Romania.
- Romania reported no capacity issues and a decrease of more than 3% in ATCO FTE numbers in 2020 compared to 2019 values. This represents a 10% deficit of ATCO FTEs compared to the planned number of ATCO FTEs for 2020. The deficit was caused by the interruption of recruitment and training processes due to the pandemic. The NSA also reported the problem of aging ATCOs at Bucuresti ACC, which is planned to be mitigated by the end of RP3.
- Based on the analysis of previous capacity profiles, the PRB estimates Romania will face a capacity gap once IFR movements rise above 95% of 2019 levels. The PRB recommends that capacity improvement measures are implemented before traffic begins to recover.

### Cost-efficiency:

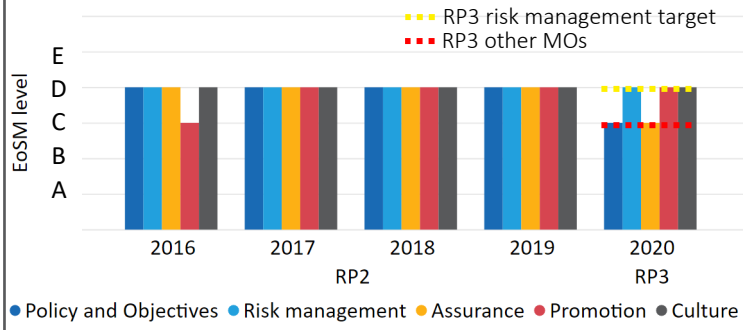
- The 2020 actual service units (2,246K) were 56% lower than the actual service units in 2019 (5,112K).
- Romania reduced total costs in 2020 by 7.5M€$_{2017}$ (-4%) compared to 2019 actual costs. The decrease is mainly driven by 5M€$_{2017}$ (-4%) reduction in staff costs, due to recruitment freezing, reduction of additional benefits and the retirement of personnel without being replaced. Romania also decreased exceptional costs by 7.6M€$_{2017}$ (-100%), without providing an explanation.
- ROMATSA spent 21.6M€$_{2017}$ related to cost of investments in 2020, in line with 2019 draft performance plan (21.5M€$_{2017}$).

# Romania Factsheet



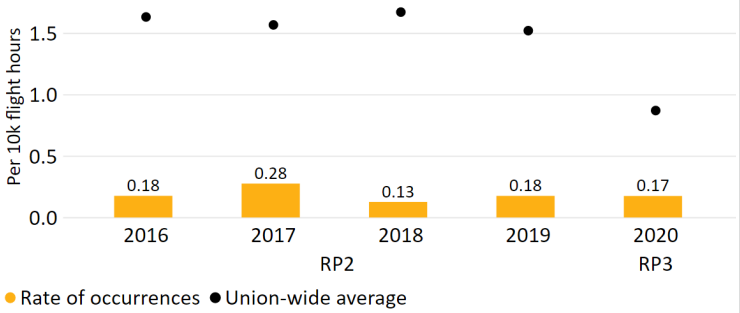
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



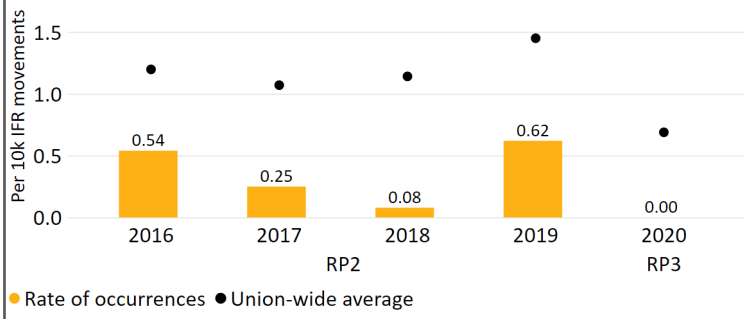

ROMATSA achieved the RP3 EoSM target levels in 2020 and exceeded them in two management objectives.

Rate of separation minima infringement (SMI) by year




The rate of SMIs per flight hour decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Rate of runway incursions (RIs) by year



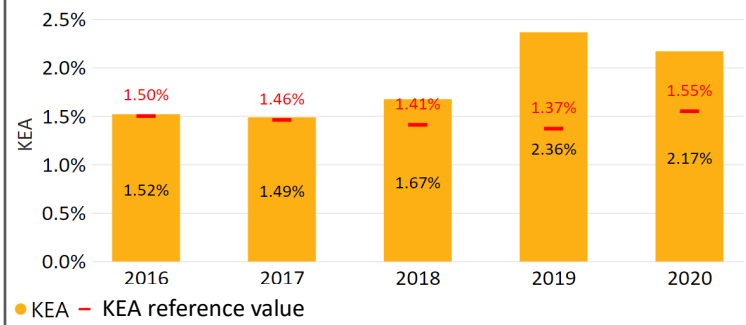

Romania did not record any runway incursion (RI) occurrences in 2020.

Use of automated safety data recording systems


Romania does not use automated safety data recording systems neither for RIs nor SMIs.

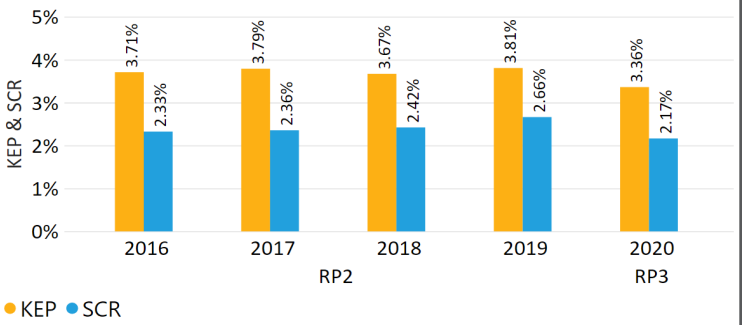
## Environment

KEA performance



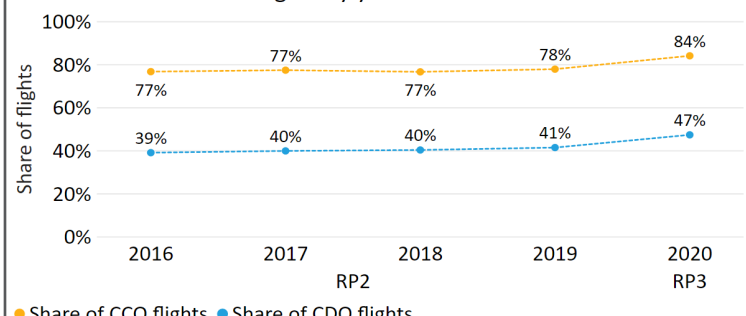

Romania did not achieve its 2020 KEA reference value by 0.62 percentage points, but performance improved relative to 2019.

KEP & SCR performance



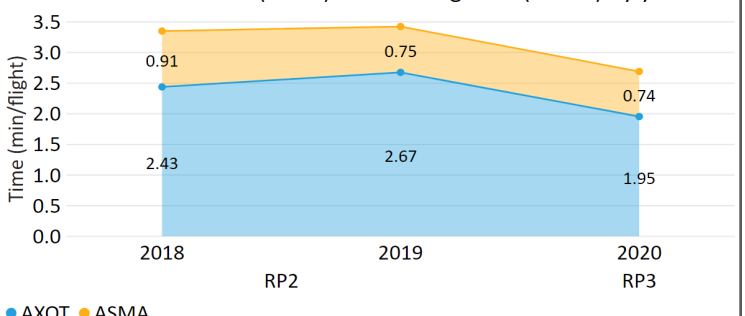

Romania made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Romania's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



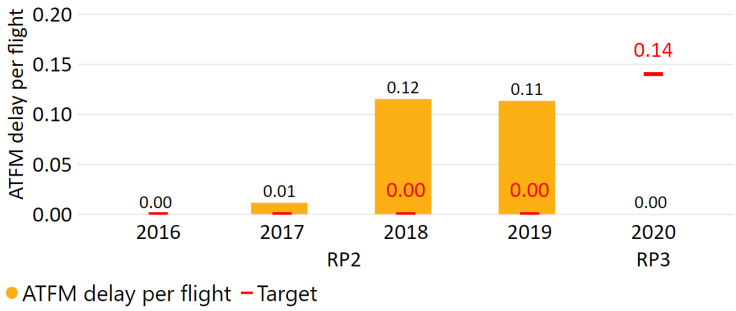

Terminal airspace users spent an additional 2.69 minutes per flight either taxiing or holding at Bucharest airport.

# Romania Factsheet



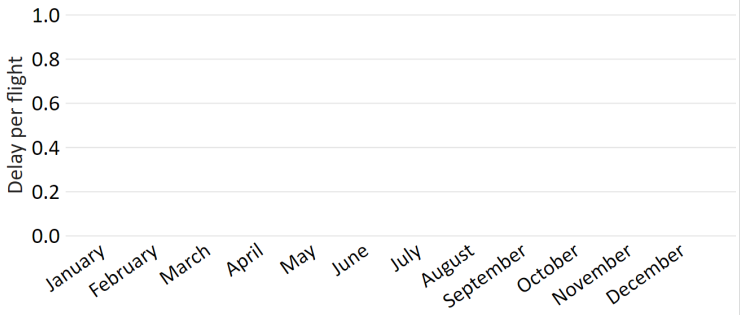
## Capacity

ATFM delay per flight (min/flight)



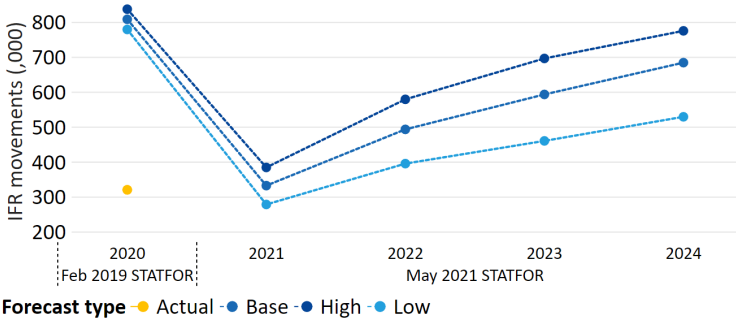

ROMATSA recorded zero delays on average in 2020 and performed better than the local breakdown value of 0.14

Monthly ATFM delay per flight (min/flight) in 2020



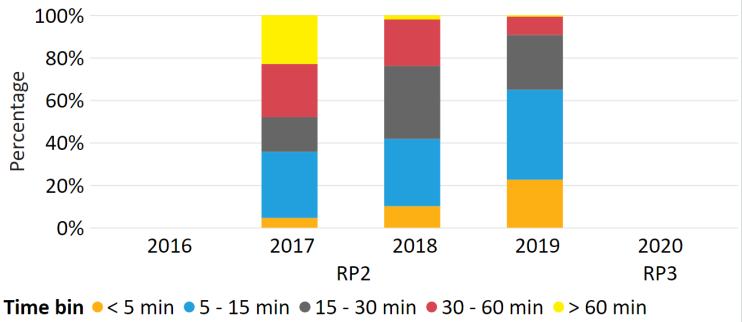

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Romania were 60% less than the 2019 February base forecast in 2020.

