PERFORMANCE REVIEW BOARD
of the Single European Sky

Performance Review Board
Monitoring Report
France - 2024

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Contents

1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2023/176 of 14 December 2022

List of ACCs 5
- Bordeaux ACC
- Brest ACC
- Marseille ACC
- Paris ACC
- Reims ACC

No of airports in the scope of the performance plan:
- **≥80'K** 6
- **<80'K** 52

Exchange rate (1 EUR=)
- 2017: 1 EUR
- 2024: 1 EUR

Share of Union-wide:
- **traffic (TSUs) 2024** 17.3%
- **en route costs 2024** 21.1%

Share en route / terminal costs 2024 85% / 15%

En route charging zone(s)
- France

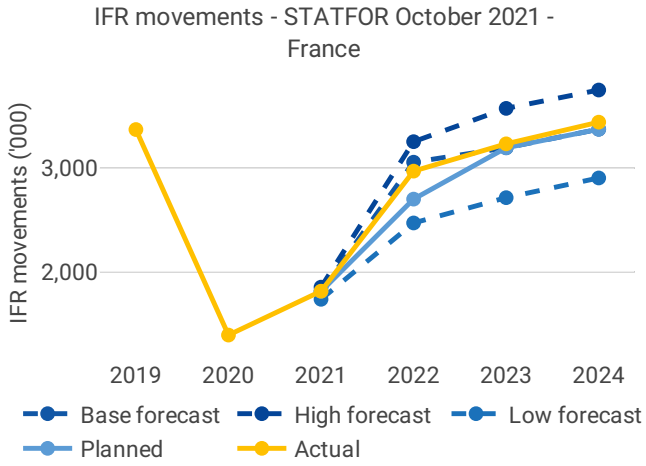
Terminal charging zone(s)
- France Zone 1
- France Zone 2

Main ANSP
- DSNA

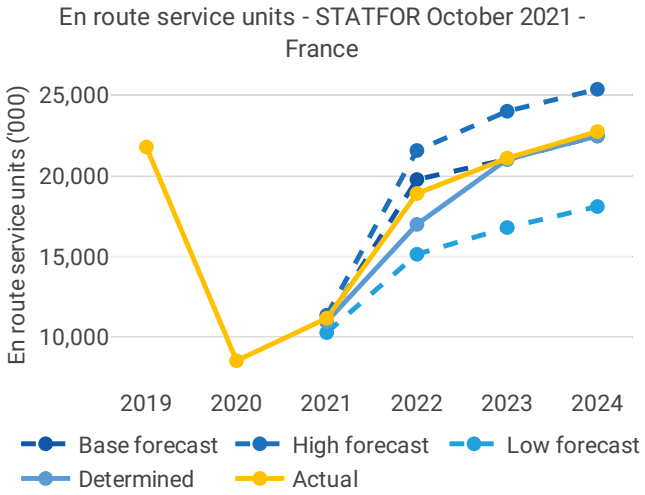
Other ANSPs
- –

MET Providers
- Météo France

1.2 Traffic (En route traffic zone)

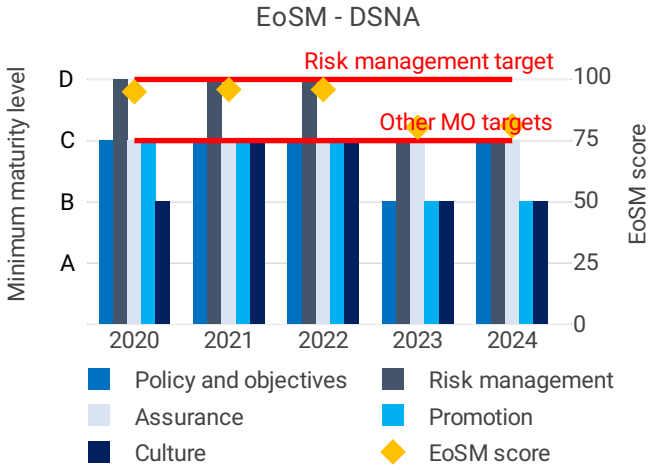


- France recorded 3,443K actual IFR movements in 2024, +6.5% compared to 2023 (3,443K).
- Actual 2024 IFR movements were +2.0% above the plan (3,375K).
- Actual 2024 IFR movements are +2.1% above the actual 2019 level (3,372K).



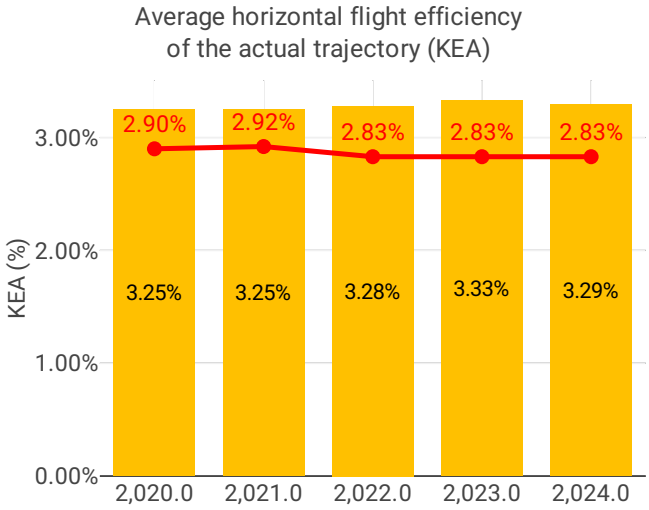
- France recorded 22,735K actual service units in 2024, +7.8% compared to 2023 (21,088K).
- Actual 2024 service units were +1.2% above the plan (22,464K).
- Actual 2024 service units are +4.4% above the actual 2019 level (21,782K).

1.3 Safety (Main ANSP)



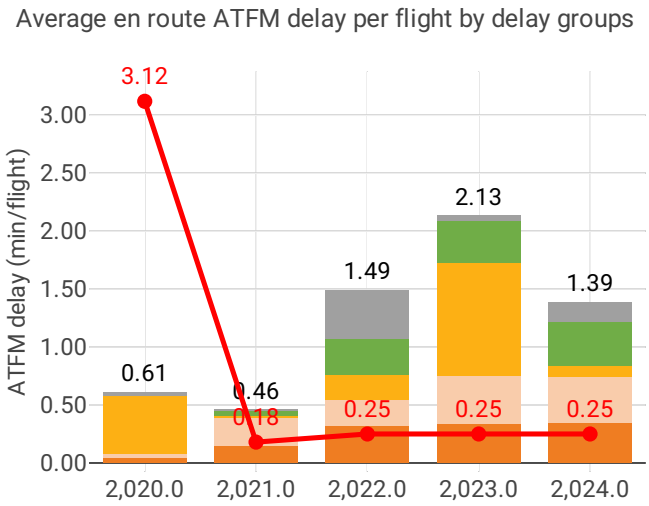
- DSNA did not achieve the RP3 targets for the EoSM, as the achieved maturity levels decreased in 2023. Despite some improvements recorded in 2024, DSNA did not achieve the target in three out of five Management Objectives.
- France recorded a decrease in the rate of runway incursions (RIs) and a significant increase in the rate of separation minima infringements (SMIs). DSNA should continue assessing occurrences and should mitigate risks according to their SMS, if necessary.
- France should ensure that the ANSP implements, in a timely and cost-efficient manner, the necessary additional measures such as enhanced processes, improved allocation of resources, targeted training, and systematic reviews. Without such actions, the achievement of the RP4 targets could be jeopardised.

1.4 Environment (Member State)

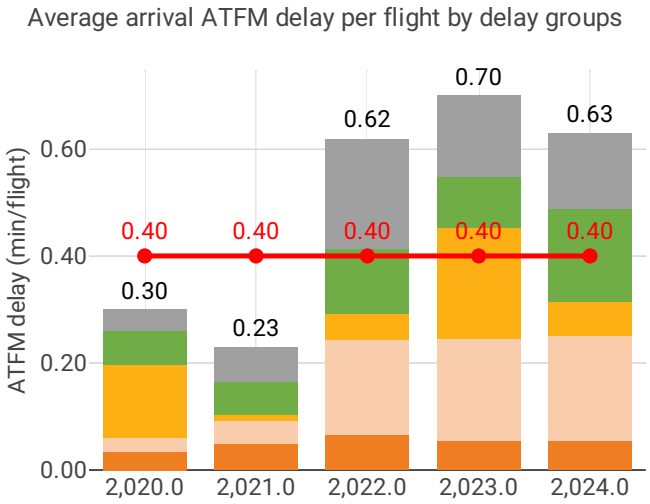


- France achieved a KEA performance of 3.29% compared to its target of 2.83% and did not contribute positively towards achieving the Union-wide target.
- The NSA states that 2024 performance was affected by high peak traffic levels during the summer and traffic volatility, capacity and staff issues and adverse weather.
- Both KEP and SCR improved in 2024. The NSA states that 50% of French airspace is now covered by FRA. Despite the KEA target being missed, KEA improved in 2024. Additionally, the improvement in SCR shows that France has enhanced the environmental efficiency of its airspace when accounting for impacts outside of its control.
- The share of CDO flights remained stable in 2024.
- Both additional taxi out time and additional time in terminal airspace remained stable in 2024 compared to 2023.
- Additional taxi out time data for Marseille airport has not been reported for 2024 despite being subject to monitoring as per the Regulation.

1.5 Capacity (Member State)

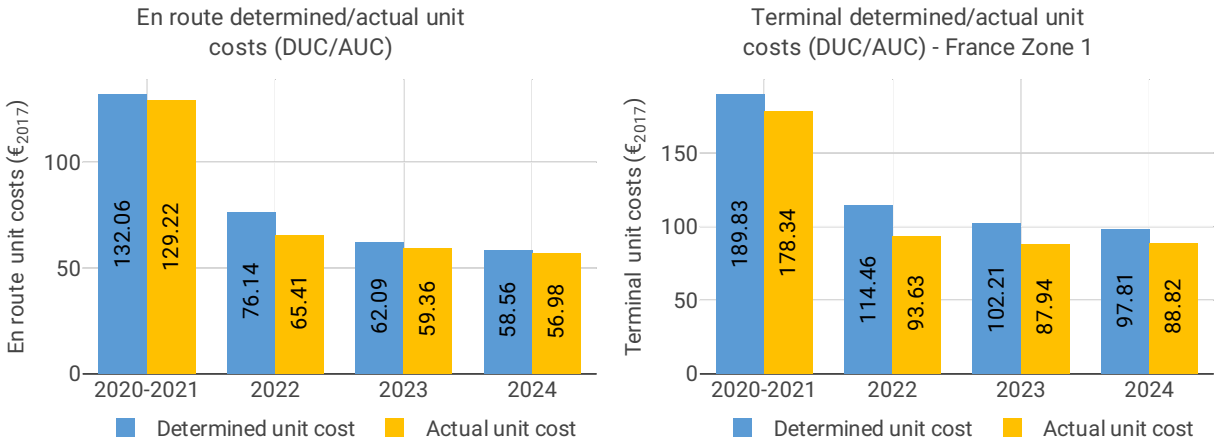


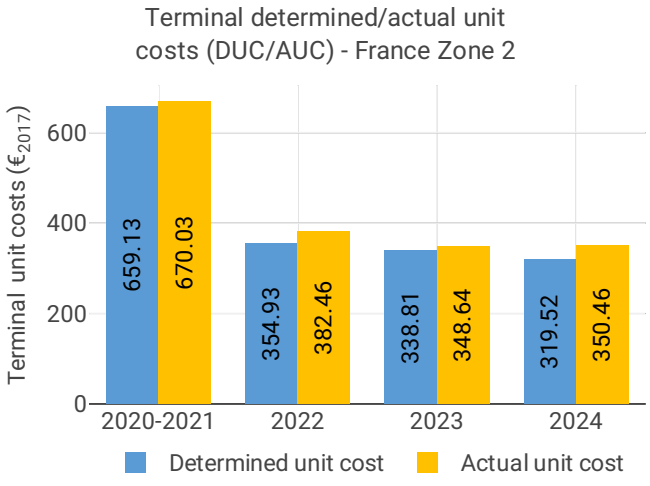
- France registered 1.40 minutes of average en route ATFM delay per flight during 2024, which has been adjusted to 1.39 during the post-ops adjustment process, thus not achieving the local target value of 0.25. Delays in France decreased by 0.74 minutes per flight year-on-year.
- The majority of delays accumulated between May and October, mainly due to the lack of ATC Capacity and Staffing and adverse weather conditions.
- The share of delayed flights with delays longer than 15 minutes in France decreased by 8 percentage points compared to 2023 and was lower than 2019 values.
- The average number of IFR movements was 3% above 2019 levels in France in 2024.
- The number of ATCOs in OPS is 228, being below the 2024 plan in Bordeaux by 21 FTEs. The number of ATCOs in OPS is 241, being below the 2024 plan in Brest by 14 FTEs. The number of ATCOs in OPS is 324, being over the 2024 plan in Marseille by 2 FTEs. The number of ATCOs in OPS is 245, being below the 2024 plan in Paris by 20 FTEs. The number of ATCOs in OPS is 213, being over the 2024 plan in Reims by 15 FTEs.
- The yearly total of sector opening hours in Brest ACC was 86,039, showing a 15.8% increase compared to 2023. Sector opening hours are 5.2% above 2019 levels. The yearly total of sector opening hours in Paris ACC was 81,768, showing a 10.3% increase compared to 2023. Sector opening hours are 20.6% below 2019 levels. The yearly total of sector opening hours in Marseille ACC was 111,644, showing a 1.1% increase compared to 2023. Sector opening hours are 10.9% above 2019 levels. The yearly total of sector opening hours in Bordeaux ACC was 74,248, showing a 6.1% decrease compared to 2023. Sector opening hours are 1.0% above 2019 levels. The yearly total of sector opening hours in Reims ACC was 66,641, showing a 5.9% increase compared to 2023. Sector opening hours are 3.1% below 2019 levels.
- Reims ACC registered 16.67 IFR movements per one sector opening hour in 2024, being 12.2% above 2019 levels. Paris ACC registered 14.05 IFR movements per one sector opening hour in 2024, being 18.1% above 2019 levels. Brest ACC registered 12.81 IFR movements per one sector opening hour in 2024, being 5.2% below 2019 levels. Marseille ACC registered 10.75 IFR movements per one sector opening hour in 2024, being 6.6% below 2019 levels. Bordeaux ACC registered 13.24 IFR movements per one sector opening hour in 2024, being 0.9% below 2019 levels.
- 2024 showed an improved situation compared to 2023. However, the fact that some ACCs generate delays due to ATC capacity and staffing while having more ATCOs in OPS FTEs than planned indicates that capacity planning processes and the allocation of ATCO resources may have to be improved. Actual 2025 values up to August show a major deterioration of capacity performance.



- France registered an average airport arrival ATFM delay of 0.63 minutes per flight in 2024, thus not achieving the local target of 0.40 minutes.
- Compared to 2023, average arrival ATFM delays in France were 10% lower in 2024, while the number of IFR arrivals increased by 2%.
- The main drivers of delays were ATC staffing, accounting for 31% of delays, and weather, responsible for 28%.

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





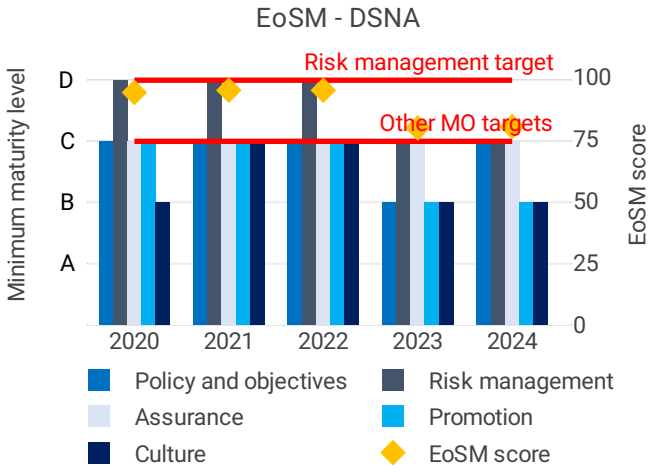
- The en route 2024 actual unit cost of France was 56.98€2017, -2.7% lower than the determined unit cost (58.56€2017). The terminal zone 1 2024 actual unit cost was 88.82€2017, -9.2% lower than the determined unit cost (97.81€2017), while the terminal zone 2 2024 actual unit cost was 350.46€2017, +9.7% higher than the determined unit cost (319.52€2017).
- The en route 2024 actual service units (22.7M) were +1.2% higher than the determined service units (22.5M).
- The en route 2024 actual total costs were -20M€2017 (-1.5%) lower than determined. The lower costs are mainly driven by staff costs for DSNA (-18M€2017, or -2.6%). However, in nominal terms, the actual staff costs show an increase of +8.3% compared to the determined figures. The NSA explains that this increase is mainly due to salary indexations and some additional bonuses, as well as to the implementation of a new social agreement.
- DSNA costs of investment were 247M€2017 in 2024 for both en route and terminal charging zones, -1.2% less than determined (250M€2017).
- The en route actual unit cost incurred by users in 2024 was 66.99€ (+6.9% above the 2024 DUC), while the terminal actual unit cost incurred by users was 175.77€ (+69% above the 2024 DUC) for the terminal zone 1, and 208.90€ (-39% below the 2024 DUC) for the terminal zone 2. The difference between the AUCU and the DUC in terminal charging zones is primarily attributed to the cross-financing adjustment that transferred 45M€ between terminal zones.

