

# Performance Review Board

## Monitoring Report

### Italy - 2024



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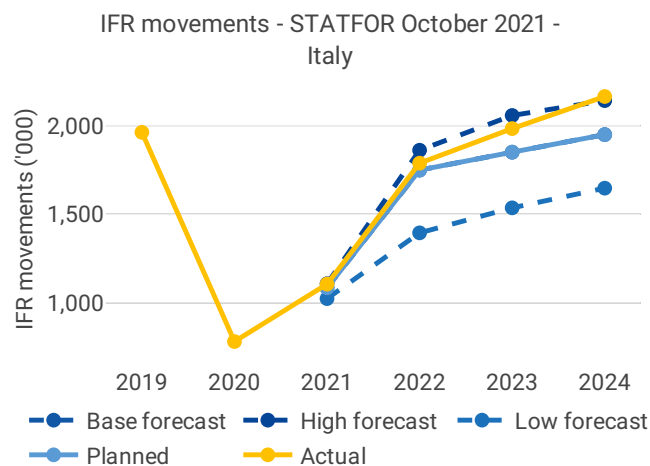
# 1 OVERVIEW

## 1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/773 of 13 April 2022

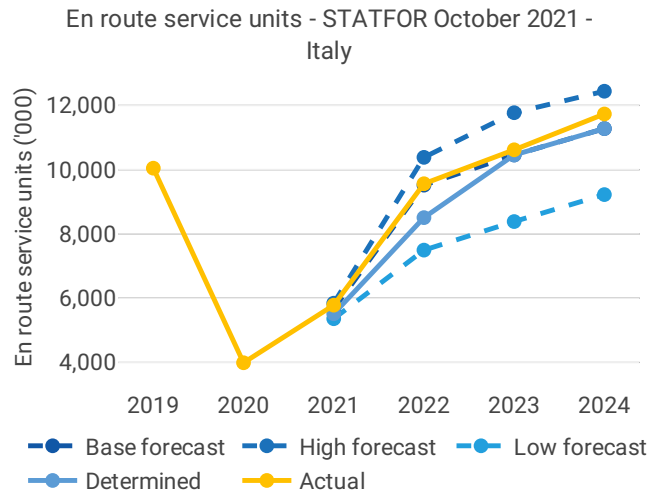
<p><b>List of ACCs</b> 4</p> <ul style="list-style-type: none"> <li>Brindisi ACC</li> <li>Milano ACC</li> <li>Padova ACC</li> <li>Rome ACC</li> </ul> <p><b>No of airports in the scope of the performance plan:</b></p> <ul style="list-style-type: none"> <li>• ≥80'K 5</li> <li>• &lt;80'K 0</li> </ul>	<p><b>Exchange rate (1 EUR=)</b></p> <p>2017: 1 EUR 2024: 1 EUR</p> <p><b>Share of Union-wide:</b></p> <ul style="list-style-type: none"> <li>• traffic (TSUs) 2024 8.9%</li> <li>• en route costs 2024 9.7%</li> </ul> <p><b>Share en route / terminal costs 2024</b> 87% / 13%</p> <p><b>En route charging zone(s)</b> Italy</p> <p><b>Terminal charging zone(s)</b> Italy Zone 1 Italy Zone 2</p>	<p><b>Main ANSP</b></p> <ul style="list-style-type: none"> <li>• ENAV</li> </ul> <p><b>Other ANSPs</b></p> <ul style="list-style-type: none"> <li>• ITAF</li> </ul> <p><b>MET Providers</b> -</p>
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## 1.2 Traffic (En route traffic zone)



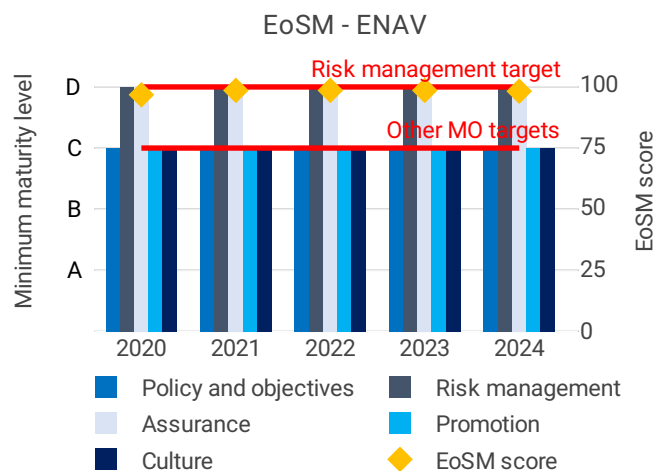
- Italy recorded 2,164K actual IFR movements in 2024, +9.1% compared to 2023 (1,983K).
- Actual 2024 IFR movements were +11.0% above the plan (1,949K).
- Actual 2024 IFR movements are +10.3% above the actual 2019 level (1,962K).





- Italy recorded 11,733K actual service units in 2024, +10.5% compared to 2023 (10,618K).
- Actual 2024 service units were +4.0% above the plan (11,278K).
- Actual 2024 service units are +16.8% above the actual 2019 level (10,046K).

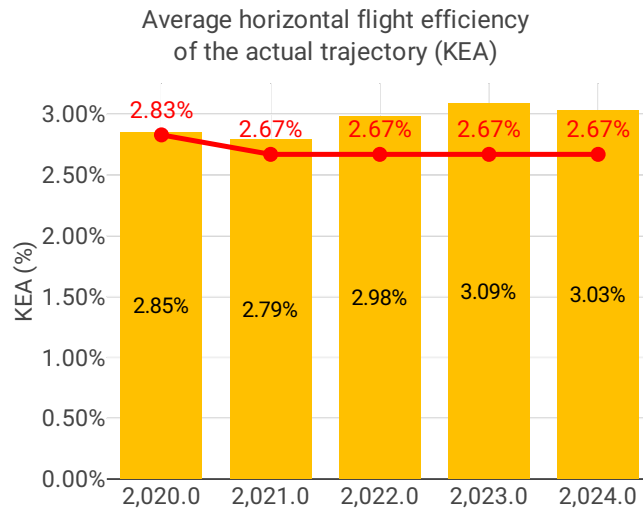
### 1.3 Safety (Main ANSP)



- ENAV achieved the RP3 targets in 2020 ahead of plan and maintained its safety performance throughout RP3. The achieved maturity levels exceeded the planned maturity levels with two management Objectives at maturity level D (Safety Risk Management and Safety Assurance).
- Italy recorded an increase in the rate of runway incursions (RIs) and separation minima infringements (SMIs) relative to 2023. The NSA has established a process to monitor reported RIs and SMIs on a daily basis. Regular meetings are held by the ANSP to analyse these events, with a particular focus on identifying trends and underlying factors.

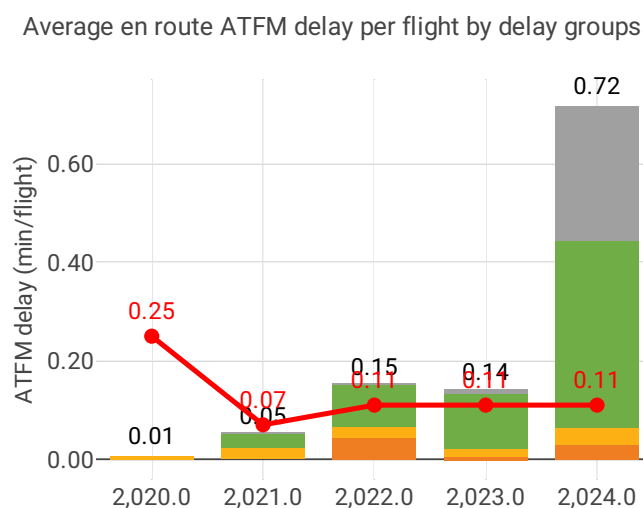


## 1.4 Environment (Member State)



- Italy achieved a KEA performance of 3.03% compared to its target of 2.67% and did not contribute positively towards achieving the Union-wide target.
- KEP improved and SCR improved marginally in comparison with 2023, showing airspace users are planning shorter routes than in 2023 but the underlying efficiency of the airspace has not improved. Despite the target being missed, KEA improved in 2024. Additionally, the improvement in SCR shows that Italy 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.
- Additional taxi out time increased from 3.28 to 3.77 min/flight, while additional time in terminal airspace increased from 1.53 to 1.70 min/flight in 2024 compared to 2023.

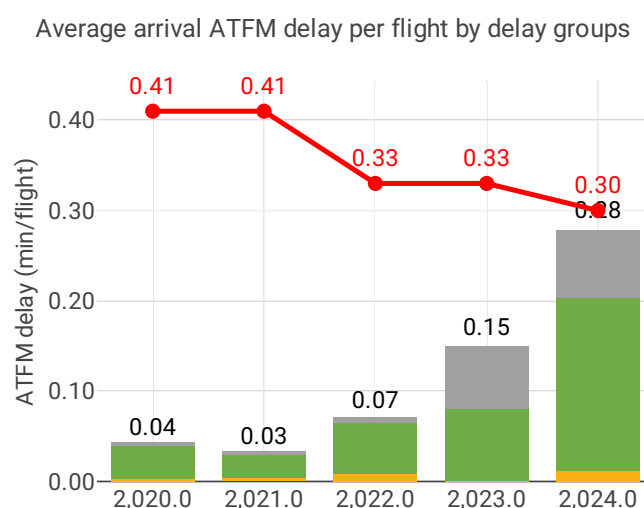
## 1.5 Capacity (Member State)



- Italy registered 0.74 minutes of average en route ATFM delay per flight during 2024, which has been adjusted to 0.72 during the post-ops adjustment process, thus not achieving the local target value of 0.11. Delays in Italy increased by 0.58 minutes per flight year-on-year.



- Delays in Italy were highest between June and August, mostly due to adverse weather conditions and ATC Capacity issues.
- The share of delayed flights with delays longer than 15 minutes in Italy increased by 7 percentage points compared to 2023 and was lower than 2019 values.
- The average number of IFR movements was 11% above 2019 levels in Italy in 2024.
- The number of ATCOs in OPS is 89, being below the 2024 plan in Brindisi by 7 FTEs. The number of ATCOs in OPS is 290, being over the 2024 plan in Milano by 12 FTEs. The number of ATCOs in OPS is 205, being below the 2024 plan in Padova by 6 FTEs. The number of ATCOs in OPS is 337, being over the 2024 plan in Rome by 17 FTEs.
- The yearly total of sector opening hours in Rome ACC was 117,286, showing a 0.7% decrease compared to 2023. Sector opening hours are 113.3% above 2019 levels. The yearly total of sector opening hours in Milano ACC was 69,074, showing a 8.3% increase compared to 2023. Sector opening hours are 20.6% below 2019 levels. The yearly total of sector opening hours in Brindisi ACC was 23,654, showing a 10.0% decrease compared to 2023. Sector opening hours are 16.7% above 2019 levels. The yearly total of sector opening hours in Padova ACC was 64,644, showing a 11.3% increase compared to 2023. Sector opening hours are 15.9% above 2019 levels.
- Milano ACC registered 14.75 IFR movements per one sector opening hour in 2024, being 40.6% above 2019 levels. Padova ACC registered 13.03 IFR movements per one sector opening hour in 2024, being 4.7% below 2019 levels. Brindisi ACC registered 16.97 IFR movements per one sector opening hour in 2024, being 5.5% below 2019 levels. Rome ACC registered 9.02 IFR movements per one sector opening hour in 2024, being 45.0% below 2019 levels.
- 2024 results were above the target value. Italy should work closely with the Network Manager to mitigate the impact of adverse weather on capacity performance. Actual 2025 figures up to August indicate a significant performance improvement compared to 2024.

