

# **Performance Review Board**

## **Monitoring Report**

### **SES RP3 - 2024**



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## 1 OVERVIEW

### 1.1 Contextual information

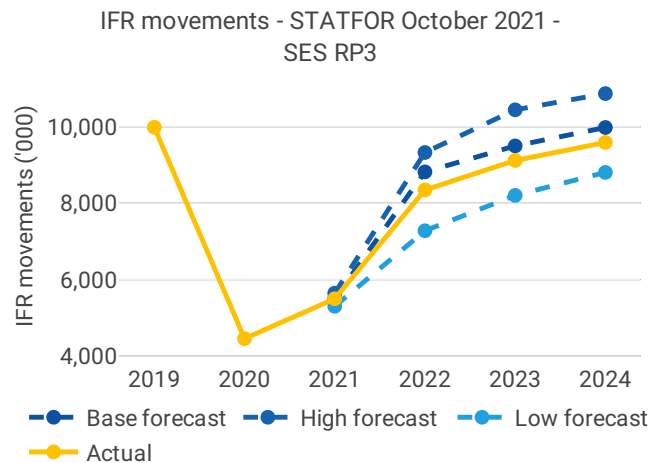
<b>No of ACCs</b> 49	<b>Share en route / terminal costs 2024</b> 83% / 17%	<b>No of main ANSPs</b> 29
<b>No of airports in the scope of the performance plan:</b>	<b>En route charging zone(s)</b> 29	<b>No of other ANSPs</b> 14
• <b>≥80'K</b> 42	<b>Terminal charging zone(s)</b> 26	<b>No of MET Providers</b> 26
• <b>&lt;80'K</b> 103		

### 1.2 Main PRB findings - 2024

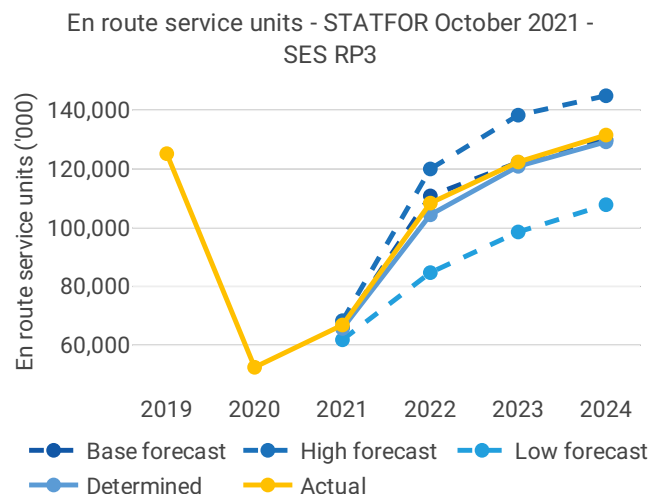
- In 2024, European air traffic continued its recovery from the COVID-19 downturn, recording a 5% increase compared to 2023. However, the ongoing Russian war of aggression against Ukraine led to an uneven recovery across Member States.
- Safety performance degraded, with nine ANSPs failing to meet the expected safety targets for RP3. At the same time, Union-wide capacity performance continued to deteriorate, as several Member States did not implement adequate measures to meet anticipated demand. The combination of uneven traffic distribution and persistent capacity shortfalls among several ANSPs resulted in most Member States falling to meet their local performance targets.
- In some cases, Member States requested and were granted deviations from cost-efficiency targets to allow for investments in additional capacity measures. Yet, many of these States reported lower staff and depreciation costs than planned, indicating that key investments—such as hiring additional ATCOs and deploying new technologies—were not fully realized. Consequently, airspace users faced increased delays and higher unit rates for capacity that was not delivered.
- This poor capacity performance had a direct impact on the achievement of the Union-wide environmental target. Although environmental performance remained stable compared to previous years, it continued to exceed the target. To avoid congested airspace, airspace users were forced to fly longer routes, resulting in higher fuel consumption and increased operational costs.



### 1.3 Traffic (SES RP3 area)



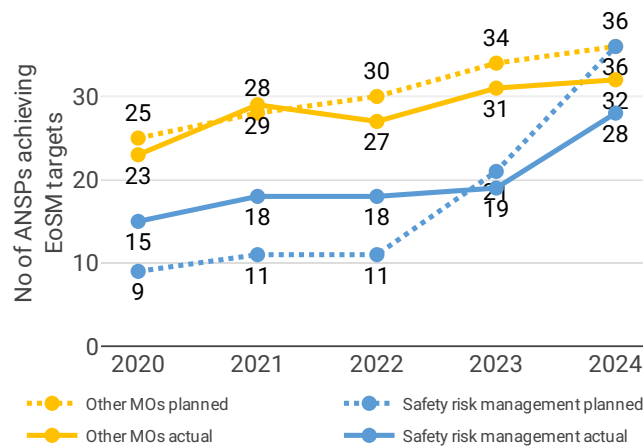
- The Union-wide level recorded 9,587K actual IFR movements in 2024, +5.2% compared to 2023 (9,117K).
- Actual 2024 IFR movements at Union-wide level were -3.9% below the 9,979K IFR movements envisaged by STATFOR October 2021 base forecast.
- Actual 2024 IFR movements represent 96% of the actual 2019 level (9,985K).
- The impact of Russia's war of aggression against Ukraine continued to significantly impact traffic flows within the SES area. As a result, some ANSPs experienced unexpected and significant higher growth in traffic compared to the Union-wide average. At the same time, other ANSPs have yet to recover the same levels of traffic experienced in 2019



- The Union-wide level recorded 131,545K actual service units in 2024, +7.5% compared to 2023 (122,379K).
- Actual 2024 service units were +1.8% above the plan (129,239K).
- Actual 2024 service units were +5.1% above the actual 2019 level (125,206K).
- At Union-wide level service units continued to increase more quickly than movements. For many ANSPs, this results in revenues growing more than the workload generated by additional flights. However, this is not uniform across all Member States, with a number of Member States experiencing the opposite

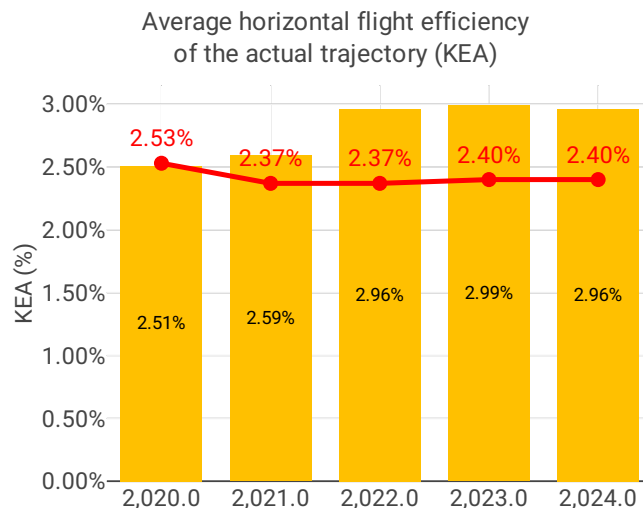


## 1.4 Safety (SES RP3 area)



- Nine ANSPs did not achieve the RP3 targets for the effectiveness of safety management. Four of them failed to meet the target in Safety Risk Management (level D), while the other four did not achieve the target in Safety Risk Management as well as in at least one additional Management Objective (level C). One ANSP failed to achieve the target only on one additional management objective.
- Contrary to previous years, the Union-wide rates of runway incursions and separation minima infringements increased in 2024, countering the downward trend seen over the first four years of RP3.

## 1.5 Environment (SES RP3 area)



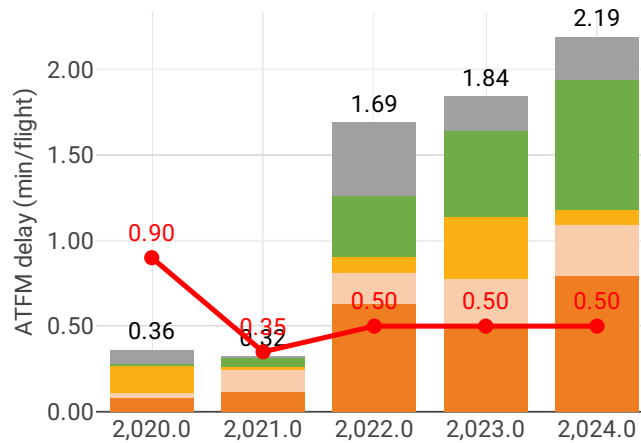
- The Union-wide horizontal flight efficiency (KEA) performance target was not achieved (2.96% compared to the target of 2.40%) and performance stabilised. 25 Member States did not achieve their national targets.
- The second full year of the effects of Russia's war of aggression against Ukraine affected environmental performance, which is reflected in the KEA score being 2.96% in 2024 compared to 2.99% in 2023.
- For terminal airspace, both additional ASMA (arrival sequencing and metering area) time and additional taxi-out time increased. Combined, this shows a +6% increase compared



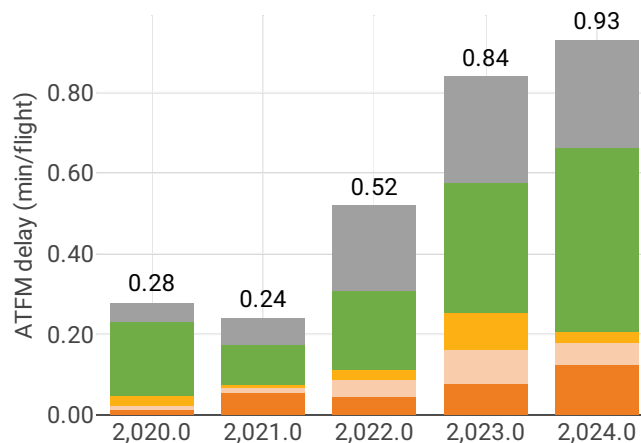
to 2023, driven by both performance indicators. However, it is worth noting that performance remains better than 2019 levels.