2 SAFETY - FRANCE

2.1 PRB monitoring

- DSNA did not achieve the RP3 targets for the EoSM, as the achieved maturity levels decreased in 2023. Despite some improvements recorded in 2024, DSNA did not achieve the target in three out of five Management Objectives.
- France recorded a decrease in the rate of runway incursions (RIs) and a significant increase in the rate of separation minima infringements (SMIs). DSNA should continue assessing occurrences and should mitigate risks according to their SMS, if necessary.
- France should ensure that the ANSP implements, in a timely and cost-efficient manner, the necessary additional measures such as enhanced processes, improved allocation of resources, targeted training, and systematic reviews. Without such actions, the achievement of the RP4 targets could be jeopardised.

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



Focus on EoSM

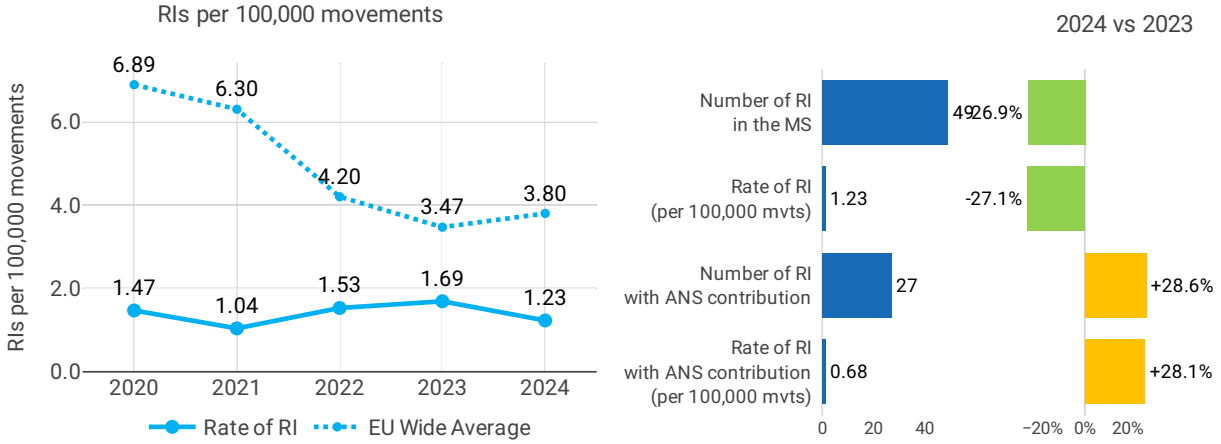
Only two EoSM components of the ANSP meet the RP3 target level. Over 2024 improvement was observed for one question for "Safety policy and Objectives" improving the maturity of the component from level B to the level C and consequently achieving the target for this component. Additionally, the ANSP will need to improve in "Safety Risk Management", "Safety Promotion" and Safety Culture" to achieve RP3 targets. "The outcome of 2023 ongoing oversight including findings raised during May 2023 SMS focused audit led to an in-depth review of all the assessment criteria of each EoSM questions … some of the detailed requirements for some questions were found not (anymore) met. A slight delay was observed for some actions planned to be implemented by the end of 2024 resulting in the value for 3 areas not meeting RP3 targets."

Following the comprehensive review of DSNA's SMS function in 2023, which resulted in a downgrade in four Management Objectives, DSNA implemented corrective actions in 2024. These efforts led to an improved maturity in the area of Safety Policy and Objectives. However, DSNA has not achieved the targets related to Safety Risk Management, Safety Promotion, and Safety Culture.

The NSA has expressed concerns that DSNA may not reach the required performance levels in the coming year. As a result, it has established corrective actions aligned with the RP3 EoSM targets and initiated additional coordination efforts to support the transition to the EoSM RP4 questionnaire and the achievement of RP4 objectives.

2.3 Safety occurrences

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



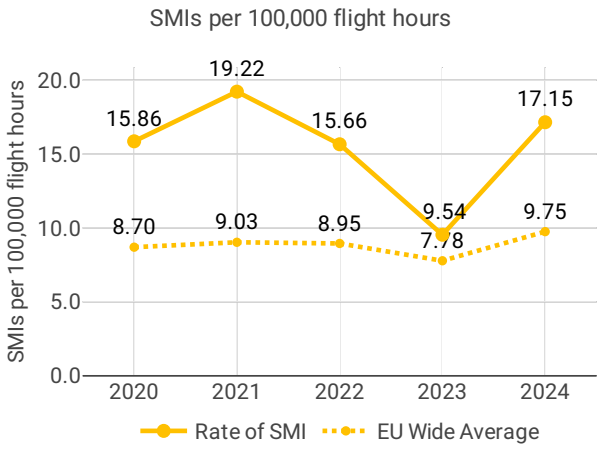
Rate of RIs per 100,000 airport movements - France				
#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Paris-Charles-de-Gaulle	561,642	4	0.71
2	Nice-Côte d'Azur	247,749	2	0.81
3	Paris-Orly	232,878	3	1.29
4	Marseille-Provence	213,729	3	1.40
5	Lyon	181,940	0	0.00
6	Bâle-Mulhouse	153,906	0	0.00
7	Toulouse-Blagnac	147,624	0	0.00
8	Montpellier-Méditerranée	146,511	1	0.68
9	Nantes-Atlantique	126,363	0	0.00
10	Bordeaux-Mérignac	110,554	1	0.90
11	Lille-Lesquin	97,581	0	0.00
12	Rennes-Saint-Jacques	96,782	0	0.00
13	Toussus-le-Noble	95,501	0	0.00
14	Clermont-Ferrand Auvergne	93,958	0	0.00
15	Strasbourg-Entzheim	88,432	0	0.00
16	Cannes-Mandelieu	77,604	0	0.00
17	Pau-Pyrénées	76,393	0	0.00
18	Paris-Le Bourget	74,130	2	2.70
19	Brest-Bretagne	61,433	0	0.00
20	Beauvais-Tillé	58,052	0	0.00
21	Lyon-Bron	55,486	0	0.00
22	Perpignan-Rivesaltes	53,957	0	0.00

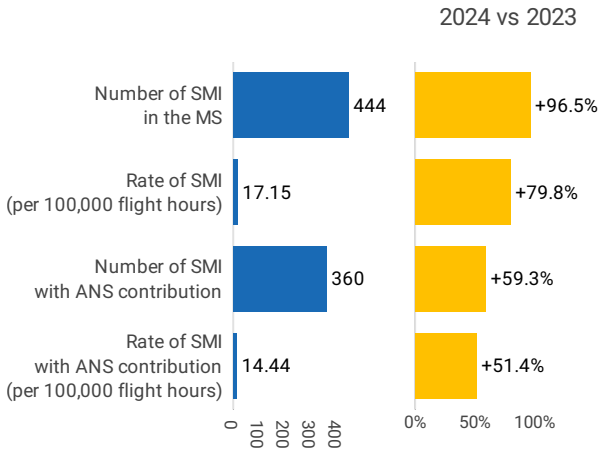
#	Airport name	APT movements	Number of RI	Rate RI per 100,000
23	Limoges-Bellegarde	53,348	0	0.00
24	Ajaccio-Napoléon-Bonaparte	52,538	1	1.90
25	Chambéry-Savoie	49,966	0	0.00
26	Avignon-Caumont	47,370	1	2.11
27	Annecy-Meythet	45,595	0	0.00
28	Biarritz-Bayonne-Anglet	44,786	0	0.00
29	Grenoble-Isère	44,193	0	0.00
30	Bastia-Poretta	41,701	0	0.00
31	Nîmes-Garons	39,123	0	0.00
32	La Rochelle-Ile de Ré	38,640	0	0.00
33	Hyères-Le Palyvestre	36,078	2	5.54
34	Poitiers-Biard	35,578	0	0.00
35	Béziers-Vias	28,454	0	0.00
36	Rouen	26,296	0	0.00
37	Figari Sud-Corse	22,939	0	0.00
38	Dinard-Pleurtuit-Saint-Malo	22,223	1	4.50
39	Caen-Carpiquet	21,127	0	0.00
40	Carcassonne-Salvaza	20,545	0	0.00
41	Tarbes-Lourdes Pyrénées	19,548	0	0.00
42	Istres-Le Tubé	19,506	2	10.25
43	Lorient-Lann Bihoué	18,933	3	15.85
44	Saint-Etienne-Bouthéon	17,937	0	0.00
45	Tours-Val de Loire	17,497	0	0.00
46	Bergerac-Roumanière	16,911	0	0.00
47	Saint-Nazaire-Montoir	16,675	0	0.00
48	Deauville-Normandie	14,230	0	0.00
49	Quimper-Pluguffan	13,766	0	0.00
50	Calvi-Sainte-Catherine	13,758	0	0.00
51	Châteauroux-Déols	12,725	0	0.00
52	Agen-La Garenne	12,319	0	0.00
53	Brive-Souillac	11,940	0	0.00
54	Rodez-Marcillac	11,274	0	0.00
55	Dôle-Tavaux	10,237	0	0.00
56	Châlons-Vatry	8,440	0	0.00
57	Metz-Nancy-Lorraine	8,423	0	0.00
58	Albert-Bray	8,171	1	12.24

Focus on runway incursions

France recorded a stable rate of RIs over RP3 below the Union-wide average, but showing a small increase in the 2024 rate. The rate of RIs with ANS contribution also increased in 2024 compared to 2023.

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





Rate of SMI with ANS contribution per 100,000 flight hours											
		Flight hours					Number of SMIs				
#	ANSP	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	DSNA	1,051,941	1,415,222	2,178,853	2,368,932	2,493,094	133	272	304	226	360
		Rate of SMI per 100,000 flight hours					% variation in rate of SMIs				
#	ANSP	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
1	DSNA	13	19	14	10	14		+52%	-27%	-32%	+51%

Focus on separation minima

France recorded an increase in the rate of separation minima infringements (SMIs) in 2024, reaching a level similar to the first years of RP3. The rate remained above the Union-wide average throughout RP3. This result also applies to the rate of SMIs with ANS contribution.

France and DSNA should continue assessing occurrences and should mitigate risks according to their SMS, if necessary.

2.3.3 Quality of occurences reporting

Throughout RP3, France has recorded a high number of SMIs. The rate of a Member State is significantly dependent on a number of factors like reporting culture, principles for determining safety impact, use of automated safety data recording system, the operational environment, etc. In addition, the identification of occurrences that have ATM/CNS contribution is not a straightforward exercise and is subject to interpretations and subjective judgement that can differ from one ANSP and NSA to another. Hence, any comparison of the number of occurrences or the rate for one Member State with another Member State should be done with great caution.

2.4 Use of automated safety data recording system (ASDRS) (PI#3)

Use of automated safety data recording system - 2024	
For RIs	For SMIs
✗	✓

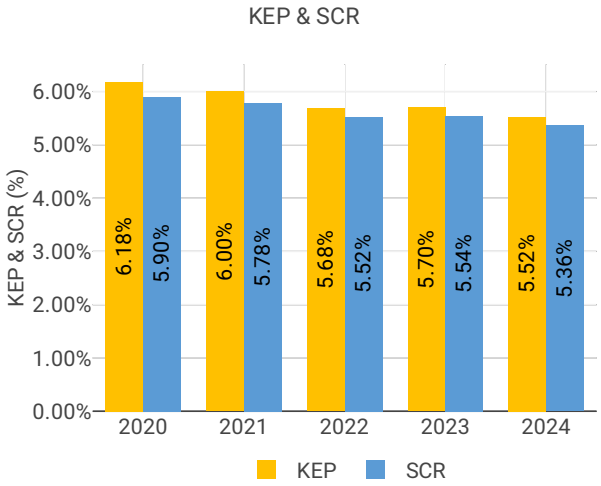
3 ENVIRONMENT - FRANCE

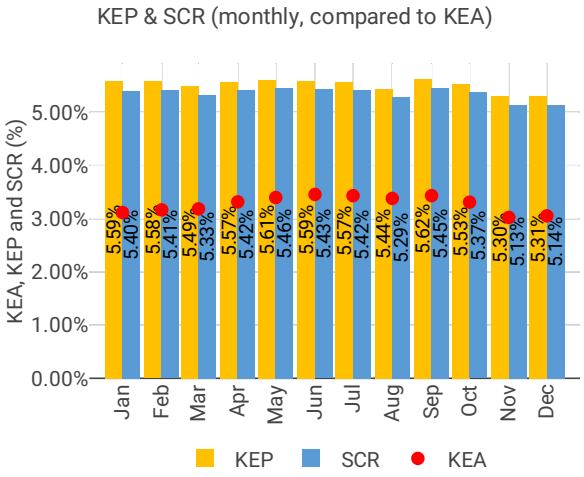
3.1 PRB monitoring

- France achieved a KEA performance of 3.29% compared to its target of 2.83% and did not contribute positively towards achieving the Union-wide target.
- The NSA states that 2024 performance was affected by high peak traffic levels during the summer and traffic volatility, capacity and staff issues and adverse weather.
- Both KEP and SCR improved in 2024. The NSA states that 50% of French airspace is now covered by FRA. Despite the KEA target being missed, KEA improved in 2024. Additionally, the improvement in SCR shows that France has enhanced the environmental efficiency of its airspace when accounting for impacts outside of its control.
- The share of CDO flights remained stable in 2024.
- Both additional taxi out time and additional time in terminal airspace remained stable in 2024 compared to 2023.
- Additional taxi out time data for Marseille airport has not been reported for 2024 despite being subject to monitoring as per the Regulation.

3.2 En route performance

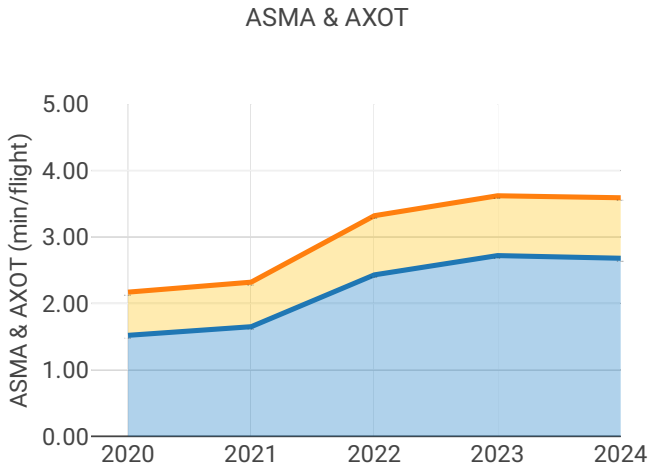
3.2.1 Horizontal flight efficiency of the actual trajectory (KEA) (KPI#1), of the last filed flight plan (KEP) (PI#1) & shortest constrained route (SCR) (PI#2)

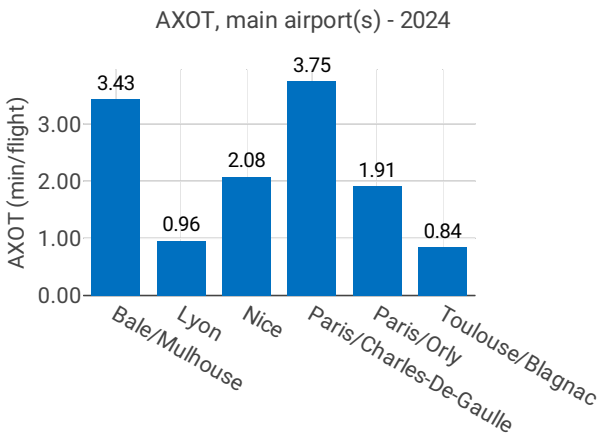


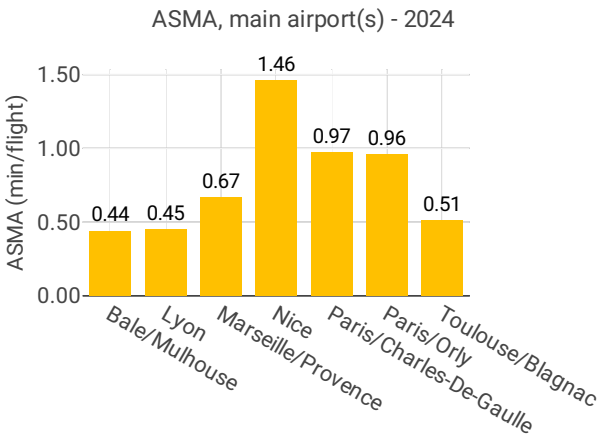


3.3 Terminal performance

3.3.1 Additional taxi-out time (AXOT) (PI#3) & Arrival Sequencing and Metering Area (ASMA) time (PI#4)







Focus on ASMA & AXOT

AXOT

The additional taxi-out times in 2024 remained at 5 of the 6 French monitored airports below the SES average of 2.91 min/dep. Paris Charles de Gaulle (LFPG: 2019: 3.77 min/dep.; 2020: 2.17 min/dep.; 2021: 2.25 min/dep; 2022: 3.57 min/dep; 2023: 3.95 min/dep; 2024: 3.75 min/dep) improved its performance but remains with the 3rd highest value among SES monitored airports in 2024.

According to the French monitoring report: *Performance evolution is linked with the traffic increase since 2020 (2020&2021 traffic levels where very low due to the traffic collapse related to covid-19 travel bans) and general 2022/2023/2024 ATC performance impacted by the progressive traffic recovery; however 2024 achievements remain in line with RP2 previous values with similar traffic volumes, showing a general stability on the taxi-out time phase at French airports (with some progress at Paris-Orly but increasing values at Nice) despite the increased volatility of traffic.*

The Airport data flow (APDF) has been implemented at Marseille airport in 2019 with some technical issues regarding block data.

