

PRB Annual Monitoring Report and Recommendations 2017

12 November 2018

1. Introduction

- 1 The Performance Review Body (PRB) Annual Monitoring Report 2017 analyses the data submitted by Member States under the obligations outlined in the Performance Scheme Regulation¹. The data relating to the Safety Key Performance Area (SKPA) was compiled by the European Aviation Safety Agency (EASA) for the year 2017 and presented in the safety report (Volume 3). Data relating to Environment, Capacity and Cost Efficiency KPAs was compiled by EUROCONTROL (Volumes 1 and 2). This report also considers evolutions of 2018 data to help understand the developments observed in 2017. The analysis is followed by recommendations of the PRB to the European Commission and Member States.

2. Remarks from the PRB Chair

- 2 Monitoring the performance of the Member States in air traffic management is a core task of the PRB. In the past months, the discussion about the performance of European Air Traffic Management has reached the wider public because of the high level of delays during the summer months. This increases the pressure on all stakeholders to identify the reasons for problems and to implement solutions.
- 3 The PRB included in this monitoring report insights gained from the target setting process for Reference Period 3 (RP3) and discussions about the revision of the regulatory framework.
- 4 Despite the recent delay performance of European air traffic management, it has maintained an excellent **safety** level in terms of accidents and incidents. These are values monitored by EASA.² The PRB targets how well Member States and Air Navigation Service Providers (ANSPs) report on safety issues, i.e. the safety culture. These indicators also show good levels with some room for improvement.
- 5 **Environmental** performance within the performance scheme has improved in 2017 through aircraft flying more direct routes. There are inconsistencies in the coordination between the civil and military use of airspace, which makes it difficult to identify where improvements with the Flexible Use of Airspace (FUA) will have a significant impact. In many Member States, there is room for improvement. As fuel prices are on the rise, flying the shortest route not only is in the interest of saving CO2 but also of saving costs, although the most commercially viable route (both planned and flown by the airline) may not always be the shortest.
- 6 **Cost** of providing the services for en-route air traffic in 2017 decreased compared to 2016 and are slightly below plan (- 161.8 MEUR). Because of higher traffic, the cost per service unit has decreased from 50.45 EUR to 47.32 EUR. This overall result varies if broken down at Member State level. While 26 Member States/Control Zones were able to reduce their unit cost below plans, four Member States had substantially higher costs than planned (Sweden, Romania, Czech Republic and Switzerland).
- 7 Managing **capacity** remained the main concern in 2017 and continues to challenge the whole system:
 - The number of movements increased in 2017 compared to 2016 (+ 3.9%) and has slightly passed the level of 2008 (+ 1%). In 2018³, traffic has further increased compared to 2017 and to a varying degree. Baltic and Danube Functional Airspace Blocks (FABs) experienced yearly growth in movements of over 10%, whilst FAB European Central (FABEC) had a

¹ Commission Implementing Regulation (EU) No 390/2013

² Volume 3 – EASA Safety Report

³ January - October

growth of 2.6%. Comparing the increase in traffic to the performance plans, 14 states have passed the RP2 alert threshold of an increase greater than 10% in terms of service units.

- The number of air traffic controllers has increased from 14,594 in 2008 to 15,130 in 2016. The number of operational hours on duty of air traffic controllers in the same time period (2008 vs 2016) decreased from 21.1 million hours to 19.7 million hours⁴. In other words: In 2016, more air traffic controllers have controlled about the same amount of movements and have worked less hours on duty compared to 2008.
 - Delay targets were met by seven FABs in 2017 which is a better result than in 2016. However, there has been no improvement in FABEC and South-West FAB, increasing the overall delay of en-route traffic to 0.94 Air Traffic Flow Management (ATFM) minutes of delay per flight. In the first 10 months of 2018, capacity has considerably degraded, with average en-route ATFM delay per flight at 2.03 minutes⁵. FABEC performance remains the key reason for this increase in delays. In addition, also in FABCE capacity constraints are increasing.
 - ANSPs invested 1.038 BEUR in 2017, compared to 915 MEUR in 2016¹. Despite this increase, the total amount of investments for 2017 is 21 MEUR less than the planned amounts. From the start of Reference Period 2 to date only seven ANSPs invested as planned, including the French ANSP.
 - ANSPs accumulated in 2017 a total of 335 MEUR₂₀₀₉ through the traffic and cost risk sharing mechanisms. They have received an additional 2.9 MEUR₂₀₀₉ through net incentives.
- 8 The findings as stated above are not easy to explain; various factors have determined the outcome and they vary from Member State to Member State. Equally, measures to be taken will not follow the pattern of “one size fits all”. To the contrary: some Member States and their ANSPs will have to do more than others. The following actions are necessary:
- **The role of the ATCO in generating capacity:** While adequate technology is key, lack of technology alone is not the cause of the problems encountered in 2017. Air traffic controllers still have a key role in delivering performance. If ANSPs would follow the same staffing and rostering as the best in class, part of the capacity problems could be solved.
 - **Improve operational resilience:** The performance of ANSPs in 2017 heavily reflects on how ANSPs respond to short term operational changes (such as adverse weather). While the excellent levels of operational safety were maintained, the provision of sufficient capacity remains a challenge. For some ANSPs, this is the consequences of management decisions they had taken years before, namely not training sufficient ATCOs or not investing in the right technology, and not responding soon enough when problems became evident. Increased operational resilience will have a positive impact on network capacity; in some cases such measures will increase costs. Ensuring investments and rostering of staff is carried out in a cost-effective manner will be crucial.
 - **Use the additional revenue from risk sharing:** Most ANSPs have sufficient money to finance necessary change. Not using the revenues collected from airspace users for investment and instead retaining them (although possible within the current charging scheme), is an outcome which needs to be corrected. Some of the additional revenue should be used to hire additional ATCOs.
 - **Novel hiring strategies to attract more staff:** Looking beyond 2018, there are a large number of air traffic controller retirements expected, and just maintaining the levels of workforce

⁴ Values based on ANSP reporting, which may vary between ANSPs and from year to year. Therefore, the value should be treated as an estimation. 2017 data not yet available.