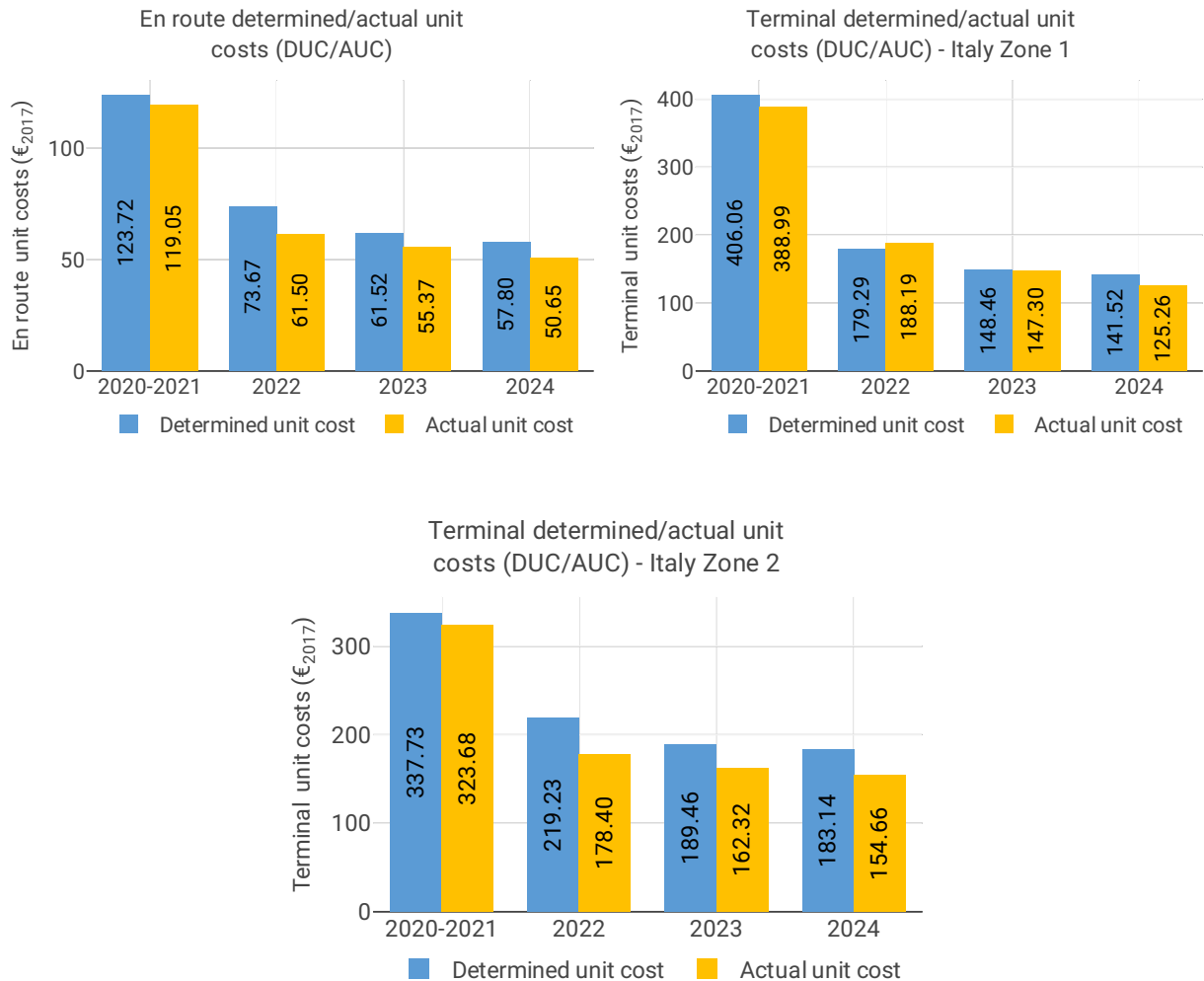


- Italy registered an average airport arrival ATFM delay of 0.28 minutes per flight in 2024, thus achieving the local target of 0.30 minutes.
- Compared to 2023, average arrival ATFM delays in Italy were 87% higher in 2024, while the number of IFR arrivals increased by 10%.



- The main drivers of delays were weather, accounting for 68% of delays, and other, non-ATC related causes, responsible for 27%.

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



- The en route 2024 actual unit cost of Italy was 50.65€<sub>2017</sub>, -12% lower than the determined unit cost (57.80€<sub>2017</sub>). The terminal zone 1 2024 actual unit cost was 125.26€<sub>2017</sub>, -11% lower than the determined unit cost (141.52€<sub>2017</sub>), while the terminal zone 2 2024 actual unit cost was 154.66€<sub>2017</sub>, -16% lower than the determined unit cost (183.14€<sub>2017</sub>).
- The en route 2024 actual service units (11.7M) were +4.0% higher than the determined service units (11.3M).
- The en route 2024 actual total costs were -58M€<sub>2017</sub> (-8.8%) lower than determined. This is mainly driven by lower staff costs than planner for ENAV (-31M€<sub>2017</sub>, or -9.2%), as well as other operating costs (-19M€<sub>2017</sub>, or -20%). However, staff costs in nominal terms were higher than planned (+1.6%), due to higher traffic than expected and salary increases. With respect to other operating costs, the NSA explained that the reduction compared to the plan is mainly due to cost containment measures introduced during the pandemic years.



- ENAV costs of investments were 140M€2017 in 2024 for both en route and terminal charging zones, -1.3% less than determined (142M€2017).
- The en route actual unit cost incurred by users in 2024 was 65.42€ (+7.1% above the 2024 DUC), while the terminal actual unit cost incurred by users for zone 1 was 157.77€ (+5.9% above the 2024 DUC), and 205.35€ (+6.0% above the 2024 DUC) for zone 2. The differences were mainly driven by positive inflation adjustments.
- The en route regulatory result for ENAV amounted to +116M€, or 18% of the 2024 revenue.
- Italy should ensure that any excessive regulatory result, including excess funds received by the ANSP due to the inflation mechanism, is either reinvested to improve the quality of services delivered to airspace users or reimbursed to them.

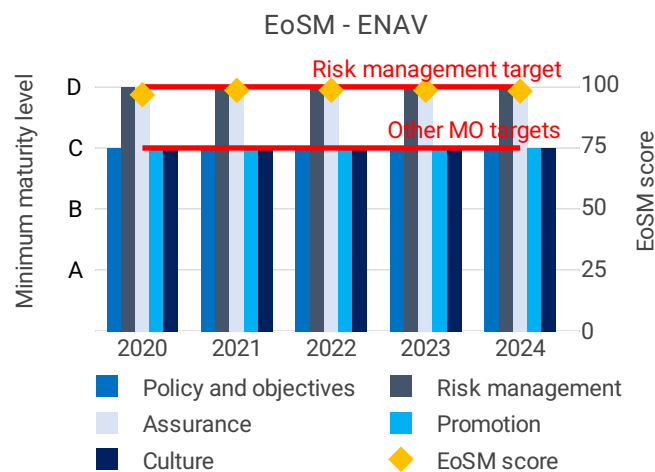


## 2 SAFETY - ITALY

### 2.1 PRB monitoring

- ENAV achieved the RP3 targets in 2020 ahead of plan and maintained its safety performance throughout RP3. The achieved maturity levels exceeded the planned maturity levels with two management Objectives at maturity level D (Safety Risk Management and Safety Assurance).
- Italy recorded an increase in the rate of runway incursions (RIs) and separation minima infringements (SMIs) relative to 2023. The NSA has established a process to monitor reported RIs and SMIs on a daily basis. Regular meetings are held by the ANSP to analyse these events, with a particular focus on identifying trends and underlying factors.

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



#### Focus on EoSM

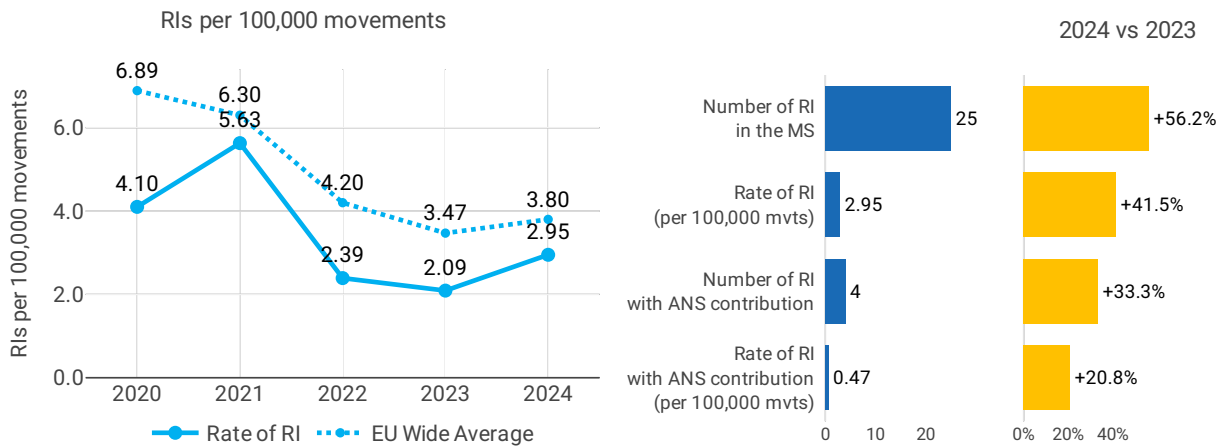
All five EoSM components of the ANSP meet, or exceed, the RP3 target level. The level was maintained compared with 2023.

ENAV originally planned for a gradual improvement over RP3, reaching the target in 2023 with level D in Safety Risk Management. However, ENAV performed better than planned and achieved the RP3 targets already in 2020 and maintained these maturity levels throughout RP3.



## 2.3 Safety occurrences

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



Rate of RIs per 100,000 airport movements - Italy				
#	Airport name	APT movements	Number of RI	Rate RI per 100,000
1	Rome - Fiumicino	314,976	2	0.63
2	Milan - Malpensa	214,262	0	0.00
3	Milan - Linate	118,248	0	0.00
4	Bergamo	109,991	2	1.82
5	Venice	89,161	0	0.00

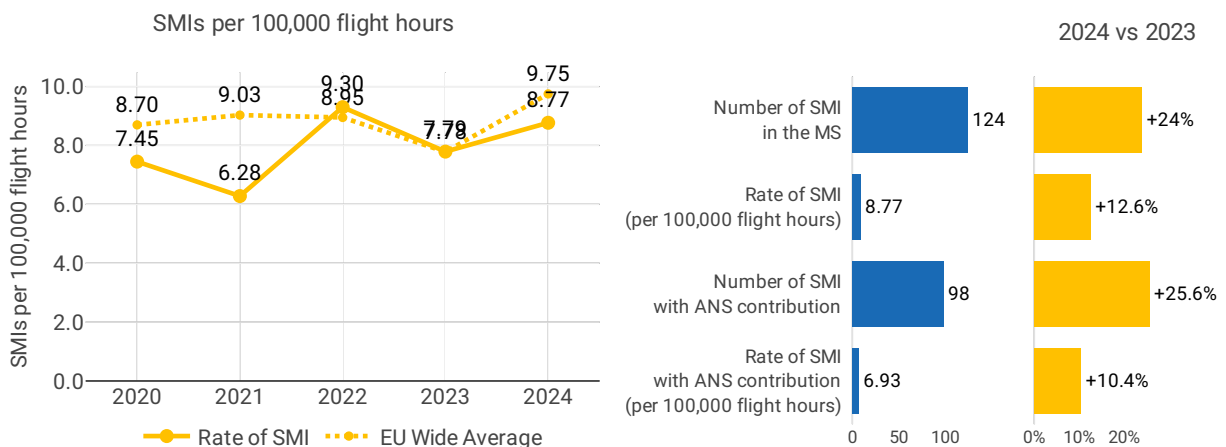
### Focus on runway incursions

Italy recorded a peak in 2021, but since then the rate of RIs decreased. Between 2023 and 2024, the rate of RIs increased marginally, still remaining below the Union-wide average.

The rate of RIs with ANS contribution has remained stable at a low level throughout RP3.

The NSA has established a process to monitor reported RIs on a daily basis.

### 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	ENAV	494,359	747,998	1,141,849	1,242,479	1,413,584	26	33	81	78	98

		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	ENAV	5	6	7	6	7		+19%	+13%	-12%	+10%

### Focus on separation minima

Over RP3, Italy has recorded a marginally increasing trend in the rate of SMIs. After a decrease from 2022 to 2023, the rate increased again in 2024, being similar to the Union-wide average since 2022.

The rate of SMIs with ANS contribution is consistent with the Member State level, showing a marginally increasing trend.

#### 2.3.3 Quality of occurrences reporting

The number of occurrences reported at Member State level seems consistent with the occurrences reported at the ANSP level, both for SMIs and RIs.