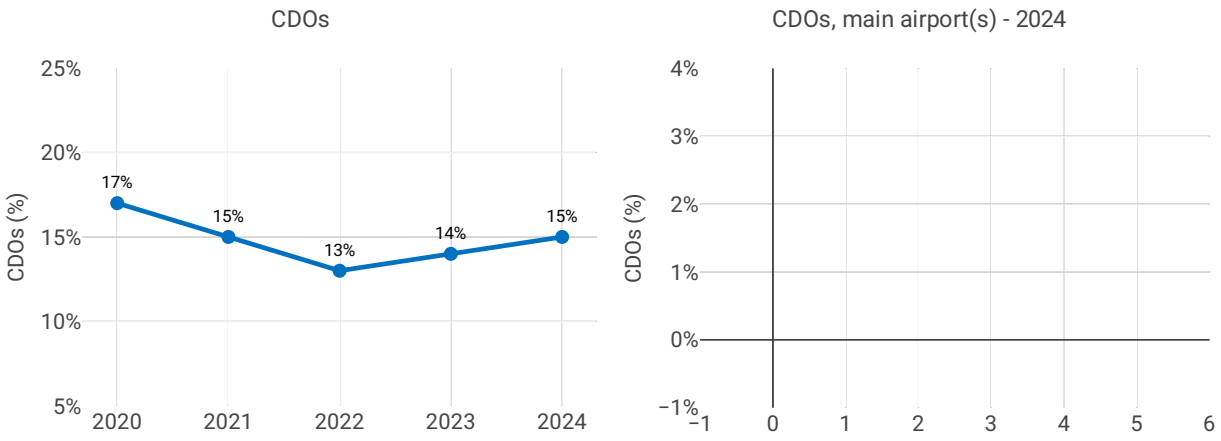
Beginning 2020, when within the framework of a project on implementing A-CDM concept at Marseille airport additional exchanges took place regarding lacking information (AOBT/AIBT) and how to provide it through the airport data flow but it could not be implemented during the covid 19 phase. Eurocontrol has contacted Marseille airport authorities to tackle the issue. The French NSA will support Eurocontrol and Marseille airport in order to identify remaining issues and implement the on block data provision as soon as possible.

ASMA

The additional ASMA in 2024 increased at Nice (LFMN), Toulouse (LFBO) and Lyon (LFLL) and decreased at Charles de Gaulle (LFPG). Except for Nice, the performance of these airports is better than the average 2024 SES performance of 1.28 min/arr.

According to the French monitoring report: *Performance evolution is linked with the traffic increase till 2020 (2020&2021 traffic levels where very low due to the traffic collapse related to covid-19 travel bans) and general 2022/2023/2024 ATC performance impacted by the high traffic recovery and volatility; however 2024 achievements were equivalent or better than 2019 figures and generally equivalent or better than during the whole RP2 with equivalent traffics, showing general progress on the additional time in terminal airspace phase at some French airports except at CDG airport. This also is closely linked to working methods and the sequencing of approaches, some actions are undertaken by DSNA to achieve "quick wins" where possible.*

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



Focus CDOs

For 11 out of the 58 airports, the share of CDO flights was above the RP3 overall value in 2024 (29.3%). In 2024, 14.1% of the arrivals performed a CDO compared to 13.6% in 2023.

The Paris airports have a remarkably low share of CDO flights.

According to the French monitoring report: *2024 achievements are quite similar to 2023 values. DSNA has an objective to drastically increase the CDO rate (from FL75) to reduce noise on all major airports, and remove as much level-offs as possible. Launch of PBN to ILS projects in LFPO, LFLL, LFMN, with significant CDO rate improvement targeted. TF Green operations led to some vertical improvements with Green descent projects : improvements on certain legs from top of descent (CDO fuel).*

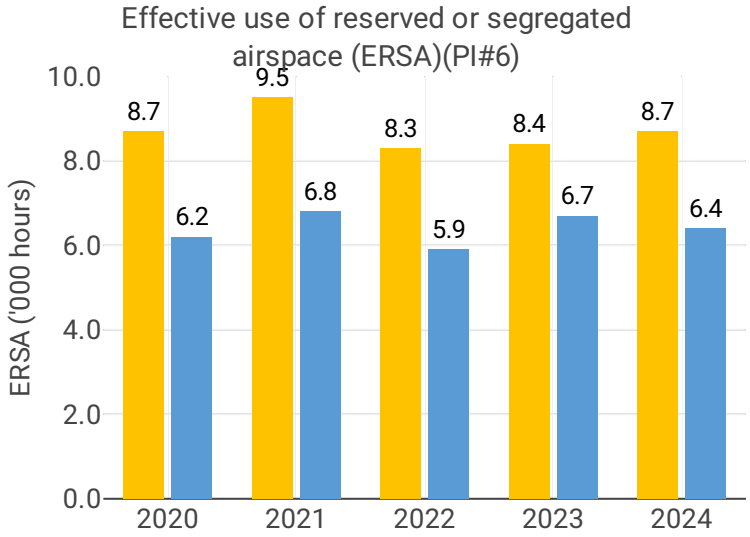
DSNA is also currently implementing progressively a 25 % time reduction in level flight from top of descent TOD and a 20% reduction for CDO 75 on airports above 75000 IFR movements per year compared to 2019.

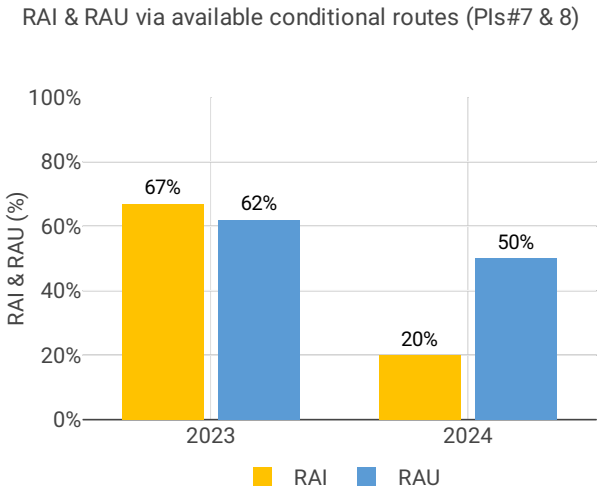
Airport level															
	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
Airport	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Bale/ Mulhouse	1.87	2.61	3.35	3.56	3.43	0.41	0.47	0.29	0.39	0.44	18%	13%	14%	14%	13%
Lyon	0.51	0.55	0.71	0.92	0.96	0.33	0.18	0.15	0.40	0.45	22%	17%	19%	25%	27%
Marseille/ Provence	NA	NA	NA	NA	NA	0.51	0.54	0.68	0.69	0.67	27%	23%	19%	22%	21%
Nice	0.77	1.10	1.30	1.98	2.08	0.86	1.38	1.54	1.35	1.46	20%	13%	13%	14%	15%
Paris/ Charles-De-Gaulle	2.17	2.25	3.57	3.95	3.75	0.66	0.62	0.90	1.03	0.97	4%	3%	2%	3%	3%
Paris/ Orly	1.22	1.27	1.89	1.96	1.91	0.82	0.64	1.16	0.92	0.96	3%	3%	3%	4%	5%
Toulouse/ Blagnac	0.43	0.45	0.67	0.68	0.84	0.54	0.37	0.36	0.43	0.51	30%	27%	30%	33%	34%
Albert/ Bray	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29%	31%	20%	19%	12%
Agen/La-Garenne	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21%	13%	12%	14%	16%
Bordeaux/ Merignac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32%	27%	26%	31%	37%

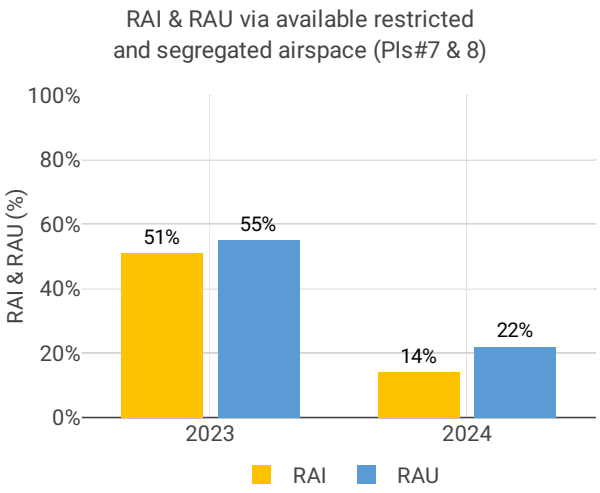
	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
Airport	**2020**	**2021**	**2022**	**2023**	**2024**	**2020**	**2021**	**2022**	**2023**	**2024**	**2020**	**2021**	**2022**	**2023**	**2024**
Bergerac/ Roumanière	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15%	13%	19%	20%	18%
La-Rochelle/ Ile de Ré	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26%	22%	20%	22%	19%
Poitiers/ Biard	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16%	12%	18%	16%	9%
Limoges/ Belle-garde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30%	31%	32%	33%	33%
Pau/ Pyrénées	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23%	17%	24%	21%	19%
Tarbes-Lourdes/ Pyrénées	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63%	64%	53%	52%	49%
Biarritz/ Bayonne-Anglet	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26%	21%	22%	23%	25%
Rodez/ Marcillac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17%	16%	19%	17%	18%
Dole/ Tavaux	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13%	12%	9%	12%	12%
Metz-Nancy/ Lorraine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9%	8%	14%	11%	10%
Bastia/ Poretta	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40%	33%	33%	35%	33%
Calvi/ Sainte-Catherine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38%	34%	32%	30%	31%
Figari/ Sud-Corse	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35%	32%	34%	38%	37%
Ajaccio/ Napoléon-Bonaparte	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39%	32%	34%	35%	36%
Chambéry/ Aix-les-Bains	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9%	14%	8%	8%	8%
Clermont-Ferrand/ Auvergne	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22%	16%	21%	24%	23%
Annecy/ Meythet	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15%	13%	11%	13%	11%
Grenoble/ Isère	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19%	20%	20%	18%	15%
Châteauroux Déols	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12%	10%	12%	11%	10%
Lyon/ Bron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10%	7%	8%	9%	9%
Cannes/ Man-delieu	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13%	9%	10%	8%	8%
Saint-Etienne/ Bouthéon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11%	12%	14%	14%	11%
Istres/ Le-Tubé	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31%	24%	22%	22%	21%
Carcassonne Salvaza	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19%	19%	21%	24%	23%
Perpignan/ Rivesaltes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43%	39%	33%	35%	34%

	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
Airport	**2020**	**2021**	**2022**	**2023**	**2024**	**2020**	**2021**	**2022**	**2023**	**2024**	**2020**	**2021**	**2022**	**2023**	**2024**
Montpellier Méditer-ranée	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33%	30%	29%	27%	27%
Béziers/ Vias	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28%	25%	27%	24%	23%
Avignon/ Caumont	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15%	13%	11%	15%	17%
Beauvais/ Tillé	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8%	7%	5%	6%	7%
Châlons/ Vatry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27%	28%	26%	20%	20%
Rouen/ Vallée-de-Seine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29%	28%	30%	26%	14%
Tours/ Val-de-Loire	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48%	46%	32%	26%	24%
Paris/Le Bourget	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1%	1%	1%	1%	1%
Toussus/ Le-Noble	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5%	5%	5%	5%	5%
Lille/ Lesquin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29%	24%	14%	20%	22%
Brest/ Bretagne	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33%	33%	32%	34%	33%
Dinard/ Pleurtuit-Saint-Malo	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19%	12%	16%	14%	15%
Deauville/ Nor-mandie	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11%	11%	12%	11%	8%
Lorient/ Lann-Bihoué	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30%	28%	28%	33%	27%
Caen/ Carpiquet	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11%	10%	10%	8%	9%
Rennes/ St-Jacques	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	53%	49%	45%	45%	44%
Quimper/ Pluguffan	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28%	25%	37%	18%	24%
Nantes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27%	23%	24%	26%	28%
Saint-Nazaire/ Montoir	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20%	22%	24%	26%	24%
Brive/ Souillac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15%	20%	21%	26%	29%
Strasbourg/ Entzheim	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17%	14%	14%	13%	12%
Hyères/ Le-Palyvestre	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31%	22%	18%	19%	20%
Nîmes/ Garons	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19%	20%	18%	21%	23%

3.4 Civil-Military dimension







Focus on Civil-Military dimension

Update on Military dimension of the plan

According to the FR NSA report: *For obvious flight safety reasons, military activities must be segregated from civil flows which has an impact on both horizontal (HFE) and vertical flight efficiency (VFE). Because ASM manageable areas form an integral part of the nominal system, military airspace reservations shall be considered as part of the performance baseline rather than a key factor degrading environmental KPIs. As a result of implementation of the FUA concept the impact of military activities using Restricted Airspace -RSA on civil performance is highly minored when associated with an efficient ASM process:*

- At strategic level (HLAPB) by designing areas in accordance with A-FUA concept (MVPA/VGA structures), especially for congested airspaces.

- At pre-tactical level (AMC), by managing these areas in a dynamic way, with an associated level 2 CDM process, validated by HLAPB.

- At tactical level (ACC/Regional Military Control Centre) by activating/deactivating areas as close as possible to actual use and allowing crossing or direct routes when possible (in accordance with TRA status), with an associated level 3 CDM process validated by HLAPB.

- At each level, HLAPB, AMC or ACC/Regional Military Control Centre, a key factor of efficiency is a trust-driven civil-military cooperation. As a counterpart, AOs and CFSPs must be reactive and take efficiently into account available or released airspaces. At last, ANSP have also to adapt the route network to create more DCTs within military areas.

Finally, local circumstances (e.g. constrained airspace, proximity of international hubs, etc….) as well as a large number of military missions that differ from one State to another must be taken into account. Therefore, airspace needs (e.g. airspace requirements for the 5th generation fighters) and related ASM procedures of the States differ and standardized objectives cannot be defined.

Military - related measures implemented or planned to improve capacity

FABEC States are working on mid-term improvements regarding implementation of ASM level 1, 2, and 3 procedures. Some local initiatives regarding ASM/ATFCM convergence, like the traffic Light Scheme concept in France are promoted at FABEC level, as well as at ECAC level in the EUROCONTROL OEP framework.

Initiatives implemented or planned to improve PI#6

France provides 2 KPIs, NEGO and ENV. KPI NEGO, was roughly around 93% for years and in a 96 - 97% range since the COVID crisis period. KPI NEGO is mostly driven by 2 blocks of areas in the eastern part of France.

KPIs ENV, which were roughly for years around 65 % (ratio between the real use and AUP planning at D-1) and 75 % (ratio between the real use and AUP/UUP processes at H-3), reach now ca. 75%, thereby bringing about a significant improvement.

They reflect the robustness of the French national civil-military CDM process regarding ASM. Thus they are considered as very efficient, taking into account that they have to cope with several mission cancellation causes (Weather, Technical or Operational reasons). To further improve flight efficiency with this virtuous approach, civil and military AMC staff continue to work together and 15 indicators regarding 3 domains (NEGO, RELIABILITY and CURA) are under investigation, in coordination with PRISMIL Team. By the way, despite these efforts and improvements, a glass ceiling will still exist, as some military mission cancellation causes remain unpredictable.

Initiatives implemented or planned to improve PI#7

No validated data available as from 2022. The data on previous cycles were kindly provided by Eurocontrol and processed by the FR NSA without further assessment by interested parties including MIL FR. In the course of the 2022 monitoring exercise, a similar request has been issued in parallel to Eurocontrol and involved parties within FR to compute data with the help of PRISMIL tool. An active coordination between FR experts, Eurocontrol PRISMIL Team and NMIR support highlighted some biaises in the information that could be retrieved.

A better understanding of the issue was expected to put FR in a position to compute and provide the data from 2023 onward making use of existing tools and involving additional experts from DSNA. Unfortunately, the additional expertise is in the new DATA Office unit

still understaffed in order to perform required post Ops activities to compute PI #7 figures for 2024.

Initiatives implemented or planned to improve PI#8

No validated data available as from 2022. The data on previous cycles were kindly provided by Eurocontrol and processed by the FR NSA without further assessment by interested parties including MIL FR. In the course of the 2022 monitoring exercise, a similar request has been issued in parallel to Eurocontrol and involved parties within FR to compute data with the help of PRISMIL tool. An active coordination between FR experts, Eurocontrol PRISMIL Team and NMIR support highlighted some biaises in the information that could be retrieved.

A better understanding of the issue was expected to put FR in a position to compute and provide the data from 2023 onward making use of existing tools and involving additional experts from DSNA. Unfortunately, the additional expertise is in the new DATA Office unit still understaffed in order to perform required post Ops activities to compute PI #7 figures for 2024.