⁵ January to October 2018.

will require a significant recruitment. Many ANSPs emphasize the difficulties finding enough young people for training as ATCOs. Yet, aviation remains an industry with exciting opportunities. There are many talented young people across Europe that could become ATCOs. ANSPs should consider developing novel employment models that motivate them to apply, especially women, because they are underrepresented among ATCOs. In addition, alternative ways for training should be assessed, because in many Member States, training an ATCO still takes much longer than licensing a pilot.

- **Improve cross-border interoperability and co-operation:** Cross-border services can improve the performance of the European ATM Network. Initiatives such as the 4ACCs⁶, and the role of Maastricht Upper Area Control Center (MUAC) show the benefits from improved coordination and a network centric approach. Nevertheless, these initiatives should be carefully monitored, because while improving the performance of the network, they may negatively impact the performance at local level. Using the results of the upcoming Airspace Architecture Study of the European Commission will also enhance capacity through optimised airspace configurations. Furthermore, it should be ensured that States willing to cooperate for example by accepting additional traffic in order to reduce delays are not penalized.
- 9 The PRB believes that a coordinated approach by all stakeholders will help to implement learnings from 2017 and 2018, ensuring that 2019 will show better results in all areas. Member States and their National Supervisory Authorities (NSAs) will have a key role implementing change.

⁶ Four Air Navigation Service Providers, DSNA, DFS, NATS and MUAC together with the Network Manager have joined forces to tackle delays. They have come up with a plan to help manage this summer's traffic better: it is called "The 4 ACCs Initiative". This joint initiative focuses on optimising the en-route flows through the centres' airspace as a single whole, so as to increase overall capacity and throughput.

3. Conclusions from the Court of Auditors Report 2017

- 10 In December 2017, the European Court of Auditors (ECA) issued a report on the Single European Sky. It assessed whether the Single European Sky initiative had resulted in a more efficient European air traffic management network. In particular, the ECA reviewed the contribution of the Performance and Charging Scheme, the Functional Airspace Blocks and the SESAR project (definition and development phase).
- 11 Comparing the initial goals of the Single European Sky initiative from 2005, the Court of Auditors stated that the High-Level Goals became partly irrelevant and partly unachievable. A single sky was not achieved but instead a changed culture. According to the Court of Auditors, the performance and charging schemes promoted performance-oriented culture and transparency, but it is too complex.
- 12 In terms of the quantitative results (costs and capacity), the European Court of Auditors rated them below expectations, a finding which the 2017 figures confirm.
- 13 The Court of Auditors also analysed the use of public money for air traffic management. A total of 2.8 BEUR has been spent on air traffic management in the past 15 years, 2BEUR in the four years between 2014 – 2017 through SESAR. The Court of Auditors is further investigating whether this use of EU resources will deliver the expected results and is currently auditing the SESAR Deployment Manager.
- 14 The PRB considers this analysis important and useful. Although criticism about the current regulatory framework has mounted, the PRB notes that stakeholders and Member States are reluctant to fundamentally change the current Performance and Charging Scheme. It seems to be difficult to identify a better alternative. Taking into account the findings of the European Court of Auditors will be helpful to define both the way forward and the PRB recommendations to the European Commission assessing the performance.
- 15 With respect to the use of public funds for air traffic management, the monitoring performed by the PRB under the current Performance and Charging Scheme makes it difficult to establish the link between the use of public funding by ANSPs, the reported investments and the envisaged reduction of charges. In view of the report of the Court of Auditors, the PRB plans to increase the transparency between EU funding and planned investments, and their impact on costs for airspace users. In co-ordination with the SESAR Deployment Manager, the PRB will cover the use of EU funding in its future monitoring reports.

4. Facts and figures from 2017

4.1 Service units

- 16 During 2017, air traffic grew considerably above the levels forecasted in RP2 performance plans (as most of the Member States chose the low forecast scenario). The Service Units (SU) continue to outgrow Instrument Flight Rules (IFR) movements growth due to increased maximum take-off weight of aircraft the airlines are operating (5.9% compared to 3.9% growth). This results in greater revenue per movement, although the workload for en-route ANSPs remains the same.