## 1.6 Capacity (SES RP3 area)

Average en route ATFM delay per flight by delay groups



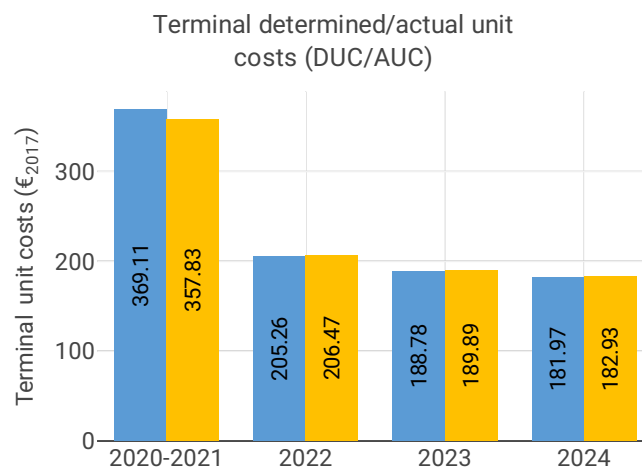
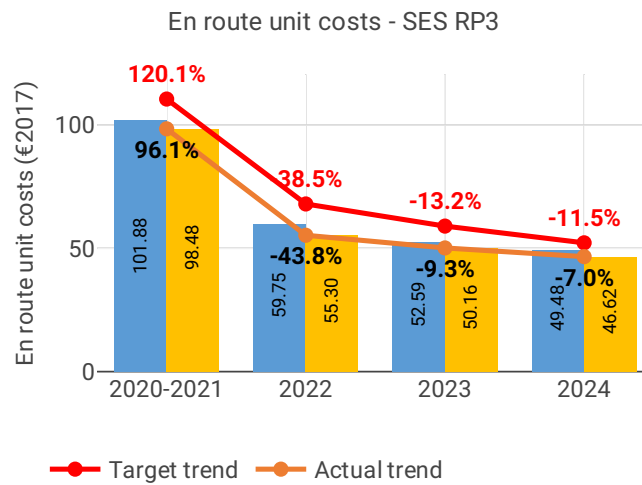
Average arrival ATFM delay per flight by delay groups



- The Union-wide average en route ATFM delay was 2.19 minutes per flight in 2024, 1.69 minutes per flight higher than the Union-wide target. The volume and growth of traffic was unevenly distributed across the network, impacting on ANSPs in different ways, exacerbating existing capacity problems.
- 15 Member States did not achieve their local targets, indicating that some ANSPs still have unresolved capacity issues. Adverse weather also contributed significantly to en route ATFM delays.
- Four out of the 15 Member States which did not achieve capacity targets experienced double-digit traffic growth compared to 2023. Conversely, two Member States did not achieve their capacity targets even though traffic demand remained at or significantly below the forecasted level.



## 1.7 Cost-efficiency (SES RP3 area)



- The real en route actual unit cost (AUC) Union-wide was -5.8% lower than the determined unit cost (DUC). Real en route actual costs were -4.1% below determined costs, while actual service units were +1.8% higher than the determined service units.
- The decrease in actual costs compared to plan was mainly attributable to lower than planned staff costs and depreciation. Many ANSPs have not implemented their ATCO and investment plans and have not achieved their capacity targets.
- The en route actual unit cost for airspace users (AUCU) was +5.6% higher than the DUC (nominal), mainly due to the application of the 2024 inflation adjustment (where the weighted average actual index was +14% higher than the determined figure).
- The revenue gap due to COVID exceptional measures amounts to 5.7B€2017 for en route charging zones, of which 1.5B€2017 have already been recovered (737M€2017 in 2023, and 743M€2017). The remaining en route revenue gap (started to be recovered from 2023) according to the exceptional measures Regulation amounts to 4.2B€2017.

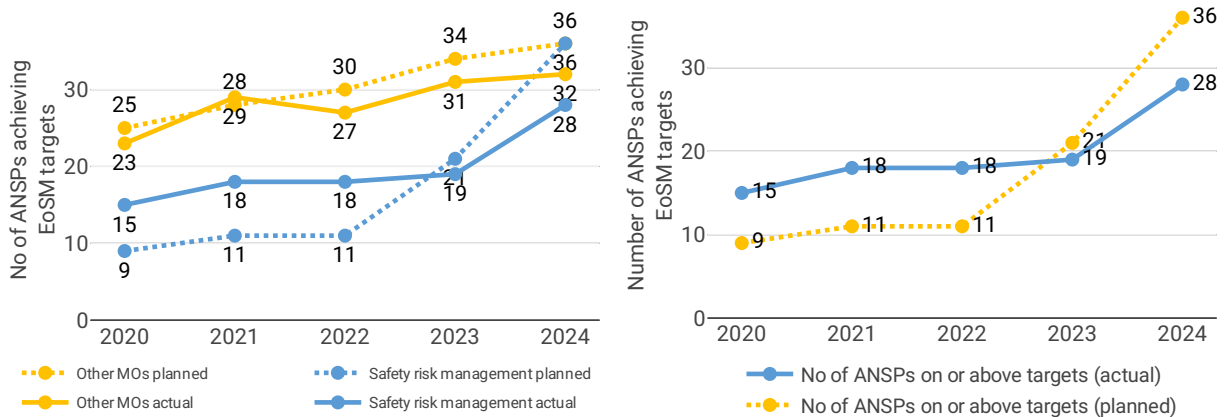


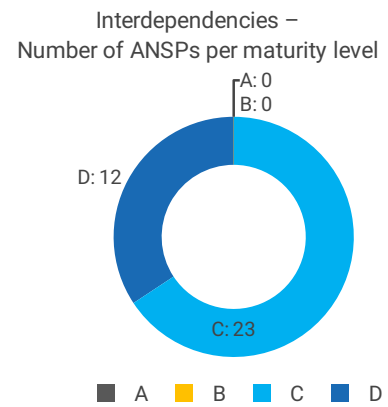
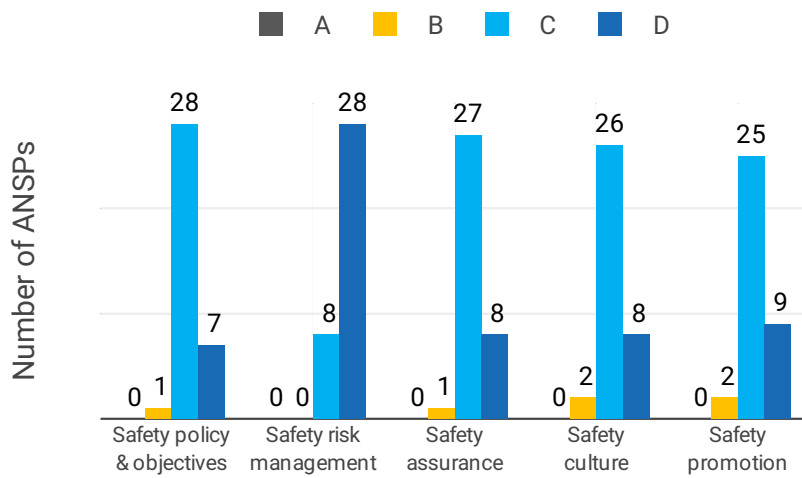
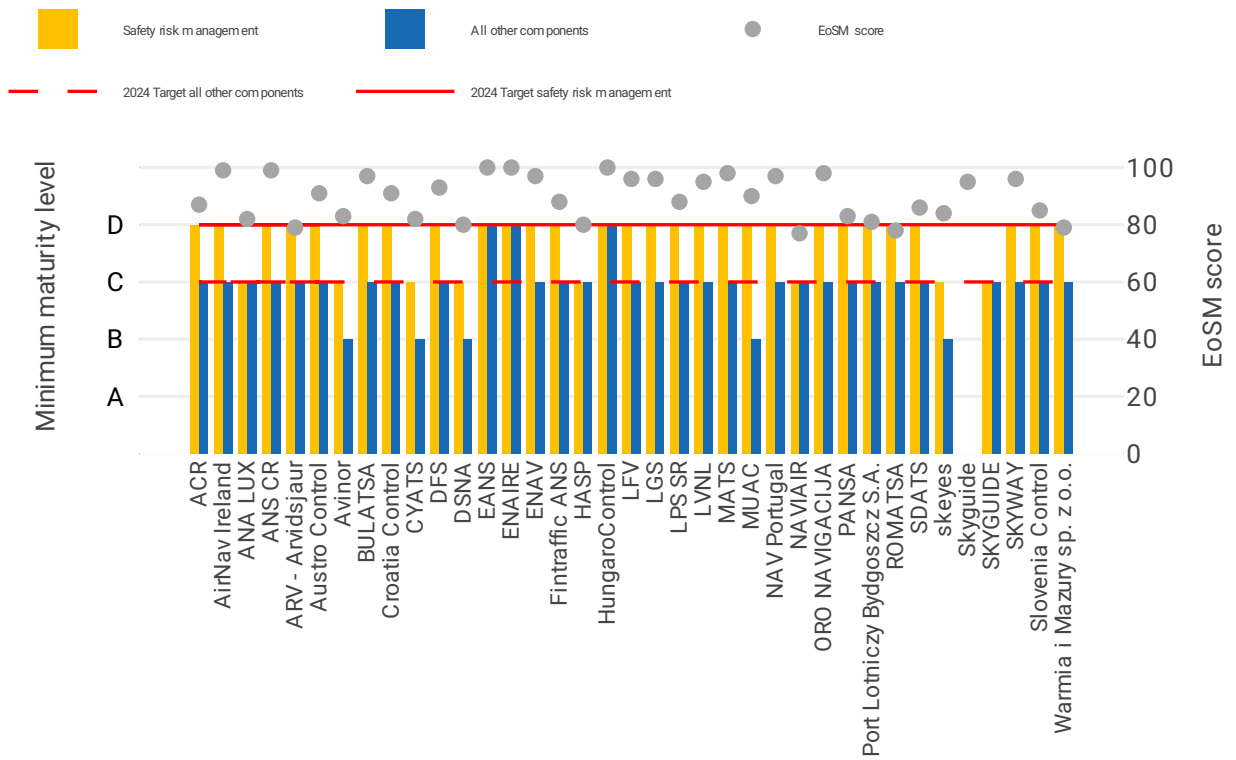
## 2 SAFETY - SES RP3

### 2.1 PRB monitoring

- Nine ANSPs did not achieve the RP3 targets for the effectiveness of safety management. Four of them failed to meet the target in Safety Risk Management (level D), while the other four did not achieve the target in Safety Risk Management as well as in at least one additional Management Objective (level C). One ANSP failed to achieve the target only on one additional management objective.
- Contrary to previous years, the Union-wide rates of runway incursions and separation minima infringements increased in 2024, countering the downward trend seen over the first four years of RP3.