4 CAPACITY - FRANCE

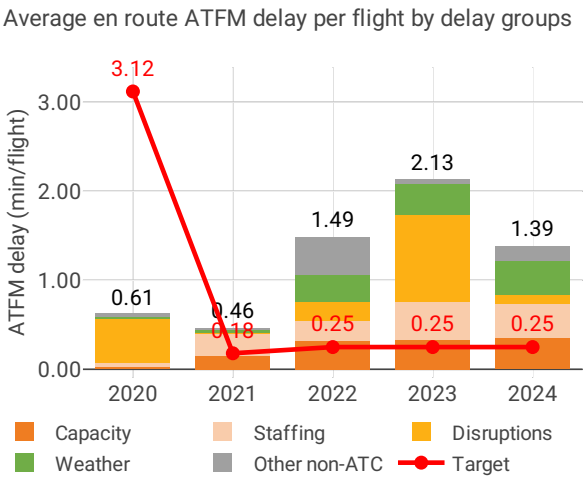
4.1 PRB monitoring

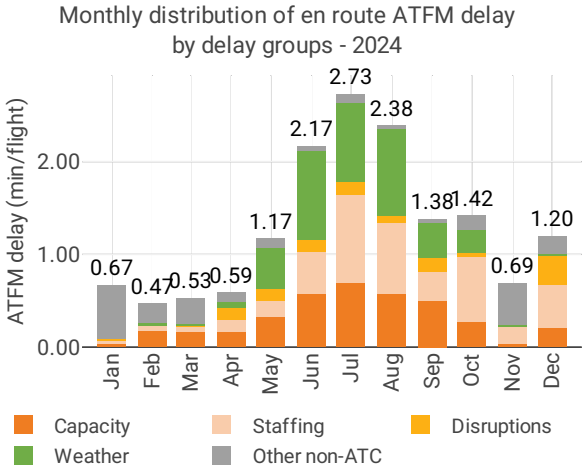
- France registered 1.40 minutes of average en route ATFM delay per flight during 2024, which has been adjusted to 1.39 during the post-ops adjustment process, thus not achieving the local target value of 0.25. Delays in France decreased by 0.74 minutes per flight year-on-year.
- The majority of delays accumulated between May and October, mainly due to the lack of ATC Capacity and Staffing and adverse weather conditions.
- The share of delayed flights with delays longer than 15 minutes in France decreased by 8 percentage points compared to 2023 and was lower than 2019 values.
- The average number of IFR movements was 3% above 2019 levels in France in 2024.
- The number of ATCOs in OPS is 228, being below the 2024 plan in Bordeaux by 21 FTEs. The number of ATCOs in OPS is 241, being below the 2024 plan in Brest by 14 FTEs. The number of ATCOs in OPS is 324, being over the 2024 plan in Marseille by 2 FTEs. The number of ATCOs in OPS is 245, being below the 2024 plan in Paris by 20 FTEs. The number of ATCOs in OPS is 213, being over the 2024 plan in Reims by 15 FTEs.
- The yearly total of sector opening hours in Brest ACC was 86,039, showing a 15.8% increase compared to 2023. Sector opening hours are 5.2% above 2019 levels. The yearly total of sector opening hours in Paris ACC was 81,768, showing a 10.3% increase compared to 2023. Sector opening hours are 20.6% below 2019 levels. The yearly total of sector opening hours in Marseille ACC was 111,644, showing a 1.1% increase compared to 2023. Sector opening hours are 10.9% above 2019 levels. The yearly total of sector opening hours in Bordeaux ACC was 74,248, showing a 6.1% decrease compared to 2023. Sector opening hours are 1.0% above 2019 levels. The yearly total of sector opening hours in Reims ACC was 66,641, showing a 5.9% increase compared to 2023. Sector opening hours are 3.1% below 2019 levels.
- Reims ACC registered 16.67 IFR movements per one sector opening hour in 2024, being 12.2% above 2019 levels. Paris ACC registered 14.05 IFR movements per one sector opening hour in 2024, being 18.1% above 2019 levels. Brest ACC registered 12.81 IFR movements per one sector opening hour in 2024, being 5.2% below 2019 levels. Marseille ACC registered 10.75 IFR movements per one sector opening hour in 2024, being 6.6% below 2019 levels. Bordeaux ACC registered 13.24 IFR movements per one sector opening hour in 2024, being 0.9% below 2019 levels.
- 2024 showed an improved situation compared to 2023. However, the fact that some ACCs generate delays due to ATC capacity and staffing while having more ATCOs in OPS FTEs than planned indicates that capacity planning processes and the allocation of ATCO resources may have to be improved. Actual 2025 values up to August show a major deterioration of capacity performance.
- France registered an average airport arrival ATFM delay of 0.63 minutes per flight in 2024, thus not achieving the local target of 0.40 minutes.
- Compared to 2023, average arrival ATFM delays in France were 10% lower in 2024, while the number of IFR arrivals increased by 2%.

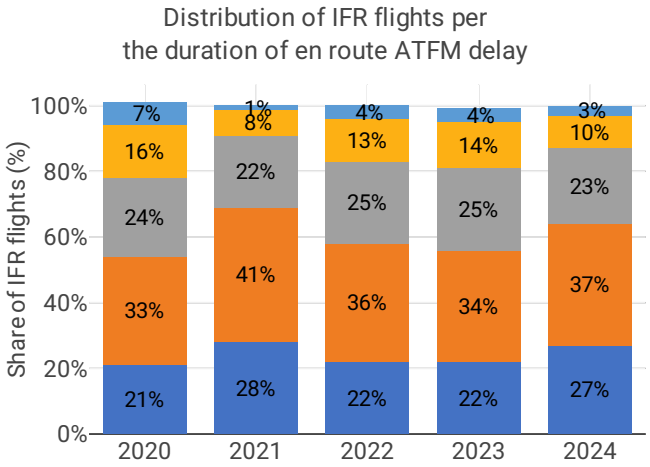
- The main drivers of delays were ATC staffing, accounting for 31% of delays, and weather, responsible for 28%.

4.2 En route performance

4.2.1 En route ATFM delay (KPI#1)







Focus on en route ATFM delay

Summary of capacity performance

France experienced an increase in traffic from 3 234k flights in 2023, with 6 795k minutes of en route ATFM delay, to 3 443k flights with 4 709k minutes of en route ATFM delay in 2024.

There were an additional 55k minutes of en route ATFM delay originating in the French ACCs that were re-attributed to the DFS via the NM post operations delay attribution process, as part of the eNM/S24 measures to mitigate the capacity shortfall in Karlsruhe UAC.

The total of en route ATFM delays includes 25k minutes of en route ATFM delay that were re-attributed to DSNA according to the eNM/S24 measures, and the opening ceremony for the Olympic games in Paris, but which originated elsewhere: 8k in UK, 6k in MUAC, 6k in Germany, 4k in Spain, <1k in Portugal and <1k in Switzerland..

NSA's assessment of capacity performance

The 2024 target of 0.25 min/flight was not achieved for en route. 2024 actual achievement is 1,39 min/flight, including the post-ops process of the NM, with 0,96 min/flight on the CRSTMP perimeter falling under the sole action of the French air navigation service provider, DSNA.

Overall, this achievement is better than in 2023 when accomodating a 6 to 7 % traffic increase per individual ACC compared to 2023 traffic levels (with the exception of Paris ACC: 4% increase in 2024). It should also be noted that 2024 traffic is now above 2019 levels for france (+ 3% with all ACC traffics equal or above 2019 levels, with the exception of Paris which traffic in 2024 is only 91% of 2019 traffic).

This evolution is driven by the implementation in 2024 of a new law for ATC industrial action management (only 3% of all causes delays in 2024). However, it should also be noted that weather delays have increased in 2024 (27% of all causes delays (20% in 2023) with an average around 33% during the 2024 Summer period).

Nevertheless, some ACCs are still experiencing some staff shortages (mainly Reims, Marseille) and structural limit (Reims ACC) while traffic has locally reached higher levels than 2019 traffic levels and it is also the case for some airports experiencing staff shortages (Orly, Basel, Toulouse or Bordeaux for example) or high Summer traffic peaks (South Est of France and Corsica). Priority given to ATCO assignment at ACCs and higher delays due to bad weather had also an impact on the 2024 performance.

Corrective actions have been identified and discussed with DSNA and will be implemented in order to mitigate the main delay causes (implementation of NOP corrective measures, signature of a new social agreement, addressing ATCO shortages, defining and implementing densified rostering schemes and additional flexibility, reduction of ATCO training time, implementing new software versions and lessons learnt from 4-FLIGHT implementations in Reims and Marseille ACCs at Paris and the remaining ACCs, new law on industrial action management for ATC in France etc.).

Monitoring process for capacity performance

In a nutshell, the French NSA monitoring process is twofold: on top of the FABEC general monitoring process described in the French performance plan and in the previous 2020 and 2021 RP3 FABEC performance monitoring reports (cf. these documents), a national process has been established based on the following:

- The French NSA is regularly provided with various reports, analysis and data such as FABEC monthly capacity reports (including DSNA data), weekly/monthly/yearly capacity DSNA-OPS directorate reports, PRU monthly dashboards which enable to closely monitor the performance evolution and cross-check data;
- The French NSA is invited and participates to the capacity planning meetings organized during winter by the NM with DSNA to prepare NOP updates (including discussion on remedial measures, traffic and delays forecast for DSNA ACC, Summer DSNA sector opening schemes etc.);
- The French NSA is invited and participates to the two yearly Strategic airspace user meetings held by DSNA (beginning of Summer & Winter) where strategic evolutions, OPS

projects, ongoing performance, investment plan and HR updates are presented by DSNA to the airspace users which can react and express their views and concerns if any;

- The French NSA has included in its yearly surveillance programme an OPS performance review : regarding capacity, on top of previous meeting participation and data & reports analysis, a dedicated meeting is organized in April/May with DSNA/OPS directorate in order to analyse the previous year performance, define and validate ongoing or new remedial and corrective measures to be taken by DSNA to address issues and underperformance, have a view on ongoing year capacity provision, prepare the yearly FR performance monitoring report to be submitted 1st June ; a follow-up meeting is organized by the French NSA in October/November to follow-up remedial measure implementation, analyse Summer performance, discuss future performance.
- Various airspace users or unions consultation meetings are run during the year (either by the French NSA or in which the French NSA is invited to provide inputs and updates regarding operational performance monitoring).

Note: Regarding ATCO planning, the plans are and will always be subject to change; in addition, the details of the planned evolution of ATCO numbers within an ANSP with several ACCs are socially sensitive.

However, ATCO hiring and assignment is one of the major driver for current capacity and staffing issues solving. ACE figures are provided and can be referred to. Nevertheless, the French NSA considers that they cannot be considered as a commitment where planning figures are requested, due to the high level of uncertainties related to such ATCO recruitement plans management. These figures, even when provided on an annual basis, can only be regarded as snapshot information, i.e. a situation at one point in time which does not guarantee a realistic view throughout the entire duration of RP3.

There are many factors with a high level of uncertainty that have an impact on the ATCO planning: first of all, the social agreements in place in an ANSP play a major role in the availability of ATCOs to fulfill the OPS needs (a new social agreement was signed in 2024; certain provisions - recruitment levels, flexibility and rostering, staff retention incentives - will have an impact on futures values).

Then, there are classical uncertainty factors of general staff planning like the actual rate of retirement, the absence rate of employees, as well as maternity and parent leave. Moreover, ATCOs mobility has become a severe issue recently, moreover when understaffed ACC are concerned.

Capacity planning

Initial Network Operation Plan 2020 launched in Winter 2019/2020 has been overwhelmed by the COVID-19 pandemic and the massive drop of traffic. A new NOP Recovery Plan process initiated and launched by the Network Manager and its first edition was published on 30 April 2020, as European traffic began a slow recovery from its lowest point of just 2,099 flights across the network on 12 April 2020.

Since then a weekly Rolling NOP, published every Friday has been introduced through which NM coordinates with all partners to ensure capacity is available at ACCs and in the airspace they manage, and on the ground at airports, to meet the expected traffic demand from the airlines on each day of the next six weeks enabling to coordinate all operational stakeholders

throughout the pandemic to ensure that network actors can plan their recovery effectively based on predicted traffic levels.

A draft version of the new 2025-2029 NOP has been released. It includes the capacity planning for DSNA ACCs and is still to be updated and finalized in June 2025 with the latest available capacity information and remedial measures for all DSNA ACCs concerned by capacity issues.

DSNA is of course part of this process and contributes to the provision for a consolidated European network view of the evolution of the air traffic, enabling the planning of the service delivered in the recovery phase to match the expected air traffic demand in a safe, efficient and coordinated manner.

It should be also noted that the French NSA, upon its request, has been associated to this process and is invited since RP2 the NM - DSNA capacity planning meetings in order to be informed of the outcome of previous NOP remedial measures, French ACCS capacity issued and NM delays forecast for French ACCs, any new measures proposed either by DSNA or the NM to mitigate capacity issues.

Application of Corrective Measures for Capacity (if applicable)

The 2024 target of 0.25 min/flight was not achieved for en route. 2024 actual achievement is 1,39 min/flight, including the post-ops process of the NM, with 0,96 min/flight on the CRSTMP perimeter falling under the sole action of the French air navigation service provider, DSNA.

Overall, this achievement is better than in 2023 when accomodating a 6 to 7 % traffic increase per individual ACC compared to 2023 traffic levels (with the exception of Paris ACC: 4% increase in 2024). It should also be noted that 2024 traffic is now above 2019 levels for france (+ 3% with all ACC traffics equal or above 2019 levels, with the exception of Paris which traffic in 2024 is only 91% of 2019 traffic).

This evolution is driven by the implementation in 2024 of a new law for ATC industrial action management (only 3% of all causes delays in 2024). However, it should also be noted that weather delays have increased in 2024 (27% of all causes delays (20% in 2023) with an average around 33% during the 2024 Summer period).

On the CRSTMP perimeter, Reims and Marseille ACCs were the main generators of delays in 2024 (around 75% of delays in 2024), with staff resources still dominating for Marseille and capacity limit problems combined with staff resources for Reims.

Regarding Reims ACC, the 2024 traffic increase since 2019 is around +16%. In 2024 at Reims ACC, 40% of delays were due to Capacity causes and 40% were due to Weather causes. Some Reims ACC elementary sectors are currently reaching their maximum capacity, which means that this has to be addressed through major structural changes (airspace redesign).

Regarding Paris ACC, the new 4-FLIGHT ATM system has been implemented according to a planning negociated with the airspace users in order to limit the impact on capacity during Summer (Paris Olympic and Paralympic Games) and the Winter holidays. The system has been progressively introduced in alternance with the legacy system and finally implemented 7th January 2025.

Corrective measures were taken to address the 2024 en route capacity underachievement, presented and discussed with the French NSA. They are detailed in the following sections of the report.

With regard to this underachievement, a financial penalty will be applied to DSNA and deducted from the 2025 cost base in order to reduce the 2025 en route unit rates.

A dedicated meeting has been organized with DSNA in order to gather both explanations and information about remedial measures already launched and identify potential additional measures that could be implemented by DSNA in 2024 and beyond to tackle non temporary capacity issues.

The following recommendations / course of actions have been discussed and agreed with DSNA:

- General remedial measures already identified, coordinated with the Network Manager and to be published in the NOP 2024-2029 for the 5 French ACC should be implemented as soon as possible;
- A set of specific remedial measures put in place by DSNA or already planned in 2024 to mitigate identified non temporary issues at the French ACCs have been presented and discussed with the French NSA and are listed in the table below: the French NSA will be kept informed by DSNA of their timely implementation, of the expected benefit and of any potential issue in the implementation plan, and a follow-up meeting will be organized 2nd Semester 2025;
- An analysis of potential risks on 2025 and beyond underperformance has been carried over and required potential remedial measures to address such a situation have been discussed; they are also addressed in the final chapter of the en route capacity tab of the monitoring together with the actions taken by the NSA to monitor future performance through its surveillance program.

Specific capacity enhancement measures

Specific measures include:

-Implementation of NOP 2024 - 2029: implementation of draft and future final NOP 2024-2029 remedial measures for DNSA ACCs;

- Implementation of new densified rostering schemes - implementation of new modalities for locally densified service towers to introdcue more flexibility and better take into account the increased volatility of air traffic in DSNA ACCs. Expected benefits: between 15 and 20% additional capacity depending on the rostering scheme applied locally;
- 4-FLIGHT implementation at DSNA ACCs - Coflight and 4-FLIGHT new modern ATM systems are to be implemented in the 5 DSNA ACCs providing additional capacity and compliance with EU regulations. Overall, the capacity gain expected after implementation is between +15% and +30% according to airspace and sectors;
- Implementation of changes in ATCO initial and continuous training - new 10 week intensive initial training phase has been developed to reduce the total duration of ATCO training;
- DSNA: tranfer of sector Fl115-195 from ACC to APP - to reduce the duration of training and to reinforce the capacity of DSNA ACCs, the sectors dealing with flight levels 115 and 195 will be progressively transferred to approaches;

- Implementation of new social agreement - implement number of measures with regard to origanisation of services, staffing levels and recruitment, additional flexibility of rostering schemes and working arrangements and methods. An updated assignment policy for DSNA ACCs and major approaces will be defined and implemented in the coming years to address the current staffing issues;
- New law on industrial action management in France - implemented in 2023, effective from 2024;
- Implementation of dedicated systems providing nominative means of recording the presence of ATCOs on premises and at the CWP - following recommendation from Safety Bureau of Analysis stemming from serious safety incident;

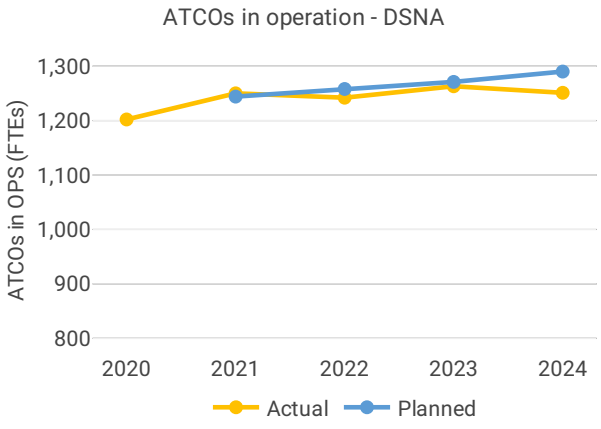
Major French upper airspace redesign - following 4-FLIGHT implementation at all DSNA ACCs, FRA covering all French airspace and lower airspace transferred to APP below FL195, there will be a unique opportunity to beneifit from system and operational concept harmonisation at national level, to redesign and resectorize. The operational improvements expected are related to the ENV and CAP KPAs. In particular, due care of HFE for overflights and VFE for arrivals/departures to/ from main French airports are strategic objectives of the project.