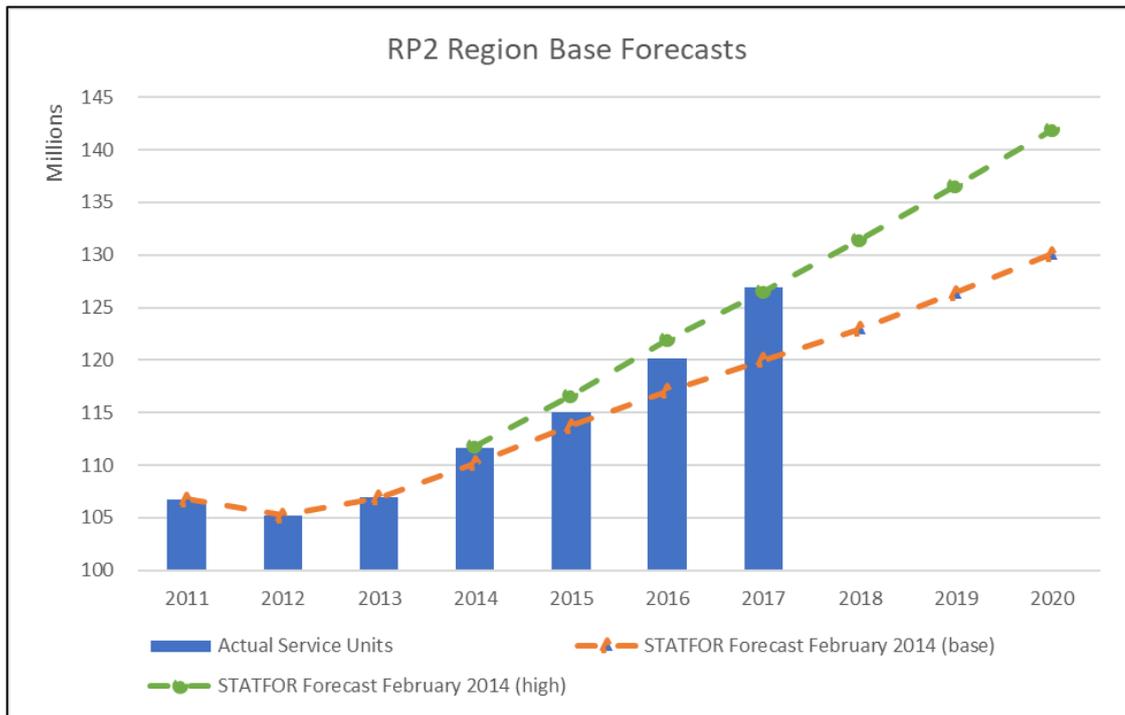


Figure 1 - Actual Service Units for RP1 and RP2, STATFOR Service Units forecast base and high Feb 2014
 Source: Eurocontrol

- 17 The development of Service Units between 2015 and 2017 are within the 'High' forecast of the February 2014 STATFOR forecast, which shows that the forecast was realistic. However, back in 2014, the majority of SES Member States opted for the 'Low' forecast for their performance plans. This means that many Member States soon reached the alert threshold, ie actual service units being 10% above the performance plan. The Union-wide average difference between performance plans and actual traffic for 2018 will be also higher than 10%. Passing these thresholds will affect the amounts the ANSPs have to return to airspace users – a consequence many ANSPs seem to have underestimated.

4.2 Safety

- 18 2017 was a remarkable year in terms of safety, with no air navigation services related accidents and a reduced number of serious incidents (5 in total). EASA states – noting the caution associated with conclusions considering the small number of serious incidents recorded – that the air navigation services sector has improved its ability to manage direct safety risks.

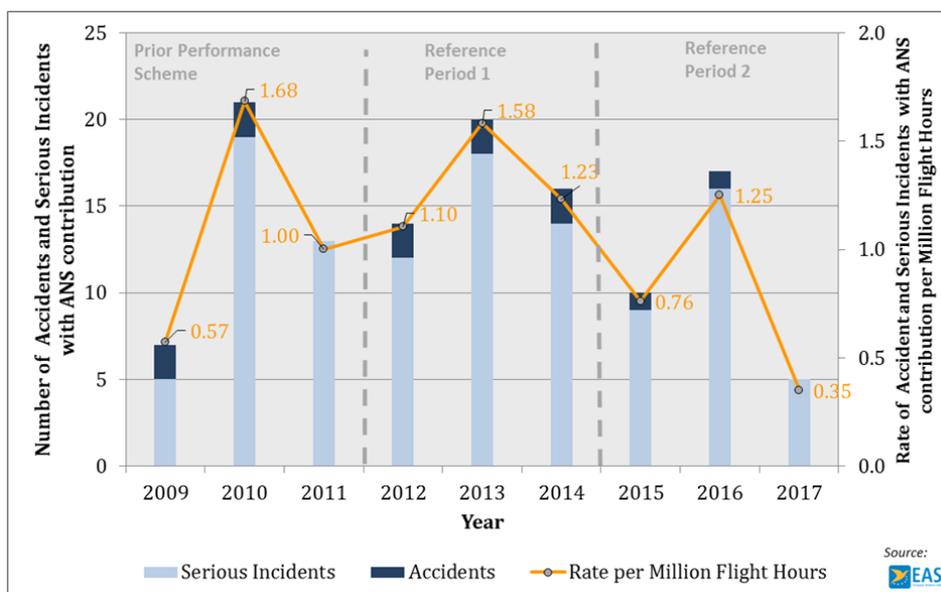
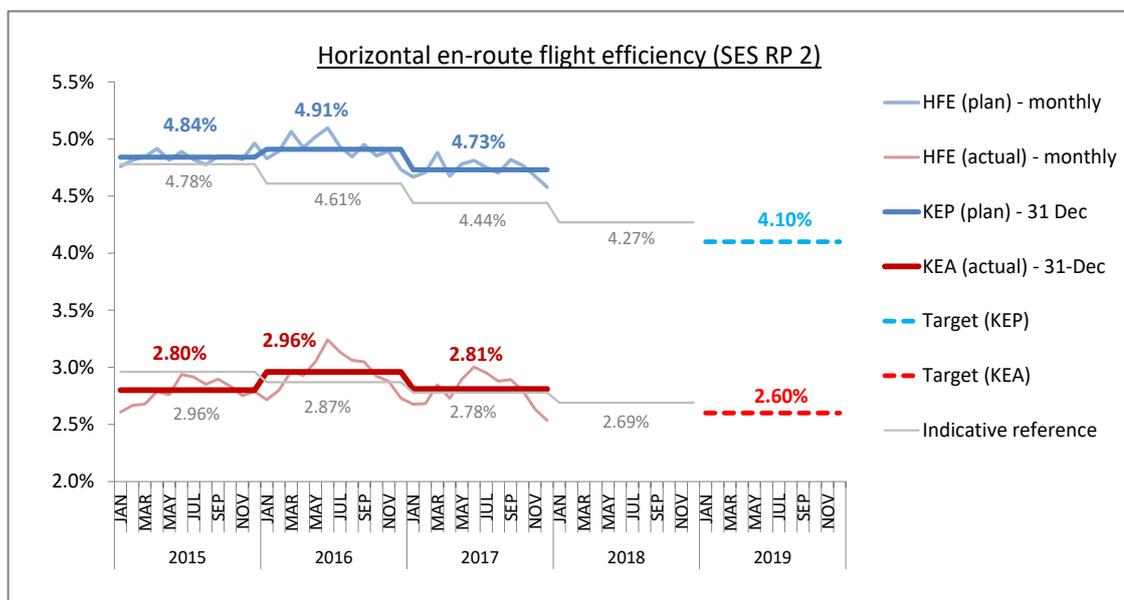