### 2.2 Actual versus planned number of ANSPs achieving the level of the EoSM targets for RP3 ahead of 2024





## Focus on EoSM

### Number of ANSPs on Target

By the final year of RP3, 28 ANSPs had achieved the RP3 EoSM target maturity levels set for the period. Among them, ten ANSPs demonstrated improvement and successfully reached the target levels in 2024. Eight ANSPs remain below their planned performance and did not achieve the RP3 target maturity. All eight will need to continue their efforts in the area of Safety Risk Management to meet the required maturity level. Additionally, four of these ANSPs must improve in at least one other management objective beyond Safety Risk Management.

Moreover, in 2024 three ANSPs showed the minimum maturity level degrading and



no longer achieved the target for at least one Management Objective (Avinor for Safety Culture, CYATS for Safety Risk Management and skeyes for Safety Assurance). For all three ANSPs, the NSA downgraded the EoSM scores based on the verification.

### **Actual versus planned**

According to the performance plans, all 36 ANSPs had planned to reach the RP3 targets in 2024. Specifically, 15 ANSPs aimed to meet the target in the Safety Risk Management area during the final year of RP3; but only nine succeeded in doing so. For the other Management Objectives, only minor improvements were observed, with just one additional ANSP reaching the target Level C. Four ANSPs (Avinor, CYATS, DSNA, and skeyes) remain below the target, recording level B in at least one other Management Objective.

### **ANSPs achieving the targets and Score**

- 28 out of 36 ANSPs achieved the 2024 RP3 target level D for Safety Risk Management.
- 32 out of 36 ANSPs achieved the 2024 RP3 target level C for all other MOs (the four management objectives other than Safety Risk Management).
- 28 out of 36 ANSPs achieved the 2024 EoSM targets for RP3 in full.

### **Number of ANSPs per Management Objective**

Eight ANSPs did not reach the target level D for the Safety Risk Management objective, two ANSPs did not reach the Safety Culture and Safety Promotion. One ANSP did not reach target for the Safety Policy and Objectives and Safety Assurance Management Objectives. Significant progress was observed in particular in Safety Risk Management, with 9 ANSPs improved from level C to D compared with 2023.

### **Interdependency**

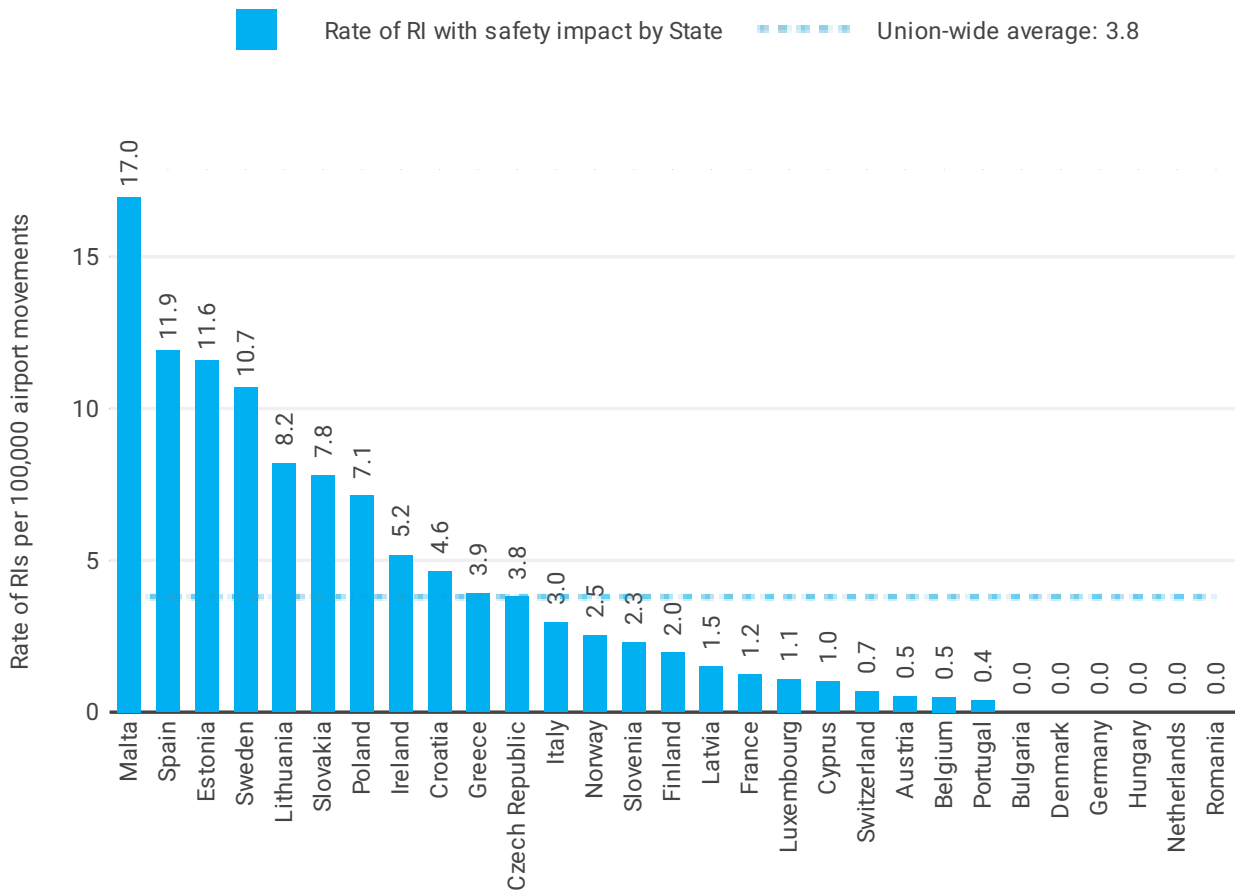
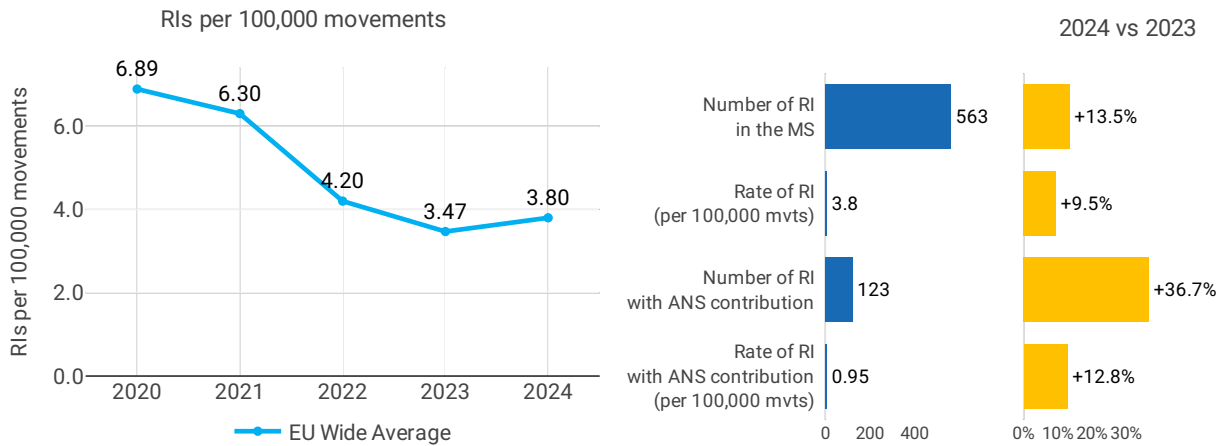
The management objective “Interdependencies, Resilient System Performance, Buffers and Trade-offs” proved particularly critical during RP3. ANSPs faced complex operational and strategic challenges arising from shifts of the traffic flows caused by the Russia’s war of aggression and the geo-political situation in the Middle East as well as from the multi-faceted impact of the COVID-19 pandemic. Additionally, the Safety KPI, EoSM, was made more challenging for RP3. The latter however, can be viewed as a normal progression. The coincidence of these circumstances intensified pressures to reallocate limited resources to other organisational priorities, exacerbated by reduced traffic volumes and revenue losses.

The growing (high) number of ANSPs not achieving the RP3 target poses the question if interdependencies have been properly managed. Strengthening interdependency management during such periods has been essential to safeguarding both safety and overall system resilience.