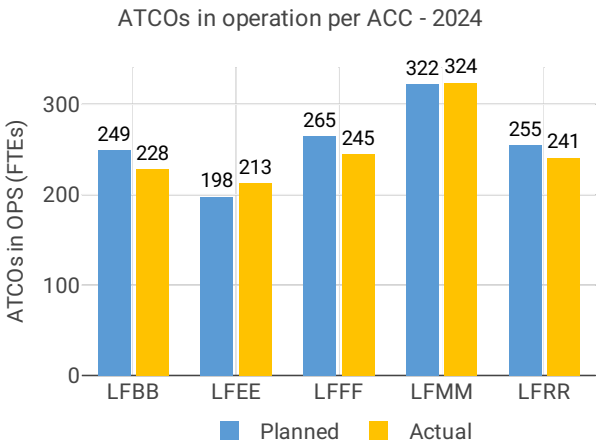
En route Capacity Incentive Scheme

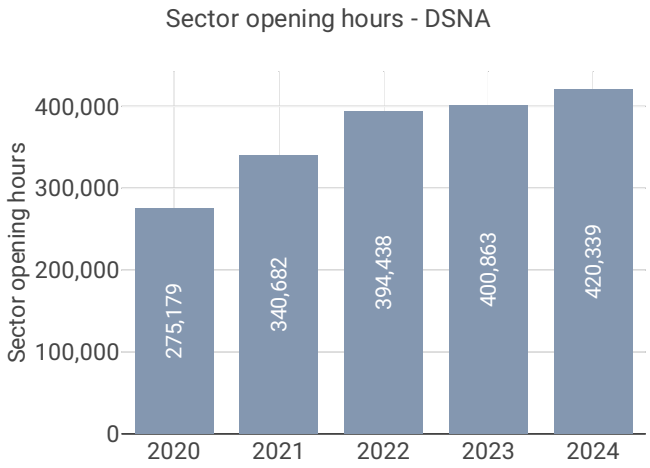
DSNA: The incentive scheme is based only on delays attributed to C,R,S,T,M & P delay codes. The DSNA target was set at 0.16 minutes per flight and the actual performance is reported as 0.96 minutes per flight (CRSTMP only). This results in a reported penalty of €6 267 653.45.

In accordance with Article 3(3)(a) of Implementing Regulation (EU) 2020/1627: The incentive scheme shall cover only the calendar years 2022 to 2024.

4.2.2 Other indicators





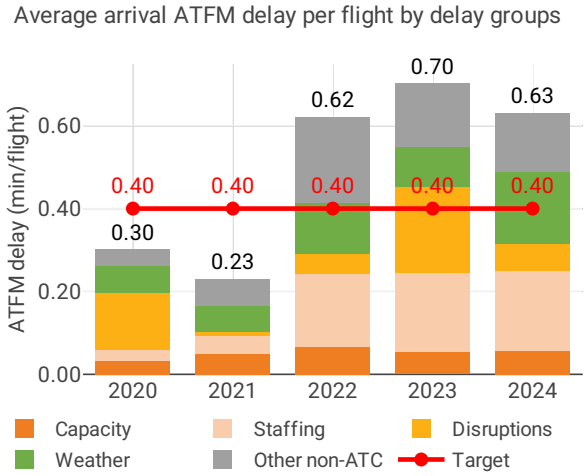


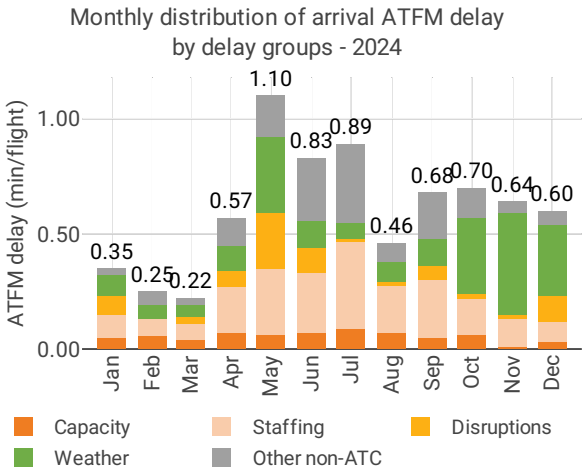
Focus on ATCOs in operations

Note: Regarding ATCO planning, the plans are and will always be subject to change; in addition, the details of the planned evolution of ATCO numbers within an ANSP with several ACCs are socially sensitive.

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)





Focus on arrival ATFM delay

For France, the scope of the RP3 monitoring comprises a total of 58 airports. However, in accordance with IR (EU) 2019/317 and the traffic figures, only 6 of those airports must be monitored for pre-departure delays. 52 of these 58 airports are grouped into a basket (“ “LFXX” “) for monitoring and target setting purposes.

The Airport Operator Data Flow, necessary for the monitoring of the pre-departure delays, is established for the 6 airports required. Nevertheless, the quality of the reporting does not allow for the calculation of the ATC pre-departure delay at Paris Charles de Gaulle, with more than 40% of the reported delay not allocated to any cause. The traffic at the ensemble of these 58 airports in 2024 is still 9% below the 2019 levels, with a 2% increase with respect to 2023.

Average arrival ATFM delay in 2024 was 0.63 min/arr, compared to 0.70 min/arr in 2023. The national target was not met. ATFM slot adherence has slightly improved (2023: 90.4%; 2024: 91.2%).

The national average arrival ATFM delays in 2024 decreased on average at French airports. This evolution at national level is driven mainly driven by the decrease observed at Marseille (LFML: 2022: 0.24 min/arr; 2023: 1.65 min/arr; 2024: 0.5 min/arr) and to some extent at Paris Orly (LFPO: 2022: 1.74 min/arr; 2023: 1.54 min/arr; 2024: 1.38 min/arr). The delays at national level were attributed mainly to ATC staffing (31% of all delays), followed by weather (28%) and Aerodrome Capacity (12%)

Identification and analysis by the NSA of the underlying reasons or circumstances having led to the performance target not being achieved: *The 2024 target of 0.4 min/flight was not achieved for Terminal. 2024 actual achievement is 0.63 min/flight, including the post-ops process of the NM, with 0,29 min/flight on the CRSTMP perimeter falling under the sole action of the French air navigation service provider, DSNA.*

Overall, this 2024 terminal capacity achievement is better than in 2023. This evolution is also driven by the implementation in 2024 of a new law for ATC industrial action management (only around 6% of all causes delays in 2024). However, it should also be noted that weather delays have increased in 2024 (27% of all causes delays).

On the CRSTMP perimeter, the combination of locally significant traffic (2024 French is now often above 2019 levels at many French airports), understaffing (Orly, Nice, Basel, Toulouse, Bordeaux, etc.) and training and implementation of new ATC systems (iATS at Orly in operational use since April 2024 - EOP - for example). Nice airport has also been impacted by adverse weather conditions.

Regarding some local staffing issues, it should be recalled that, during the previous years, in order to address the en route staffing and capacity issues due to ATCO shortages in some DSNA ACCs, priority has been given to recruiting, training and assigning staff to the 5 French ACCs. In that context, some DSNA approaches and towers are now progressively also experiencing locally staff shortages. Furthermore, the provision of approach service at Toulon-Hyères from Nice in 2023 also introduced additional delays at Nice airport since its implementation.

Corrective measures were taken to address the 2024 terminal capacity underachievement, presented and discussed with the French NSA. They are detailed in following sections of the report.

With regard to this underachievement, a penalty will be applied to DSNA and deducted from the 2025 cost base in order to reduce the 2025 terminal unit rates. See Incentive scheme chapter for the detailed calculation.

Recommendations to the ANSP to rectify the situation: *A dedicated meeting has been organized with DSNA in order to gather both explanations and information about remedial measures already launched and identify potential additional measures that could be implemented by DSNA in 2024 and beyond to tackle non temporary capacity issues.*

The following recommendations / course of actions have been discussed and agreed with DSNA:

- General remedial measures already identified, coordinated with the Network Manager and to be published in the NOP 2024-2029 for the 5 French ACC should be implemented as soon as possible;

- A set of specific remedial measures put in place by DSNA or already planned in 2024 to mitigate identified non temporary issues at the French ACCs have been presented and discussed with the French NSA and are listed in the table below: the French NSA will be kept informed by DSNA of their timely implementation, of the expected benefit and of any issue in the implementation plan, and a follow-up meeting will be organized 2nd Semester 2025;

- An analysis of potential risks on 2025 and beyond underperformance has been carried over and required potential remedial measures to address such a situation have been discussed; they are also addressed in the final chapter of the en route capacity tab of the monitoring together with the actions taken by the NSA to monitor future performance through its surveillance program.

Actions taken by the NSA to monitor implementation of measures: *As explained in the en route capacity chapter, the French NSA is kept informed of any development related to the implementation of capacity and environment remedial and corrective measures.*

In particular:

- A follow-up meeting has been organized by the French NSA with DSNA operational directorate in December 2024 to check the implementation of these measures;

- The French NSA has been invited to the two yearly DSNA strategic users' consultation meetings held in 2024 which include an update on all strategic and operational measures taken by DSNA to improve capacity and environment performances, prepare Summer season and on the investment program;

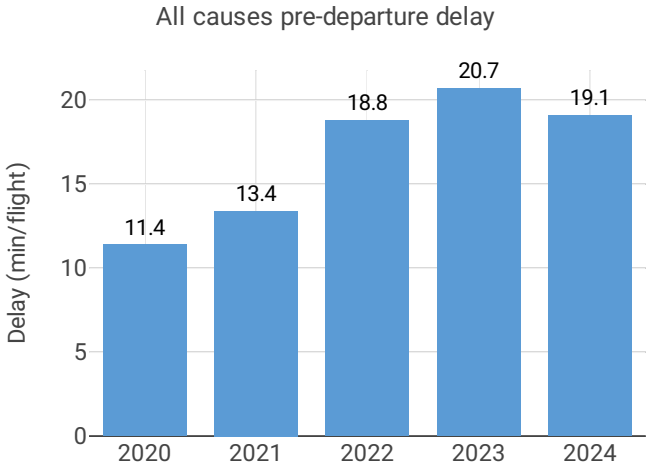
- The French NSA is also involved in the capacity planning process run by the Network Manager together with DSNA during Winter 2024/2025 in order to prepare the updated 2025-2029 European Network Operations Plan;

- The French NSA has been kept updated of the 4-FLIGHT and iATS implementation impact through dedicated meetings regularly organized by DSNA to inform and get feedback from airspace users on the upcoming implementation at Paris ACC and Orly airport and related transition plans in 2024 & 2025 ; it will remain the same for upcoming 4-FLIGHT implementation at Brest & Bordeaux and further new approach ATC system at large airports (ASMGCS & SYSAT systems);

- During this process the French NSA has checked that all measures listed in the previous monitoring report have been implemented effectively and in a timely manner by DSNA.

The incentive scheme uses modulated pivot values limited CRSTMP delay causes. This pivot value for CRSTMP is 0.1 min/arr in 2024. Following the attribution of the regulation reason, the actual CRSTMP value for 2024 is 0.33 min/arr. According to the French monitoring report, this performance is 0.36 min/arr. corresponds to the maximum penalty (1%), computed by the NSA as EUR1164523.91.

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



Airport level										
	Avg arrival ATFM delay (KPI#2)					Slot adherence (PI#1)				
Airport name	**2020**	**2021**	**2023**	**2024**	**2022**	**2020**	**2021**	**2023**	**2024**	**2022**
Agen/La-Garenne	NA	NA	NA	NA		79.2%	85.7%	50.0%	100.0%	
Ajaccio/ Napoléon-Bonaparte	NA	0.05	0.01	0.20	0.05	76.4%	71.3%	87.6%	85.9%	74.3%
Albert/Bray	NA	0.00	NA	NA	NA	44.0%	72.7%	86.5%	93.3%	89.2%
Annecy/Meythet	0.16	0.06	0.23	0.02	0.36	74.9%	82.3%	88.7%	88.6%	88.8%
Avignon/Caumont	0.23	0.02	0.20	1.36	0.28	78.7%	84.8%	93.0%	92.0%	87.5%
Bale/Mulhouse	0.41	0.05	0.55	0.41	0.21	87.4%	89.2%	88.9%	91.4%	89.5%
Bastia/Poretta	0.00	0.06	0.02	0.00	0.12	80.7%	87.0%	87.6%	87.8%	88.4%
Beauvais/Tillé	0.05	0.01	0.10	0.18	0.01	72.6%	89.3%	89.1%	88.1%	89.6%
Bergerac/ Roumanière	NA	0.14	NA	NA	NA	81.8%	89.4%	90.4%	91.4%	92.1%
Biarritz/ Bayonne-Anglet	0.05	0.15	0.00	NA	0.20	88.8%	93.0%	92.1%	92.3%	92.1%
Bordeaux/Merignac	0.77	0.07	1.87	1.71	0.17	91.5%	89.7%	90.8%	91.5%	89.4%
Brest/Bretagne	NA	0.05	NA	NA	0.00	97.0%	83.8%	81.0%	89.4%	80.2%
Brive/Souillac	NA	NA	NA	NA	NA	95.7%	85.6%	94.3%	94.4%	90.0%
Béziers/Vias	NA	NA	0.38	0.03	NA	68.5%	70.7%	81.9%	79.8%	70.8%
Caen/Carpiquet	NA	0.00	NA	NA	NA	94.2%	92.3%	93.5%	92.4%	92.7%
Calvi/ Sainte-Catherine	0.07	0.28	NA	0.02	0.28	82.1%	87.3%	90.7%	91.6%	91.2%
Cannes/Mandelieu	2.97	3.00	1.09	0.89	2.86	93.4%	90.2%	95.5%	96.5%	94.9%
Carcassonne/ Salvaza	NA	0.00	0.00	NA	NA	81.8%	84.3%	87.7%	87.9%	86.4%
Chambéry/ Aix-les-Bains	1.67	0.08	4.23	1.37	0.94	89.3%	82.5%	80.9%	83.5%	82.0%
Châlons/Vatry	0.50	0.78	0.24	0.09	0.80	78.0%	86.1%	85.7%	75.1%	90.0%
Châteauroux/Déols	NA	NA	NA	NA	NA	86.7%	84.9%	90.8%	91.7%	85.9%
Clermont-Ferrand/ Auvergne	0.00	0.01	NA	0.00	0.00	81.5%	86.9%	87.7%	88.6%	83.7%
Deauville/ Normandie	NA	NA	0.53	0.08	0.15	90.0%	88.6%	86.9%	87.7%	86.7%
Dinard/ Pleurtuit-Saint-Malo	NA	NA	NA	NA	NA	61.3%	93.2%	89.2%	91.1%	92.7%

	Avg arrival ATFM delay (KPI#2)					Slot adherence (PI#1)				
Airport name	**2020**	**2021**	**2023**	**2024**	**2022**	**2020**	**2021**	**2023**	**2024**	**2022**
Dole/Tavaux	NA	NA	NA	NA	NA	59.4%	77.5%	85.0%	82.7%	84.4%
Figari/Sud-Corse	0.18	1.24	0.23	0.45	0.34	80.3%	76.8%	91.8%	92.0%	86.4%
Grenoble/Isère	0.50	0.02	0.42	0.39	0.58	93.6%	85.2%	90.2%	90.5%	90.4%
Hyères/ Le-Palyvestre	0.06	0.04	4.05	2.24	1.28	81.1%	88.3%	89.4%	88.1%	88.9%
Istres/Le-Tubé	NA	NA	NA	NA	NA	66.7%	68.4%	83.3%	85.4%	82.3%
La-Rochelle/Ile de Ré	NA	NA	0.03	0.10	0.00	81.2%	89.2%	89.7%	92.7%	84.4%
Lille/Lesquin	0.33	0.01	0.14	NA	0.05	86.1%	87.7%	91.4%	92.9%	90.7%
Limoges/Bellegarde	0.19	0.11	0.70	0.09	1.30	93.4%	92.4%	87.9%	81.8%	87.9%
Lorient/ Lann-Bihoué	NA	NA	NA	NA	NA	88.8%	88.3%	87.1%	89.4%	87.1%
Lyon	0.03	0.00	0.01	0.04	0.04	84.5%	84.1%	87.3%	87.8%	86.8%
Lyon/Bron	0.01	NA	0.02	0.04	0.00	89.5%	83.8%	91.0%	90.1%	87.4%
Marseille/Provence	0.10	0.01	1.65	0.50	0.24	78.3%	83.4%	82.5%	84.3%	77.8%
Metz-Nancy/ Lorraine	NA	NA	NA	NA	NA	82.5%	84.6%	86.0%	87.4%	91.4%
Montpellier/ Méditerranée	0.01	NA	0.01	0.00	0.00	75.1%	84.6%	87.8%	87.7%	84.9%
Nantes	0.24	0.08	0.18	0.31	0.05	91.6%	91.3%	92.5%	94.2%	91.9%
Nice	0.13	0.39	1.01	1.71	0.85	87.7%	88.8%	87.3%	87.9%	87.6%
Nîmes/Garons	NA	0.02	NA	0.03	0.07	83.4%	82.5%	90.5%	88.6%	88.3%
Paris/ Charles-De-Gaulle	0.11	0.22	0.19	0.32	0.45	95.4%	94.7%	94.9%	95.9%	93.9%
Paris/Le Bourget	0.60	0.53	1.52	0.64	1.84	94.2%	95.3%	96.8%	97.7%	95.1%
Paris/Orly	0.96	0.25	1.54	1.38	1.74	87.3%	90.4%	89.0%	90.1%	88.5%
Pau/Pyrénées	1.45	0.00	0.00	0.00	NA	85.9%	87.6%	89.6%	86.2%	88.1%
Perpignan/ Rivesaltes	0.07	0.03	0.09	NA	0.01	77.4%	77.0%	83.5%	86.7%	83.7%
Poitiers/Biard	NA	NA	0.03	0.00	NA	87.8%	72.5%	72.7%	77.2%	71.0%
Quimper/Pluguffan	NA	NA	NA	NA	NA	84.7%	90.6%	92.8%	90.0%	90.0%
Rennes/St-Jacques	NA	NA	NA	NA	NA	78.7%	86.7%	91.6%	92.2%	89.2%
Rodez/Marcillac	NA	NA	NA	0.01	NA	88.5%	82.5%	91.7%	91.1%	85.2%
Rouen/ Vallée-de-Seine		0.27	1.38	NA	0.04		83.9%	82.8%	83.2%	79.2%
Saint-Etienne/ Bouthéon	NA	NA	NA	NA	NA	79.6%	86.8%	94.4%	84.9%	90.1%
Saint-Nazaire/ Montoir	NA	NA	0.00	NA	NA	97.2%	94.7%	93.8%	96.8%	94.7%
Strasbourg/ Entzheim	0.03	0.01	0.04	0.20	0.00	79.6%	88.9%	89.7%	91.2%	90.1%
Tarbes-Lourdes/ Pyrénées	NA	0.02	0.03	0.14	0.04	90.5%	91.3%	90.1%	91.0%	89.7%
Toulouse/Blagnac	0.16	0.26	0.21	0.39	0.06	90.2%	89.0%	88.6%	90.3%	89.1%
Tours/Val-de-Loire	0.00	0.11	3.08	0.22	9.32	50.0%	0.0%	88.2%	76.6%	66.7%
Toussus/Le-Noble	0.97	0.89	4.87	2.97	2.94	77.7%	88.3%	88.6%	91.5%	89.3%