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

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



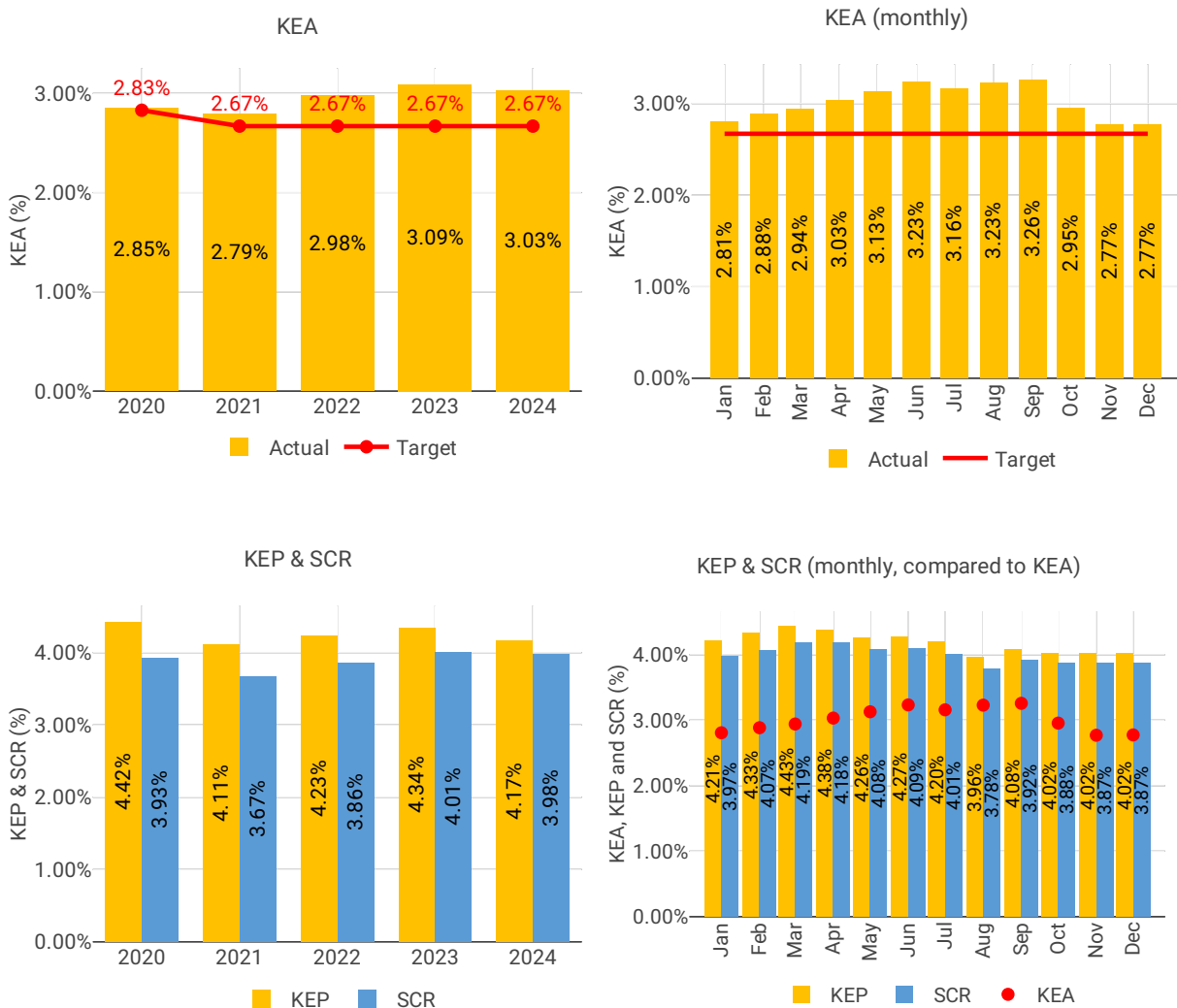
### 3 ENVIRONMENT - ITALY

#### 3.1 PRB monitoring

- Italy achieved a KEA performance of 3.03% compared to its target of 2.67% and did not contribute positively towards achieving the Union-wide target.
- KEP improved and SCR improved marginally in comparison with 2023, showing airspace users are planning shorter routes than in 2023 but the underlying efficiency of the airspace has not improved. Despite the target being missed, KEA improved in 2024. Additionally, the improvement in SCR shows that Italy 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.
- Additional taxi out time increased from 3.28 to 3.77 min/flight, while additional time in terminal airspace increased from 1.53 to 1.70 min/flight in 2024 compared to 2023.

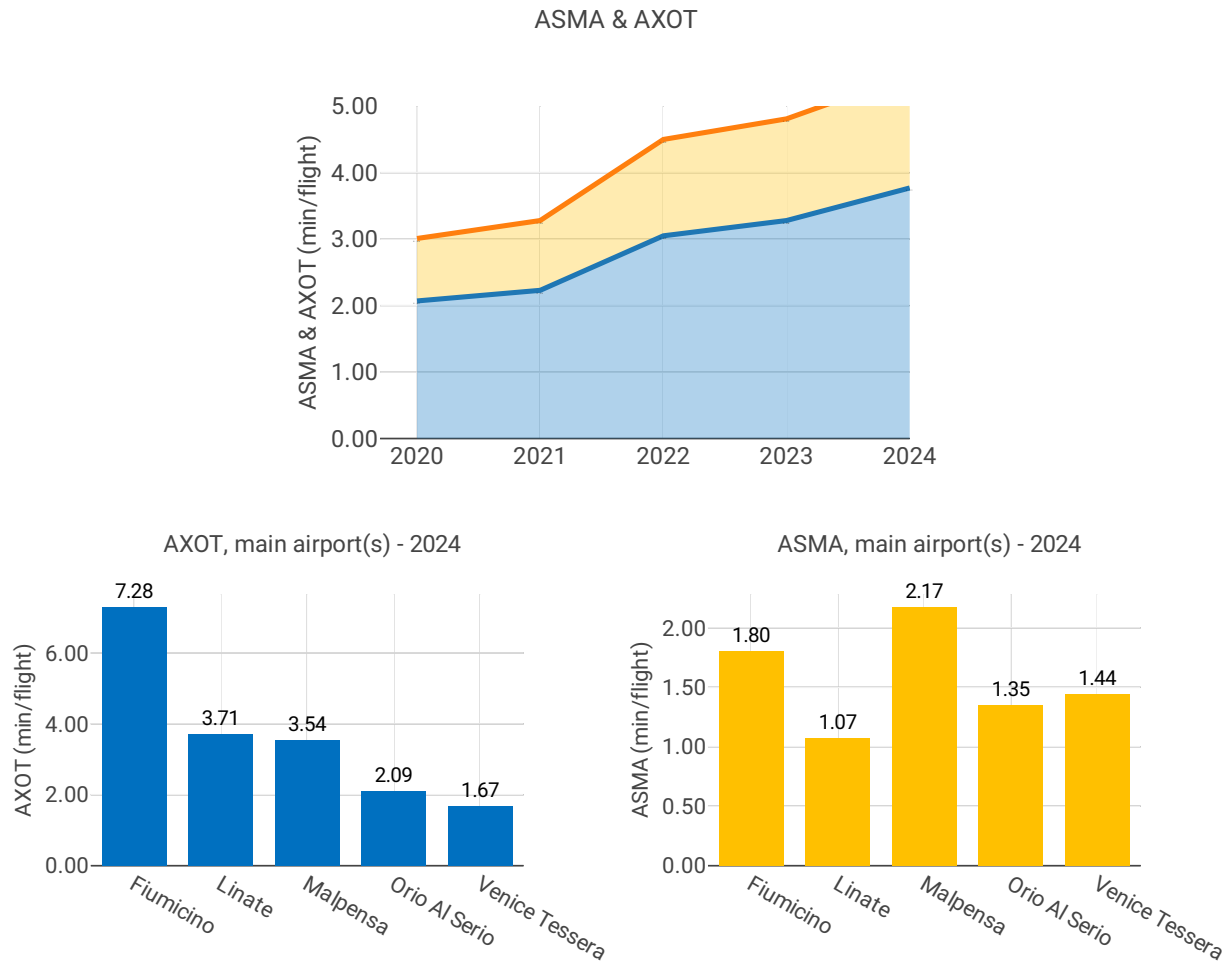
#### 3.2 En route performance

##### 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

Additional taxi-out times at Rome Fiumicino (LIRF; 2019: 7.87 min/dep.; 2020: 3.1 min/dep.; 2021: 3 min/dep.; 2022: 5 min/dep.; 2023: 5,93 min/dep.; 2024: 7.28 min/dep.) increased again in 2024 resulting once more in the highest additional taxi-out times in the SES monitored airports.

Milan Linate (LIML; 2019: 2.43 min/dep.; 2020: 1.93 min/dep.; 2021: 2.18 min/dep.; 2022: 2.89 min/dep.; 2023: 3.37 min/dep.; 2024: 3.71 min/dep.) also observed poor performance, with the 4th highest additional taxi-out time in the SES monitored airports. Similarly, Milan Malpensa (LIMC) observed the 7th highest value.

The Italian monitoring report provides extensive additional information: *As in previous years of this RP3 and also for the entire RP2, and similarly to the PI#4 which is related to the performances considered for the Terminal Area/ASMA, ENAV SpA and the other ANSPs in ECAC do not have full access to the complete set of data used by PRU to process the output, and therefore they are not able to replicate the data processing and consequently to verify the correct assessment of the proposed information.*



*As already reported last years within the comments of the 2022 - 2023 - 2024 Reports, the ad-hoc WG PRU/Eurocontrol/ANSPs created for the scope of reviewing the TAXI-OUT Methodology completed the assigned task and released the new Methodology at the end of the 2022.*

*Then, from March 2023, both outputs (new output and previous one) are available within the ANS Performance website, although accessible only with the consolidated data at monthly level.*

*Therefore the outputs are usable by ANSPs for the purpose of monitoring and comparing any gaps or inconsistencies between the national outputs, counted annually at local level, with respect to the assigned Performance Targets.*

The data presented in the Table above are related to the results concerning the PI Additional TAXI-OUT Time and were calculated by PRU for each of the years of the RP3 and for the 5 national airports identified (among those that counted more than 80k annual movements during the three-year period 2016-2018). The output presented refers to the data processing performed using the algorithm and methodology prior to the new one released in 2023.

As already done for the last year 2023 for the purposes of the comments to be produced for this Report, in order to refute the data, the output proposed using the algorithm and new methodology was used instead because this is able to produce a more stable REFERENCE and therefore an ADDITIONAL Time for the PI#3-TAXI-OUT (but also for the PI#4-ASMA) that better responds to the needs that the complexity of the traffic and the operational scenario has determined for the monitored airports.

Using the consolidated output on a monthly basis (we have already stated that the detailed data for each flight are not accessible unless directly and individually requested) released and available on the "Aviation Intelligence Portal" website, the following analysis was performed.

Based on both the consolidated results released for the RP3 years (from 2019 to 2024) and the traffic growth expectations as reported by STAFOR for the RP4 years for the selected airports, ENAV structures have produced an algorithm that aims to determine whether the result produced and published was in line with the trend of the consolidated results. Furthermore, for the future years of RP4, the data produced has been integrated with a forecast of expected results (within a range of values of +/- 2.5% plus a increase in uncertainty factor, compared to the annual value), state the current operational scenario.

Finally, in order to detect any gaps and mitigate the possible causes of inefficiencies where highlighted (mitigation actions required and appropriate to improve both operational performance and for the benefit of the flight efficiency), proprietary algorithms created ad-hoc have already been used in 2024 and are available to the operational structures of ENAV SpA. It is believed that already for 2024 (as proposed by the analysis of the data below), and especially for the years to come the outputs allow us to see how the initiatives implemented by the ANSP have been effective for this purpose.

Then, the results counted in 2024 encourage the Italian NSA to continue to incentivize ENAV SpA with the flight efficiency policy implemented with the aim of also reducing/optimising performance of TAXI-OUT and consequently reduce consumption and CO2 emissions.

As can be seen from the data reported below, although all airports have recorded an increase in the values of Additional Taxi-OUT Time compared to 2022, which was the reference year



for the recovery of traffic at the airports compared to the pre-COVID19 period, what is highlighted is a trend value lower than the expected range determined, as reported above, by the increase in complexity of the operational scenario following the strong increase in traffic.

Among the consolidated data for 2024, the exception is Milano Linate airport (in the sense that the value is higher than the Output Forecasted Range) for the well-known reasons due to a Safety requirement already in place since 2022. All the values recorded for the other 4 airports are within the forecast range or outside the lower range.

As can be seen from the data reported below, although all airports have recorded an increase in the values of Additional Taxi-OUT Time compared to 2022, which was the reference year for the recovery of traffic at the airports compared to the pre-COVID19 period, what is highlighted is a trend value lower than the expected range determined, as reported above, by the increase in complexity of the operational scenario following the strong increase in traffic.

### ASMA

Additional ASMA times at all Italian airports increased in 2024. Milan Malpensa (LIMC: 2019: 2.59 min/arr.; 2020: 0.85 min/arr.; 2021: 1.25 min/arr.; 2022: 1.64 min/arr.; 2023: 1.95 min/arr.; 2024: 2.17 min/arr.) increased by 11% in 2024 resulting once more the 4th highest in the SES monitored airports (SES average additional ASMA time= 1.28 min/arr.)

According to the Italian monitoring report: *As in previous years of this RP3 and also for the entire RP2, and similarly to the PI#3 which is related to the performances considered for the Taxi-OUT Time, ENAV SpA and the other ANSPs in ECAC do not have full access to the complete set of data used by PRU to process the output, and therefore they are not able to replicate the data processing and consequently to verify the correct assessment of the proposed information.*

*As already reported last years within the comments of the 2022 - 2023 - 2024 Reports, the ad-hoc WG PRU/Eurocontrol/ANSPs created for the scope of reviewing the ASMA Methodology completed the assigned task and released the new Methodology at the end of the 2022.*

*Then, from March 2023, both outputs (new output and previous one) are available within the ANS Performance website, although accessible only with the consolidated data at monthly level. Therefore the outputs are usable by ANSPs for the purpose of monitoring and comparing any gaps or inconsistencies between the national outputs, counted annually at local level, with respect to the assigned Performance Targets.*

The data presented in the Table above are related to the results concerning the PI Additional ASMA Time and were calculated by PRU for each of the years of the RP3 and for the 5 national airports identified (among those that counted more than 80k annual movements during the three-year period 2016-2018). The output presented refers to the data processing performed using the algorithm and methodology prior to the new one released in 2023.

As already done for the last year 2023 for the purposes of the comments to be produced for this Report, in order to refute the data, the output proposed using the algorithm and new methodology was used instead because this is able to produce a more stable REFERENCE and therefore an ADDITIONAL Time for the PI#4-ASMA (but also for the PI#3-TAXI-OUT) that better responds to the needs that the complexity of the traffic and the operational scenario has determined for the monitored airports.

Using the consolidated output on a monthly basis (we have already stated that the detailed data for each flight are not accessible unless directly and individually requested) released



and available on the “Aviation Intelligence Portal” website, the following analysis was performed.