In 2024, two ANSPs — Austro Control and ANA Luxembourg — demonstrated notable progress on the Interdependency Management Objective, advancing from maturity level B in 2023 to level C. With these improvements, 23 ANSPs are now assessed at maturity level C, while 12 have achieved level D.



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



Rate of RI per 100,000 airport movements														
TOP 10 APTs in terms of movements					TOP 10 APTs in terms of total RIs					TOP 10 APTs in terms of rate of RIs				
#	Airport	Mvts.	Total RI	RI per 100,000 mvts.	#	Airport	Mvts.	Total RI	RI per 100,000 mvts.	#	Airport	Mvts.	Total RI	RI per 100,000 mvts.
1	Paris-Charles-de-Gaulle	561,642	4	0.71	1	Warsaw	182,862	12	6.56	1	Bydgoszcz	4,700	5	106.38
2	Amsterdam-Schiphol	491,911	0	0.00	2	Barcelona	348,050	8	2.30	2	Zielona Gora - Babimost	1,217	1	82.17
3	Madrid-Barajas	420,326	2	0.48	3	Poznan - Lawica	30,425	6	19.72	3	Lodz - Lublinek	5,113	2	39.12
4	Frankfurt	401,548	0	0.00	4	Oslo - Gardermoe	220,370	5	2.27	4	Liepaja	2,781	1	35.96
5	Barcelona	348,050	8	2.30	5	Bydgoszcz	4,700	5	106.38	5	Poznan - Lawica	30,425	6	19.72
6	Rome - Fiumicino	314,976	2	0.63	6	Stavanger	66,267	4	6.04	6	Warszawa - Modlin	17,365	3	17.28
7	Munich	304,561	0	0.00	7	Gdansk	51,369	4	7.79	7	Lorient-Lann Bihoué	18,933	3	15.85
8	Athinai-Eleftherios Venizelos	273,688	2	0.73	8	Alicante	118,579	4	3.37	8	Cork	23,470	3	12.78
9	Zürich	258,182	1	0.39	9	Ibiza	86,420	4	4.63	9	Albert-Bray	8,171	1	12.24
10	Nice-Côte d'Azur	247,749	2	0.81	10	Paris-Charles-de-Gaulle	561,642	4	0.71	10	Istres-Le Tubé	19,506	2	10.25

## Focus on runway incursions

### RI rate

In 2024, the rate of runway incursions increased from 3.5 to 3.8 occurrences per 100,000 movements, countering the downward trend that had been seen since 2021.

### RI 2023-2024

In 2024, the rate of RIs of all types increased by 7%, while the rate of RIs with ANS contribution increased by 25%. The absolute number of RIs increased by 11%, while the number of RIs with ANS contribution increased by 32%. When considering only RIs with ANS contribution, the rate increased from 0.7 to 0.9 occurrences per 100,000 flight movements over the same period.

### RI with Safety Impact by State

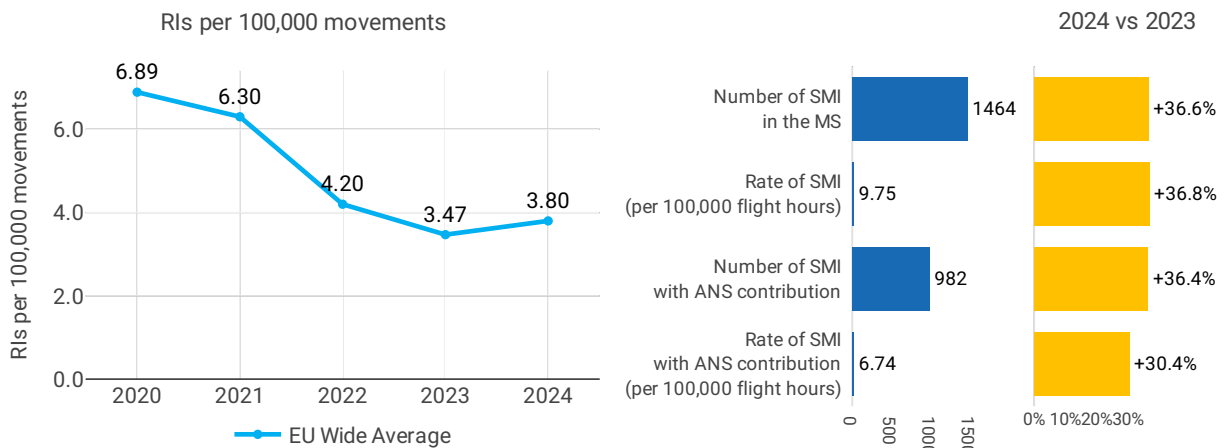
Comparing absolute numbers and rates of occurrences between Member States and between airports must be done with caution. The number of occurrences reported is greatly dependent on the reporting culture of the organisation, the classification of occurrences, use of automated systems, etc. A high rate of occurrences in one Member State or airport is therefore not necessarily equal to a worsening performance compared with Member States or airports with lower rates. With this in mind, the highest rate of RIs with safety impact was seen in Spain (11.9), followed by Estonia (11.5) and Sweden (10.5). As was the case in 2023, and in 2024, seven Member States were above the Union-wide rate.

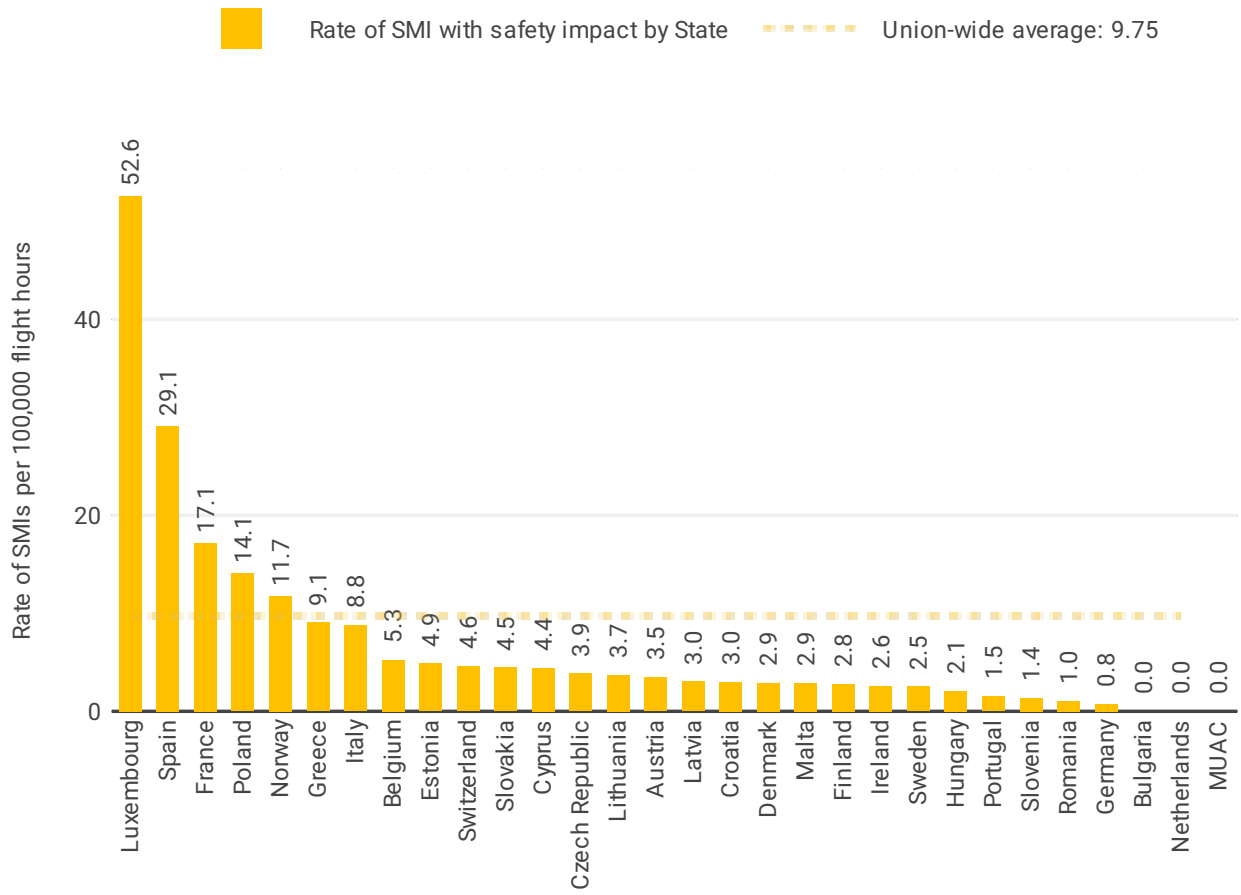


### RI with Safety Impact by Airport

Out of 153 airports included in the performance plans, 47 airports reported RIs with ANS contribution. Based on the data analysis, the five airports with the highest absolute numbers of runway incursion (RI) occurrences are led by EPWA (Warsaw Chopin, Poland) with 12 incidents, followed by LEBL (Barcelona, Spain) with 8, ENGM (Oslo Gardermoen, Norway) with 5, and both EPP0 (Poznań, Poland) and LEIB (Ibiza, Spain) reporting 4 incursions each. These are largely major or medium-traffic airports, where the volume of aircraft movements may contribute to higher absolute incident numbers. On the other hand, when analysing by RI rate (incidents per flight movement)—a measure of relative risk—smaller airports dominate. EPBY (Bydgoszcz, Poland) has the highest RI rate at 0.00106, followed by EPZG (Zielona Gora, Poland) with 0.00082, EPLL (Łódź, Poland) at 0.00039, EVLA (Liepāja, Latvia) with 0.00036, and LFRH (Lorient, France) at 0.00016. These airports handle significantly fewer flights, so even a single incursion dramatically increases the relative risk, thereby flagging them as safety hotspots despite lower traffic volumes. Notably, Poland appears in both categories, indicating a broader concern across multiple airports in the country.