	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
Airport name	**2020**	**2021**	**2023**	**2024**	**2022**	**2020**	**2021**	**2023**	**2024**	**2022**
Agen/La-Garenne	NA	NA	NA	NA		NA	NA	NA	NA	
Ajaccio/ Napoléon-Bonaparte	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
Airport name	**2020**	**2021**	**2023**	**2024**	**2022**	**2020**	**2021**	**2023**	**2024**	**2022**
Albert/Bray	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Annecy/Meythet	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Avignon/Caumont	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bale/Mulhouse	0.13	0.12	0.38	0.38	0.25	8.6	11.5	16.3	14.0	14.3
Bastia/Poretta	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beauvais/Tillé	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bergerac/ Roumanière	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biarritz/ Bayonne-Anglet	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bordeaux/Merignac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Brest/Bretagne	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Brive/Souillac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Béziers/Vias	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caen/Carpiquet	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calvi/ Sainte-Catherine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cannes/Mandelieu	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carcassonne/ Salvaza	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chambéry/ Aix-les-Bains	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Châlons/Vatry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Châteauroux/Déols	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Clermont-Ferrand/ Auvergne	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deauville/ Normandie	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinard/ Pleurtuit-Saint-Malo	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dole/Tavaux	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Figari/Sud-Corse	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Grenoble/Isère	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hyères/ Le-Palyvestre	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Istres/Le-Tubé	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
La-Rochelle/Ile de Ré	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lille/Lesquin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Limoges/Bellegarde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lorient/ Lann-Bihoué	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lyon	0.17	0.21	0.35	0.30	0.32	12.0	11.9	20.7	18.1	20.0
Lyon/Bron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Marseille/Provence	NA	0.05	0.17	0.20	0.13	9.6	9.9	20.8	19.3	18.0
Metz-Nancy/ Lorraine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Montpellier/ Méditerranée	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nantes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nice	0.21	0.38	0.57	0.59	0.52	7.5	10.5	20.8	20.2	18.4
Nîmes/Garons	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
Airport name	**2020**	**2021**	**2023**	**2024**	**2022**	**2020**	**2021**	**2023**	**2024**	**2022**
Paris/ Charles-De-Gaulle	NA	NA	NA	NA	NA	12.9	17.1	22.5	20.6	21.3
Paris/Le Bourget	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Paris/Orly	0.33	0.49	1.17	0.76	1.25	13.4	12.5	19.8	18.7	17.3
Pau/Pyrénées	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perpignan/ Rivesaltes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poitiers/Biard	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Quimper/Pluguffan	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rennes/St-Jacques	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rodez/Marcillac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rouen/ Vallée-de-Seine		NA	NA	NA	NA		NA	NA	NA	NA
Saint-Etienne/ Bouthéon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Saint-Nazaire/ Montoir	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strasbourg/ Entzheim	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tarbes-Lourdes/ Pyrénées	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toulouse/Blagnac	0.17	0.21	0.31	0.27	0.28	8.9	8.3	16.7	14.6	13.1
Tours/Val-de-Loire	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toussus/Le-Noble	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Focus on performance indicators at airport level

ATFM slot adherence

National level and main national individual airports involved are above the 80% threshold of compliance. The national average was 91.2%, slightly better than in 2023 when the adherence was 90.4%. With regard to the 8.8% of flights that did not adhere, 4.8% were early and 4% were late.

The French monitoring report explains: *All reported airports are in line with the requirements. The PI is still progressing in 2024, overall and at each individual airport.*

ATC pre-departure delay

The share of unidentified delay reported by Charles de Gaulle (LFPG) was above 40% for more than 2 months in the year during the entire RP3, preventing the calculation of this indicator for this airport. Average observed performance at the rest of airports in 2024 showed a slight improvement compared to the previous year.

According to the French monitoring report: *Performance evolution is linked with the overall traffic evolution since 2020/2021 and general ATC performance, but is progressing at Toulouse and Orly airports. In 2024, again the quality threshold for unidentified delays has not reached the quality threshold at Roissy Charles de Gaulle airport to validate the 2024 data flow, the 1st condition for publication. This airport currently mainly uses the code [ZZZ], which indicates that ATCOs have not always the information about the origin of the various delays. This situation has still to be examined in detail with the ad-hoc airport and DSNA experts in order to find a solution to fix this recurrent issue for RP4.*

All causes pre-departure delay

The average (all causes) delay in the actual off block time at the French airports monitored for this indicator in 2024 was 19.44 min/dep, a decrease compared to 2023 (21.03 min/dep).

According to the French monitoring report: *Regarding the ATC part of the delays and related corrective measures, please see 2.Airport Arrival ATFM delay above. Staff shortages where also experienced at airports (either in France or abroad) which had a strong impact on this performance indicator. Overall, the 2024 achievements are better than 2023 at all airports, which is in line with the overall better performance of DSNA ATC KPI#2 (terminal capacity ATFM delays), both (K)PIs being interdependent.*

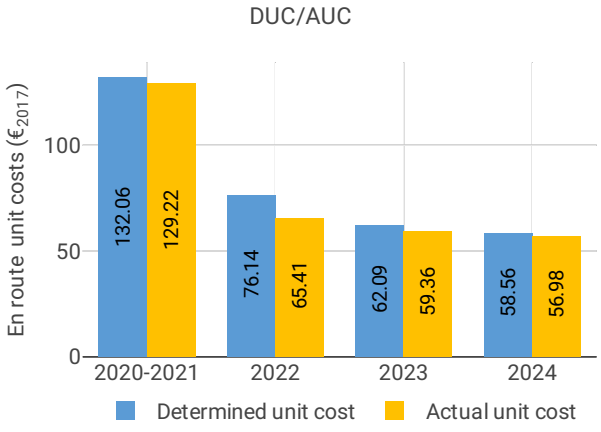
5 COST-EFFICIENCY - FRANCE

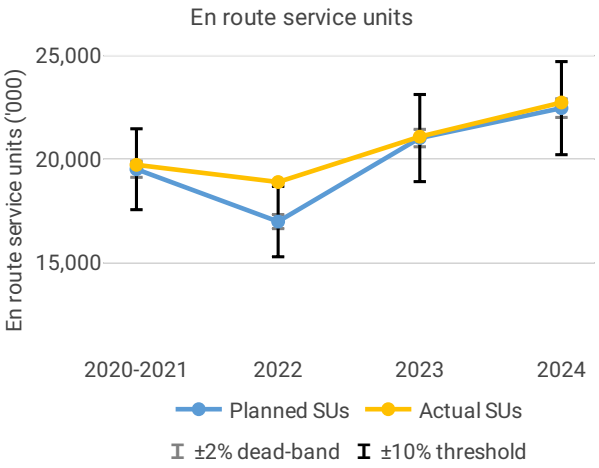
5.1 PRB monitoring

- The en route 2024 actual unit cost of France was 56.98€2017, -2.7% lower than the determined unit cost (58.56€2017). The terminal zone 1 2024 actual unit cost was 88.82€2017, -9.2% lower than the determined unit cost (97.81€2017), while the terminal zone 2 2024 actual unit cost was 350.46€2017, +9.7% higher than the determined unit cost (319.52€2017).
- The en route 2024 actual service units (22.7M) were +1.2% higher than the determined service units (22.5M).
- The en route 2024 actual total costs were -20M€2017 (-1.5%) lower than determined. The lower costs are mainly driven by staff costs for DSNA (-18M€2017, or -2.6%). However, in nominal terms, the actual staff costs show an increase of +8.3% compared to the determined figures. The NSA explains that this increase is mainly due to salary indexations and some additional bonuses, as well as to the implementation of a new social agreement.
- DSNA costs of investment were 247M€2017 in 2024 for both en route and terminal charging zones, -1.2% less than determined (250M€2017).
- The en route actual unit cost incurred by users in 2024 was 66.99€ (+6.9% above the 2024 DUC), while the terminal actual unit cost incurred by users was 175.77€ (+69% above the 2024 DUC) for the terminal zone 1, and 208.90€ (-39% below the 2024 DUC) for the terminal zone 2. The difference between the AUCU and the DUC in terminal charging zones is primarily attributed to the cross-financing adjustment that transferred 45M€ between terminal zones.

5.2 En route charging zone

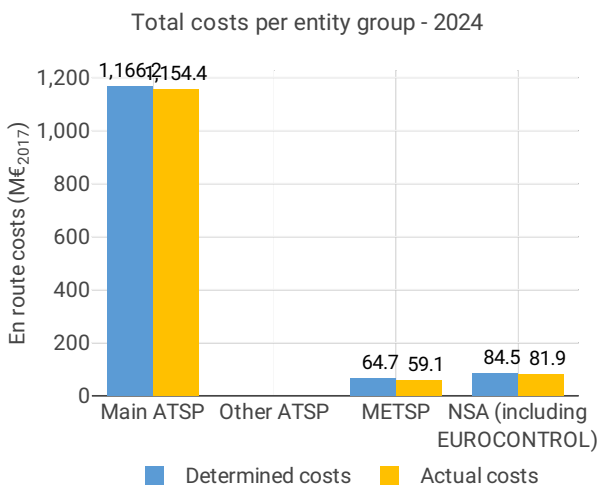
5.2.1 Unit cost (KPI#1)

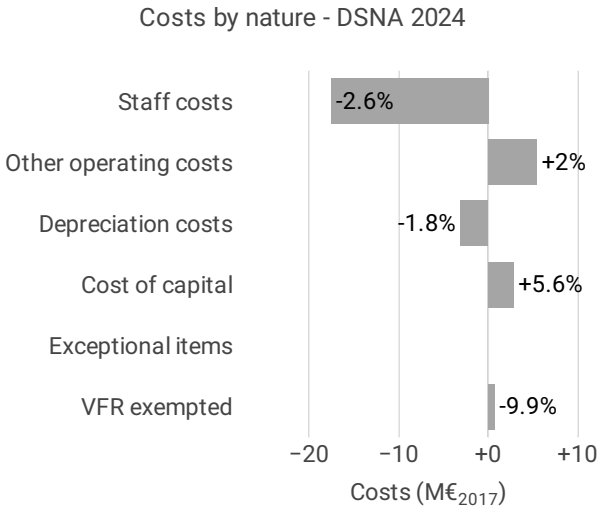




Actual and determined data				
Total costs - nominal (M€)	**2020-2021**	**2022**	**2023**	**2024**
Actual costs	2,650	1,355	1,430	1,505
Determined costs	2,668	1,357	1,382	1,407
Difference costs	-18	-1	48	98

Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.2%	1.3%	1.4%
Determined inflation index	NA	106.3	107.7	109.3
Actual inflation rate	NA	5.9%	5.7%	2.3%
Actual inflation index	NA	112.4	118.8	121.5
Difference inflation index (p.p.)	NA	+6.1	+11.1	+12.3





Focus on unit cost

AUC vs. DUC

In 2024, the en route AUC was -2.7% (or -1.58 €2017) lower than the planned DUC. This results from the combination of lower than planned en route costs in real terms (-1.5%, or -20.0 M€2017) and higher than planned TSUs (+1.2%). It should be noted that the actual inflation index in 2024 was +12.3 p.p. higher than planned.

En route service units

The difference between actual and planned TSUs (+1.2%) falls inside the ±2% dead-band. Hence, the gain of additional en route revenues is kept by the ANSPs (see items 10 to 14).

En route costs by entity

Actual real en route costs are -1.5% (-20.0 M€2017) lower than planned. This is the result of lower costs for the main ANSP, DSNA (-1.0%, or -11.8 M€2017), the MET service provider (-8.7%, or -5.6 M€2017) and the NSA/EUROCONTROL (-3.1%, or -2.6 M€2017).

En route costs for the main ANSP at charging zone level

Slightly lower than planned en route costs in real terms for DSNA in 2024 (-1.0%, or -11.8 M€2017), and higher in nominal terms (+8.1% or 101.4 M€), result from:

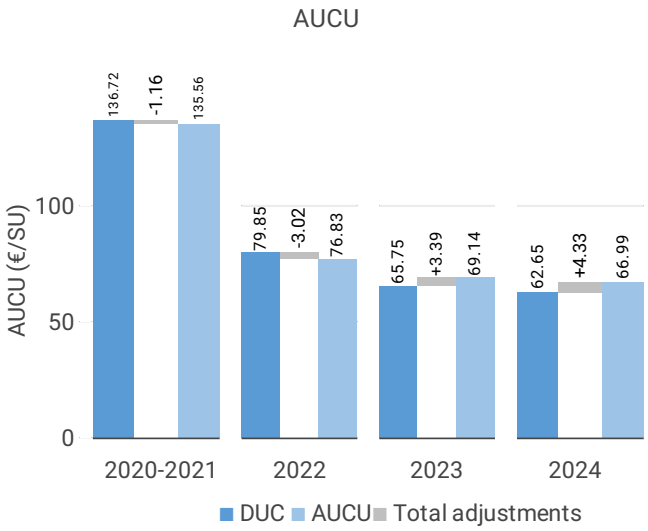
- Lower staff costs (-2.6%), mainly due to the inflation index impact (+12.3 p.p.) since in nominal terms the costs are higher than planned by +8.3%, mainly from past wage increases, bonuses, and the 2024 social agreement introducing a more flexible rostering,
- Higher other operating costs (+2.0%), *"due to the post-crisis inflation (energy prices)"*,
- Lower depreciation (-1.8%),
- Significantly higher cost of capital (+5.6%), due to an increase of the total asset base (+6.6%) and an increase of the cost of capital rate, mainly due to an increase of the average cost of debt,
- Significantly lower deduction for VFR exempted flights (-9.9%).

Note: It is understood that DSNA operating costs include costs of investments that are not capitalised (T3 TECH).

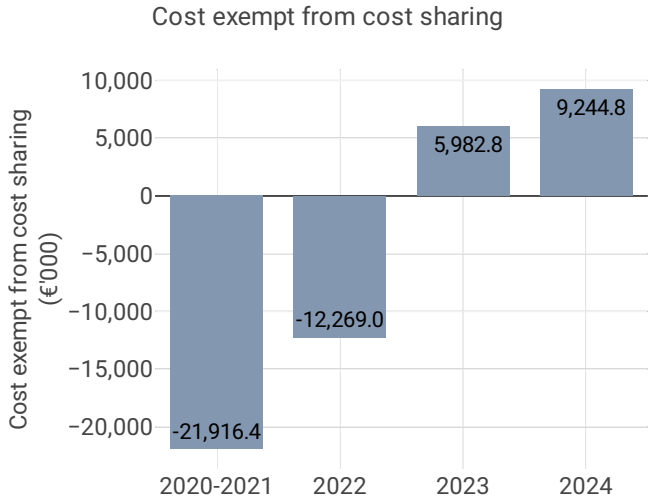
RP3 summary

When considering the whole of RP3 (2020-2024) for France en route charging zone, actual TSUs are +3.1% higher than planned, while actual costs in real terms are -2.4% lower than the determined costs (some -158.9 M€2017). As a result, the weighted average actual unit cost over RP3 (76.81 €2017) is -5.4% lower than planned in the PP (81.15 €2017).