Figure 2 - Air Navigation Services accidents and serious incidents (2009 - 2017) – Source EASA

- 19 Regarding the Effectiveness of Safety Management (EoS_M) for Member States, progress is evident with most Member States able to reach the target by 2019. Poland, Cyprus, Denmark and Hungary are trailing behind and have not shown significant progress compared to 2016. Regarding Effectiveness of Safety Management for ANSPs, all should be able to reach the target by 2019 (19 ANSPs out of the 31 already achieved it). The Polish ANSP, PANS_A and the ANSP of Cyprus are trailing behind with considerably lower Effectiveness of Safety Management scores.
- 20 For the application of the Risk Analysis Tool (RAT) target, it seems that the targets will be achieved by 2019 based on the improvements seen in 2017. The local targets for 2017 have been achieved in full by six Functional Airspace Blocks (FABs). Out of the remaining FABs, only Baltic FAB has failed to achieve the targets by a significant margin. This is linked to their Effectiveness of Safety Management score. In total, there was a significant reduction in the number of occurrences, on an EU-wide level, requiring application of the Risk Analysis Tool methodology.
- 21 Just Culture for local targets is highlighted by EASA as an area where further improvement is necessary. FAB Member States and their ANSPs need to work together to enhance cooperation. EASA notes that establishing a Just Culture in all Member States is an essential pre-requisite for any achievements for the European wide safety improvements.
- 22 For a number of FABs, there were discrepancies between their reported data for the safety KPIs and that listed in the monitoring report (computed by EASA).
- 23 Further detail can be found in Volume 3 – 2017 Safety Report.

4.3 Environment

- 24 Over 2017, neither the horizontal flight efficiency of the actual route (KEA) nor the horizontal flight efficiency of planned route (KEP) indicative targets were achieved (Figure 3). However, the results significantly improved in 2017, and this trend seems to be continuing from the initial data of 2018. This is a considerable improvement considering the increase in movements above planned traffic.



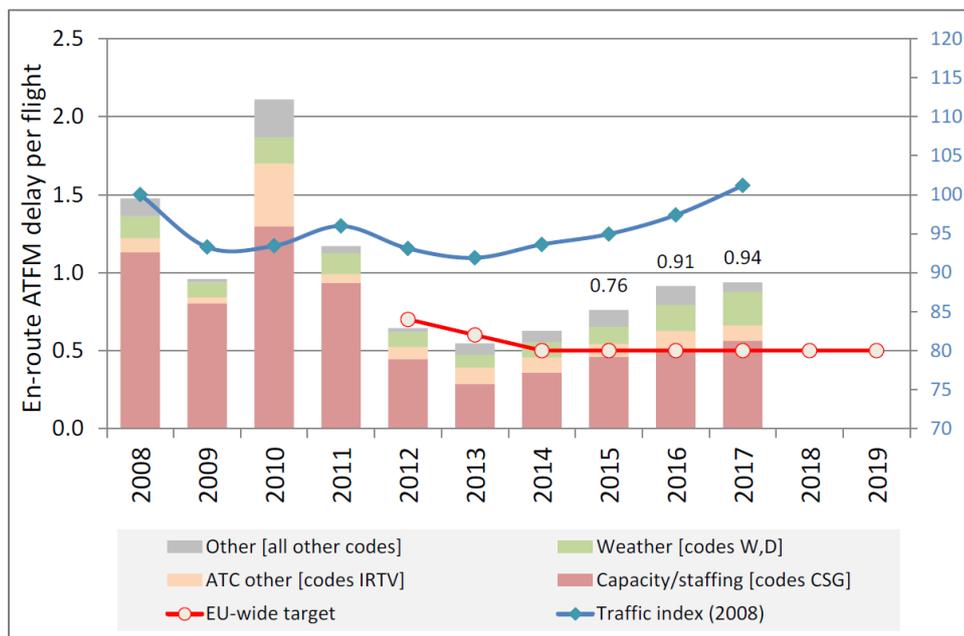
Environmental Performance 2017		
Key Performance Indicators	EU Target	Performance
KEP – Horizontal flight efficiency of planned route	4.44%	4.73%
KEA – Horizontal flight efficiency of actual route	2.78%	2.81%