Based on both the consolidated results released for the RP3 years (from 2019 to 2024) and the traffic growth expectations as reported by STAFOR for the RP4 years for the selected airports, ENAV structures have produced an algorithm that aims to determine whether the result produced and published was in line with the trend of the consolidated results. Furthermore, for the future years of RP4, the data produced has been integrated with a forecast of expected results (within a range of values of +/- 2.5% plus a increase in uncertainty factor, compared to the annual value), state the current operational scenario.

Finally, in order to detect any gaps and mitigate the possible causes of inefficiencies where highlighted (mitigation actions required and appropriate to improve both operational performance and for the benefit of the flight efficiency), proprietary algorithms created ad-hoc have already been used in 2024 and are available to the operational structures of ENAV SpA. It is believed that already for 2024 (as proposed by the analysis of the data below), and especially for the years to come the outputs allow us to see how the initiatives implemented by the ANSP have been effective for this purpose.

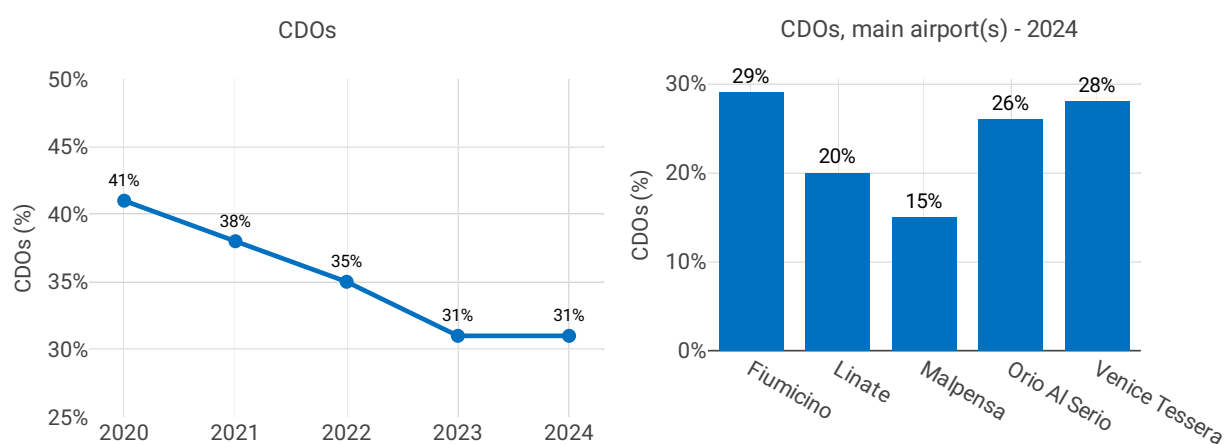
Then, the results counted in 2024 encourage the Italian NSA to continue to incentivize ENAV SpA with the flight efficiency policy implemented with the aim of also reducing/optimising performance in ASMA and consequently reduce consumption and CO2 emissions.

As can be seen from the data reported below, although all airports have recorded an increase in the values of Additional ASMA Time compared to 2022, which was the reference year for the recovery of traffic at the airports compared to the pre-COVID19 period, all airports have reported Additional ASMA Time values lower than the consolidated values in 2019.

Furthermore, what is highlighted is that 3 out of the 5 airports under monitoring have reported a consolidated value for 2024 lower than the expected range, determined (as reported above) by the increase in complexity of the operational scenario following the strong increase in traffic.

Among the 5, the exception is Milan Malpensa airport which reported a value within the calculated Range, while Venice airport recorded an Additional ASMA Time value higher than the calculated range and this is due to the longer time in flight of the aircraft within the Terminal Area due to the many days of bad weather also reported by the ATFCM Regulations.

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



## Focus CDOs

The share of CDO flights decreased at Milan Malpensa, Rome Fiumicino and Venice while it stayed the same at Bergamo and increased at Milan Linate. All airports had shares of CDO flights below the overall RP3 value in 2024 (29.3%).

According to the Italian monitoring report: *The current methodology used by PRU to measure the performances of ANSPs in the management of Continuous Descent Operations (PI CDO) has been questioned several times and by several representatives (STATES/ANSPs) both in the method (Binary Proxy) and in the metrics used by PRU for the performance analysis of the proposed output.*

*ENAV SpA, with also most of the other ECAC ANSPs, strongly contested (see the notes to last years' Report 2021-2022-2023) the methodology with which the "interruptions" of the CDO trajectory are identified as negative input, disagreeing with the value presented in the Performance Reports starting from 2020. A methodology that does not take into consideration the real ATC constraints in managing the flight itself, nor, obviously, the needs and priorities of the Safety of Operations.*

*Finally, after many disputes, at the middle of 2024 the PRB took on board the multiple requests received and requested to PRU to transform the calculation of the output from the BINARY mode (i.e. that each levelling as detected in accordance with the methodology was considered as a "flight not CDO compliant") to counting the "total flight time counted as an interruption of the CDO. From this, the recalculation for the previous years and the availability of information, always in aggregate format on a monthly basis (any details for individual flights are available upon direct agreement with PRU), in order to begin to determine the average levelled times per aircraft (interruption of the Continue Descent Trajectory from the ToD to the Touch-Down). Then, even if the data reported in the table refer to the previous BINARY methodology (also to be in continuity with the previous years published for the RP3), the refutation and post analysis for the PI CDO was performed using the data published in terms of "Levelled Time per Flight", as follows.*

*In order to define the values of "Levelled Time per flight", the times recorded below FL 75 were excluded from the total time considered as interruption of the descent path. Even PRU, which takes care of the calculation and publication of the information, has accepted the invitation of many representatives of the ANSPs and NSAs and has reported in a specific field the times of interruption of the descent path below FL 75, that is, when the ATCO management margin is reduced so much that the aircraft are already in a defined arrival sequence and the continuous descents are "regulated" by the availability of free flight levels. Therefore, the times (in mins) reported in the table here at the bottom can be traced back to the net value of the interruption of the descent path time counted up to FL75.*

As for the analysis, reference values were calculated for this PI CDO, both for the years of RP3 and for the future years of RP4, and the data produced were integrated with a forecast of the expected results (within a range of values of +/- 2.5% plus an increase in the uncertainty factor, compared to the annual value) taking into account the operational scenario.

In summary, the analysis can be outlined in 2 fundamental points:

1. The values in terms of "average minutes per flight of interruption of the CDO trajectory" show for all the airports considered an increasing value, with reference to 2022,



for the years 2023 and 2024. This therefore confirms the assumption that as the quantity of flights increases, and therefore the complexity of the operational scenario, an increase in the interruption times of the descent trajectory will be detected. And again, considering the 2019 reference compared to the year 2024, the year in which the number of aircraft arriving for the 5 airports under monitoring reached and exceeded the traffic values of the pre-COVID19 year, we note an alignment of the CDO trajectory interruption times between the 2 years with homogeneous traffic numbers.

2. As done for PI#3 and PI#4 (TAXI-OUT and ASMA), also for the CDO PI the ENAV SpA structures have determined an expected value in terms of minutes (with also a probability margin range) with which to compare the consolidated data with the expected results (same calculation method and same algorithm used for the other 2 PIs).

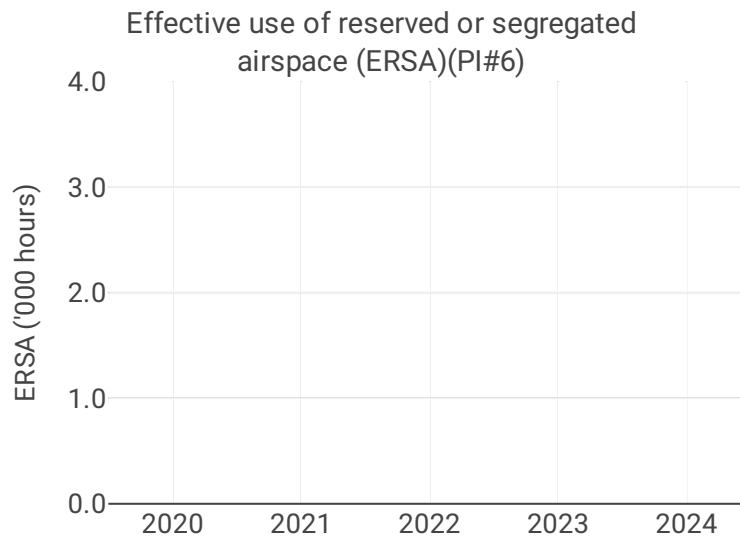
From this analysis and comparison, it was detailed that for 4 out of the 5 airports considered the consolidated output is lower than the calculated expected value; only Milan Linate airport recorded a value higher than the forecast, which is also in line with what this airport recorded for PI#4 – ASMA, the additional time spent inside the Terminal Area. This analysis result highlights ENAV’s continuous efforts to improve traffic flow management in line with Flight Efficiency expectations.

Then, the results counted in 2024 encourage the Italian NSA to continue supporting ENAV SpA with the flight efficiency policy implemented with the aim of also reducing/optimising performance of CDO and consequently reduce consumption and CO2 emissions. As can be seen from the data reported below, although all airports have recorded an increase in the values of Additional CDO Time compared to 2022, which was the reference year for the recovery of traffic at the airports compared to the pre-COVID19 period, all airports have reported Additional CDO Time values lower than the consolidated values in 2019.

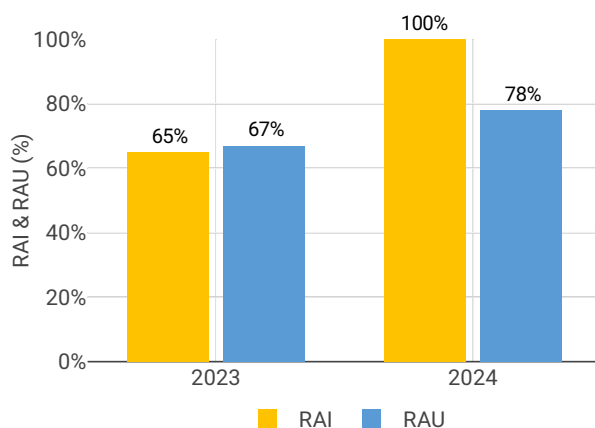
Airport level															
Airport	Additional taxi-out time (PI#3)					Additional ASMA time (PI#4)					Share of arrivals applying CDO (PI#5)				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Orio Al Serio	1.02	1.11	1.77	1.82	2.09	0.45	0.70	0.81	1.20	1.35	39%	40%	33%	26%	26%
Linate	1.93	2.18	2.89	3.37	3.71	0.78	0.84	1.16	0.85	1.07	28%	28%	24%	18%	20%
Malpensa	2.66	2.86	3.41	3.56	3.54	0.85	1.25	1.64	1.95	2.17	24%	23%	20%	16%	15%
Fiumicino	3.10	3.00	5.00	5.93	7.28	1.25	0.96	1.40	1.44	1.80	43%	40%	36%	30%	29%
Venice Tessera	1.38	1.10	1.83	1.69	1.67	1.06	0.53	1.15	1.26	1.44	34%	34%	29%	29%	28%



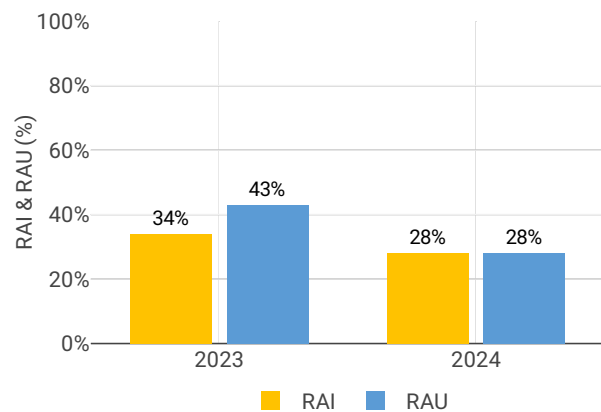
### 3.4 Civil-Military dimension



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



RAI & RAU via available restricted and segregated airspace (PIs#7 & 8)



## Focus on Civil-Military dimension

### Update on Military dimension of the plan

The military dimension impacts the environment mainly through airspace use and system integration. Efforts focus on optimizing airspace efficiency while minimizing environmental impact. Through effective application of the Flexible Use of Airspace (FUA) and free-route procedures, additional capacity is provided to civil aviation, supporting reduced fuel burn and CO<sub>2</sub> emissions. System interoperability in ASM, ATS, and AIS is a priority, with continuous monitoring of civil-military interface developments within dedicated coordination bodies. Military-provided ANS, where applicable, operate within robust collaborative decision-making frameworks, with no major ATFM-related constraints identified

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

The situation is being improved through the systematic application of FUA at both pre-tactical and tactical levels—particularly in military Areas and free-route airspace—combined with the co-location of civil and military ATCOs within the same operational environment (ACC), enabling the use of shared systems and data. Furthermore, joint



civil-military collaborative decision-making processes are embedded in airspace design and AIS activities, while the implementation and continuous optimization of interoperable systems further enhance operational integration and efficiency.

Ongoing improvements focus on:

- enhancing capacity through the dynamic application of collaborative decision-making (CDM) in airspace design and AIS;
- the continuous promotion and optimization of airspace reservation procedures,
- the progressive evolution of interoperability and information management systems.