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

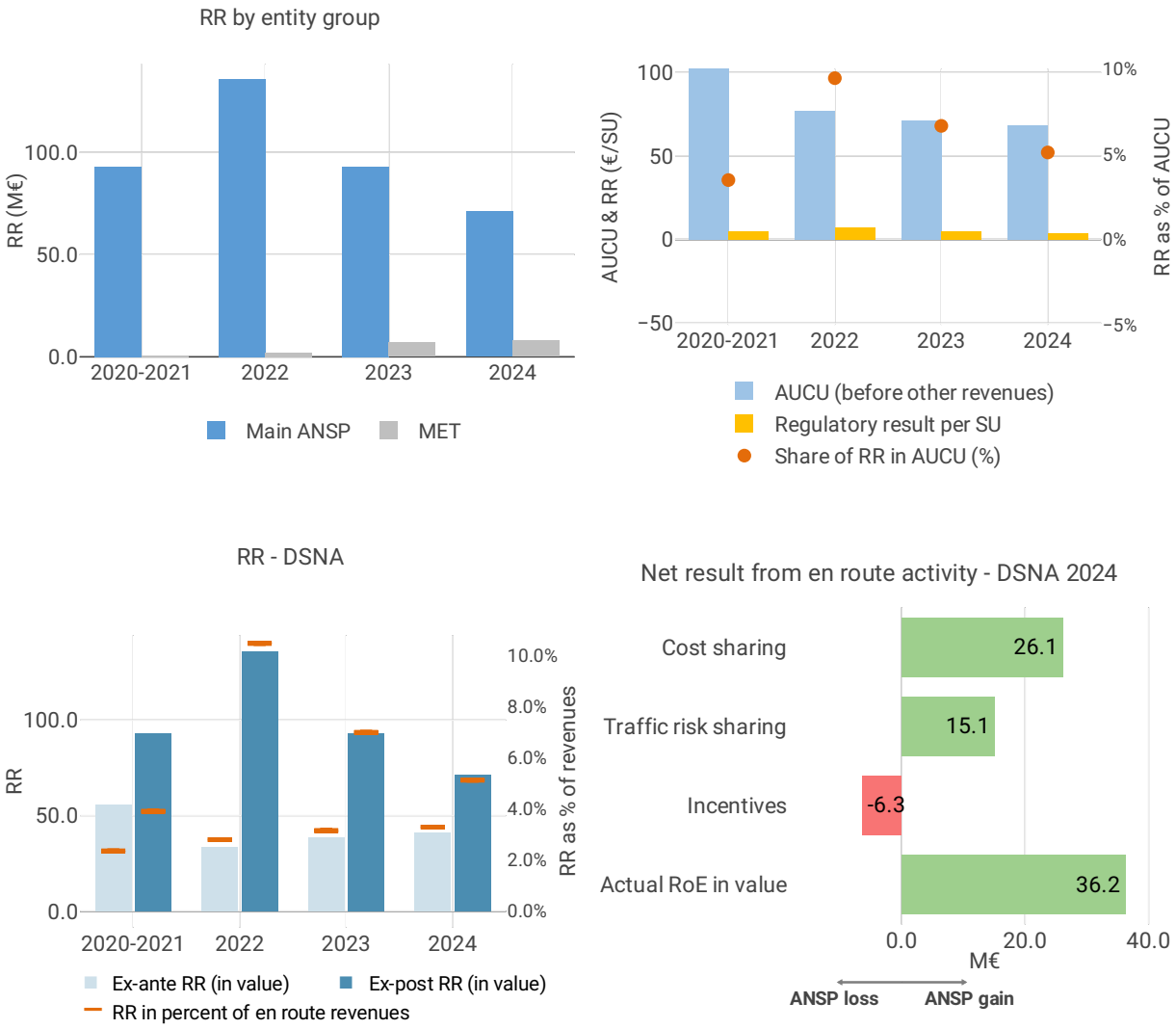


AUCU components (€/SU) – 2024	
Components of the AUCU in 2024	**€/SU**
DUC	**62.65**
Inflation adjustment	5.36
Cost exempt from cost-sharing	0.41
Traffic risk sharing adjustment	0.00
Traffic adj. (costs not TRS)	-0.08
Finantial incentives	-0.28
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-1.08
Application of lower unit rate	0.00
Total adjustments	4.33
AUCU	**66.99**
AUCU vs. DUC	**+ 6.9%**



Cost exempt from cost sharing – 2024		
Cost exempt from cost sharing by item - 2024	**€'000**	**€/SU**
New and existing investments	8,250.8	0.36
Competent authorities and qualified entities costs	607.1	0.03
Eurocontrol costs	-3,227.1	-0.14
Pension costs	0.0	0.00
Interest on loans	3,614.1	0.16
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**9,244.8**	**0.41**

5.2.3 Regulatory result (RR)



Focus on regulatory result

DSNA net gain/loss on activity in the France en route charging zone in the year 2024

DSNA reported a net gain of +34.9 M€, as a combination of a gain of +26.1 M€ arising from the cost sharing mechanism, with a gain of +15.1 M€ arising from the traffic risk sharing mechanism and a loss of -6.3 M€ relating to financial incentives.

DSNA overall regulatory result (RR) for the en route activity

Ex-post, the overall RR taking into account the net gain from the en route activity mentioned above (+34.9 M€) and the actual RoE (+36.2 M€) amounts to +71.1 M€ (5.1% of the en route revenues). The resulting ex-post rate of return on equity is 23.4%, which is higher than the 11.9% planned in the PP.

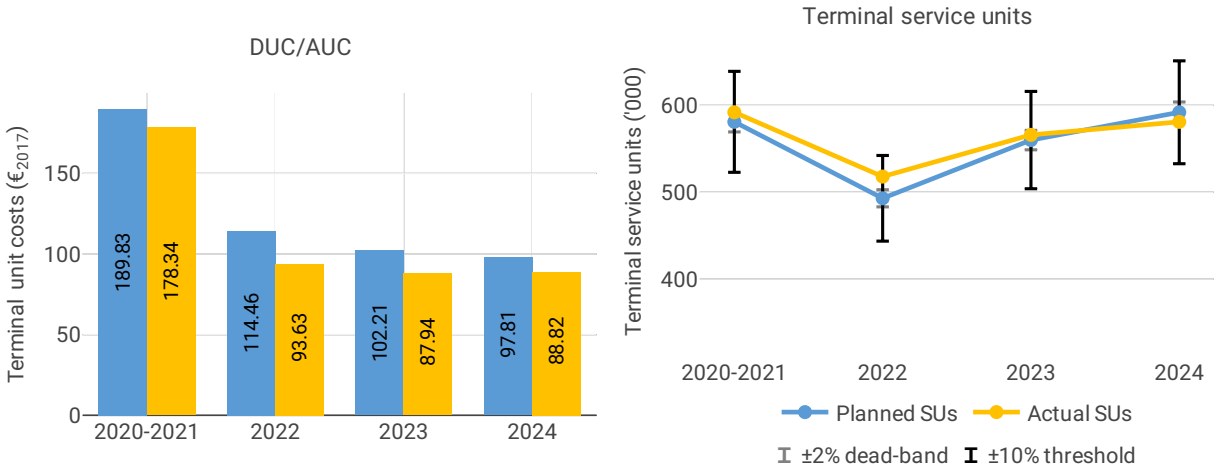
RP3 summary

When considering the whole of RP3 (2020-2024), DSNA generated a cumulative gain in respect of cost sharing of +142.7 M€, as actual total costs for RP3 were lower than planned.

The traffic risk sharing mechanism generated a gain of +97.7 M€. Adding the loss of -12.4 M€ to be retained by the ATSP in respect of financial incentives and the actual RoE (+164.9 M€ over RP3) leads to an overall regulatory result of +392.8 M€, which corresponds to an average ex-post rate of return on equity of 35.1% (compared to 14.6% initially planned in the PP).

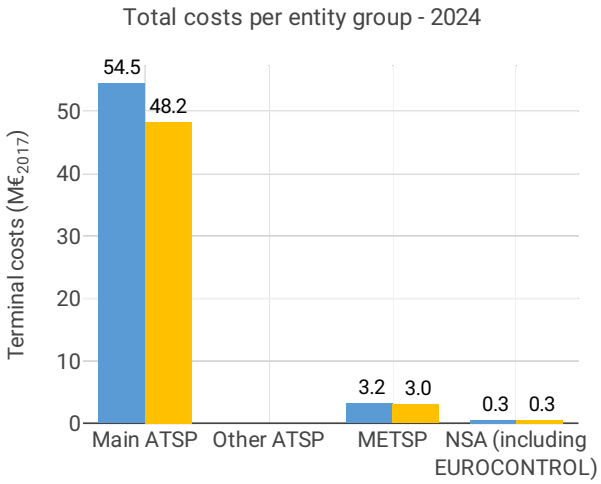
5.3 Terminal charging zone - France Zone 1

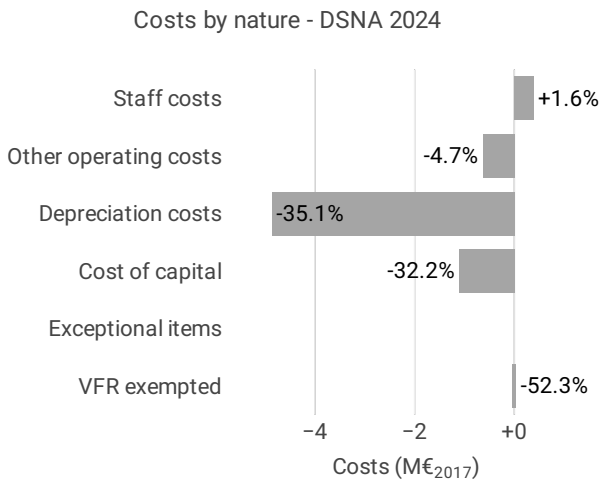
5.3.1 Unit cost (KPI#1)



Actual and determined data				
Total costs - nominal (M€)	**2020-2021**	**2022**	**2023**	**2024**
Actual costs	110	53	57	60
Determined costs	114	59	60	62
Difference costs	-5	-6	-3	-2

Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.2%	1.3%	1.4%
Determined inflation index	NA	106.3	107.7	109.3
Actual inflation rate	NA	5.9%	5.7%	2.3%
Actual inflation index	NA	112.4	118.8	121.5
Difference inflation index (p.p.)	NA	+6.1	+11.1	+12.3





Focus on unit cost

AUC vs. DUC

In 2024, the terminal AUC was -9.2% (or -9.00 €2017) lower than the planned DUC. This results from the combination of significantly lower than planned terminal costs in real terms (-11.0%, or -6.4 M€2017) and lower than planned TNSUs (-2.0%). It should be noted that the actual inflation index in 2024 was +12.3 p.p. higher than planned.

Terminal service units

The difference between actual and planned TNSUs (-2.0%) falls inside the ±2% dead-band. Hence, the loss of terminal revenues is borne by the ANSPs (see items 10 to 14).

Terminal costs by entity

Actual real terminal costs are -11.0% (-6.4 M€2017) lower than planned. This is the result of lower costs for the main ANSP, DSNA (-11.4%, or -6.2 M€2017), the MET service provider (-4.3%, or -0.1 M€2017) and the NSA (-1.5%).

Terminal costs for the main ANSP at charging zone level

Significantly lower than planned terminal costs in real terms for DSNA in 2024 (-11.4%, or -6.2 M€2017) result from:

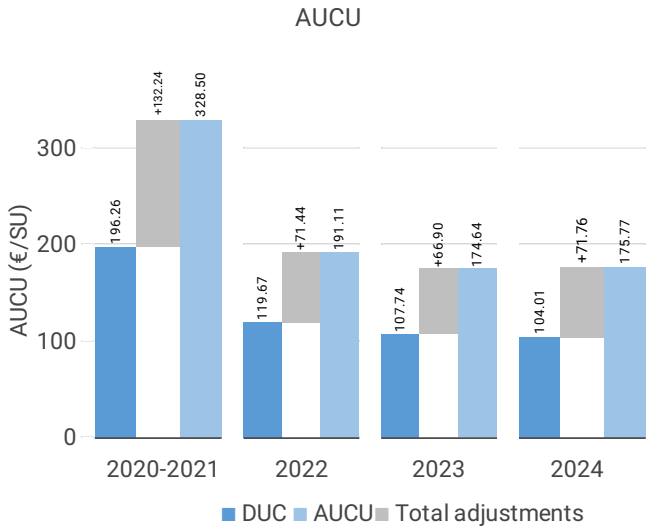
- Slightly higher staff costs (+1.6% in real and +13.0% in nominal terms), mainly from past wage increases, bonuses, and the 2024 social agreement introducing a more flexible rostering,
- Lower other operating costs (-4.7%), mainly due to the inflation index impact (+12.3 p.p.) since in nominal terms the costs are higher than planned by +6.0%, *"due to the post-crisis inflation (energy prices)"*,
- Significantly lower depreciation (-35.1%), *"mainly due to delays on Sysat implementation (new ATC system for Paris approaches)"*,
- Significantly lower cost of capital (-32.2%), due to a significantly lower total asset base (-30,7%)
- Significantly lower deduction for VFR exempted flights (-52.3%).

Note: It is understood that DSNA operating costs include costs of investments that are not capitalised (T3 TECH).

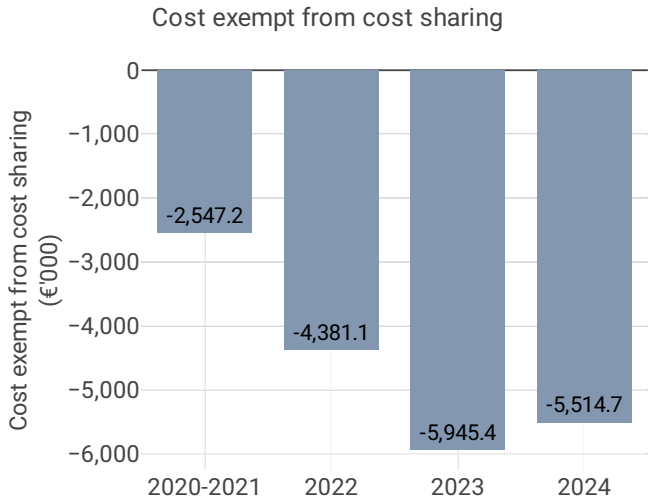
RP3 summary

When considering the whole of RP3 (2020-2024) for France terminal charging zone 1, actual TNSUs are +1.3% higher than planned, while actual costs in real terms are -9.4% lower than the determined costs (some -26.6 M€2017). As a result, the weighted average actual unit cost over RP3 (113.18 €2017) is -10.6% lower than planned in the PP (126.62 €2017).

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

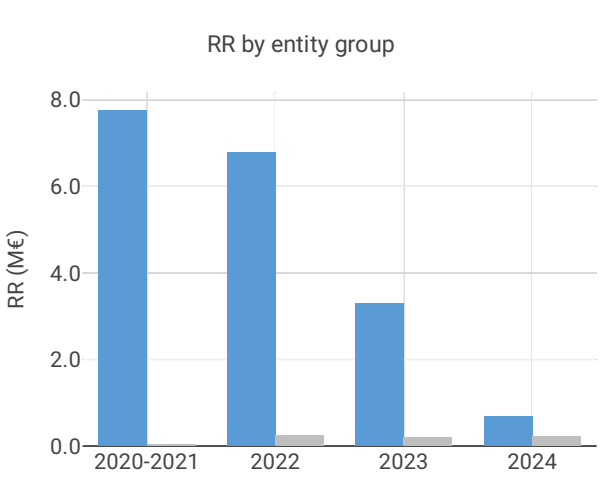


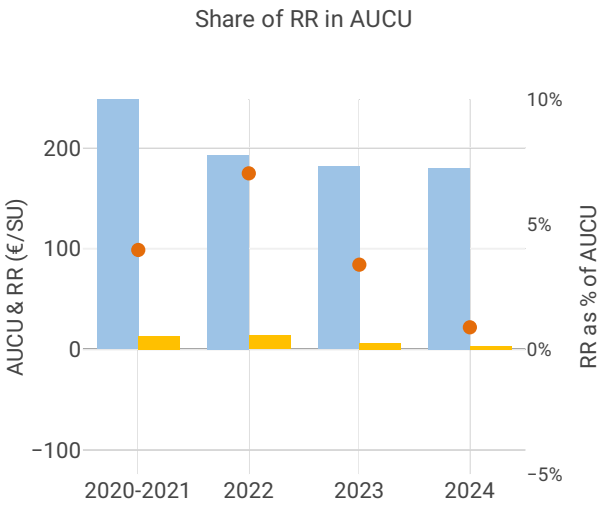
AUCU components (€/SU) – 2024	
Components of the AUCU in 2024	**€/SU**
DUC	**104.01**
Inflation adjustment	8.37
Cost exempt from cost-sharing	-9.50
Traffic risk sharing adjustment	0.00
Traffic adj. (costs not TRS)	0.12
Finantial incentives	-0.80
Modulation of charges	0.00
Cross-financing	77.74
Other revenues	-4.18
Application of lower unit rate	0.00
Total adjustments	71.76
AUCU	**175.77**
AUCU vs. DUC	**+ 69.0%**

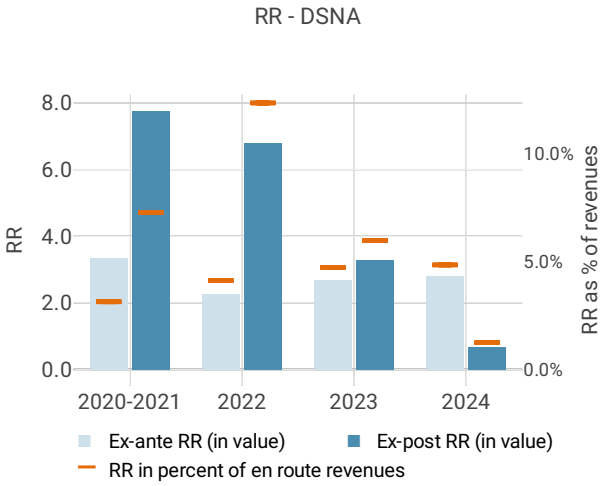


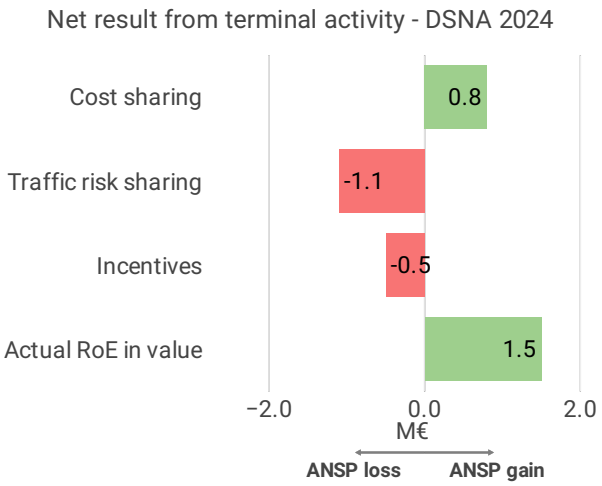
Cost exempt from cost sharing – 2024		
Cost exempt from cost sharing by item - 2024	**€'000**	**€/SU**
New and existing investments	-5,826.8	-10.04
Competent authorities and qualified entities costs	-4.4	-0.01
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	316.4	0.55
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**-5,514.7**	**-9.50**

5.3.3 Regulatory result (RR)









Focus on regulatory result

DSNA net gain/loss on activity in the France terminal charging zone 1 in the year 2024

DSNA reported a net loss of -0.8 M€, as a combination of a gain of +0.8 M€ arising from the cost sharing mechanism, with a loss of -1.1 M€ arising from the traffic risk sharing mechanism and a loss of -0.5 M€ relating to financial incentives.