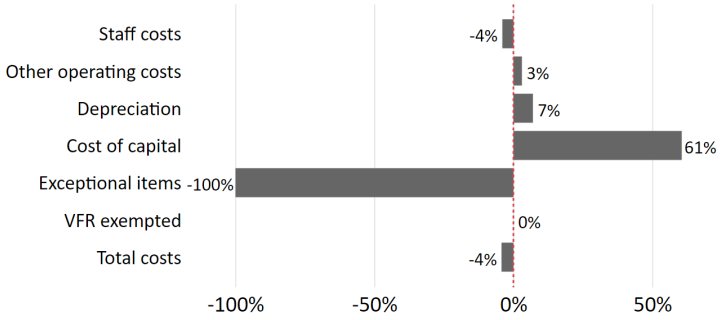
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

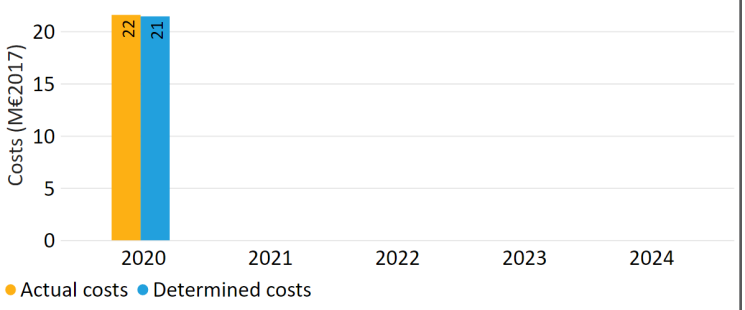
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Staff cost containment measures led to a 4% decrease in total costs.

Costs related to investments by year (M€2017)




ROMATSA 2020 costs related to investments are in line with what was originally planned in 2019 draft performance plan.

## Comments from the Performance Review Body:

### Safety:

- LPS SR achieved the RP3 EoSM targets for safety risk management and safety assurance while improvements are required to the maturities of the other three management objectives. For safety risk management and safety assurance, LPS SR is ahead of the plan included in the draft 2019 performance plan and on the planned level for the three other objectives.
- An action plan for further improvement of the safety management system maturity is currently under the review at the safety board. Significant measures are planned for 2021 including measures related to just culture, compliance management and safety/SMS training, which should improve performance.
- LPS SR only needs to improve safety maturity by one level on four out of 28 EoSM questions to achieve the RP3 targets. This should be feasible sooner than 2024.
- Slovakia recorded a good performance with respect to safety occurrences with no occurrences recorded for SMIs or RIs.
- LPS SR should improve its SMS by implementing automated safety data recording systems for RIs.

### Environment:

- Slovakia achieved a KEA performance of 2.22% compared to its reference value of 2.10% and therefore did not contribute positively to the Union-wide target.
- No detailed assessment was completed by the NSA to explain the performnace. Instead, the NSA suggested that airspace users are not making better use of free route airspace that is available above FL245.
- However, given that the shortest constrained routes have remained stable over the past five years and remains above the actual KEA performance, it suggests that Slovakia's airspace can be further improved to better serve airspace users.
- Slovakia has no airports that are regulated under the RP3 performance and charging scheme.

### Capacity:

- LPS SR registered zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.18.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 64% below the 2019 levels in Slovakia.
- Slovakia reported no capacity issues and an almost 2% decrease in ATCO FTE numbers in 2020 compared to 2019. This represents a 16% deficit of ATCO FTEs compared to the planned number of ATCO FTEs for 2020 - despite extensive recruitment efforts being continued.

### Cost-efficiency:

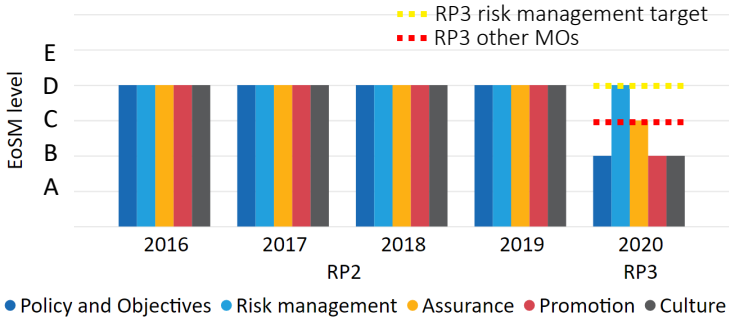
- Slovakia encountered the largest decrease in service units across Member States, with 2020 actual service units (475K) being 63% lower than the actual service units in 2019 (1,295K).
- Slovakia had the highest percentage of savings in 2020 across all Member States, decreasing total costs in 2020 by 20M€$_{2017}$ (-32%). The reduction is primarily driven by a decrease of 17M€$_{2017}$ (-41%) in staff costs, resulting from freezing of recruitment, non-payment of bonuses, decrease in social fund contribution and education costs and salaries.
- LPS SR spent 6.8M€$_{2017}$ related to cost of investments in 2020, 12% less than planned in the 2019 draft performance plan (7.7M€$_{2017}$). The reduction can be explained by a decrease in depreciation and cost of capital, due to a decrease in both the asset base and the WACC.

# Slovakia Factsheet



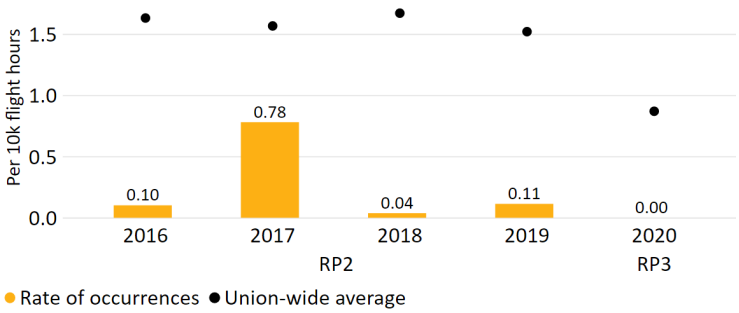
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



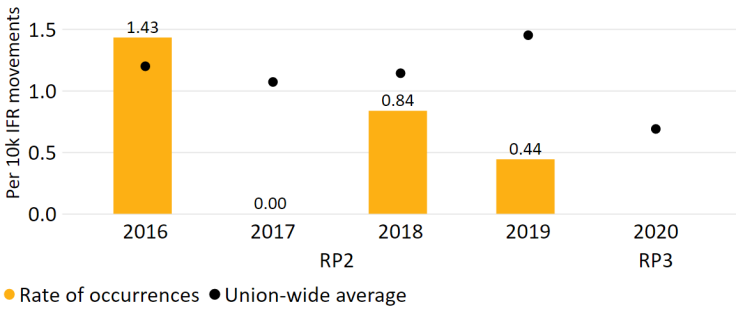

LPS SR achieved the target levels for safety risk management and safety assurance but not the other MOs.

Rate of separation minima infringement (SMI) by year




Slovakia did not record any separation minima infringement (SMI) occurrences in 2020.

Rate of runway incursions (RIs) by year



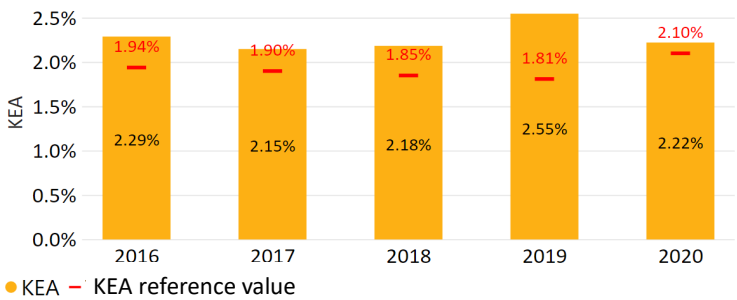

Slovakia did not record any runway incursion (RI) occurrences in 2020.

Use of automated safety data recording systems


Slovakia uses automated safety data recording systems for recording of SMIs.

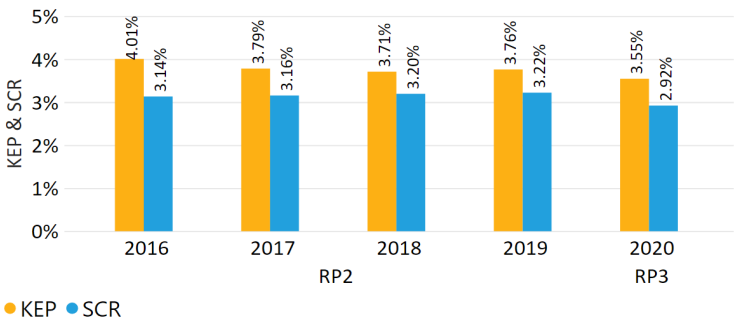
## Environment

KEA performance




Slovakia did not achieve its 2020 KEA reference value by 0.12 percentage points, but performance improved relative to 2019.

KEP & SCR performance




Slovakia made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

No Slovakian airport is regulated under the performance and charging scheme.

Slovakia did not declare any of its airports as subject to the performance and charging regulations.

No Slovakian airport is regulated under the performance and charging scheme.

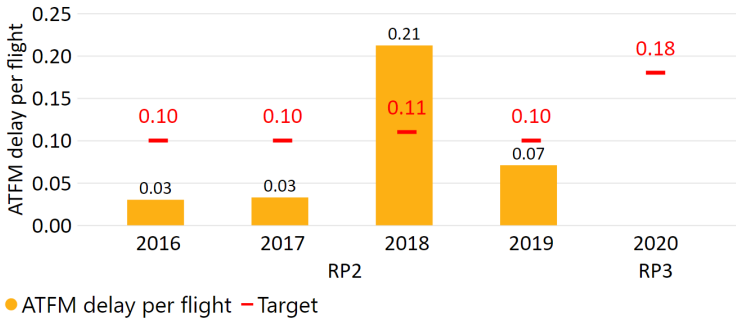
Slovakia did not declare any of its airports as subject to the performance and charging regulations.