These measures aim to support seamless operations and efficient airspace utilization under varying civil and military traffic demands.

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

The military dimension impacts the environment mainly through airspace use and system integration. Efforts focus on optimizing airspace efficiency while minimizing environmental impact; through effective application of the Flexible Use of Airspace (FUA) and free-route procedures. System interoperability in ASM, ATS, and AIS is a priority, with continuous monitoring of civil-military interface developments within dedicated coordination bodies, in order to optimize the use of the airspace.

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

n/a

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

n/a



## 4 CAPACITY - ITALY

### 4.1 PRB monitoring

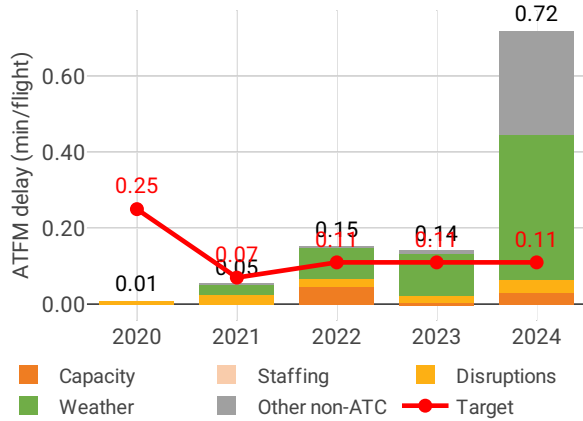
- Italy registered 0.74 minutes of average en route ATFM delay per flight during 2024, which has been adjusted to 0.72 during the post-ops adjustment process, thus not achieving the local target value of 0.11. Delays in Italy increased by 0.58 minutes per flight year-on-year.
- Delays in Italy were highest between June and August, mostly due to adverse weather conditions and ATC Capacity issues.
- The share of delayed flights with delays longer than 15 minutes in Italy increased by 7 percentage points compared to 2023 and was lower than 2019 values.
- The average number of IFR movements was 11% above 2019 levels in Italy in 2024.
- The number of ATCOs in OPS is 89, being below the 2024 plan in Brindisi by 7 FTEs. The number of ATCOs in OPS is 290, being over the 2024 plan in Milano by 12 FTEs. The number of ATCOs in OPS is 205, being below the 2024 plan in Padova by 6 FTEs. The number of ATCOs in OPS is 337, being over the 2024 plan in Rome by 17 FTEs.
- The yearly total of sector opening hours in Rome ACC was 117,286, showing a 0.7% decrease compared to 2023. Sector opening hours are 113.3% above 2019 levels. The yearly total of sector opening hours in Milano ACC was 69,074, showing a 8.3% increase compared to 2023. Sector opening hours are 20.6% below 2019 levels. The yearly total of sector opening hours in Brindisi ACC was 23,654, showing a 10.0% decrease compared to 2023. Sector opening hours are 16.7% above 2019 levels. The yearly total of sector opening hours in Padova ACC was 64,644, showing a 11.3% increase compared to 2023. Sector opening hours are 15.9% above 2019 levels.
- Milano ACC registered 14.75 IFR movements per one sector opening hour in 2024, being 40.6% above 2019 levels. Padova ACC registered 13.03 IFR movements per one sector opening hour in 2024, being 4.7% below 2019 levels. Brindisi ACC registered 16.97 IFR movements per one sector opening hour in 2024, being 5.5% below 2019 levels. Rome ACC registered 9.02 IFR movements per one sector opening hour in 2024, being 45.0% below 2019 levels.
- 2024 results were above the target value. Italy should work closely with the Network Manager to mitigate the impact of adverse weather on capacity performance. Actual 2025 figures up to August indicate a significant performance improvement compared to 2024.
- Italy registered an average airport arrival ATFM delay of 0.28 minutes per flight in 2024, thus achieving the local target of 0.30 minutes.
- Compared to 2023, average arrival ATFM delays in Italy were 87% higher in 2024, while the number of IFR arrivals increased by 10%.
- The main drivers of delays were weather, accounting for 68% of delays, and other, non-ATC related causes, responsible for 27%.



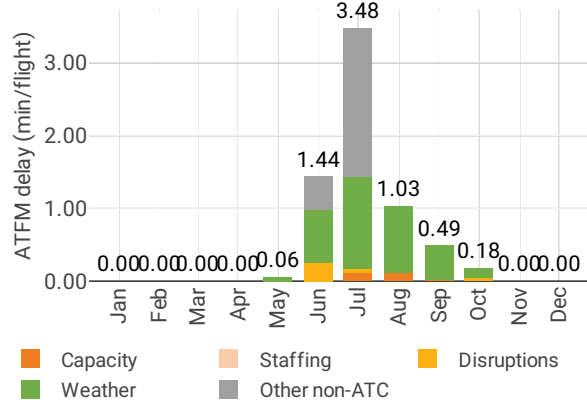
## 4.2 En route performance

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

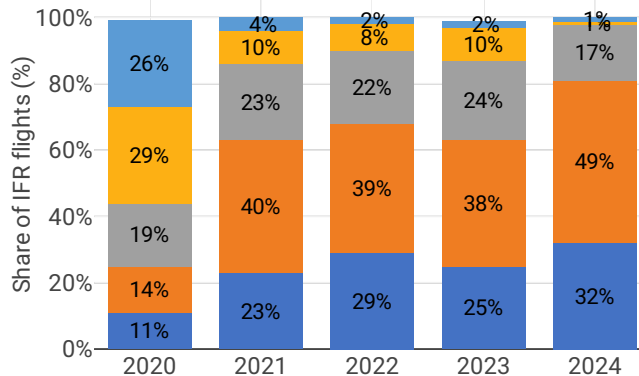
Average en route ATFM delay per flight by delay groups



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



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



## Focus on en route ATFM delay

### Summary of capacity performance

Italy experienced an increase in traffic from 1 983k flights with 264k minutes of en route ATFM delay in 2023 (following NM post operations delay attribution process) to 2 164k flights in 2024 with 1 454k minutes of en route ATFM delay.

There were an additional 41k minutes of ATFM delay originating in Italy that were re-attributed to the DFS via the NM post operations delay attribution process, according to the NMB agreement for eNM/S24 measures, to ameliorate the capacity shortfall in Karlsruhe UAC.

Following a request from the Italian NSA, 450k minutes of en route ATFM delay, originally attributed by the ANSP as ATC Capacity and reported by the Network Manager as 'Staffing Issues', were re-attributed as 'Other' in the post-operations process.



### **NSA's assessment of capacity performance**

The global ER target (0,11) wasn't reached by ANSP due to weather; indeed, the delay was almost 0,13min just for weather reason.

ANSP reached the capacity goal for the incentive ER and terminal schemes.

### **Monitoring process for capacity performance**

Monthly monitoring and analysis of the operational performance at Country and single ACC level is carried out by ENAV. Checks are made against the value of ATFM generated delay per month and its expected trend across the year.

The post-operations performance adjustment process was conducted by ENAV during the year. At the beginning of summer 2024 lots of delay reallocation processes were initiated by ENAC in respect of NM to acknowledge the erroneous attribution of some enroute ATFM delays to Italy. In addition, some delay adjustment ones were put in place between NM and ENAV.

The outcomes of the reconciliation process confirmed the figure of Capacity KPI #1 as presented by PRB in the current table (0.72 m/f). The reconciliation processes also affected the additional Capacity ENR PI#1 which solely includes the ATM reasons of the ATFM delay. While the final delay value from the reconciliation has to be officially confirmed (PRB/PRU), the final result of capacity, for the sole ATM reasons, is of 0,066 min/flight (rounded is 0,07 min/flight).

### **Capacity planning**

Nothing reported.

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

According to the national monitoring report: In 2024 there were six reasons of Enroute ATFM delay: Weather (52.8%), Other (37.9%), ATC Equipment (4.8%), ATC Capacity (4.3%), Special Event (0.1%) and Industrial Action (0.1%) . As such, the "ATM" reasons (ATC Equipment and Capacity) accounted only for a tiny part of the overall delay assignment (9.2%). As represented in several fora, Italy continues experiencing the increase of weather phenomena having impact on traffic flows and capacity. It wasn't possible to identify further measures to reduce the delay due to meteorological phenomena, that have not already been adopted (e.g. opening new sectors, diversions, etc.).

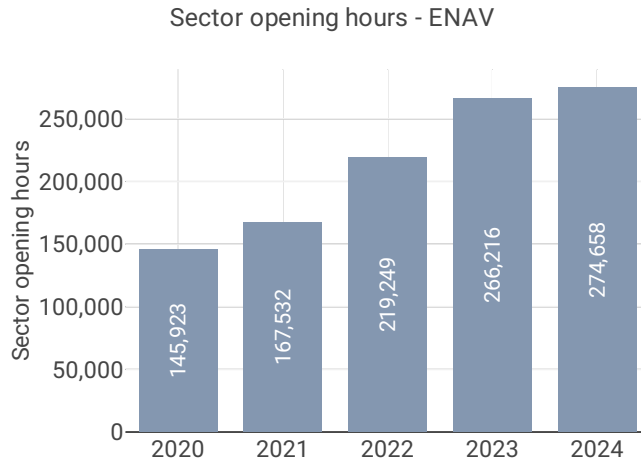
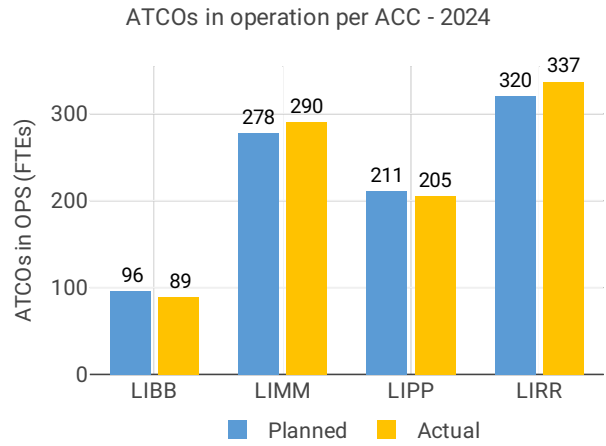
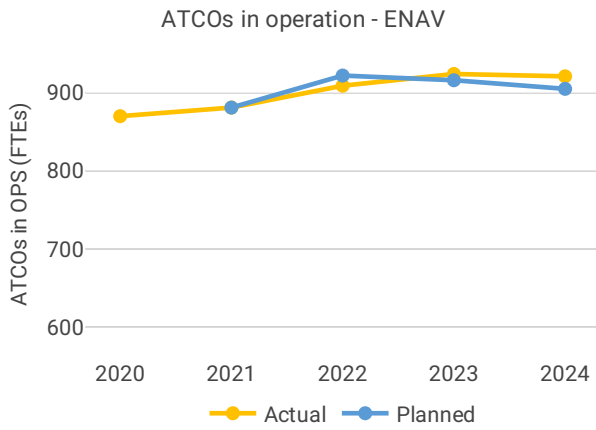
### **En route Capacity Incentive Scheme**

**ENAV:** The incentive scheme is based only on delays attributed to C,R,S,T,M & P delay codes. The ENAV target was set at 0.07 minutes per flight and, following the re-attribution of 450k minutes of delay (or 0.2 min/flt) from 'C' to 'O', the actual performance is reported as 0.07 minutes per flight (CRSTMP only); which results in neither penalty nor bonus for the ANSP.

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

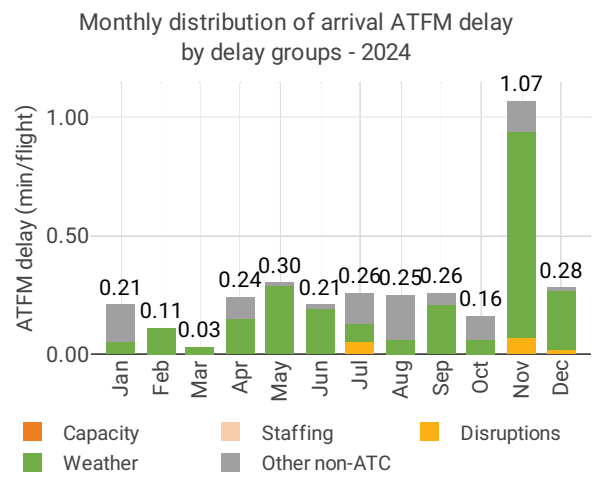
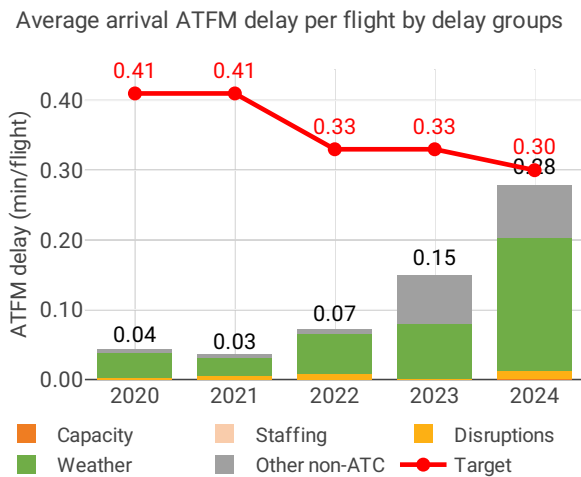


Focus on ATCOs in operations

n/a

4.3 Terminal performance

4.3.1 Arrival ATFM delay (KPI#2)



## Focus on arrival ATFM delay

Italy identified five airports as subject to RP3 monitoring. All of them have a fully implemented data flow that allows the proper monitoring of pre-departure delays. The quality of the reporting has improved, allowing since 2023 the calculation of the ATC pre-departure delay at the five airports. Traffic at the ensemble of these Italian airports in 2024 increased 10% with respect to 2023 and surpassed 2019 levels by 3%.