### 2.4 Rate of separation minima infringements (SMIs) (PI#2)





Rate of SMI with ANS contribution per 100,000 flight hours											
#	State	Flight hours					Number of SMIs				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	France	1,051,941	1,415,222	2,178,853	2,368,932	2,493,094	133	272	304	226	360
2	Spain	741,278	954,783	1,632,981	1,820,236	1,959,781	25	59	89	127	168
3	Germany	700,899	952,606	1,263,985	1,329,631	1,378,836	6	8	22	12	0
4	Italy	494,359	747,998	1,141,849	1,242,479	1,413,584	26	33	81	78	98
5	Greece	276,276	418,381	650,415	738,472	773,456	24	31	42	51	70
6	Portugal	175,009	215,958	406,816	854,121	924,446	10	13	30	22	14
7	MUAC	289,985	311,843	545,651	605,633	634,951	5	0	8	17	14
8	Norway	235,547	257,160	646,054	441,775	553,483	27	14	84	14	49
9	Romania	171,847	247,561	384,582	455,861	481,952	3	4	12	4	5
10	Poland	221,029	278,330	361,376	386,507	415,612	8	15	39	34	61
11	Sweden	199,288	218,597	333,262	352,610	358,344	2	19	31	16	5
12	Austria	155,355	202,666	317,434	359,408	377,098	7	9	14	4	11
13	Hungary	116,008	149,648	259,939	313,567	368,164	2	7	6	6	7
14	Ireland	131,294	105,105	288,261	331,211	343,533	2	7	8	13	8
15	Switzerland	150,242	137,471	318,606	325,987	261,650	0	2	5	3	10
16	Croatia	106,693	155,957	249,018	281,231	321,926	0	0	3	5	7
17	Bulgaria	127,863	174,114	290,422	342,298	0	1	0	0	0	0
18	Czech Republic	113,261	135,047	178,983	194,893	225,125	7	11	8	6	6
19	Denmark	98,936	99,279	183,043	200,904	206,447	0	2	0	2	6
20	Cyprus	78,614	116,453	167,670	191,955	181,263	0	3	6	5	8
21	Netherlands	88,456	101,649	155,388	169,414	170,879	31	47	33	37	36
22	Belgium	55,762	134,413	97,089	100,450	100,314	1	5	6	13	18
23	Finland	57,321	62,275	88,850	97,259	106,093	0	3	8	2	2
24	Slovakia	41,055	54,376	86,171	100,173	112,204	0	2	0	1	3
25	Malta	40,016	44,905	62,700	84,404	137,544	0	1	0	1	4
26	Slovenia	28,029	40,145	61,705	67,568	71,604	0	2	4	3	0
27	Latvia	39,170	46,440	52,501	53,203	66,055	1	0	1	1	2
28	Lithuania	36,493	47,794	47,286	48,220	52,207	1	0	2	2	2
29	Estonia	33,558	37,464	48,360	50,258	61,600	4	5	3	5	3
30	Luxembourg	5,067	11,425	17,665	11,608	11,410	0	3	4	3	5



#	State	Rate of SMI per 100,000 flight hours					% variation in rate of SMIs				
		2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	France	13	19	14	10	14		+ 52%	-27%	-32%	+ 51%
2	Spain	3	6	5	7	9		+ 83%	-12%	+ 28%	+ 23%
3	Germany	1	1	2	1	0		-2%	+ 107%	-48%	-100%
4	Italy	5	4	7	6	7		-16%	+ 61%	-11%	+ 10%
5	Greece	9	7	6	7	9		-15%	-13%	+ 7%	+ 31%
6	Portugal	6	6	7	3	2		+ 5%	+ 22%	-65%	-41%
7	MUAC	2	0	1	3	2		-100%	0%	+ 91%	-22%
8	Norway	11	5	13	3	9		-53%	+ 139%	-76%	+ 179%
9	Romania	2	2	3	1	1		-7%	+ 93%	-72%	+ 18%
10	Poland	4	5	11	9	15		+ 49%	+ 100%	-18%	+ 67%
11	Sweden	1	9	9	5	1		+ 769%	+ 7%	-51%	-69%
12	Austria	5	4	4	1	3		-2%	-1%	-75%	+ 163%
13	Hungary	2	5	2	2	2		+ 172%	-51%	-17%	-1%
14	Ireland	2	7	3	4	2		+ 338%	-58%	+ 41%	-41%
15	Switzerland	0	1	2	1	4		0%	+ 8%	-41%	+ 315%
16	Croatia	0	0	1	2	2		0%	0%	+ 48%	+ 22%
17	Bulgaria	1	0	0	0	NaN		-100%	0%	0%	0%
18	Czech Republic	6	8	4	3	3		+ 32%	-45%	-31%	-13%
19	Denmark	0	2	0	1	3		0%	-100%	0%	+ 191%
20	Cyprus	0	3	4	3	4		0%	+ 39%	-27%	+ 70%
21	Netherlands	35	46	21	22	21		+ 32%	-54%	+ 3%	-4%
22	Belgium	2	4	6	13	18		+ 108%	+ 66%	+109%	+ 39%
23	Finland	0	5	9	2	2		0%	+ 87%	-77%	-8%
24	Slovakia	0	4	0	1	3		0%	-100%	0%	+ 167%
25	Malta	0	2	0	1	3		0%	-100%	0%	+ 147%
26	Slovenia	0	5	6	4	0		0%	+ 30%	-31%	-100%
27	Latvia	3	0	2	2	3		-100%	0%	-1%	+ 61%
28	Lithuania	3	0	4	4	4		-100%	0%	-2%	-8%
29	Estonia	12	13	6	10	5		+ 12%	-54%	+ 60%	-51%
30	Luxembourg	0	26	23	26	44		0%	-14%	+ 14%	+ 70%

## Focus on separation minima

### SMI

As for RIs, comparing absolute numbers and rates of occurrences between Member States and ANSPs for SMIs must be done with caution. The number of occurrences reported is much dependent on the reporting culture of the organisation, the classification on occurrences, use of automated systems, etc. A high rate of occurrences in one Member State or ANSP is therefore not necessarily equal to a worse performance compared with Member States or ANSPs with lower rates. A significant rise was observed in SMIs, with the absolute number of occurrences increasing from 1,072 in 2023 to 1,468 in 2024—an increase of 36%. The rate has increased from 7.7 per 100.000 flight hours in 2023 to 9.7 in 2024, countering the downwards trend of the rate seen since 2021. The higher rate is largely attributable to an increase of occurrences in France, Spain, Italy, Greece, Norway and Poland. It should be noted that in 2024, Spain reported occurrences based on occurrence class A, B and C, whereas in previous years the RCS data classification was used.



## **SMI 2023-2025**

In 2024, the rate of SMIs of all types increased by 24% from 7.8 to 9.7 occurrences per 100,000 flight hours, the highest rate seen during RP3. The rate of SMIs with ANS contribution increased by 31% from 5.1 to 6.7 occurrences per 100,000 flight hours. The absolute number of SMIs increased by 36%, while the number of SMIs with ANS contribution increased by 35%. At the Member State level, the management of risks associated with SMIs of all types showed a decline in 2024.

### **SMI by State**

The five highest rates, amongst the listed air navigation service providers, show a significant variation between countries. Luxembourg stands out with the highest rate of 52.59, far exceeding others, which could be explained by a small number of flight hours making the rate more susceptible to variations caused by the number of occurrences. Spain follows with a rate of 29.13 however, Spain changed the SMI occurrences classification in 2024, which may result in a higher number of the occurrences being reported. France's DSNA ranks third with a rate of 17.15. Poland takes fourth place with a rate of 14.08, reflecting moderate traffic levels compared to Spain and France. Norway completes the top five with a rate of 11.74, balancing a relatively high rate with mid-range traffic volume. All four Member States saw an increase in the rate compared to 2023, in some cases an increase of more than 100%. The rate excludes the Netherlands, which did not report any SMIs at a state level in 2024 (against the 65 occurrences reported in 2023). 26 ANSPs reported SMIs with an ANS contribution. The highest number of SMIs with ANS contribution occurred in DSNA's airspace (360) but, the high number of controlled flight hours resulted in a lower rate (13.9), despite being well above the Union average. The rate increased by approximately 50% compared with 2023. DSNA should continue to assess occurrences and put in place appropriate mitigations according to their SMS, as necessary. Similarly to the previous year, the highest rate of SMIs was in the ANA LUX airspace (43.8 SMIs per 100,000 flight hours), but with a very low absolute number of occurrences (5 SMIs). The rate increased compared to 2023. A number of other ANSPs saw an increasing number of occurrences, showing increasing rates. The ANSPs should carefully monitor SMIs during the coming year, looking into the reasons contributing to this rate and take appropriate mitigating actions, as necessary.