# Slovakia Factsheet



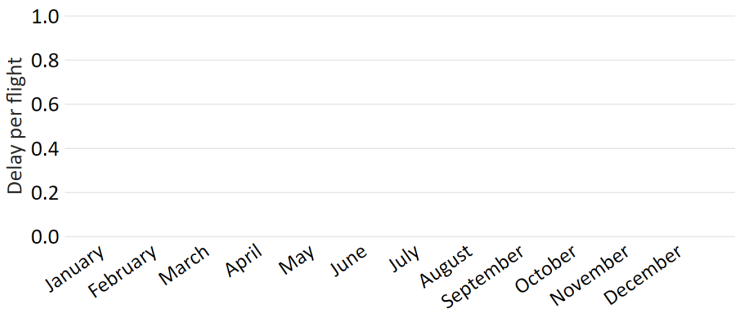
## Capacity

ATFM delay per flight (min/flight)



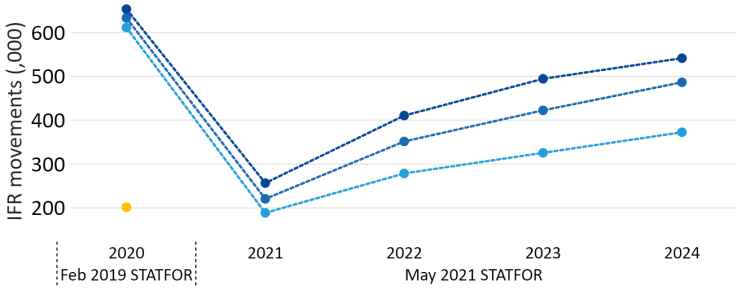

LPS SR recorded zero delays on average in 2020 and performed better than the local breakdown value of 0.18

Monthly ATFM delay per flight (min/flight) in 2020



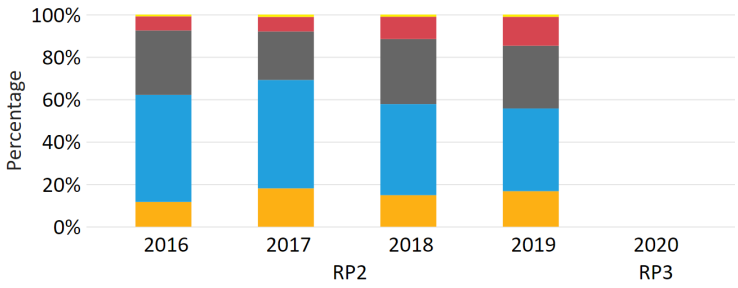

The low level of en route delays means a monthly statistical analysis was not applicable.

IFR movements and forecasts by year




IFR movements in Slovakia were 68% less than the 2019 February base forecast in 2020.

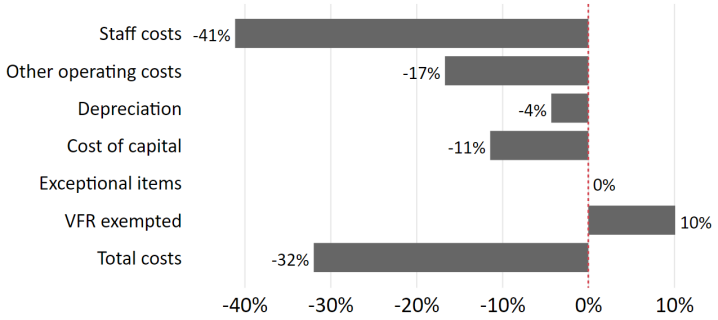
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

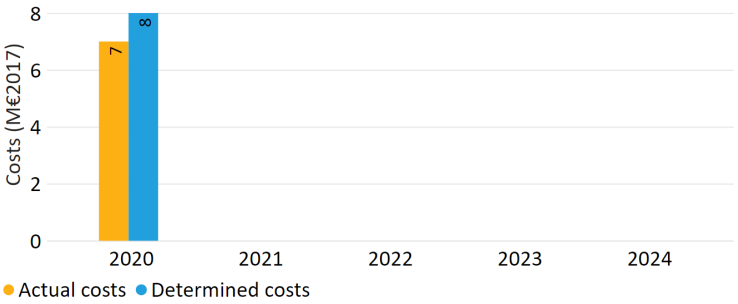
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Cost savings in all cost categories led to a 32% decrease in total costs.

Costs related to investments by year (M€2017)




LPS SR spent 0.9M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- Slovenia Control achieved the RP3 EoSM targets in four out of five management objectives and only needs to further improve in the safety risk management objective.
- The achieved maturity levels are consistent with the planned levels included in the draft 2019 performance plan. Slovenia Control, together with the NSA, implemented multiple review processes and continuous monitoring to ensure a continued high safety performance.
- Slovenia had a good performance with respect to safety occurrences with no occurrences recorded neither for SMIs nor RIs.
- Slovenia Control should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Slovenia achieved a KEA performance of 1.51% compared to its reference value of 1.68% and therefore contributed positively towards the Union-wide target.
- The actual KEA performance is close to the shortest constrained routes, suggesting that within the current airspace design, airspace users are flying the most optimum routes. Therefore, Slovenia should consider whether the current airspace design will support the traffic recovery and take into account any differences in traffic flows that may occur.
- Slovenia has no airports that are regulated under the RP3 performance and charging scheme.

### Capacity:

- Slovenia Control registered near zero minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.23.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 58% below the 2019 levels in Slovenia.
- Slovenia reported no capacity issues and no changes in ATCO FTE numbers in 2020 compared to 2019. On-the-job training of three ATCOs was stopped due to the pandemic, which explains the 4% difference between actual and planned ATCO FTEs in 2020.

### Cost-efficiency:

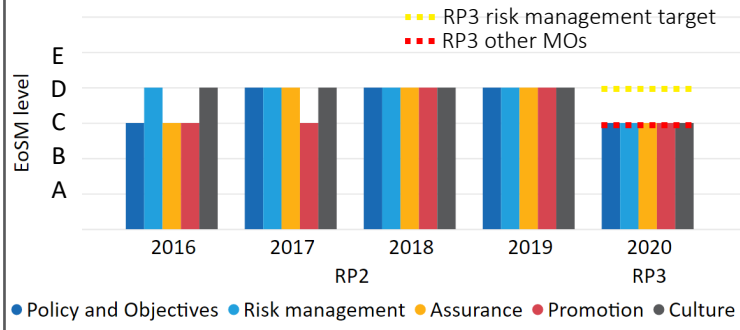
- The 2020 actual service units (264K) were 57% lower than the actual service units in 2019 (618K).
- Slovenia reduced total costs in 2020 by 2.6M€$_{2017}$ (-8%) compared to 2019 actual costs. The reduction is primarily driven by a decrease in staff costs of 2.7M€$_{2017}$ (-13%), resulting from delay of ATCOs employment.
- Slovenia Control spent 2M€$_{2017}$ in 2020 related to cost of investments, 59% less than planned in the 2019 draft performance plan (4.9M€$_{2017}$). Costs related to other investments and existing investments decreased compared to the plan. No explanation has been provided regarding this decrease.

# Slovenia Factsheet



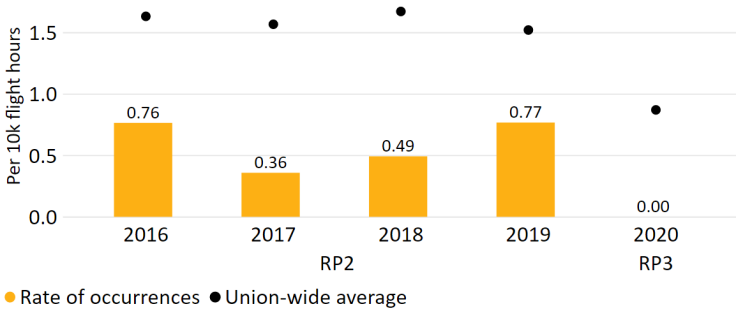
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



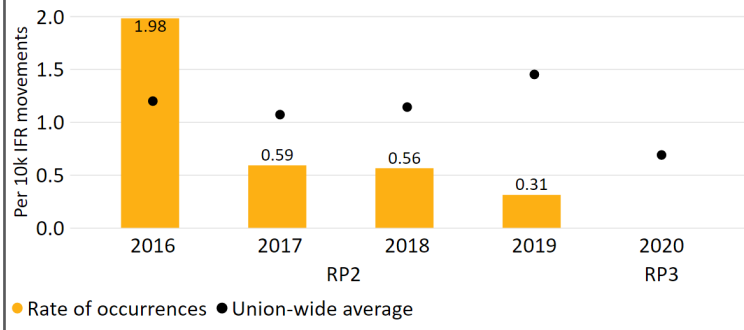

Slovenia Control did not achieve the target for safety risk management but achieved the targets for all other MOs.

Rate of separation minima infringement (SMI) by year




Slovenia did not record any SMI occurrences in 2020.

Rate of runway incursions (RIs) by year



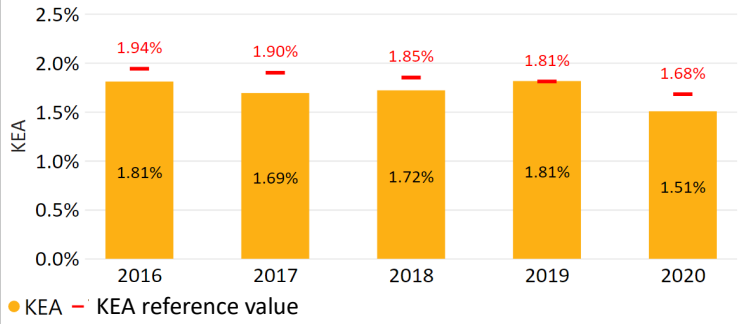

Slovenia did not record any runway incursion (RI) occurrences in 2020.

Use of automated safety data recording systems


Slovenia does not use automated safety data recording systems neither for RIs nor SMIs.