Average arrival ATFM delay in 2024 was 0.28 min/arr, compared to 0.15 min/arr in 2023. National target was met. ATFM slot adherence has slightly deteriorated (2023: 95.8%; 2024: 95.2%).

The national average arrival ATFM delay at Italian airports in 2024 was 0.28 min/arr. 68% of all delays at Italian airports were attributed to weather followed by 10% to Aerodrome Capacity (mainly at Rome Fiumicino).

According to the Italian monitoring report: *This indicator includes all the reasons of ATFM delay. Nevertheless, as done in 2.3.1.A KPI#1, it is important to show the figures that really contributed to the achievement of the ATM performance. Below there are the figures for the “Terminal ATM-only arrival delay per flight” indicator which is limited to C,R,S,T,M,P causes for the following airports:*

*LIMC: 0.00 m/f*

*LIME: 0.00 m/f*

*LIML: 0.00 m/f*

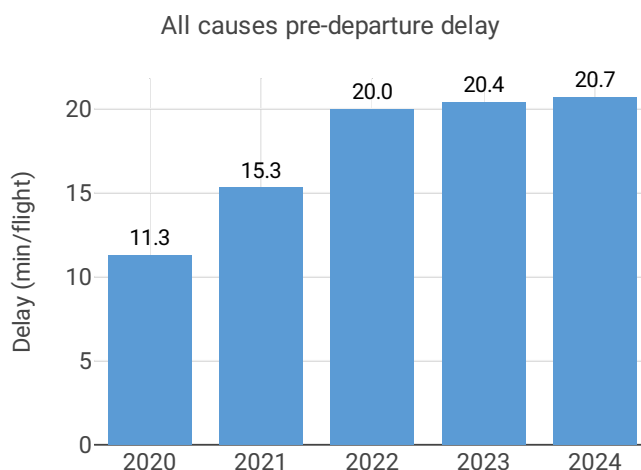
*LIPZ: 0.00 m/f*

*LIRF: 0.02 m/f*

The Italian performance plan sets a national target on arrival ATFM delay for 2024 of 0.30 min/arr. This target was met in 2024 with an actual performance of 0.28 min/arr.

The incentive scheme uses modulated pivot values limited CRSTMP delay causes. This pivot value for CRSTMP is 0.04 min/arr in 2024. According to the attribution of the regulation reason, the actual CRSTMP value for 2024 is 0.000 min/arr. although the NSA reports 0.001 min/arr. The NSA calculates a maximum bonus (1%) of EUR995540.

### 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	2022	2023	2024	2020	2021	2022	2023	2024
Fiumicino	0.02	0.00	0.04	0.06	0.19	98.0%	98.1%	96.5%	95.5%	93.1%
Linate	0.06	0.03	0.13	0.06	0.26	96.1%	96.9%	98.0%	98.2%	98.3%
Malpensa	0.02	0.05	0.09	0.38	0.40	97.3%	97.2%	97.7%	97.7%	98.1%
Orio Al Serio	0.04	0.07	0.08	0.07	0.29	94.8%	96.1%	93.9%	92.5%	94.0%
Venice Tessera	0.16	0.04	0.04	0.07	0.29	90.0%	94.2%	92.8%	93.8%	93.2%

	ATC pre departure delay (PI#2)					All causes pre departure delay (PI#3)				
Airport name	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Fiumicino	0.64	0.89	1.55	1.93	2.12	6.4	9.2	14.9	17.3	18.9
Linate	0.05	0.06	0.38	0.63	0.60	5.1	7.8	11.2	13.0	11.5
Malpensa	0.36	0.64	1.18	1.23	1.16	17.8	20.1	23.5	23.9	23.5
Orio Al Serio	0.52	0.77	1.14	1.06	1.21	8.0	12.5	21.4	20.7	23.1
Venice Tessera	0.85	0.68	1.15	1.15	1.00	9.8	12.0	20.1	20.3	20.2

## Focus on performance indicators at airport level

### ATFM slot adherence

All Italian airports showed adherence above 90% and the national average was 95.2%. With regard to the 4.8% of flights that did not adhere, 1.9% were early and 2.9% were late.

According to the Italian monitoring report: *Slightly difference in adherence values exists between the prefilled tables and what has been elaborated by Italy (ENAV) for the same year. ENAV data source is NM/NMIR, the difference is around one decimal percentage point and can be explained by the use of different/updated flight samples that eventually respected the ATFM slot time window*

### ATC pre-departure delay

The performance at all four Italian airports in 2024 was similar to the observed in 2023 with different variations. The ATC pre-departure delays at Rome deteriorated in 2024 surpassing 2 min/dep (LIRF: 2024: 2.13 min/dep), the second highest ATC pre-departure delay in the SES monitored airports.

The Italian NSA reports that *ENAV has no visibility/control over the data submitted by Airport Operators and Airlines. Therefore, ENAV cannot provide any additional data in this respect*

### All causes pre-departure delay

The total (all causes) delay in the actual off block time at Italian airports in 2024 showed a deterioration at Bergamo (LIME: 2024: 23.11 min/dep), that together with Malpensa (LIMC: 2024: 23.54 min/dep) resulted in the 5th and 2nd highest pre-departure delays amongst the SES monitored airports, respectively.

The Italian NSA reports that: *Originators of data are the Airport Operators and delay codes are IATA codes, as such ENAV cannot provide any information in this respect.*



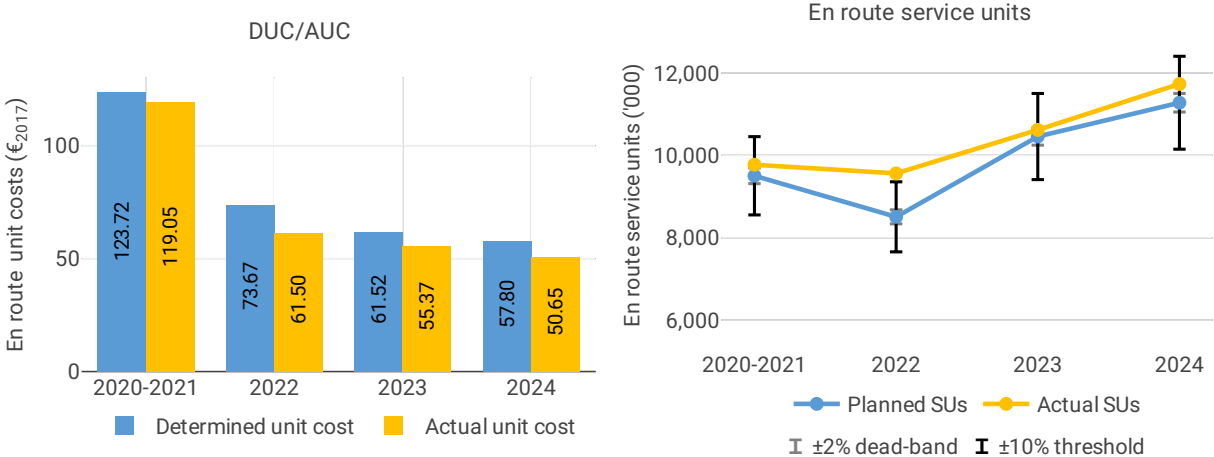
## 5 COST-EFFICIENCY - ITALY

### 5.1 PRB monitoring

- The en route 2024 actual unit cost of Italy was 50.65€2017, -12% lower than the determined unit cost (57.80€2017). The terminal zone 1 2024 actual unit cost was 125.26€2017, -11% lower than the determined unit cost (141.52€2017), while the terminal zone 2 2024 actual unit cost was 154.66€2017, -16% lower than the determined unit cost (183.14€2017).
- The en route 2024 actual service units (11.7M) were +4.0% higher than the determined service units (11.3M).
- The en route 2024 actual total costs were -58M€2017 (-8.8%) lower than determined. This is mainly driven by lower staff costs than planner for ENAV (-31M€2017, or -9.2%), as well as other operating costs (-19M€2017, or -20%). However, staff costs in nominal terms were higher than planned (+1.6%), due to higher traffic than expected and salary increases. With respect to other operating costs, the NSA explained that the reduction compared to the plan is mainly due to cost containment measures introduced during the pandemic years.
- ENAV costs of investments were 140M€2017 in 2024 for both en route and terminal charging zones, -1.3% less than determined (142M€2017).
- The en route actual unit cost incurred by users in 2024 was 65.42€ (+7.1% above the 2024 DUC), while the terminal actual unit cost incurred by users for zone 1 was 157.77€ (+5.9% above the 2024 DUC), and 205.35€ (+6.0% above the 2024 DUC) for zone 2. The differences were mainly driven by positive inflation adjustments.
- The en route regulatory result for ENAV amounted to +116M€, or 18% of the 2024 revenue.
- Italy should ensure that any excessive regulatory result, including excess funds received by the ANSP due to the inflation mechanism, is either reinvested to improve the quality of services delivered to airspace users or reimbursed to them.

### 5.2 En route charging zone

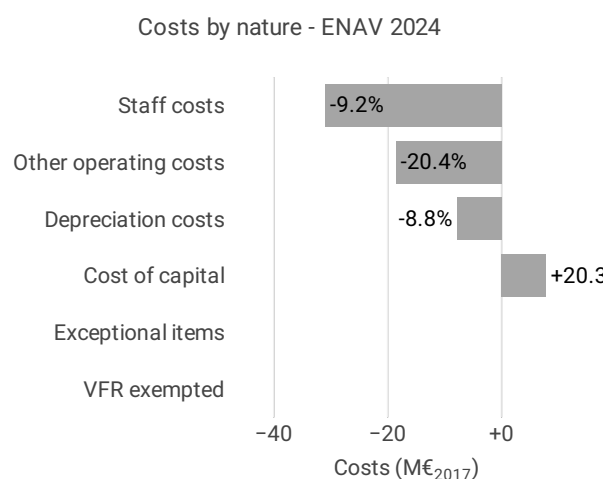
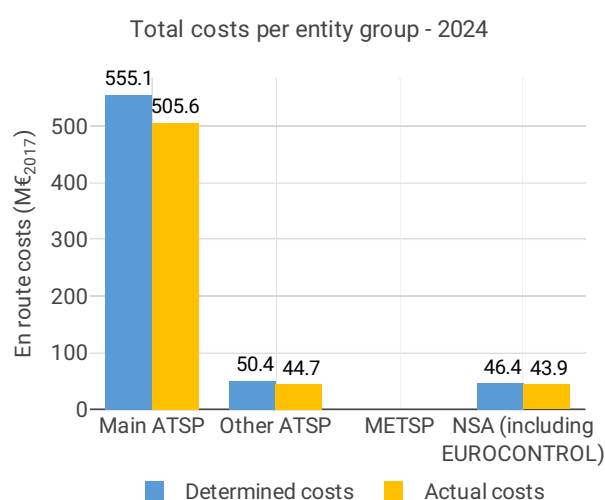
#### 5.2.1 Unit cost (KPI#1)



Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	1,186	641	667	681
Determined costs	1,197	651	674	689
Difference costs	-12	-9	-7	-8

Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	1.8%	1.2%	1.2%
Determined inflation index	NA	105.3	106.6	107.9
Actual inflation rate	NA	8.7%	5.9%	1.1%
Actual inflation index	NA	112.8	119.4	120.7
Difference inflation index (p.p.)	NA	+7.4	+12.9	+12.9



## Focus on unit cost

### AUC vs. DUC

In 2024, the en route AUC was -12.4% (or -7.15 €2017) lower than the planned DUC. This results from the combination of significantly lower than planned en route costs in real terms (-8.8%, or -57.6 M€2017) and higher than planned TSUs (+4.0%). It should be noted that the actual inflation index in 2024 was +12.9 p.p. higher than planned.

### En route service units

The difference between 2024 actual and planned TSUs (+4.0%) falls outside the ±2% dead-band, but does not exceed the +10% threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional en route revenues is therefore shared between the ANSP and the airspace users (see the main ANSP gain in Box 11).

### En route costs by entity

The 2024 actual real en route costs are -8.8% (-57.6 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, ENAV (-8.9%, or -49.5 M€2017), the other ANSP (ITAF, -11.2%, or -5.7 M€2017) and the NSA/EUROCONTROL (-5.2%, or -2.4 M€2017).