DSNA overall regulatory result (RR) for the activity in terminal charging zone 1

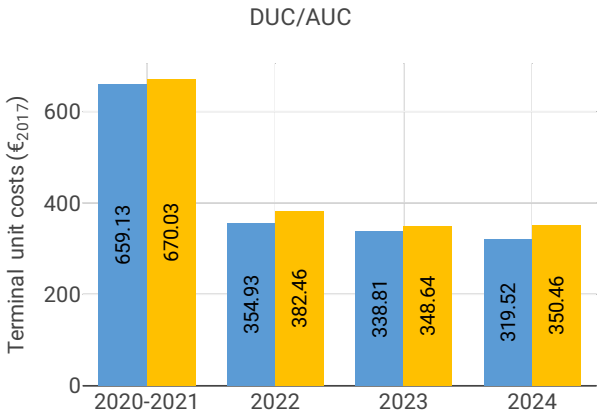
Ex-post, the overall RR taking into account the net loss from the terminal activity mentioned above (-0.8 M€) and the actual RoE (+1.5 M€) amounts to +0.7 M€ (1.2% of the terminal revenues). The resulting ex-post rate of return on equity is 5.4%, which is lower than the 11.9% planned in the PP.

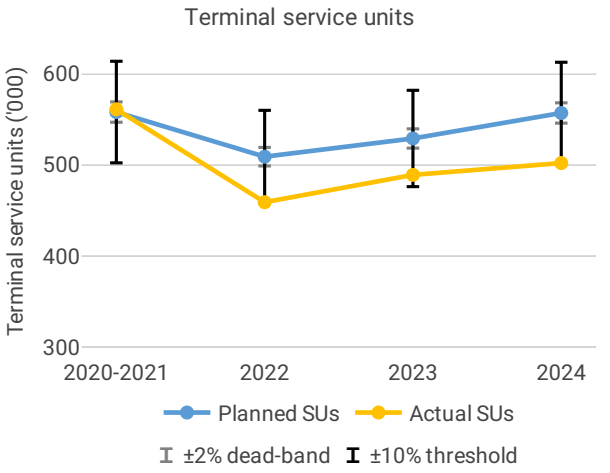
RP3 summary

When considering the whole of RP3 (2020-2024), DSNA generated a cumulative gain in respect of cost sharing of +8.5 M€, as actual total costs for RP3 were lower than planned. The traffic risk sharing mechanism generated a gain of +3.0 M€. Adding the loss of -0.9 M€ to be retained by the ATSP in respect of financial incentives and the actual RoE (+7.9 M€ over RP3) leads to an overall regulatory result of +18.5 M€, which corresponds to an average ex-post rate of return on equity of 35.2% (compared to 14.5% initially planned in the PP).

5.4 Terminal charging zone - France Zone 2

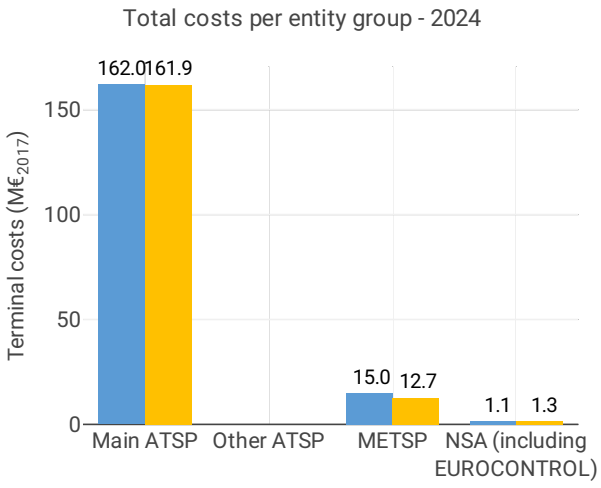
5.4.1 Unit cost (KPI#1)

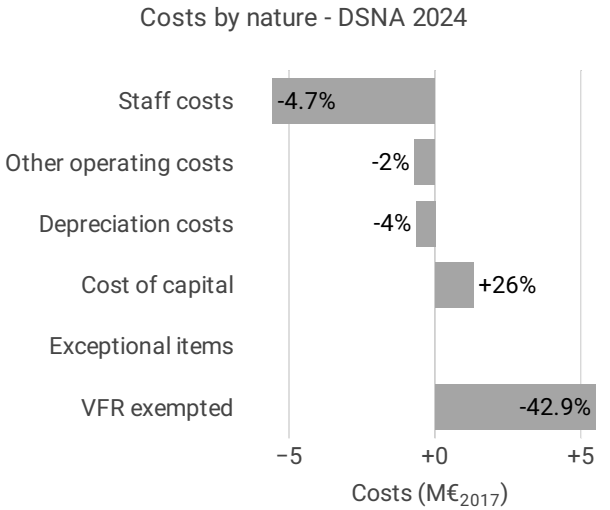




Actual and determined data				
Total costs - nominal (M€)	**2020-2021**	**2022**	**2023**	**2024**
Actual costs	392	194	198	208
Determined costs	382	190	191	192
Difference costs	10	4	7	16

Inflation assumptions	**2020-2021**	**2022**	**2023**	**2024**
Determined inflation rate	NA	1.2%	1.3%	1.4%
Determined inflation index	NA	106.3	107.7	109.3
Actual inflation rate	NA	5.9%	5.7%	2.3%
Actual inflation index	NA	112.4	118.8	121.5
Difference inflation index (p.p.)	NA	+6.1	+11.1	+12.3





Focus on unit cost

AUC vs. DUC

In 2024, the terminal AUC was +9.7% (or +30.95 €2017) higher than the planned DUC. This results from the combination of significantly lower than planned TNSUs (-9.9%) and lower than planned terminal costs in real terms (-1.2%, or -2.2 M€2017). It should be noted that the actual inflation index in 2024 was +12.3 p.p. higher than planned.

Terminal service units

The difference between actual and planned TNSUs (-9.9%) falls outside the ±2% dead-band, but does not exceed the ±10% threshold foreseen in the traffic risk sharing mechanism. The resulting loss of terminal revenues is therefore shared between the ANSP and the airspace users (see the main ANSP loss in Box 11).

Terminal costs by entity

Actual real terminal costs are -1.2% (-2.2 M€2017) lower than planned. This is the result of lower costs for the MET service provider (-15.2%, or -2.3 M€2017) and the main ANSP, DSNA (-0.1%, or -0.1 M€2017) and higher costs for the NSA (+18.6%, or +0.2 M€2017).

Terminal costs for the main ANSP at charging zone level

Consistent with planned terminal costs in real terms for DSNA in 2024 (-0.1%, or -0.1 M€2017), and higher in nominal terms (+9.7% or 16.9M€), result from:

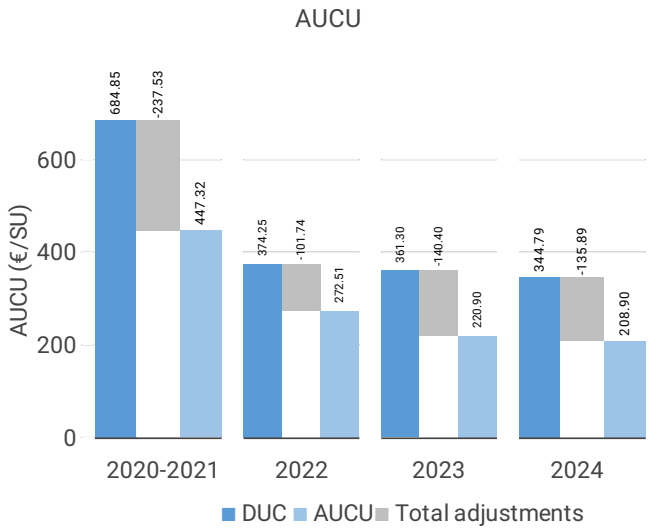
- Lower staff costs (-4.7%), mainly due to the inflation index impact (+12.3 p.p.) since in nominal terms the costs are higher than planned by +6.0%, mainly from past wage increases, bonuses, and the 2024 social agreement introducing a more flexible rostering,
- Slightly lower other operating costs (-2.0% in real and +9.0% in nominal terms), *"due to the post-crisis inflation (energy prices)",*
- Lower depreciation (-4.0%),
- Significantly higher cost of capital (+26.0%) due to a significantly higher total asset base (+13.2%)
- Significantly lower deduction for VFR exempted flights (-42.9%).

Note: it is understood that DSNA operating costs include costs of investments that are not capitalised (T3 TECH).

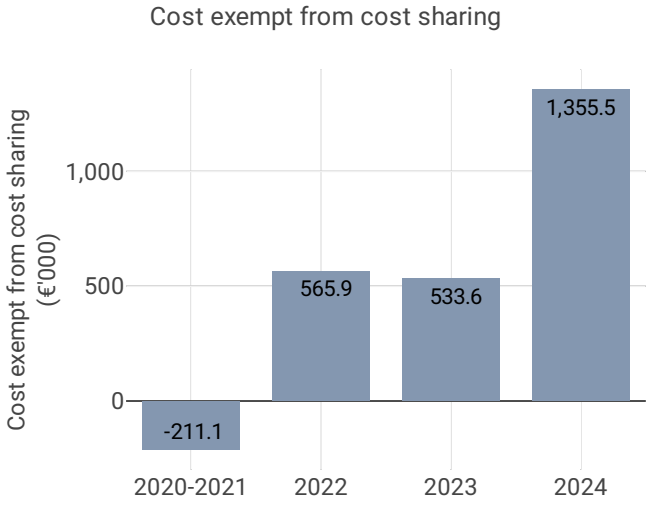
RP3 summary

When considering the whole of RP3 (2020-2024) for France terminal charging zone 2, actual TNSUs are -6.6% lower than planned, while actual costs in real terms are -0.9% lower than the determined costs (some -8.0 M€2017). As a result, the weighted average actual unit cost over RP3 (446.44 €2017) is +6.1% higher than planned in the PP (420.68 €2017).

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

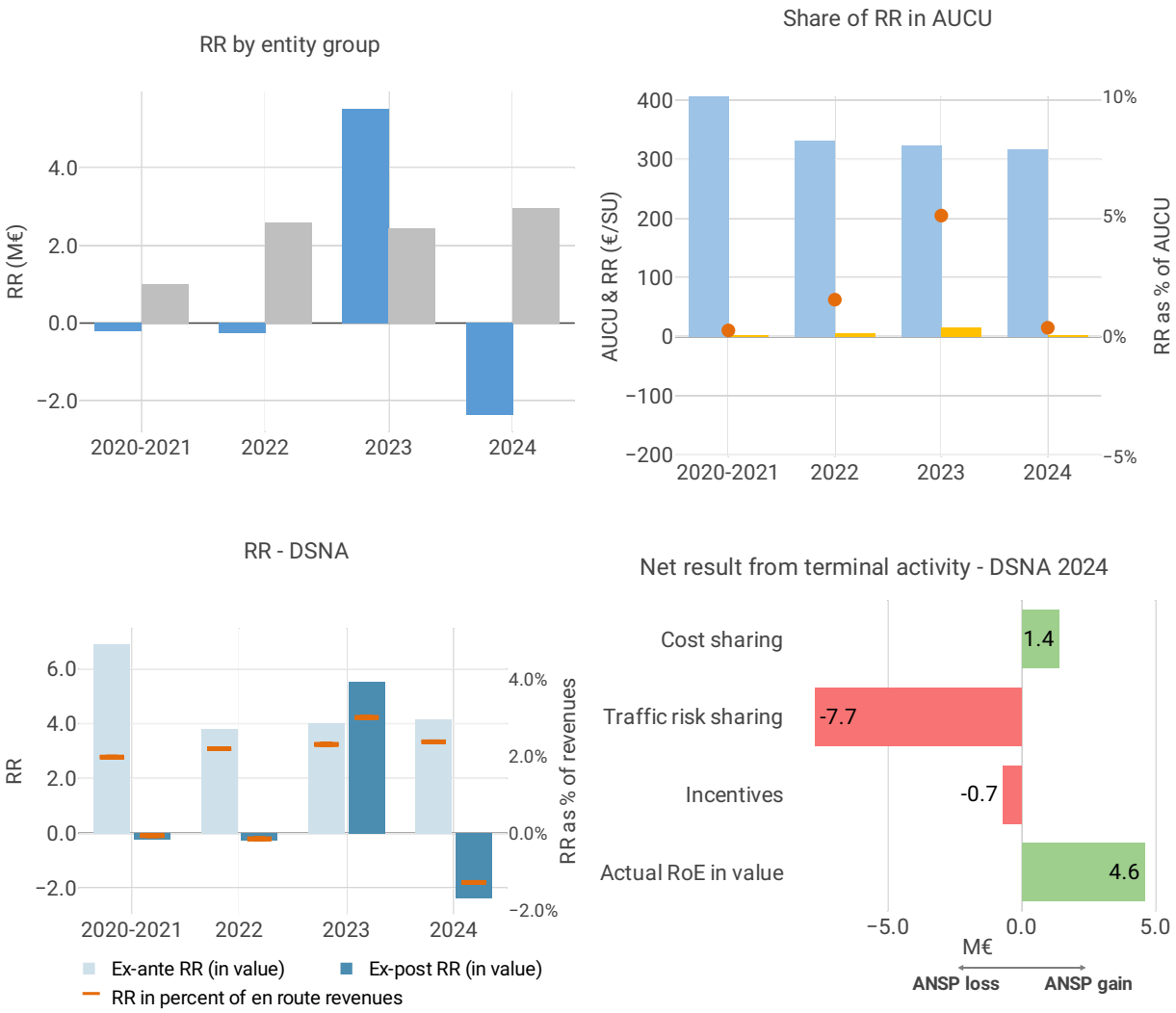


AUCU components (€/SU) – 2024	
Components of the AUCU in 2024	**€/SU**
DUC	**344.79**
Inflation adjustment	37.19
Cost exempt from cost-sharing	2.70
Traffic risk sharing adjustment	19.39
Traffic adj. (costs not TRS)	3.39
Finantial incentives	-1.39
Modulation of charges	0.00
Cross-financing	-89.94
Other revenues	-107.24
Application of lower unit rate	0.00
Total adjustments	-135.89
AUCU	**208.90**
AUCU vs. DUC	**-39.4%**



Cost exempt from cost sharing – 2024		
Cost exempt from cost sharing by item - 2024	**€'000**	**€/SU**
New and existing investments	745.5	1.49
Competent authorities and qualified entities costs	201.1	0.40
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	409.0	0.82
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	**1,355.5**	**2.70**

5.4.3 Regulatory result (RR)



Focus on regulatory result

DSNA net gain/loss on activity in the France terminal charging zone 2 in the year 2024

DSNA reported a net loss of -6.9 M€, as a combination of a gain of +1.4 M€ arising from the cost sharing mechanism, with a loss of -7.7 M€ arising from the traffic risk sharing mechanism and a loss of -0.7 M€ relating to financial incentives.

DSNA overall regulatory result (RR) for the activity in terminal charging zone 2

Ex-post, the overall RR taking into account the net loss from the terminal activity mentioned above (-6.9 M€) and the actual RoE (+4.6 M€) amounts to -2.4 M€ (-1.3% of the terminal revenues). The resulting ex-post rate of return on equity is negative (-6.1%).

RP3 summary

When considering the whole of RP3 (2020-2024), DSNA generated a cumulative gain in respect of cost sharing of +4.0 M€, as actual total costs for RP3 were lower than planned. The traffic risk sharing mechanism generated a loss of -20.0 M€. Adding the loss of -1.4 M€ to be retained by the ATSP in respect of financial incentives and the actual RoE (+20.0 M€ over RP3) leads to an overall regulatory result of +2.7 M€, which corresponds to an average ex-post rate of return on equity of 2.0% (compared to 14.8% initially planned in the PP).