Figure 3 - Evolution of horizontal en-route flight efficiency indicators and 2017 performance - Source Eurocontrol

- 25 From a local perspective, only South-West FAB and Denmark-Sweden FABs achieved their local targets, with FAB Central Europe (FABCE) being also close (a deviation of 0.01%). Every FAB has seen an improvement from 2016 except for the Danube FAB.
- 26 Given the performance degradation in 2016, it will be difficult to achieve the EU-wide KEP target in 2019, despite of the improved results in 2017. The EU-wide KEA target could be achieved if current improvements continue. The advancement of the implementation of Free Route Airspace (FRA) and the application of Advanced Flexible Use of Airspace (AFUA) across Europe provides the major contribution to reaching both targets.
- 27 For the third year in a row, very limited data has been provided by the FABs on the environmental performance indicators, i.e. effective use of conditional routings (CDRs) (1 Member State), the descriptions of civil-military dimensions regarding Flexible Use of Airspace and the effectiveness of booking procedures. Of airport data, 35.6% of airports reported data on taxi-out time and 37.4% on additional flight time in the arrival sequencing and metering area (ASMA).

4.4 Capacity

28 For the third consecutive year in RP2, the capacity target has not been met, with indicative values for 2018 showing an even larger discrepancy between the targets and reality.⁷ The key reasons for the increase in delay are from capacity, staffing, weather and industrial action.



Capacity Performance 2017		
Key Performance Indicator	EU Target	Performance
ATFM delay minutes per flight	0.5	0.94

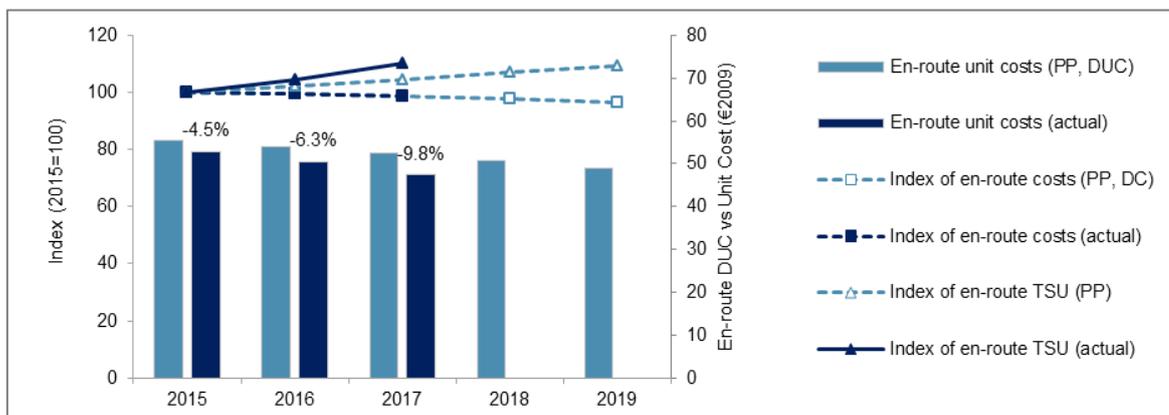
Figure 4 – Average en-route ATFM Delay per flight in RP1 and RP2 - Source Eurocontrol

- 29 The poor performance in 2017 comes mostly from FAB Europe Central (FABEC) and South-West FAB (SW FAB). Of this, the most significant effect is an ATFM delay of 1.15 mins/flight for Germany and France. They manage the largest proportion of traffic and their performance represents 60% of total delays in 2017.
- 30 Of the underperforming Area Control Centers (ACCs), almost all experienced increases in delay from 2016, and Karlsruhe in particular. MUAC continues to perform well in terms of ATCO productivity which is exceptionally high for en-route services. However, physical constraints such as restricted airspace among others, prevent MUAC from reducing delays and it causes 13% of en-route delay.
- 31 Arrival ATFM delay for the 174 airports within the performance scheme increased from 0.67 minutes per flight in 2016 to 0.74 minutes per flight in 2017. Where targets at a local level have been assigned, the majority have been met. The exceptions to this rule (e.g. Portugal - 28% Terminal service units growth) have cited high traffic growth and increased weather delays as the main causes.
- 32 ATFM slot adherence was above 80% for all Member States except for Estonia, which is reporting a low 55.3%, due to large-scale construction work at Tallinn airport.

⁷ ATFM delays have increased further in 2018 – with an average of 2.15 minutes of delay per flight over January to August.