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

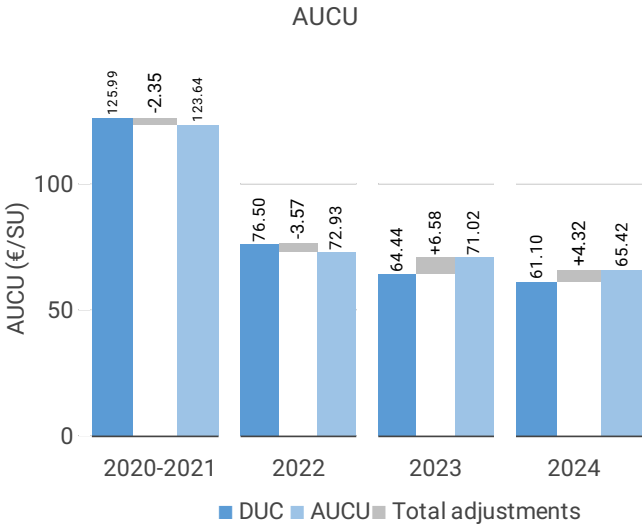
Significantly lower than planned en route costs in real terms for ENAV in 2024 (-8.9%, or -49.5 M€2017) are mainly due to an actual inflation index which is +12.9 p.p. higher than planned and also result from:

- Staff costs were significantly lower than planned in real terms (-9.2%) but higher in nominal terms (+1.6%), mainly due to increased assisted air traffic impacting the variable part of remuneration, particularly overtime, a 2% revaluation of contractual minimums following the November 2022 agreements and an increase in the workforce.
- Significantly lower than planned other operating costs (-20.4%), mainly due to cost reduction actions implemented during the pandemic, which continue to have a positive effect in 2024.
- Significantly lower than planned depreciation costs (-8.8%).
- Significantly higher than planned cost of capital (+20.3%), mainly due to a revision of the actual cost of debt calculation (4.06% in 2024), excluding the Risk-Free Rate, in line with Commission Decision (EU) 2024/2035 of 29 July 2024.

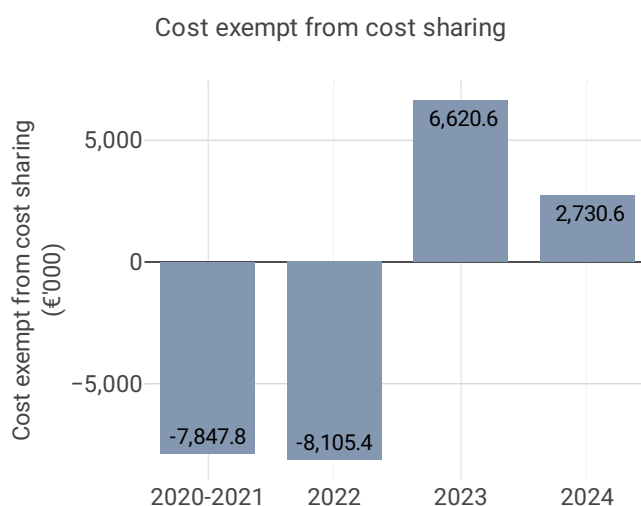
### RP3 summary

When considering the whole of RP3 (2020-2024) for Italy en route charging zone, actual TSUs are +4.9% higher than planned, while actual costs in real terms are -5.3% lower than the determined costs (some -164.0 M€2017). As a result, the weighted average actual unit cost over RP3 (70.38 €2017) is -9.7% lower than planned in the PP (77.94 €2017).

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



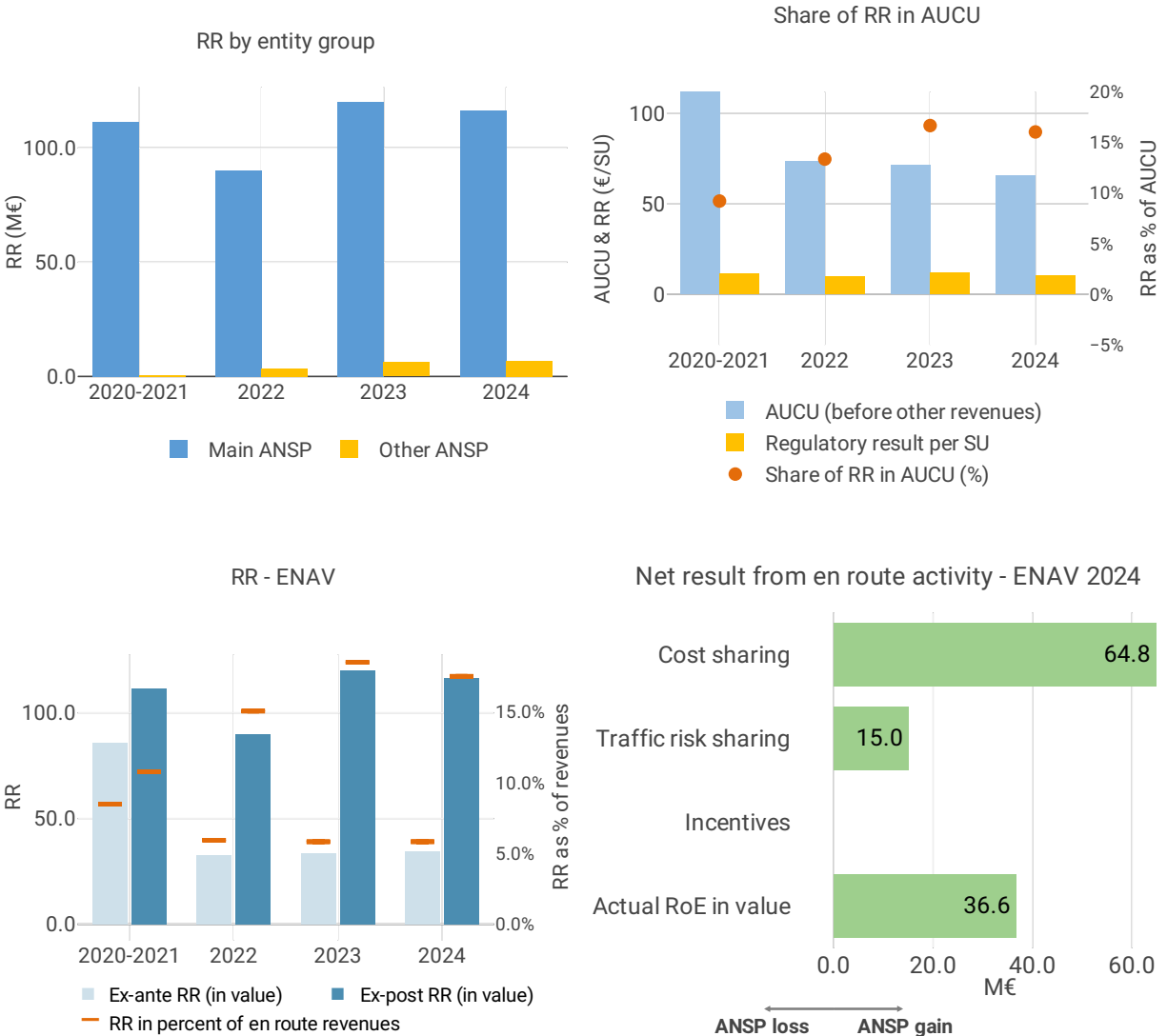
AUCU components (€/SU) – 2024	
<b>Components of the AUCU in 2024</b>	<b>€/SU</b>
<b>DUC</b>	<b>61.10</b>
Inflation adjustment	5.18
Cost exempt from cost-sharing	0.23
Traffic risk sharing adjustment	-0.69
Traffic adj. (costs not TRS)	-0.40
Financial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	0.00
Application of lower unit rate	0.00
Total adjustments	4.32
<b>AUCU</b>	<b>65.42</b>
<b>AUCU vs. DUC</b>	<b>+ 7.1%</b>



Cost exempt from cost sharing – 2024		
<b>Cost exempt from cost sharing by item - 2024</b>	<b>€'000</b>	<b>€/SU</b>
New and existing investments	-1,709.9	-0.15
Competent authorities and qualified entities costs	-30.1	0.00
Eurocontrol costs	-2,384.7	-0.20
Pension costs	0.0	0.00
Interest on loans	1,302.4	0.11
Changes in law	5,552.9	0.47
<b>Total cost exempt from cost risk sharing</b>	<b>2,730.6</b>	<b>0.23</b>



5.2.3 Regulatory result (RR)



**Focus on regulatory result**

**ENAV net gain on activity in the Italy en route charging zone in the year 2024**

ENAV reported a net gain of +79.8 M€, as a combination of a gain of +64.8 M€ arising from the cost sharing mechanism, with a gain of +15.0 M€ arising from the traffic risk sharing mechanism.

**ENAV 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 (+79.8 M€) and the actual RoE (+36.6 M€) amounts to +116.4 M€ (17.5% of the en route revenues). The resulting ex-post rate of return on equity is 16.1%, which is higher than the 5.0% planned in the PP.

**RP3 summary**

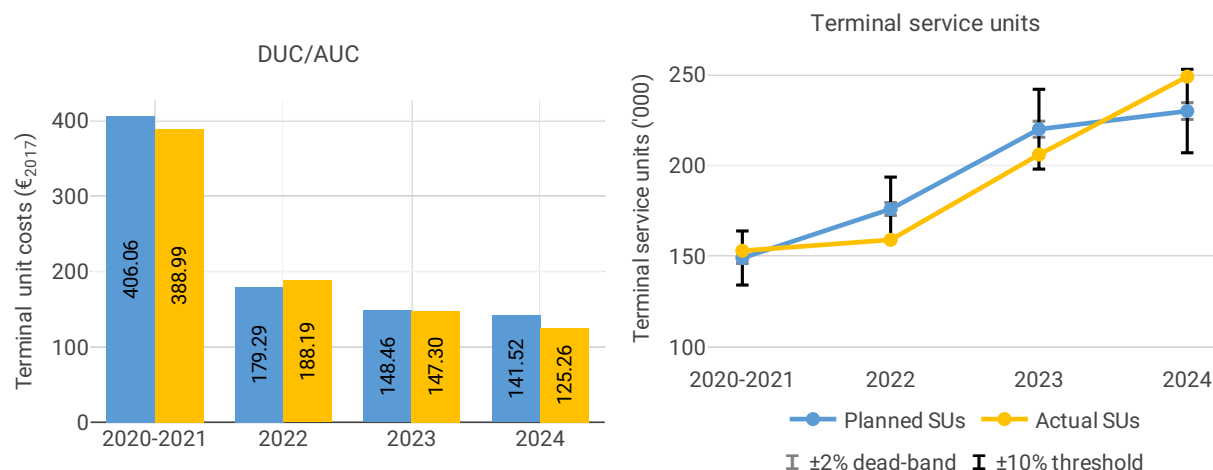
When considering the whole of RP3 (2020-2024), ENAV generated a cumulative gain in respect of cost sharing of +166.9 M€, as actual total costs for RP3 were lower than planned.



The traffic risk sharing mechanism generated a gain of +69.4 M€. Adding the gain of +8.5 M€ to be retained by the ATSP in respect of financial incentives and the actual RoE (+193.1 M€ over RP3) leads to an overall regulatory result of +437.9 M€, which corresponds to an average ex-post rate of return on equity of 11.6% (compared to 5.2% initially planned in the PP).

### 5.3 Terminal charging zone - Italy Zone 1

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

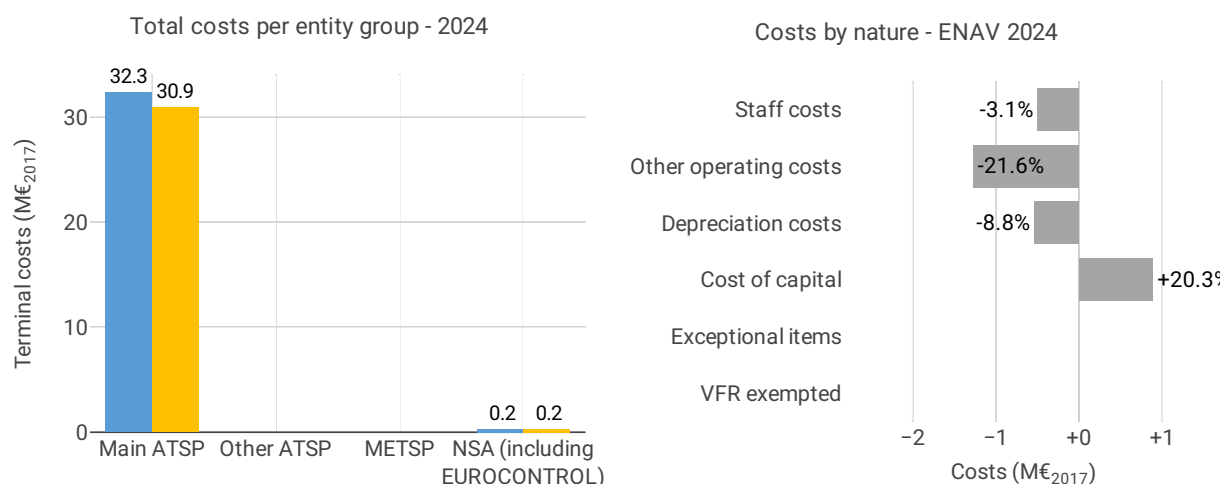


Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	60	32	34	35
Determined costs	62	33	34	34
Difference costs	-1	0	0	1

Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	1.8%	1.2%	1.2%
Determined inflation index	NA	105.3	106.6	107.9
Actual inflation rate	NA	8.7%	5.9%	1.1%
Actual inflation index	NA	112.8	119.4	120.7
Difference inflation index (p.p.)	NA	+7.4	+12.9	+12.9





## Focus on unit cost

### AUC vs. DUC

In 2024, the terminal AUC was -11.5% (or -16.26 €2017) lower than the planned DUC. This results from the combination of significantly higher than planned TNSUs (+8.1%) and lower than planned terminal costs in real terms (-4.3%, or -1.4 M€2017). It should be noted that the actual inflation index in 2024 was +12.9 p.p. higher than planned.