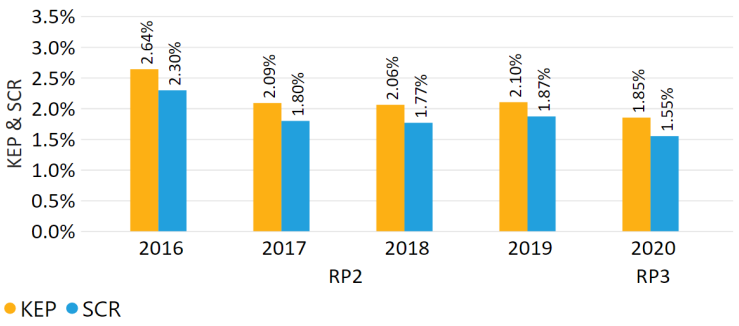
## Environment

KEA performance




Slovenia achieved its 2020 KEA target by 0.17 percentage points, and performance improved relative to 2019.

KEP & SCR performance




Slovenia made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

No Slovenian airport is regulated under the performance and charging scheme.

Slovenia did not declare any of its airports as subject to the performance and charging regulations.

No Slovenian airport is regulated under the performance and charging scheme.

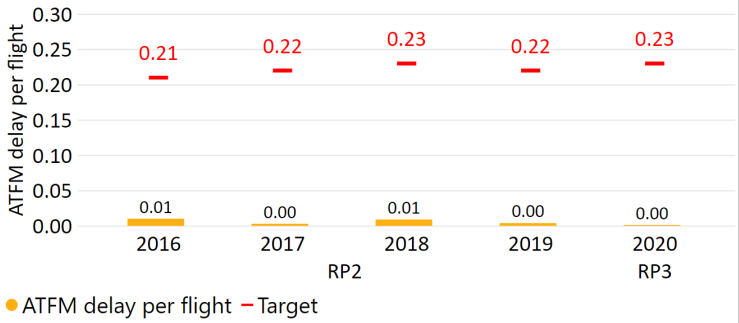
Slovenia did not declare any of its airports as subject to the performance and charging regulations.

# Slovenia Factsheet



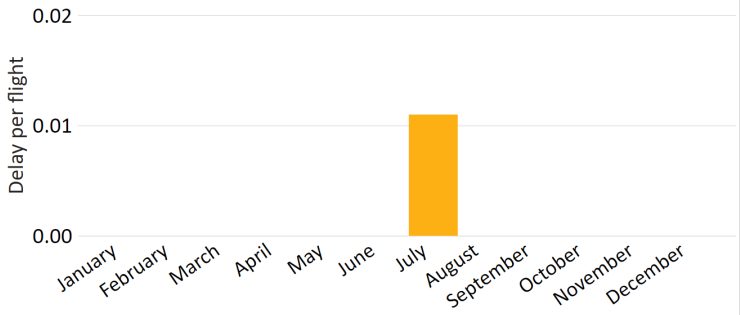
## Capacity

ATFM delay per flight (min/flight)



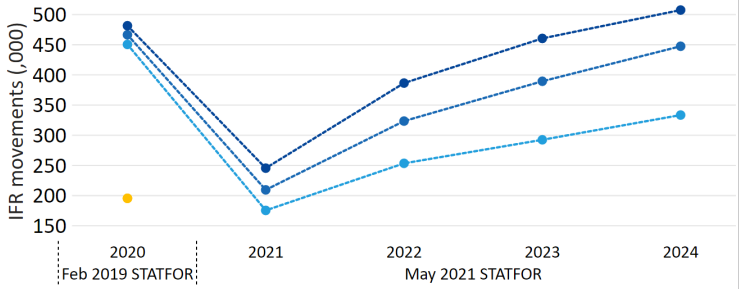

Slovenia Control recorded zero delays on average in 2020 and performed better than the local breakdown value of 0.23.

Monthly ATFM delay per flight (min/flight) in 2020



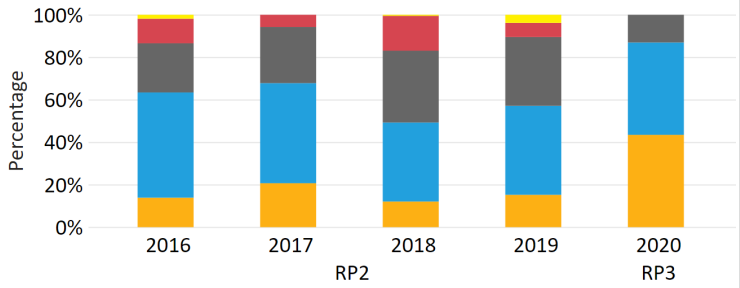

A very limited amount of delays was generated in July due to ATC related disruptions.

IFR movements and forecasts by year




IFR movements in Slovenia were 58% less than the 2019 February base forecast in 2020.

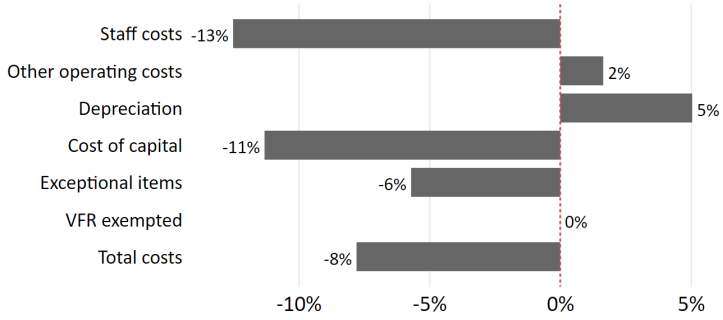
Percentage of en route delays per flight by year and time bin




The low number of flights affected by delays means a statistical analysis of delay distribution was not applicable.

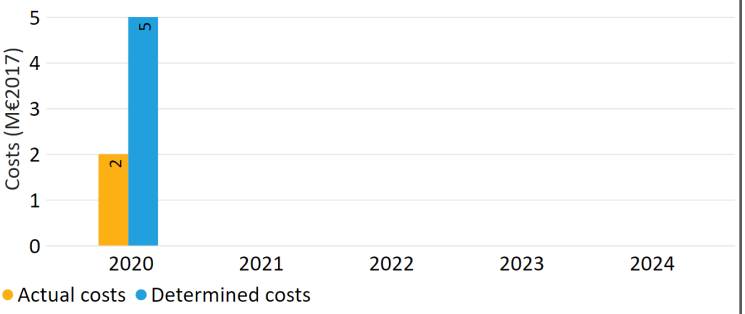
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Slovenia reduced total costs in 2020 compared to 2019 by 8%, mainly attributable to the decrease in staff costs.

Costs related to investments by year (M€2017)




Slovenia Control spent 2.9M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- ENAIRE achieved the RP3 EoSM targets and exceeded them in four out of five management areas. Ferronats achieved the RP3 EoSM target in four out of five management objectives with only safety risk management requiring further improvement.
- In all five management objectives ENAIRE achieved higher levels of maturity than planned in the draft 2019 performance plan. ENAIRE implemented continuous monitoring processes to maintaining a high safety performance. Measures are defined for further improvements to the maturity levels such as stress management processes and the creation of just culture policies.
- Spain recorded better performance with respect to safety occurrences with lower rates of SMIs and RIs in 2020 compared with 2019. However, the rates of occurrences for both were above the Union-wide average rates in 2020.
- Spain uses specific automated safety data recording systems for both SMIs and RIs for ACC and TMA sectors and it is one of only a handful of ANSPs to do so.

### Environment:

- Spain achieved a KEA performance of 3.11% compared to its reference value of 3.23% and therefore contributed positively to the Union-wide target.
- The NSA stated that the 2020 KEA improvement is a direct consequence of the drastic reduction of traffic in 2020, which facilitated the implementation of operational and structural measures that have led to the improvement in horizontal efficiency. Spain offered airspace users direct routes, which meant that KEA performance was better than the shortest constrained routes.
- The share of flights operating CCO/CDO at Spanish airports improved in 2020 compared to 2019. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 52% compared to 2019.

### Capacity:

- ENAIRE registered 0.4 minutes of average en route ATFM delay per flight, thus not achieving the local breakdown value of 0.36 (the provisional national capacity target of 0.47 was achieved). IFR movements in 2020 were 60% below the 2019 levels in Spain.
- 79% of the total en route ATFM delays generated in Spain was during March due to the pandemic related restrictions imposed by the government (delay group 'Other non-ATC'). Barcelona, Madrid and Palma ACCs recorded significantly less delays in 2020 than in 2019, but Canarias and Sevilla ACCs generated 0.29 and 0.16 minutes per flight more in 2020 respectively, mainly driven by special events (COVID-19 restrictions).
- Based on the analysis of previous capacity profiles, the PRB estimates Spain will face a capacity gap once IFR movements rise above 94% of 2019 levels. The PRB recommends that capacity improvement measures should be implemented.

### Cost-efficiency:

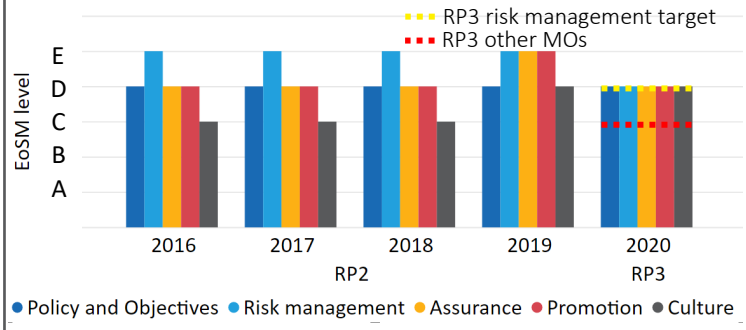
- The 2020 actual service units of Spain continental (4,437K) were 61% lower than the actual service units in 2019 (11,502K). At the same time, the 2020 actual service units of Spain Canarias (803K) were 59% lower than the actual service units in 2019 (1,954K).
- Spain continental reduced costs in 2020 compared to 2019 actual costs by 16M€$_{2017}$ (-3%). The reduction is mainly driven by a decrease in staff costs of 16M€$_{2017}$ (-4%). However, the adaptation to International Accounting Standards (IAS) increased exceptional costs by 12M€$_{2017}$ (+201%).
- Spain Canarias reduced costs in 2020 compared to 2019 actual costs by 5.5M€$_{2017}$ (-6%). The reduction is mainly driven by a decrease in staff costs of 6.2M€$_{2017}$ (-9%), due to exceptional measures. However, other operating costs increased mainly due to higher Eurocontrol costs (+4.6M€$_{2017}$ or +38%).
- ENAIRE spent 109M€$_{2017}$ in 2020 related to cost of investments, 8% less than planned in the 2019 draft performance plan (118M€$_{2017}$).