4.5 Cost Efficiency

- 33 The EU target for en-route cost-efficiency has been met - i.e. the average actual unit cost is lower than the RP2 planned unit cost. Regarding the local targets, these have been met by all Member States except for Sweden, Czech Republic, Switzerland and Romania.



Cost-Efficiency Performance 2017		
Key Performance Indicator	EU Target	Actual Performance
Real en-route determined unit cost (€2009 per SU)	52.98	47.32

Figure 5 - En-route unit cost (actual vs. Performance Plans) – Source Eurocontrol

- 34 Compliance with the targets in terms of cost is due to a decrease by 2% in costs and an increase by 8% in Service Units (SUs) above planned values. As traffic continues to increase in 2018, Service Units so far are 10.7% above planned (January to September 2018). The PRB expects that Member States will be able to meet the cost targets of RP2 in the remaining year as well.
- 35 A few Member States (see paragraph 33) were not achieving their planned cost efficiency targets. They reported significant increases in local costs, and the additional revenues they received from increased traffic were not sufficient to offset them.
- 36 In 2017, ANSPs generated additional revenue for the provision of en-route services (in Volumes 1 and 2 this is defined as the so called “economic surplus”⁸), calculated as the total revenue from cost sharing, traffic risk sharing, and incentives. It amounted to 335 MEUR_{€2009}. The sum over the whole of RP2 is 781 EUR_{€2009} which means that almost half of the additional revenue received by ANSPs during RP2 so far was generated in 2017. All of this money was paid for by Airspace Users. The majority of the additional revenue is from traffic and cost risk sharing mechanisms, while the incentives scheme had a limited effect (+3.0MEUR_{€2009} in 2017) from the net impact of penalties and bonuses, and the fact that they are limited to 1% of the en-route revenues.
- 37 Terminal costs have decreased for the third year in a row. However, this year (first half of 2018) the terminal costs were higher than planned for a number of ANSPs (11 charging zones). In some States, such as Portugal, Bulgaria and the Netherlands, this is due to significant increases in traffic.

⁸ The economic surplus is as sum of the net ATSP gain/loss on en-route activity and the return on equity embedded in the cost of capital charged to airspace users. It should be noted that this is not the same as profit. Simply the net change in en-route activity, ie through traffic and cost risk sharing and incentive schemes, defines the additional revenue.

4.6 Capital spending (en route)

38 The PRB has analysed the difference between the actual and planned capital expenditure over 2015 to 2017 for each Member State. This is displayed in Figure 6 both as a percentage and in magnitude.

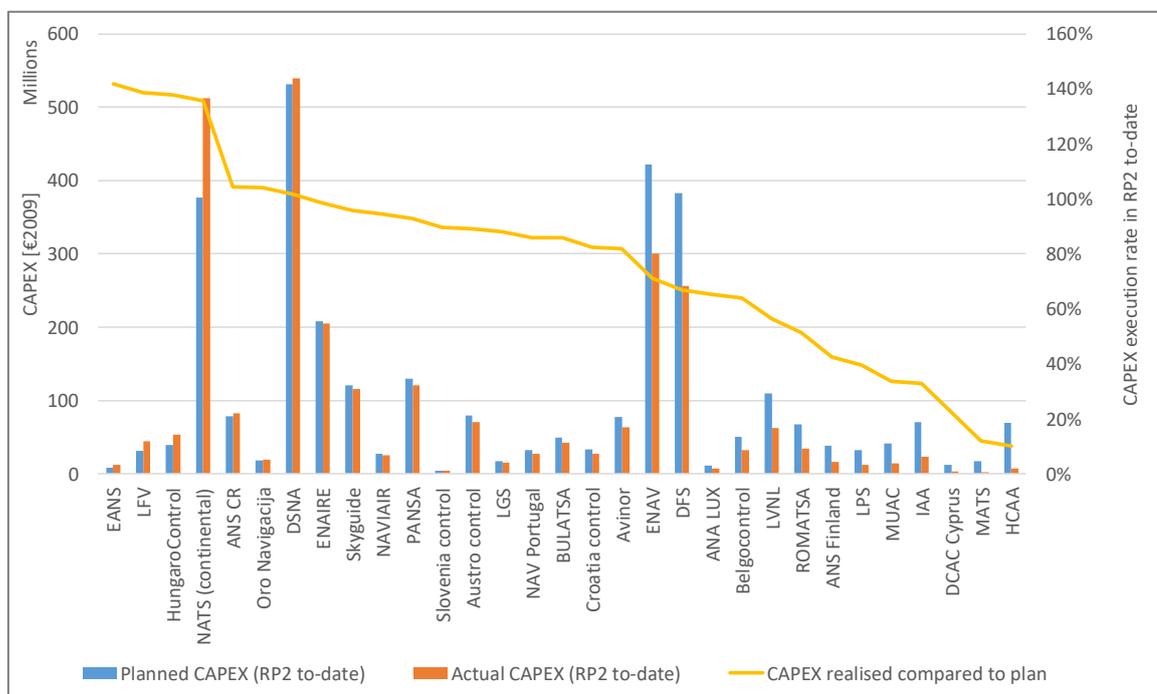


Figure 6 - Planned vs. actual CAPEX throughout RP2 in absolute values and percentages (to-date, 2017 data included).
 Source: PRB elaboration on EUROCONTROL data

39 Investment can increase the capacity and cost-efficiency, but this is not a given. They should be based on analysis of the costs involved and expected benefits (both local and network) and target improvements in performance.