## **2.5 Quality of occurrences reporting**

### **Occurrences reporting quality**

For the calculation of the indicators related to SMIs and RIs, RP3 safety supporting material requires that occurrences data reported in the ECR under Commission Regulation (EU) No 376/2014 be used. ANSPs and NSAs should ensure that the information provided to the ECR contains the information needed to compute the performance indicators for monitoring SMIs and RIs. It was designed that EASA would extract the information needed to calculate the SPIs, which are then sent to Member States for verification and elaboration in their PMRs. However, during every RP3 reporting year, EASA has not been able to extract data from the ECR containing all needed information to compute the SPIs. This is because of the overall poor quality of the data uploaded to the ECR: A significant part of occurrences extracted from ECR did not contain the information needed to compute the performance indicators for monitoring SPIs (Runway Incursions and Separation Minima Infringements), in particular, occurrence risk assessment and ANS contribution ("ATM involvement" in the occurrence Taxonomy). For the calculation of the indicators related to SMIs and RIs (SPI1a,



SPI1b, SPI1c, and SPI1d), the occurrences that should be used in the computation of the different rates are only those that have a “safety impact”. Whether an occurrence has a safety impact or not should be determined by NSAs using the common European Risk Classification Scheme (ERCS), and by ANSPs through the severity classification using the Risk Analysis Tool (RAT) or similar appropriate tool. This information was not consistently found encoded in the ECR’s occurrences. While there has been some improvement, it is not yet such that the values may be calculated using ECR data as planned. Member States are mandated by regulation to apply the European Risk Classification Scheme (ERCS) when assessing occurrences. It appears from the ECR occurrence data and monitoring reports received that there is a lack of/ incorrect/ inconsistent application of the ERCS across Member States. It is likely that some have not applied the ERCS and RAT resulting in greater subjectivity in ANSP and NSA interpretations as to what constitutes an occurrence with a safety impact. Nevertheless, this does not invalidate the analysis but, it should be taken into consideration when interpreting the data. As the same indicators will be applied during RP4, Member States should ensure that both the RAT severity and the ERCS risk score are encoded for each occurrence to allow EASA to compute independently the SPIs. Otherwise, they will have to extract and submit the occurrences used in the computation of the SPIs themselves.



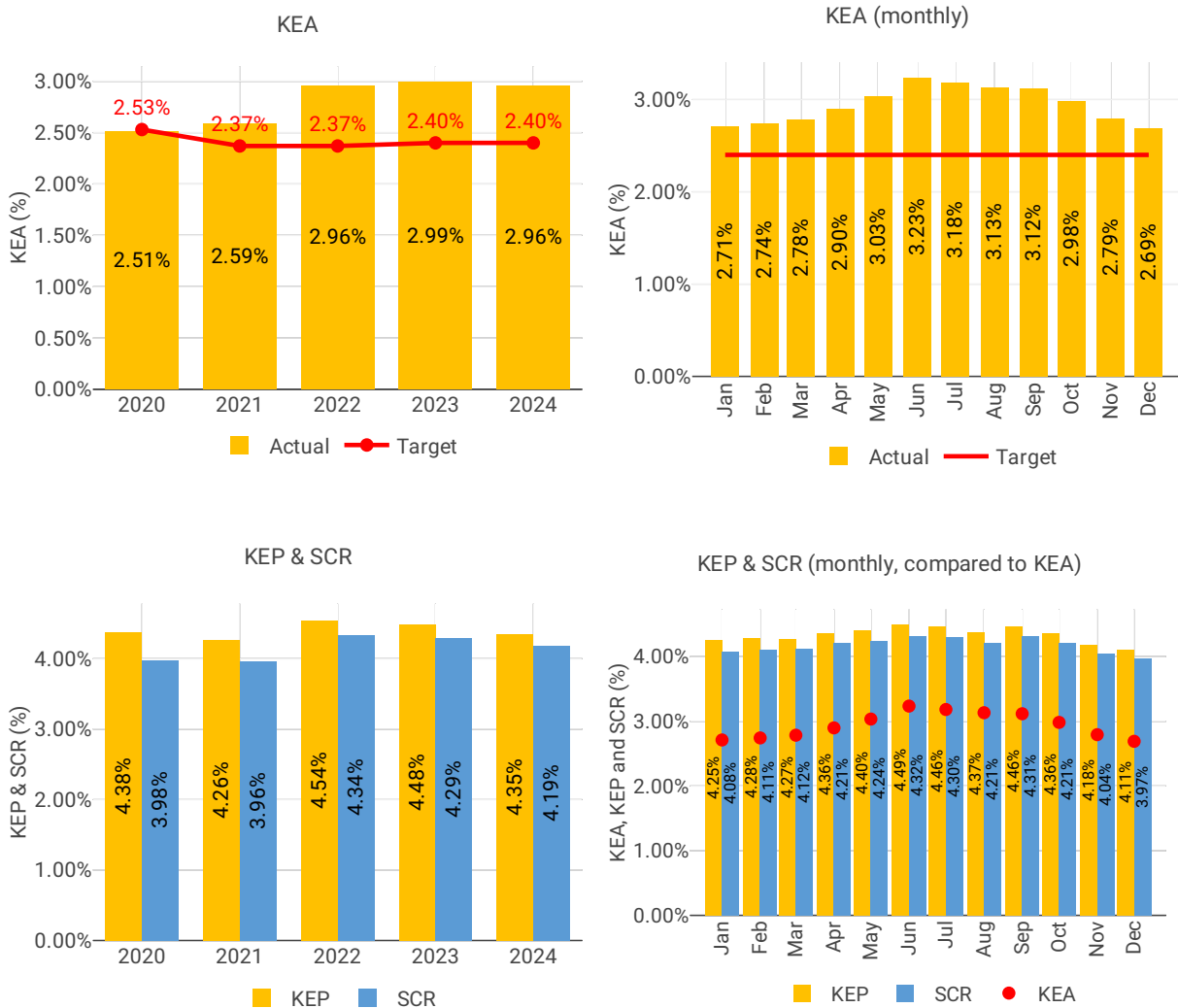
### 3 ENVIRONMENT - SES RP3

#### 3.1 PRB monitoring

- The Union-wide horizontal flight efficiency (KEA) performance target was not achieved (2.96% compared to the target of 2.40%) and performance stabilised. 25 Member States did not achieve their national targets.
- The second full year of the effects of Russia’s war of aggression against Ukraine affected environmental performance, which is reflected in the KEA score being 2.96% in 2024 compared to 2.99% in 2023.
- For terminal airspace, both additional ASMA (arrival sequencing and metering area) time and additional taxi-out time increased. Combined, this shows a +6% increase compared to 2023, driven by both performance indicators. However, it is worth noting that performance remains better than 2019 levels.

#### 3.2 En route performance

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



## 3.2.2 Summary of performance at local level

KEA (%)			
State	Target	Actual	
Austria	1.96	2.11	X
Belgium	3.00	3.48	X
Bulgaria	2.25	3.52	X
Croatia	1.46	1.56	X
Cyprus	3.84	5.43	X
Czech Republic	2.05	2.48	X
Denmark	1.14	1.24	X
Estonia	1.22	6.14	X
Finland	0.88	3.41	X
France	2.83	3.29	X
Germany	2.30	2.53	X
Greece	1.92	2.19	X
Hungary	1.49	2.23	X
Ireland	1.13	1.40	X
Italy	2.67	3.03	X
Latvia	1.25	7.36	X
Lithuania	1.92	12.19	✓
Malta	1.80	1.49	X
Netherlands	2.62	2.84	X
Norway	1.55	1.33	X
Poland	1.65	4.49	X
Portugal	1.80	1.61	X
Romania	2.05	3.77	X
Slovakia	2.13	4.05	X
Slovenia	1.55	1.77	X
Spain	3.08	3.30	X
Sweden	1.05	1.72	X
Switzerland	3.95	4.10	X



## 4 CAPACITY - SES RP3

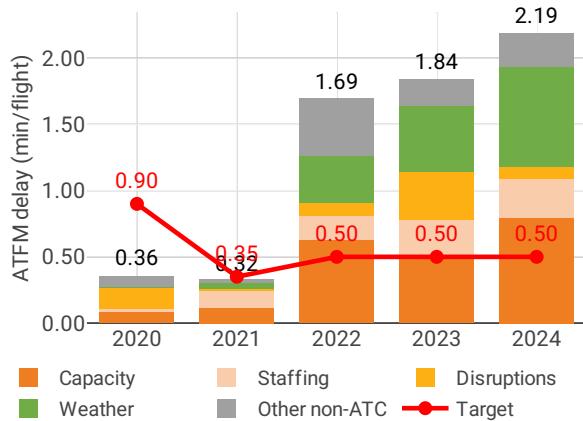
### 4.1 PRB monitoring

- The Union-wide average en route ATFM delay was 2.19 minutes per flight in 2024, 1.69 minutes per flight higher than the Union-wide target. The volume and growth of traffic was unevenly distributed across the network, impacting on ANSPs in different ways, exacerbating existing capacity problems.
- 15 Member States did not achieve their local targets, indicating that some ANSPs still have unresolved capacity issues. Adverse weather also contributed significantly to en route ATFM delays.
- Four out of the 15 Member States which did not achieve capacity targets experienced double-digit traffic growth compared to 2023. Conversely, two Member States did not achieve their capacity targets even though traffic demand remained at or significantly below the forecasted level.