# Spain Factsheet



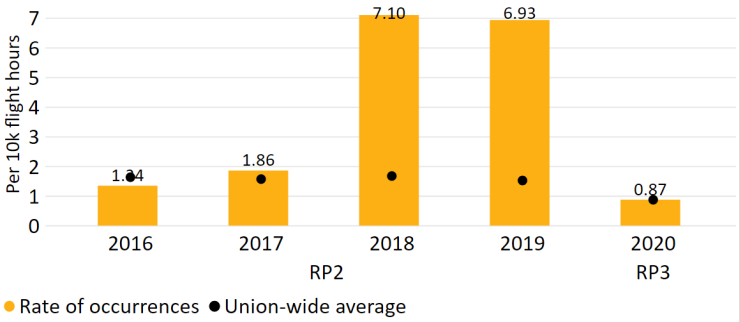
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



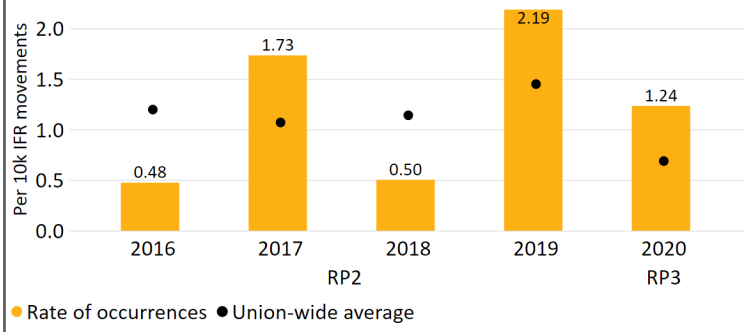

ENAIRE achieved the RP3 EoSM targets levels in 2020 and exceeded them in four safety management objectives.

Rate of separation minima infringement (SMI) by year




The rate of SMI per flight hour decreased in 2020 relative to 2019. The rate is approaching the Union-wide average rate.

Rate of runway incursions (RIs) by year



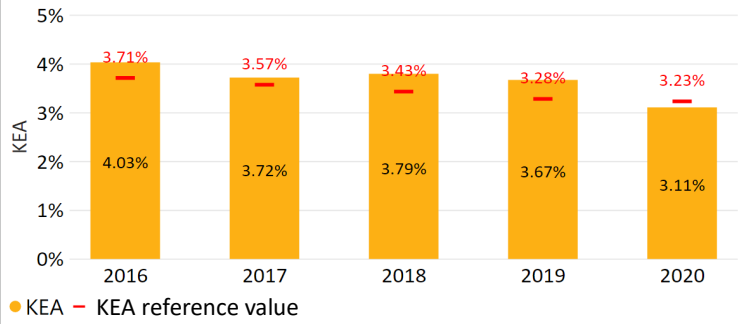

The rate of RIs per movement decreased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Use of automated safety data recording systems


Spain uses the automated safety data recording systems for both SMIs and RIs.

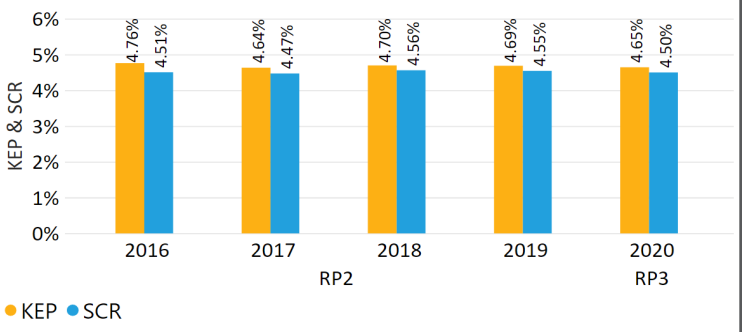
## Environment

KEA performance



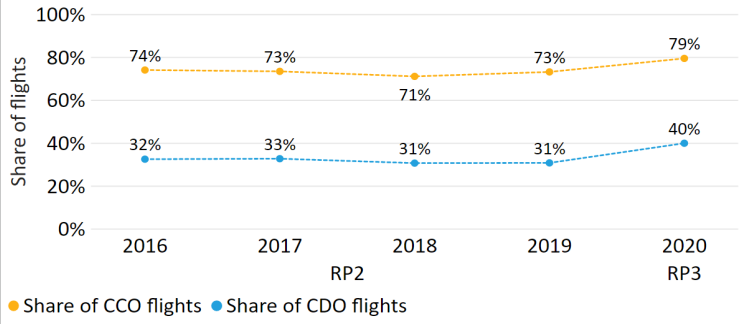

Spain achieved its 2020 KEA reference value by 0.12 percentage points, and performance improved relative to 2019.

KEP & SCR performance



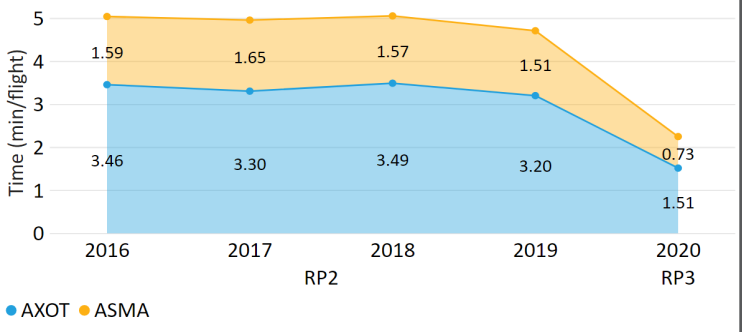

Spain made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Spain's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



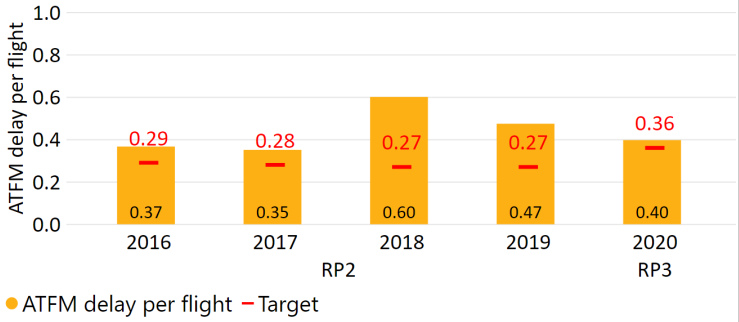

Terminal airspace users spent an additional 2.24 minutes per flight either taxiing or holding at Spanish airports.

# Spain Factsheet



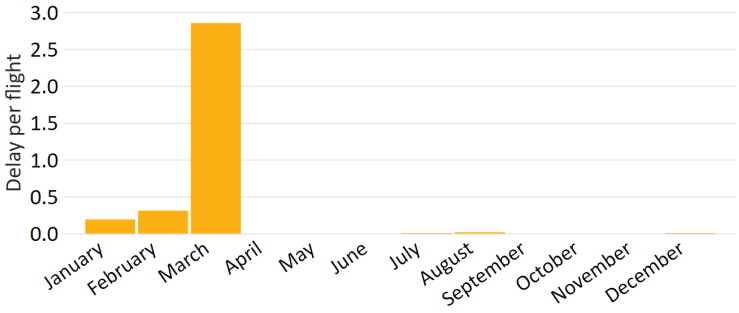
## Capacity

ATFM delay per flight (min/flight)



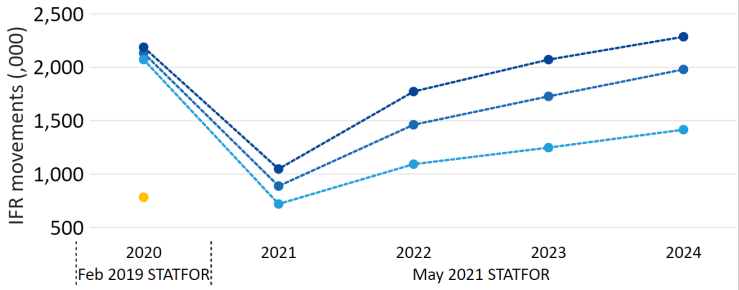

ENAIRE recorded 0.4 minutes of delay on average in 2020 and performed worse than the local breakdown value of 0.36.

Monthly ATFM delay per flight (min/flight) in 2020




The majority of delays was generated in March due to COVID-19 related restrictions, classified as 'Other – non-ATC disruption'.

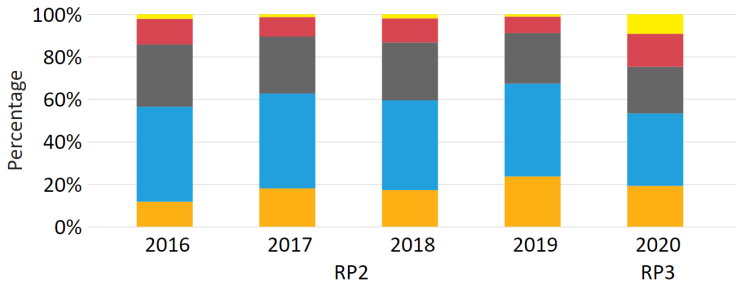
IFR movements and forecasts by year




**Forecast type** Actual Base High Low

IFR movements in Spain were 60% less than the 2019 February base forecast in 2020.

Percentage of en route delays per flight by year and time bin

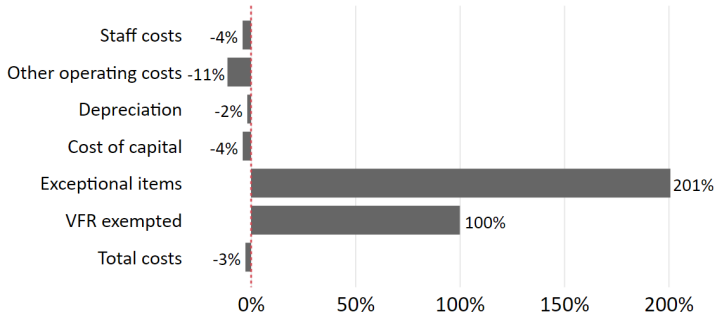



**Time bin** < 5 min 5 - 15 min 15 - 30 min 30 - 60 min > 60 min

Flights with delays between 30 and 60 minutes and longer than 60 minutes increased by 8 percentage points compared to 2019.