40 The 2017 figures show that many ANSPs have not spent the money Airspace Users have paid to finance investments. Actual capital expenditure continues to be lower than planned – from the start of RP2 to-date, seven Member States show less than 50% of their planned capital expenditure (CAPEX), amounting to a total of 438 MEUR of unspent CAPEX. ENAV and DFS have held back the largest amounts, totaling 121MEUR and 126MEUR respectively. Seven Member States have spent more CAPEX than planned.

5. Conclusions from 2017

5.1 Capacity deficit across Europe – en-route costs not in-line with improvements

Cost Efficiency

- 41 The actual EU average Air Navigation Services cost per service unit in 2017 was below the planned values ie the target. This is because the actual service units were above, and actual en-route costs were below the planned values, spreading lower costs over a larger number of service units. Through cost risk sharing, ANSP received additional revenues.
- 42 A significant contribution to the reduction in en-route actual costs is from under-investment. Many ANSPs have invested far less than what airspace users are paying for.
- 43 The current regulatory framework does not prevent these developments.

Capacity

- 44 The target for capacity has not been achieved for the entire RP2 to date. Capacity has thus been the focus of the performance for the last three years. This is different from RP1, when the focus was on reducing cost after the reduction in traffic following the global financial crisis of 2008.
- 45 The poor performance recorded in 2017 has significantly worsened in the first 10 months of 2018. Over the last three years the majority of delay has been caused in a few core Member States (notably France and Germany) with varying levels of performance over the rest of Europe. However, in 2018, indicative results show worsening performance for all FABs in comparison to 2017. The number of capacity constrained Area Control Centres is increasing.
- 46 According to the 2018 Network Operations Plan, this situation will not be solved easily. Member States continue to submit capacity plans to the Network Manager which indicate that they would not be able to achieve their reference values and that they would not be able to contribute to reaching the EU-wide target. In other words, at this stage, Member States are planning to not meet the capacity targets.

Addressing the en-route capacity gap

- 47 In order to improve the capacity performance in Europe, significant improvements are required. Member States should both encourage and require their ANSPs to improve capacity. As shown through the monitoring of the cost-efficiency targets, there is available funding within the network. These additional revenues, from both cost and traffic risk sharing, should be invested into capacity improvements.
- 48 To address the capacity constraints, both long- and short-term measures should be applied. The short-term measures should address immediate capacity concerns for 2019 and the start of Reference Period 3. The long-term measures should aim at investing in technologies that will improve capacity and manage the forecasted increase in traffic for the next decade. This requires a network approach and implementing the pilot common project swiftly.

5.2 Reconsider the capacity incentive scheme

- 49 The current legal framework allocates certain revenues to ANSPs under the traffic risk sharing and incentive mechanism (Commission Implementing Regulation (EU) No 391/2013, art. 13 and art. 15, see paragraph 36 above). Considering the overall costs of ANSPs, the amounts under the incentive mechanism are negligible amounts, i.e. 2.96MEUR for 2017 and 15.8MEUR over the three years of RP2. Nevertheless, they are positive for ANSPs. This leads to the question whether the incentive scheme is fit for purpose, given the fact that in terms of capacity, the EU-wide target has not been achieved for any of these years.
- 50 Breaking down the incentive mechanism to FAB and national level, 16 ANSPs received bonuses, and three received a malus. The remaining ANSPs did not receive either as their performance was in the dead band. The percentage of en-route revenue of the bonus or malus vary significantly depending on the FAB. For example, France received a malus of 4.5 MEUR₂₀₀₉ equating to 0.4% of DSNA's en-route revenue, after recording an ATFM delay of 0.97 minutes per flight. Germany received a malus of 3.14 MEUR₂₀₀₉, also equating to 0.4% of DFS's en-route revenue, after recording an ATFM delay of 0.76 per flight. Looking at bonuses, Finland for example will receive a bonus of 0.4 MEUR₂₀₀₉ equating to 1% of en-route revenues, after achieving an ATFM delay of 0 minutes per flight. This was 0.08 minutes per flight below their national target.
- 51 These results show that penalties are far too low to have a positive effect on capacity performance and that incentivising a reduction of cost has unintended consequences: ANSPs have focused on reducing cost at the expense of providing capacity, absorbing relatively low malus amounts and at the same time externalising the much higher cost for delays. The current performance and charging scheme allow these results.

5.3 Military involvement

- 52 The PRB notes that there are still inconsistencies in information about civil-military integration within Member States. Some of this information may be reported through other streams. The PRB concludes that information streams should be coordinated, to avoid double reporting.
- 53 The military has an important role within the European ATM network helping to improve performance. The PRB is working closely with the European military bodies to identify best practices and examples of positive integration. Close co-operation and involvement of the Military at a local and Network level will have positive impacts on capacity and flight efficiency. The PRB will work with stakeholders to eliminate inconsistencies and to ensure the reporting and monitoring reflect accurately the civil-military cooperation.