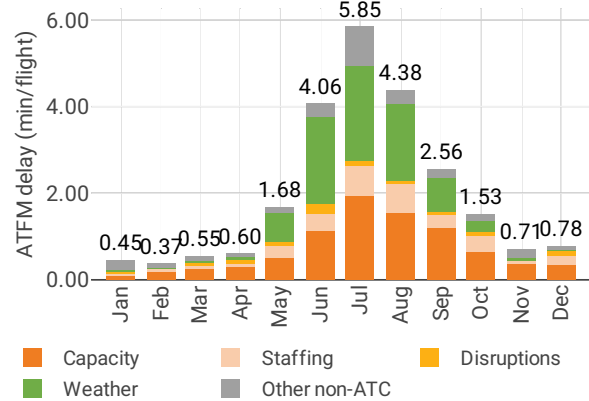
### 4.2 En route performance

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

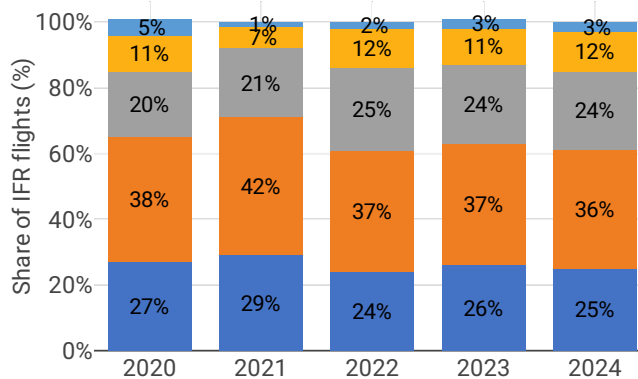
Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2024



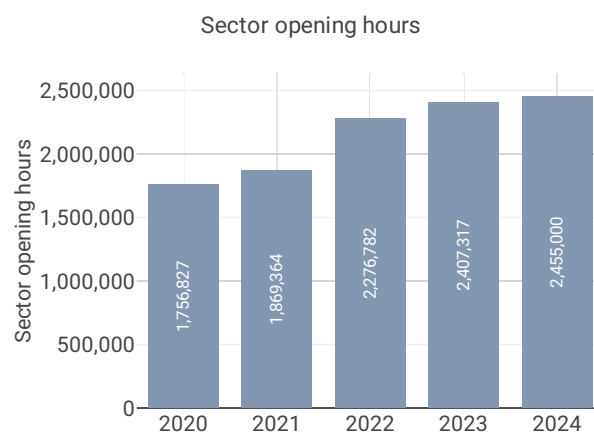
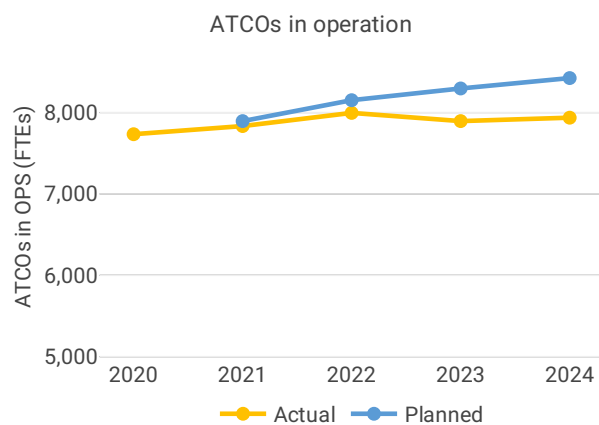
Distribution of IFR flights per the duration of en route ATFM delay



## 4.2.2 Summary of performance at local level

En route delay (min/flight)			
State	Target	Actual	
Austria	0.16	0.48	✗
Belgium	0.17	0.08	✓
Bulgaria	0.08	0.10	✗
Croatia	0.17	1.51	✗
Cyprus	0.15	0.01	✓
Czech Republic	0.11	0.13	✗
Denmark	0.05	0.05	✓
Estonia	0.03	0.01	✓
Finland	0.05	0.00	✓
France	0.25	1.39	✗
Germany	0.27	1.56	✗
Greece	0.15	0.97	✗
Hungary	0.11	2.75	✗
Ireland	0.03	0.00	✓
Italy	0.11	0.72	✗
Latvia	0.03	0.00	✓
Lithuania	0.02	0.00	✓
Malta	0.01	0.00	✓
Netherlands	0.14	0.08	✓
Norway	0.11	0.04	✓
Poland	0.12	0.23	✗
Portugal	0.13	0.39	✗
Romania	0.04	0.13	✗
Slovakia	0.07	0.11	✗
Slovenia	0.09	0.05	✓
Spain	0.19	1.02	✗
Sweden	0.08	0.01	✓
Switzerland	0.19	0.40	✗

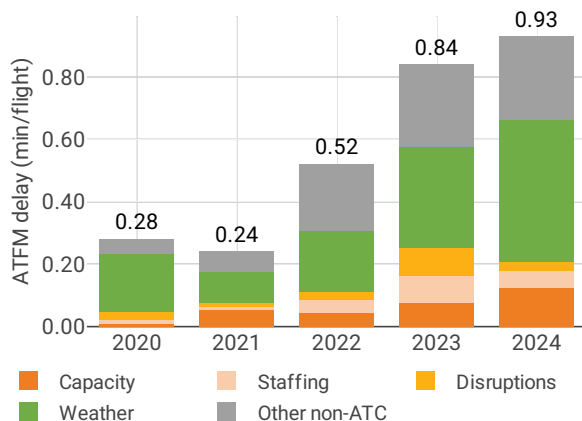
## 4.2.3 Other indicators



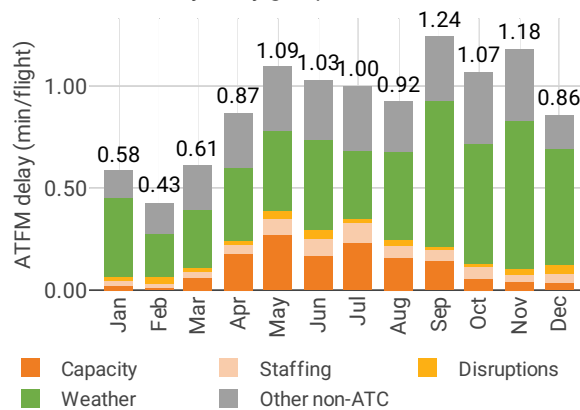
## 4.3 Terminal performance

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

Average arrival ATFM delay per flight by delay groups



Monthly distribution of arrival ATFM delay by delay groups - 2024

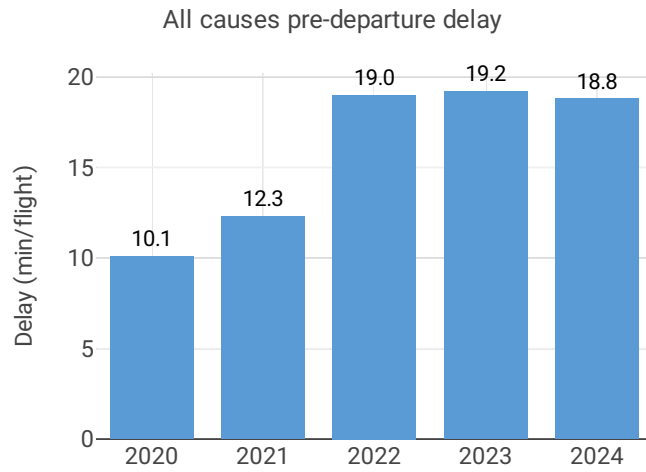


### 4.3.2 Summary of performance at local level

Arrival delay (min/flight)				
State	Target	Actual		
Austria	0.82	0.74	✓	
Belgium	1.08	0.28	✓	
Czech Republic	0.40	0.15	✓	
Denmark	0.10	0.50	✗	
Estonia	0.00	0.00	✓	
Finland	0.77	0.76	✓	
France	0.40	0.63	✗	
Germany	0.45	0.46	✗	
Greece	0.20	3.46	✗	
Hungary	0.05	0.00	✓	
Ireland	0.20	0.32	✗	
Italy	0.30	0.28	✓	
Latvia	0.02	0.00	✓	
Luxembourg	0.05	0.55	✗	
Malta	0.01	0.00	✓	
Netherlands	1.40	3.50	✗	
Norway	0.50	0.26	✓	
Poland	0.23	0.49	✗	
Portugal	2.00	2.70	✗	
Romania	0.39	0.12	✓	
Spain	0.57	1.10	✗	
Sweden	0.15	0.07	✓	
Switzerland	1.42	1.78	✗	