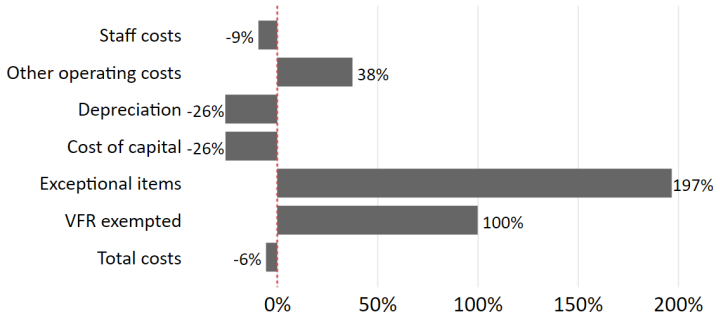
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs



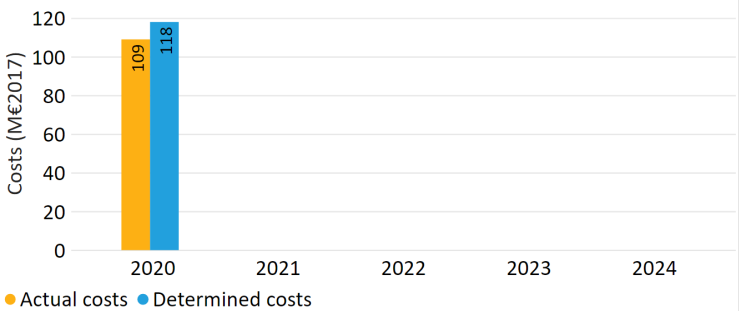

Spain Continental: Despite the adaptation to IAS substantially increasing exceptional costs, total costs decreased by 3%.

% difference between 2019 actual costs and 2020 actual costs




Spain Canarias: Despite an increase in other operating costs and exceptional costs, total costs decreased by 6%.

Costs related to investments by year (M€2017)




ENAIRE spent 9.1M€$_{2017}$ less than planned on costs related to investments in 2020.

## Comments from the Performance Review Body:

### Safety:

- LFV achieved its RP3 EoSM targets in all management objectives. The levels achieved in 2020 were consistent with the levels planned in the draft 2019 performance plan.
- With respect to safety occurrences, Sweden recorded a marginally higher rate of occurrences of SMIs and lower RIs in 2020 compared to 2019. Both rates remain above the Union-wide average, however, the NSA declared that they are unable to discriminate the occurrences with safety impact only.
- LFV should improve its SMS by implementing automated safety data recording systems.

### Environment:

- Sweden achieved a KEA performance of 1.03% compared to its reference value of 1.26% and therefore it contributed positively to the Union-wide target.
- In 2020, Sweden suspended RAD restrictions and removed ATS routes that existed above FL285. However, the shortest constrained routes in Sweden are still higher than KEA, suggesting that airspace users are not able to plan the routes they actually fly due to airspace constraints. To improve planning, Sweden could consider further measures such as cross-border free route airspace, which it has planned for 2023.
- The share of flights operating CCO/CDO at Stockholm Arlanda airport remained stable in 2020 compared to 2019, but performance is still class leading among regulated airports.
- The additional time airspace users spent taxiing or holding in terminal airspace reduced by 33% compared to 2019.

### Capacity:

- LFV registered 0.01 minutes of average en route ATFM delay per flight during 2020, thus meeting the local breakdown value of 0.15.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 57% below the 2019 levels in Sweden.
- Sweden reported no capacity issues and a 1% decrease in ATCO FTE numbers in 2020 compared to 2019.

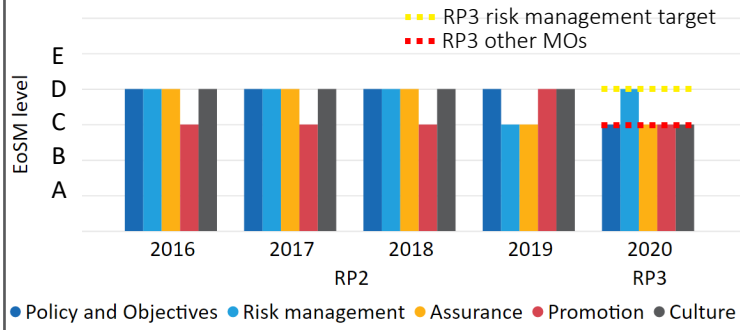
### Cost-efficiency:

- The 2020 actual service units (1,676K) were 56% lower than the actual service units in 2019 (3,789K).
- Sweden increased total costs in 2020 by 50M€$_{2017}$ (+23%) compared to 2019 actual costs, being the Member States with the largest cost increase. Moreover, Sweden did not achieve the cost-efficiency targets in 2019.
- Sweden increased staff costs by 58M€$_{2017}$ (+42%) due to notably higher pension costs. The increase is a lump sum and would only affect 2020.
- LFV spent 15M€$_{2017}$ in 2020 related to cost of investments, 21% less than planned in the 2019 draft performance plan (19M€$_{2017}$). The decrease is due to the fact that Swedish government decided to charge a WACC without return on equity.

# Sweden Factsheet

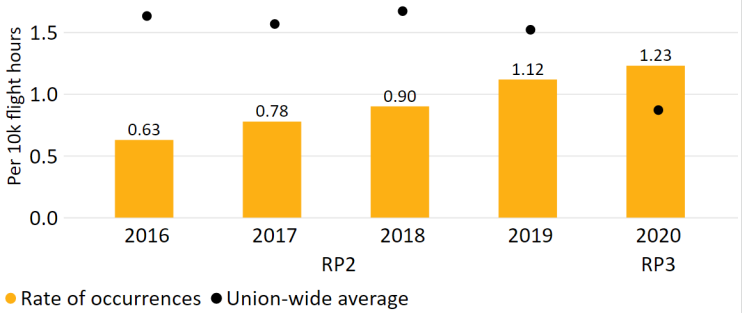
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



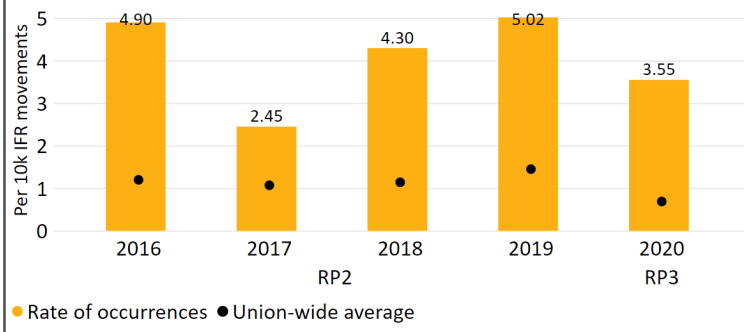

LFV achieved the RP3 EoSM targets levels in 2020 .

Rate of separation minima infringement (SMI) by year




The rate of SMIs increased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Rate of runway incursions (RIs) by year



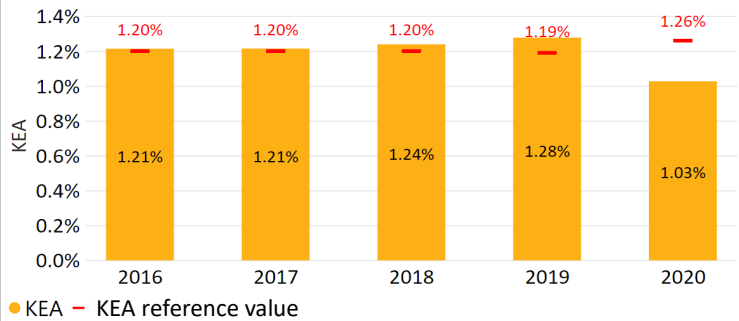

The rate of RIs per movement decreased in 2020 relative to 2019. The rate is above the Union-wide average rate.

Use of automated safety data recording systems


Sweden does not use automated safety data recording systems neither for RIs nor SMIs.

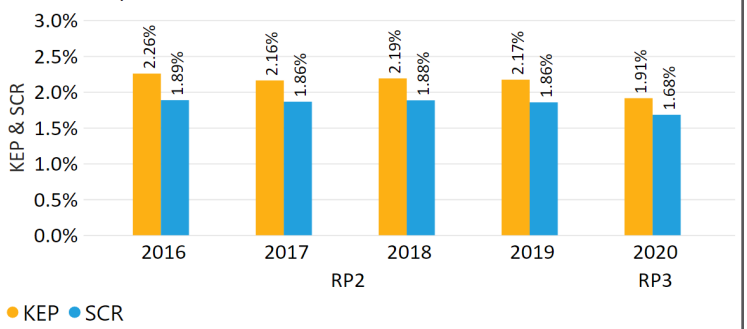
## Environment

KEA performance



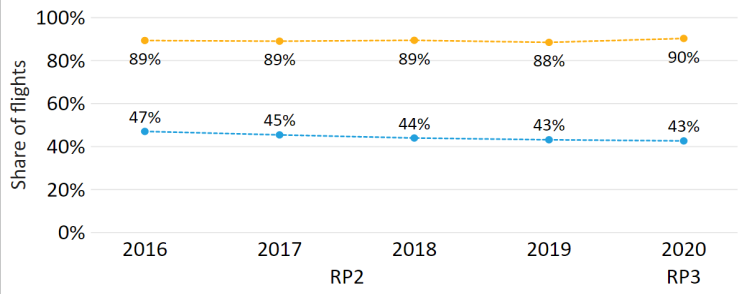

Sweden achieved its 2020 KEA reference value by 0.23 percentage points, and performance improved relative to 2019.