5.4 A lack of data provided for the Environment KPA, especially from airports

- 54 Airports are an important part of the aviation industry and contribute to its environmental impact. From the performance scheme perspective, this is monitored by additional taxi-out time and the additional time in terminal airspace. An airport registered within a terminal charging zone must report data required under the performance scheme. In a number of Member States, smaller aerodromes are not reporting such data.
- 55 The PRB recognises this issue. However, the impact of these smaller airports on the environment is relatively small (the same is also true of the other KPAs) – due to limited movements and unlikely runway capacity issues. The PRB will thus focus on airports that have more than 70,000 IFR movements or are the largest airport in the State. On this basis, the PRB notes that most but not all of these airports report all the required data within the performance scheme.
- 56 Member States have also provided limited data for the effective use of Conditional Routings (CDRs). Airlines have the option to increasingly use Free Route Airspace, making conditional routings obsolete. The required data reported has been limited during RP2. For the States yet to implement Free Route Airspace, the PRB encourages them to provide such data.⁹

5.5 Level and variation of safety occurrence reporting

- 57 Under the current regulatory framework, the PRB monitors how Member States and ANSPs implement the safety culture. Monitoring operational issues is the task of EASA. The PRB notes that within the Performance Indicator on safety occurrences, for 2017 where there are significant changes in the values for most of the occurrence categories. For example: the number of Runway Incursions for Baltic FAB, Danube FAB, NEFAB, and Blue Med have increased by 159%, 100%, 12% and 12% respectively, while UK-Ireland showed a decrease by 70%.
- 58 A similar increase took place between 2015 and 2016 whereby the number of runway incursions increased by 32% for UK-Ireland FAB (in 2017 decreasing by 70%) and the Baltic FAB decreasing by 15% in 2016 (in 2017 increasing by 159%). Part of this is due to low absolute values. It should be noted that this has a knock-on effect on the application of the Risk Analysis Tool.
- 59 EASA notes that the reasons for the evolution in the reported occurrences in each FAB/State may be multiple and at this stage cannot be determined with certainty (Volume 3). EASA names several potential causes, including the validity of data (criteria used to exclude reports considered outside the scope of the Performance Scheme) and no harmonised criteria for reporting ATM-Safety. A recommendation was provided in the PRB 2016 Monitoring report that the data should be analysed locally, which has not yet been carried out.
- 60 Although the PRB is not monitoring occurrence reporting the monitoring is useful for the PRB to understand in co-ordination with EASA the interdependencies between safety and the other KPAs. Therefore, the PRB is of the opinion that NSAs perform local analyses in order to understand why there are such significant variations in occurrence reports between years.

⁹ At this stage, the PRB uses information provided by the Network Manager on the CDR Rate of Aircraft Interested (RAI) and the CDR Rate of Actual Use (RAU) to the Network Operations (NETOPS) forum

6. PRB Recommendations

Safety

1. The PRB has noticed through the NSA data validations discrepancies between scores reported by the NSA, and those verified by EASA. The PRB, in co-ordination with EASA, recommends to find additional ways to reduce these discrepancies and help to clarify them with the NSAs.
2. The PRB recommends, with EASA, to ensure that analysis of the justifications for the variations in occurrence reporting is carried out. Further, EASA should then consolidate the results and propose course of actions to resolve the issues, if appropriate.

Environment

3. The PRB agrees with the corrective measures proposed by the FABs to improve environmental performance, and requests for additional efforts to continue in the same manner along the lines of the European Route Network Implementation Plan¹⁰.
4. The PRB notes the lack of environmental data reporting by airports. The PRB understands the difficulty and cost associated with reporting all the Performance Indicators at small airports. Therefore, the PRB recommends that airports with over 70,000 IFR movements provide all data as required in the performance scheme.
5. The PRB notes the reported data provided by NSAs on the civil-military impact on capacity, and the application of FUA has been limited. The PRB is coordinating with the European Military Institutions to understand the impact of civil-military co-operation on performance. The PRB encourages NSAs to request assistance from the PRB, if desired, on helping to determine the capacity improvements through civil-military cooperation.

Capacity

6. The Following FABs have significantly missed their capacity target for 2017:
 - a. FABEC
 - b. South-West FAB

From these two FABs, the following ANSPs which have significantly (+10%) missed their national target, and indications show this will also be the case in 2018, are:

- i. DSNA
- ii. DFS
- iii. MUAC
- iv. ENAIRE
- v. Belgocontrol

The PRB recommends to the Commission to request France, Germany, Netherlands, Belgium, Spain, Portugal to define and apply adequate corrective measures. If there are measures which they have agreed with the Network Manager, the Commission should ensure that they are implemented as Corrective Measures and that they adequately contribute to reaching the capacity targets of their respective performance plans as soon as possible. The Corrective Measures should include a binding time line for implementation as well as the monitoring of

¹⁰ European Route Network Improvement Plan (ERNIP) ATS Route Network (ARN) Version 2018 – 2019/22

their implementation, ensuring that corrective measures enhance capacity without impairing cost efficiency.

7. The PRB recommends Estonia to investigate the 2018 adherence to ATFM slots of Tallinn airport, and provide to the Commission the actions put in place to improve the result.

Cost Efficiency

8. The PRB does not have any recommendations with respect to cost efficiency, because the European targets for costs have been achieved in 2017 due to a reduction in en-route costs and increased traffic. The PRB urges Member States and the Commission to monitor whether the additional revenues from incentives and cost and traffic risk sharing mechanisms are invested to increase capacity.
9. The PRB believes that full transparency is needed regarding unspent CAPEX in order to ensure that ANSPs realise all planned investments critical for providing sufficient capacity.