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

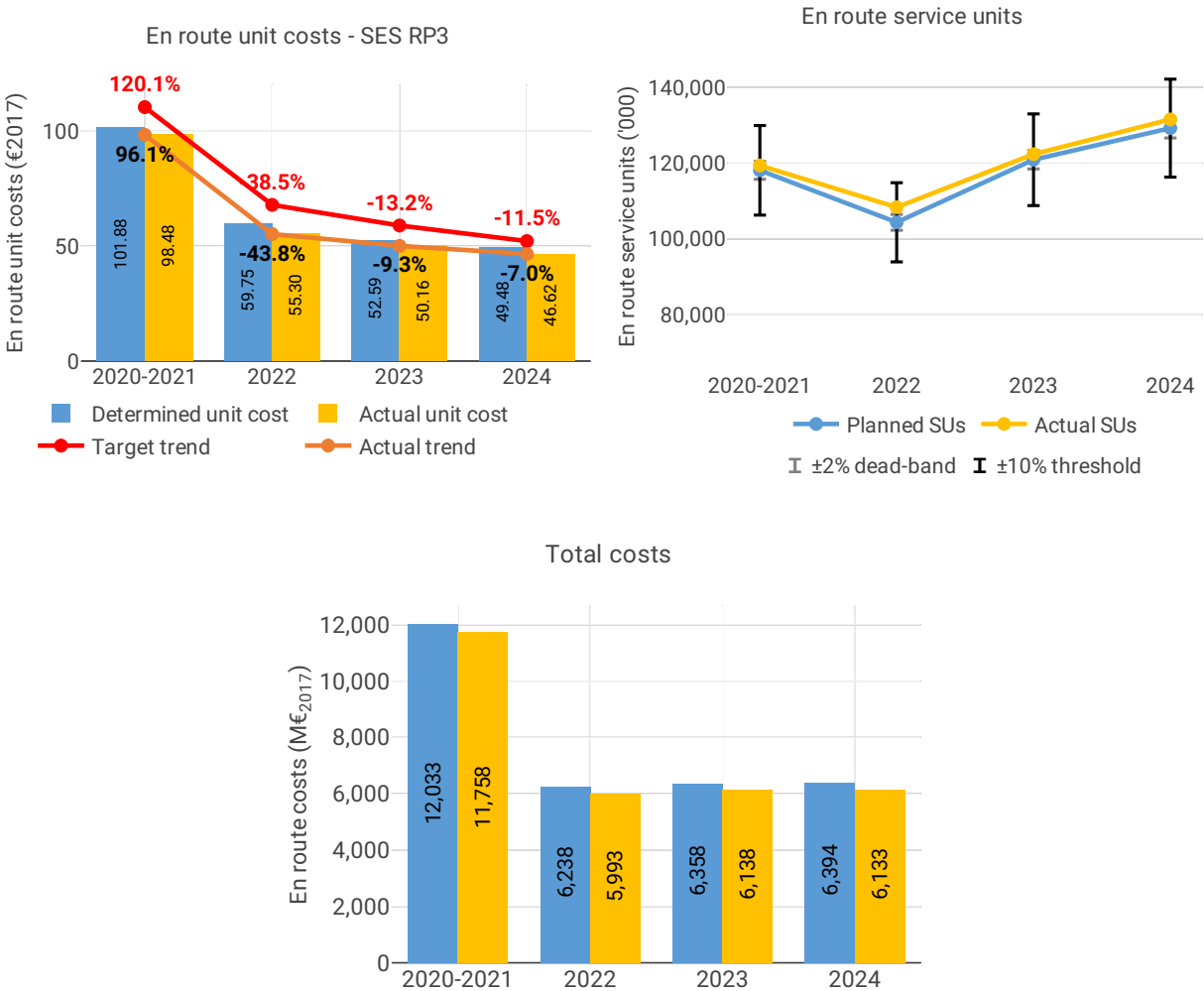


### 5 COST-EFFICIENCY - SES RP3

#### 5.1 PRB monitoring

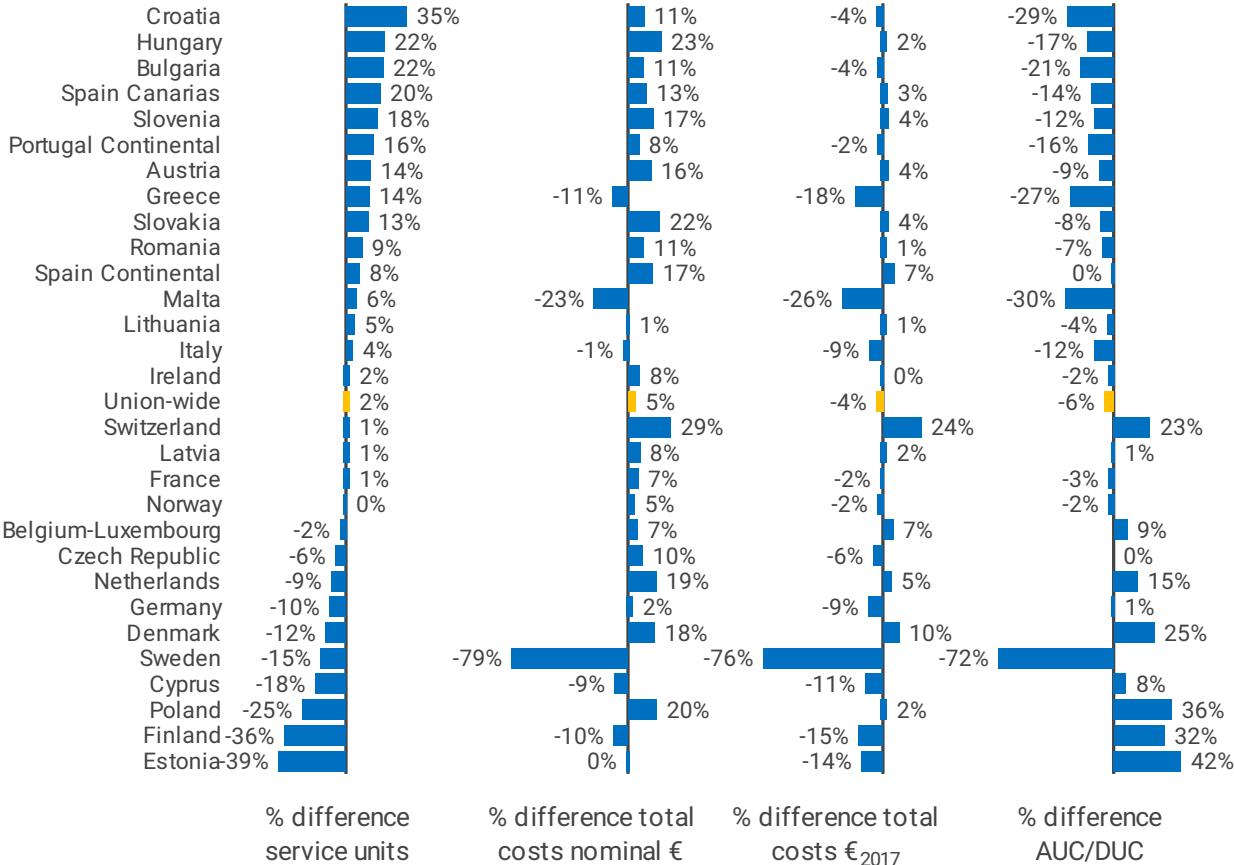
- The real en route actual unit cost (AUC) Union-wide was -5.8% lower than the determined unit cost (DUC). Real en route actual costs were -4.1% below determined costs, while actual service units were +1.8% higher than the determined service units.
- The decrease in actual costs compared to plan was mainly attributable to lower than planned staff costs and depreciation. Many ANSPs have not implemented their ATCO and investment plans and have not achieved their capacity targets.
- The en route actual unit cost for airspace users (AUCU) was +5.6% higher than the DUC (nom-inal), mainly due to the application of the 2024 inflation adjustment (where the weighted average actual index was +14% higher than the determined figure).
- The revenue gap due to COVID exceptional measures amounts to 5.7B€2017 for en route charging zones, of which 1.5B€2017 have already been recovered (737M€2017 in 2023, and 743M€2017). The remaining en route revenue gap (started to be recovered from 2023) according to the exceptional measures Regulation amounts to 4.2B€2017.

#### 5.2 En route charging zone

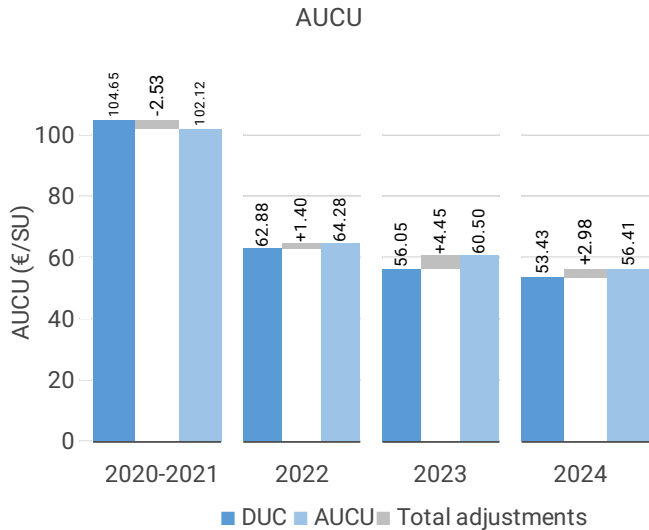


Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	12,238	6,717	7,203	7,351
Determined costs	12,476	6,632	6,861	6,988
Difference costs	-238	85	341	363

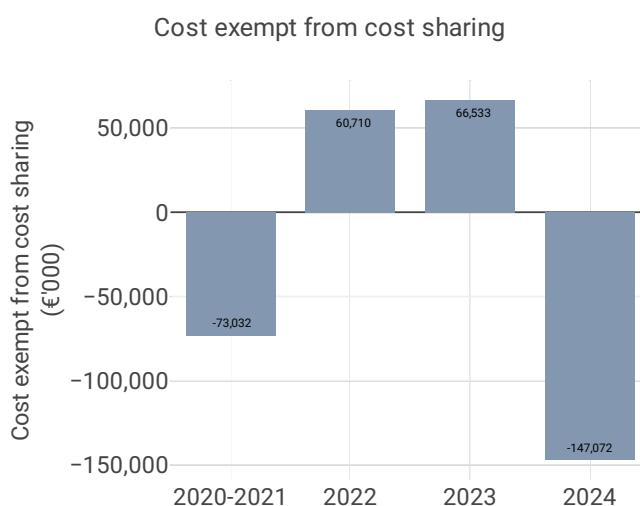
5.2.1 Summary of performance at local level



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



<b>AUCU components (€/SU) – 2024</b>	
<b>Components of the AUCU in 2024</b>	<b>€/SU</b>
<b>DUC</b>	<b>53.43</b>
Inflation adjustment	5.12
Cost exempt from cost-sharing	-1.12
Traffic risk sharing adjustment	-0.12
Traffic adj. (costs not TRS)	-0.10
Financial incentives	-0.14
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-0.66
Application of lower unit rate	0.00
Total adjustments	2.98
<b>AUCU</b>	<b>56.41</b>
<b>AUCU vs. DUC</b>	<b>+ 6.0%</b>



<b>Cost exempt from cost sharing by item - 2024</b>	<b>€'000</b>	<b>€/SU</b>
New and existing investments	-45,326	-0.34
Competent authorities and qualified entities costs	4,872	0.04
Eurocontrol costs	-1,027	-0.01
Pension costs	-168,717	-1.28
Interest on loans	13,534	0.10
Changes in law	49,592	0.38
<b>Total cost exempt from cost risk sharing</b>	<b>-147,072</b>	<b>-1.12</b>



5.2.3 Regulatory result (RR)