KEP & SCR performance



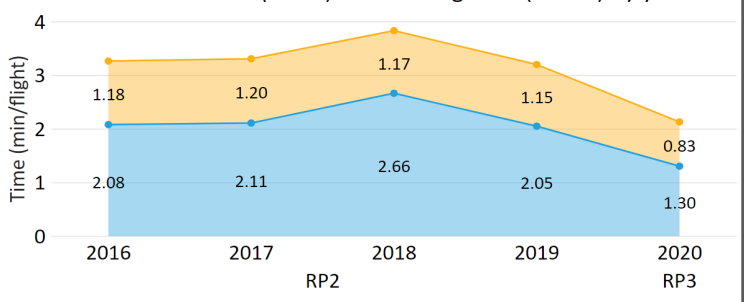

Sweden made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Sweden's CCO/CDO performance was stable in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



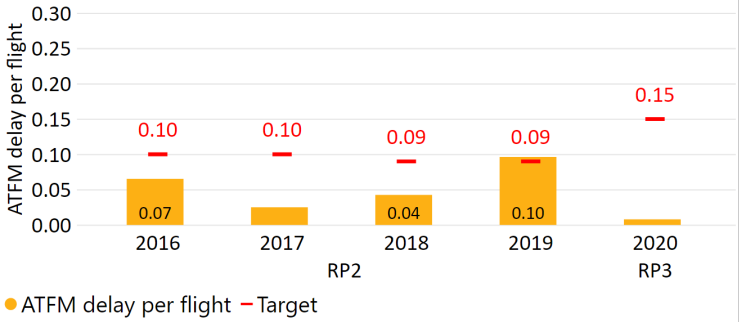

Terminal airspace users spent an additional 2.13 minutes per flight either taxiing or holding at Stockholm Arlanda airport.

# Sweden Factsheet



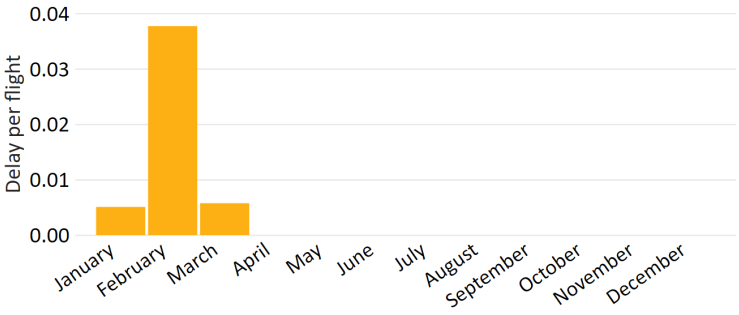
## Capacity

ATFM delay per flight (min/flight)



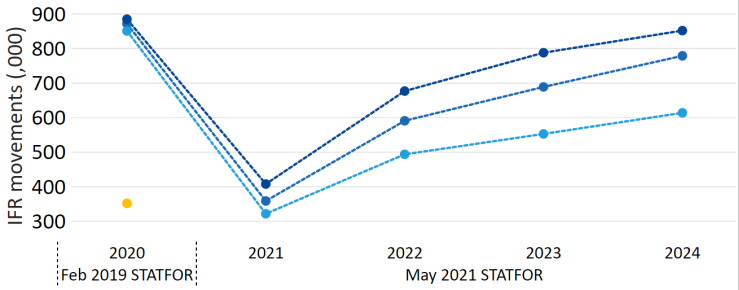

LFV recorded 0.01 minutes of delay on average in 2020 and performed better than the local breakdown value of 0.15

Monthly ATFM delay per flight (min/flight) in 2020



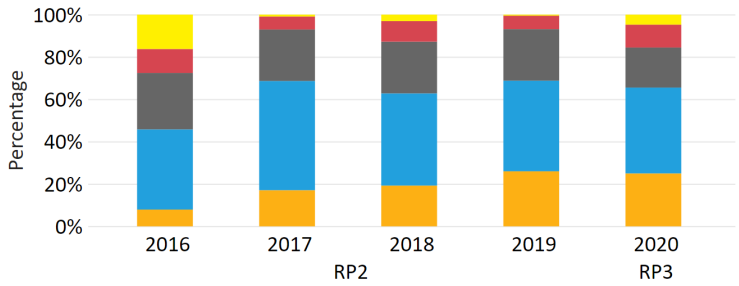

A limited amount of delay was generated in February due to ATC technical equipment related disruptions.

IFR movements and forecasts by year




IFR movements in Sweden were 60% less than the 2019 February base forecast in 2020.

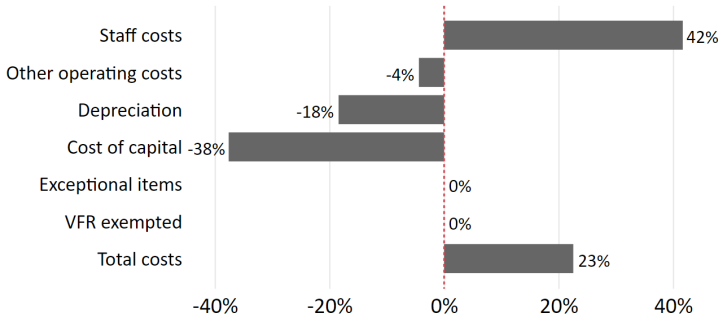
Percentage of en route delays per flight by year and time bin




Flights with delays between 30-60 minutes and longer than 60 minutes increased by 5 percentage points compared to 2019.

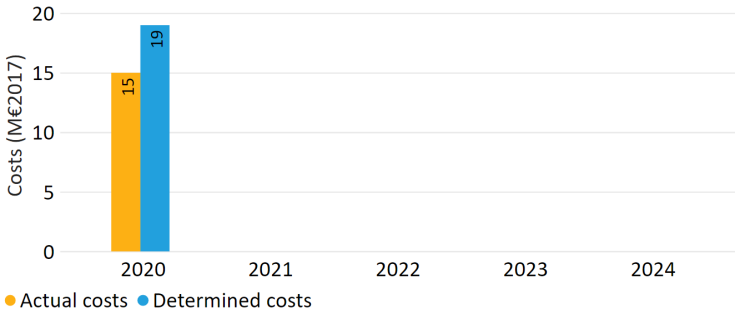
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Despite saving efforts of Sweden, total costs increased by 23% due to substantially higher pension costs.

Costs related to investments by year (M€2017)




LFV spent 3.9M€$_{2017}$ less than planned on costs related to investments in 2020, due to a change in the WACC computation.

## Comments from the Performance Review Body:

### Safety:

- Skyguide achieved the RP3 EoSM targets in all management objectives except safety risk management.
- The NSA provided no information as to the measures taken to improve safety risk management, but the NSA explained that no circumstance should prevent Skyguide from achieving the target during RP3.
- The EoSM performance in 2020 in some of the management objectives is lower than expected based on the maturity achieved at the end of RP2. Skyguide needs to improve maturity in all three questions used to measure the maturity in the safety risk management objective. This should be realistic to achieve during RP3.
- Switzerland recorded better performance with respect to safety occurrences with lower rates of SMIs and RIs in 2020 compared to 2019.
- Skyguide should improve its SMS by implementing automated safety data recording systems for RIs.

### Environment:

- FABEC stated that half of the Union-wide RAD simplifications applied in 2020 were within FABEC airspace and that eNM measures were not needed. This helped improve the shortest constrained routes within FABEC, but was not sufficient in helping to reach the FAB-level KEA reference value (2.90%) in 2020.
- FABEC also mentioned that KEA is proportional to delays and stated that this had an impact on the environment performance. The PRB does not agree with this as FABEC did not experience significant delays in 2020.
- Switzerland improved KEA relative to 2019 in 2020 achieving 4.21%.
- The share of flights operating CCO/CDO at Swiss airports improved in 2020 compared to 2019, although the CDO performance still remains quite low at 20%. The additional time airspace users spent taxiing or holding in terminal airspace reduced by 41% compared to 2019.

### Capacity:

- Skyguide recorded 0.04 minutes of average en route ATFM delay per flight, thus performing better than the local breakdown value of 0.33.
- Delays must be considered in the context of the traffic evolution: IFR movements in 2020 were 59% below the 2019 levels in Switzerland.
- Switzerland was the only Member State to report significant delays throughout the year in 2020 due to ATC capacity and staffing reasons. The PRB believes that with such low levels of traffic, ATC capacity and staffing issues were avoidable and recommends that capacity improvement measures are implemented before traffic recovers.
- Switzerland reported a decrease of over 6% in ATCO FTE numbers in Zurich ACC, while an almost 3% increase in Geneva ACC in 2020 compared to 2019 values.

### Cost-efficiency:

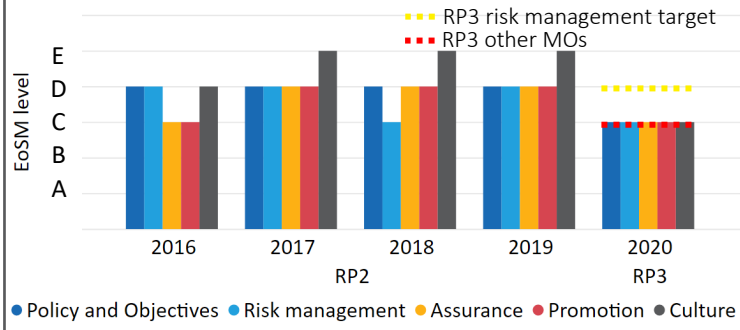
- Switzerland incurred the second largest decrease in service units, with 2020 actual service units (650K) being 62% lower than the actual service units in 2019 (1,708K).
- Switzerland incurred the second highest percentage increase in total costs across all Member States in 2020, with a 19M€$_{2017}$ (+13%) increase compared to 2019 actual costs. The increase is driven by 17M€$_{2017}$ higher staff costs (+17%) and 3.3M€$_{2017}$ higher other operating costs (+13%).
- Skyguide spent 47M€$_{2017}$ related to cost of investments in 2020, 8% less than planned in the 2019 draft performance plan (51M€$_{2017}$). The reduction can be explained by a decrease of cost of capital, by reason of an asset base decrease.

# Switzerland Factsheet



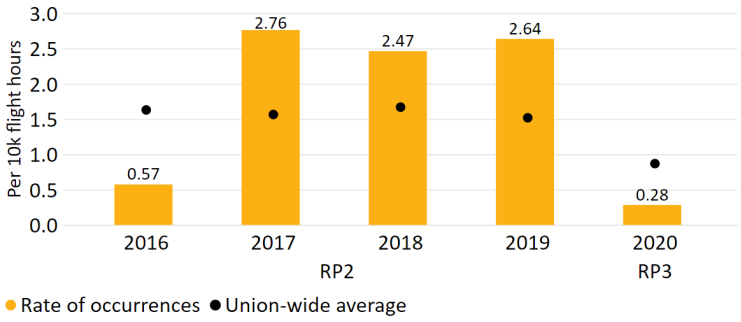
## Safety

Main ANSP's effectiveness of safety management (EoSM) by year



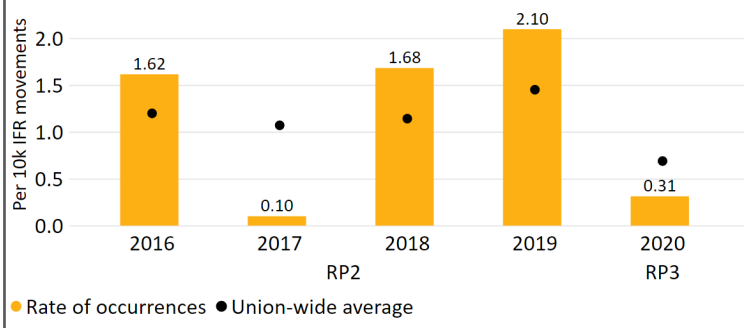

Skyguide did not achieve the target for safety risk management but achieved the targets for all other MOs.

Rate of separation minima infringement (SMI) by year




The rate of SMI decreased in 2020 relative to 2019. The rate is below the Union-wide average rate.

Rate of runway incursions (RIs) by year



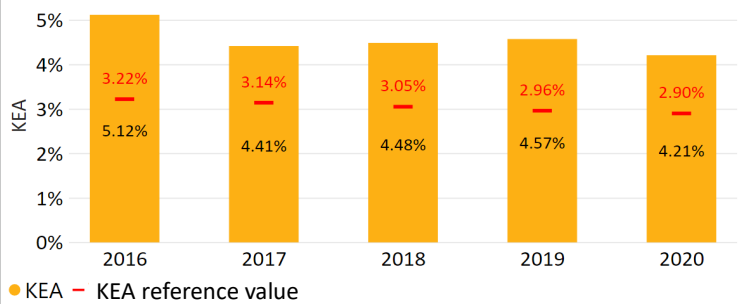

The rate of RIs per movement decreased in 2020 relative to 2019. The rate is below the Union-wide average.

Use of automated safety data recording systems


Switzerland uses automated safety data recording systems for recording of SMIs.

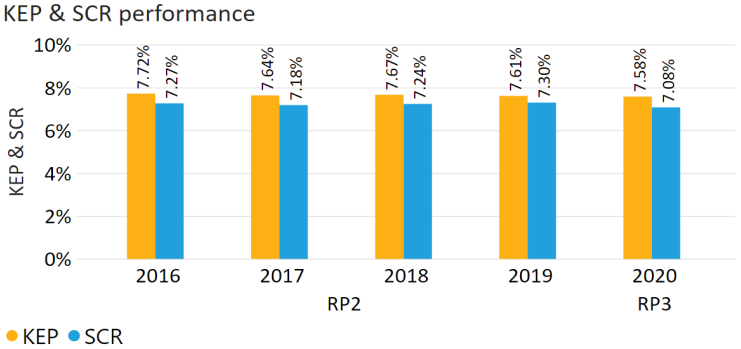
## Environment

KEA performance



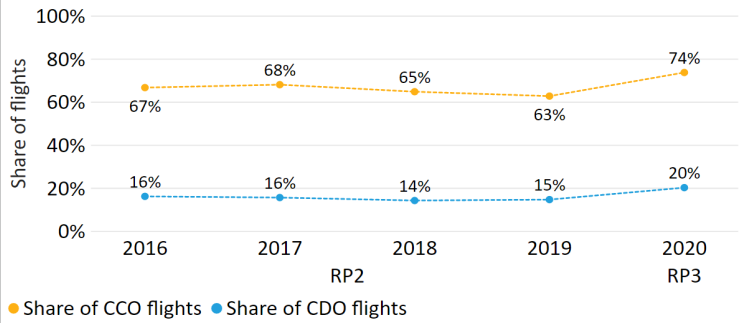

Switzerland improved KEA relative to 2019 in 2020 achieving 4.21%.

KEP & SCR performance



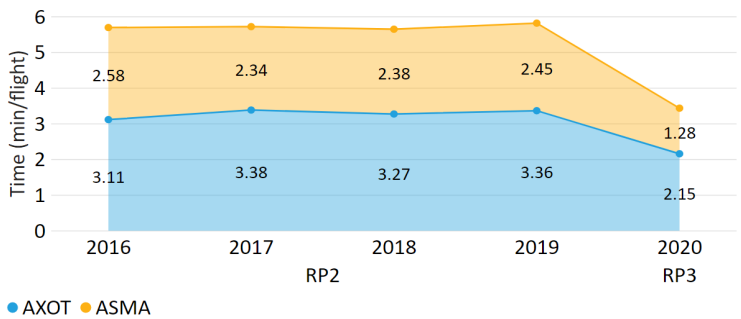

Switzerland made shorter constrained routes available enabling airspace users to plan shorter routes in 2020 compared to 2019.

Share of CCO and CDO flights by year




Switzerland's CCO/CDO performance improved in 2020 compared to 2019.

Additional taxi out time (AXOT) and holding time (ASMA) by year



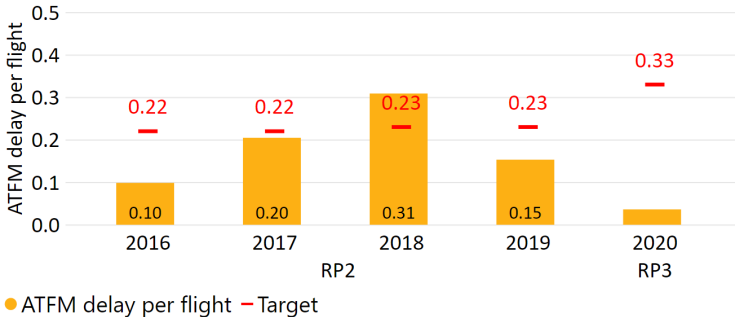

Terminal airspace users spent an additional 3.43 minutes per flight either taxiing or holding at Swiss airports.

# Switzerland Factsheet



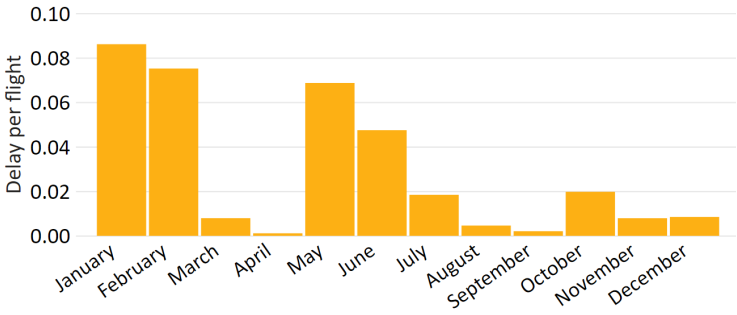
## Capacity

ATFM delay per flight (min/flight)



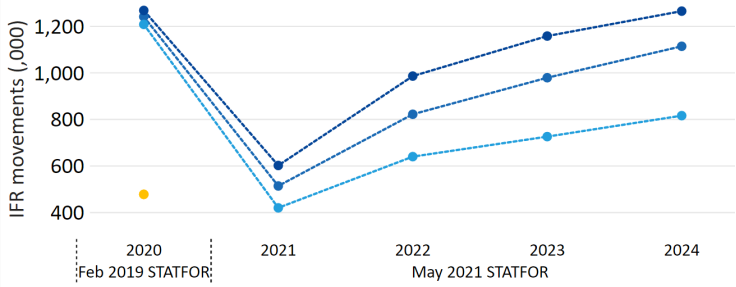

Skyguide recorded 0.04 minutes of delay on average in 2020 and performed better than the local breakdown value of 0.33.

Monthly ATFM delay per flight (min/flight) in 2020



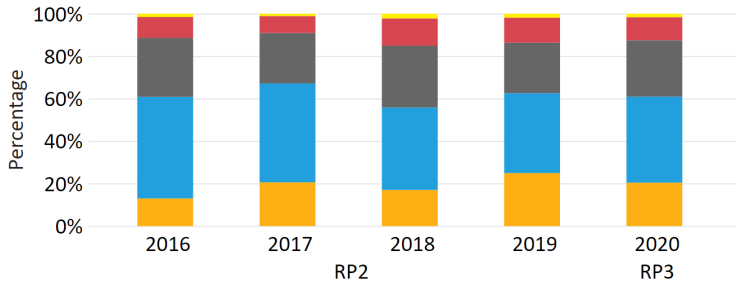

Delays were mostly driven by ATC capacity and staffing issues and occurred throughout the year.

IFR movements and forecasts by year




IFR movements in Switzerland were 62% less than the 2019 February base forecast in 2020.

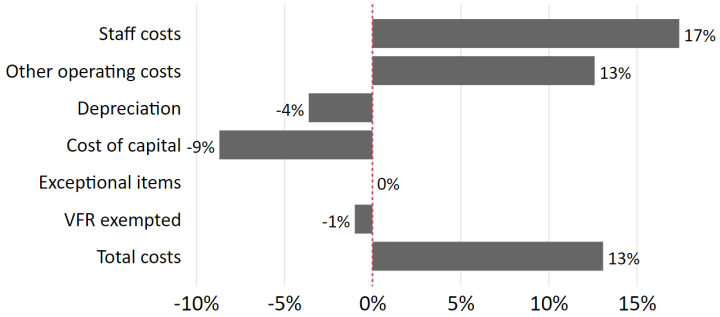
Percentage of en route delays per flight by year and time bin




Delay distribution remained stable in 2020 compares to 2019.

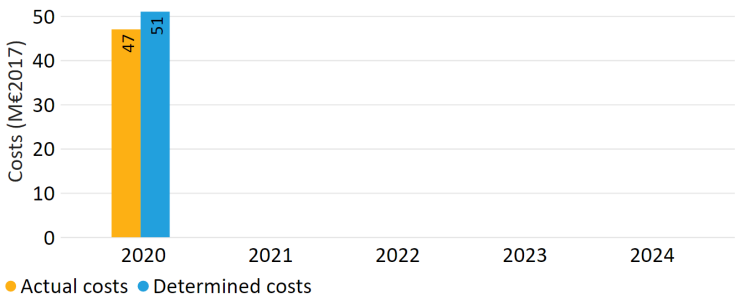
## Cost-efficiency

% difference between 2019 actual costs and 2020 actual costs




Increased staff and other operating costs induced a 13% increase in total costs.

Costs related to investments by year (M€2017)




Skyguide spent 4M€$_{2017}$ less than planned on costs related to investments in 2020.