### Terminal service units

The difference between 2024 actual and planned TNSUs (+8.1%) falls outside the ±2% dead-band, but does not exceed the +10% threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional terminal revenues is therefore shared between the ANSP and the airspace users (see the main ANSP gain in Box 11).

### Terminal costs by entity

The 2024 actual real terminal costs are -4.3% (-1.4 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, ENAV (-4.4%, or -1.4 M€2017) and higher than planned costs for the NSA (+6.4%, or +0.01 M€2017).

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

Lower than planned terminal costs in real terms for ENAV in 2024 (-4.4%, or -1.4 M€2017) result from higher than planned actual inflation index (+12.9 p.p.), and:

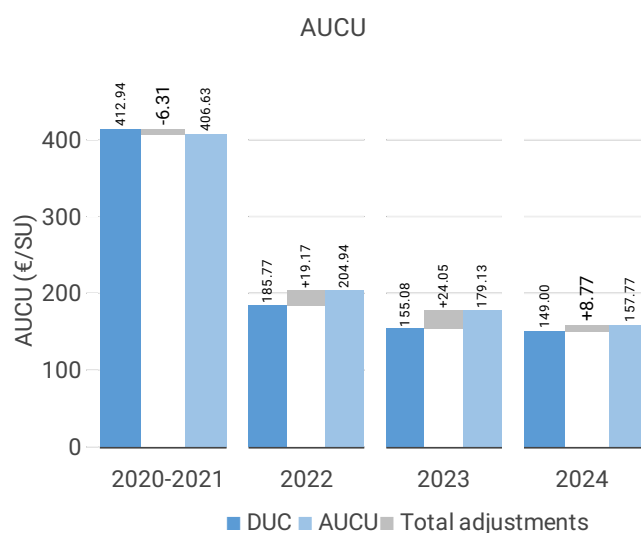
- Staff costs were lower than planned in real terms (-3.1%), but higher in nominal terms (+8.4%), mainly due to increased assisted air traffic impacting the variable part of remuneration, particularly overtime, and a 2% revaluation of contractual minimums following the November 2022 agreements, and an increase in the workforce.
- Significantly lower other operating costs (-21.6%), mainly due to cost reduction actions implemented during the pandemic, which continue to have a positive effect in 2024.
- Significantly lower depreciation (-8.8%).
- Significantly higher cost of capital (+20.3%), mainly due to a revision of the actual cost of debt calculation (4.06% in 2024), excluding the risk-free rate, in line with Commission Decision (EU) 2024/2035 of 29 July 2024.



## RP3 summary

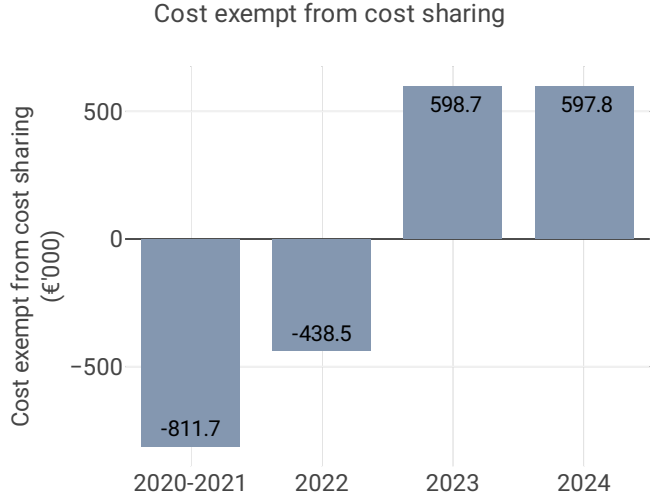
When considering the whole of RP3 (2020-2024) for Italy terminal charging zone 1, actual TNSUs are -1.2% lower than planned, while actual costs in real terms are -4.2% lower than the determined costs (some -6.7 M€2017). As a result, the weighted average actual unit cost over RP3 (196.81 €2017) is -3.1% lower than planned in the PP (203.03 €2017).

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



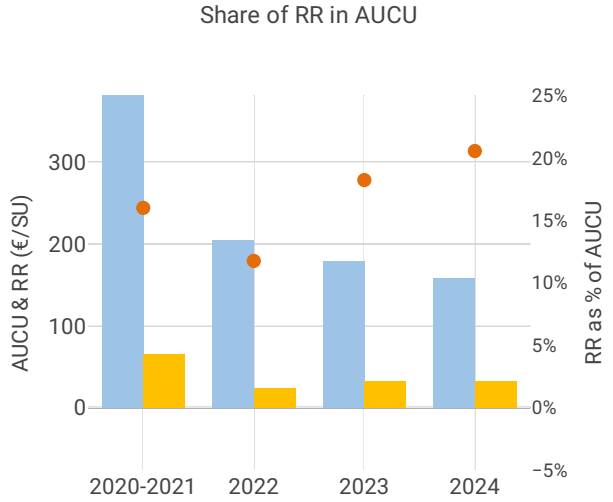
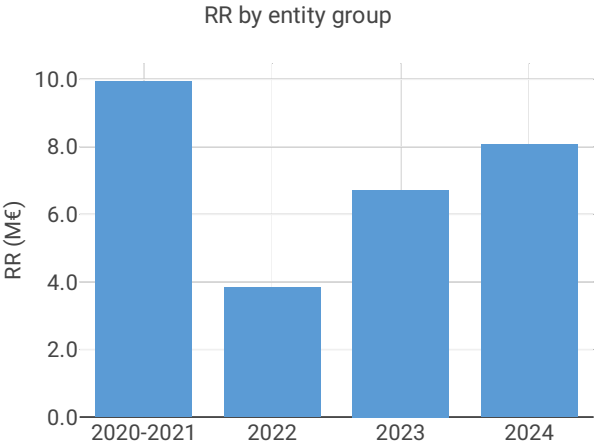
AUCU components (€/SU) – 2024	
<b>Components of the AUCU in 2024</b>	<b>€/SU</b>
<b>DUC</b>	<b>149.00</b>
Inflation adjustment	11.31
Cost exempt from cost-sharing	2.40
Traffic risk sharing adjustment	-5.44
Traffic adj. (costs not TRS)	-0.87
Financial incentives	1.37
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	0.00
Application of lower unit rate	0.00
Total adjustments	8.77
<b>AUCU</b>	<b>157.77</b>
<b>AUCU vs. DUC</b>	<b>+ 5.9%</b>

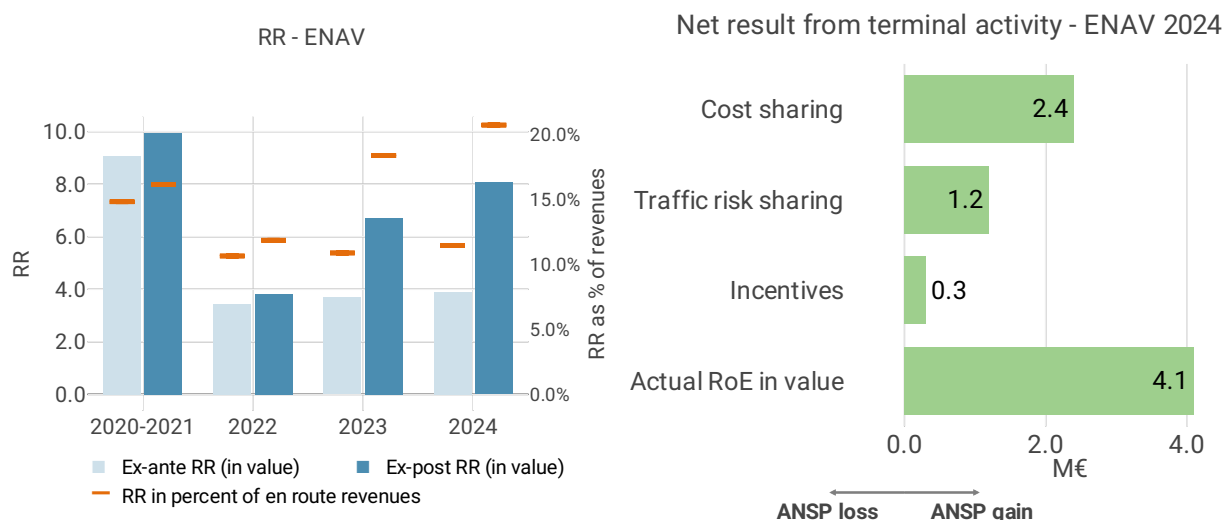




Cost exempt from cost sharing – 2024		
Cost exempt from cost sharing by item - 2024	€'000	€/SU
New and existing investments	155.0	0.62
Competent authorities and qualified entities costs	14.2	0.06
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	147.7	0.59
Changes in law	280.8	1.13
<b>Total cost exempt from cost risk sharing</b>	<b>597.8</b>	<b>2.40</b>

5.3.3 Regulatory result (RR)





## Focus on regulatory result

### ENAV net gain on activity in the Italy terminal charging zone 1 in the year 2024

ENAV reported a net gain of +3.9 M€, as a combination of a gain of +2.4 M€ arising from the cost sharing mechanism, with a gain of +1.2 M€ arising from the traffic risk sharing mechanism and a gain of +0.3 M€ relating to financial incentives.

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

Ex-post, the overall RR taking into account the net gain from the terminal activity mentioned above (+3.9 M€) and the actual RoE (+4.1 M€) amounts to +8.1 M€ (20.7% of the terminal revenues). The resulting ex-post rate of return on equity is 9.8%, which is higher than the 5.0% planned in the PP.

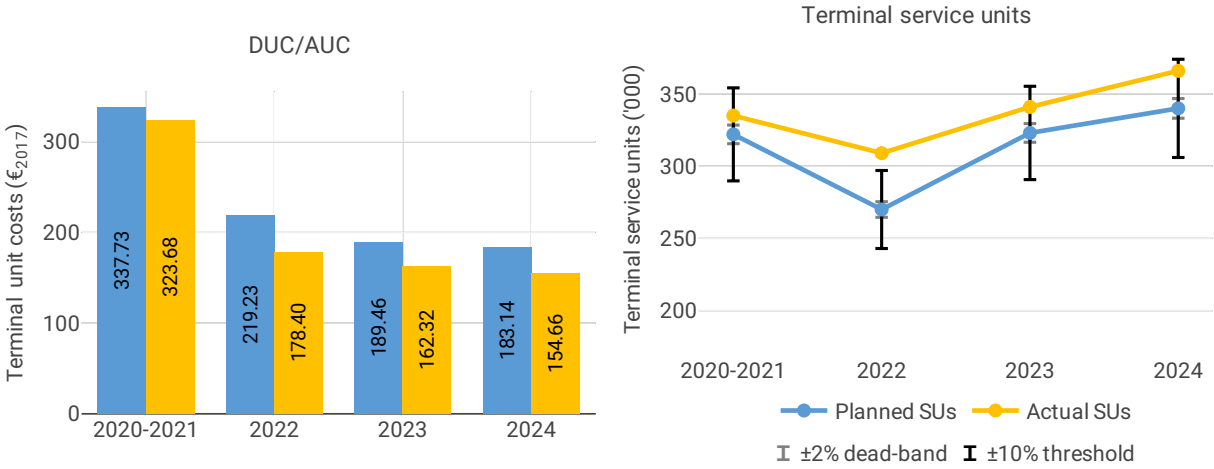
### RP3 summary

When considering the whole of RP3 (2020-2024), ENAV generated a cumulative gain in respect of cost sharing of +7.7 M€, as total actual costs in TCZ1 for RP3 were lower than planned. The traffic risk sharing mechanism generated a gain of +0.03 M€. Adding the gain of +0.7 M€ to be retained by the ATSP in respect of financial incentives and the actual RoE (+20.2 M€ over RP3) leads to an overall regulatory result of +28.6 M€, which corresponds to an average ex-post rate of return on equity of 7.3% (compared to 5.2% initially planned in the PP).



### 5.4 Terminal charging zone - Italy Zone 2

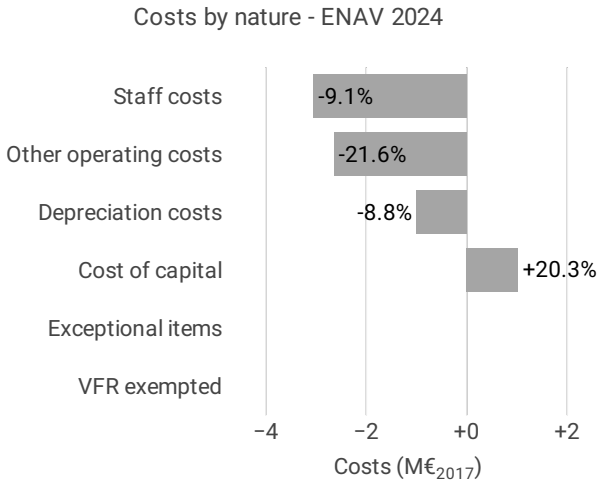
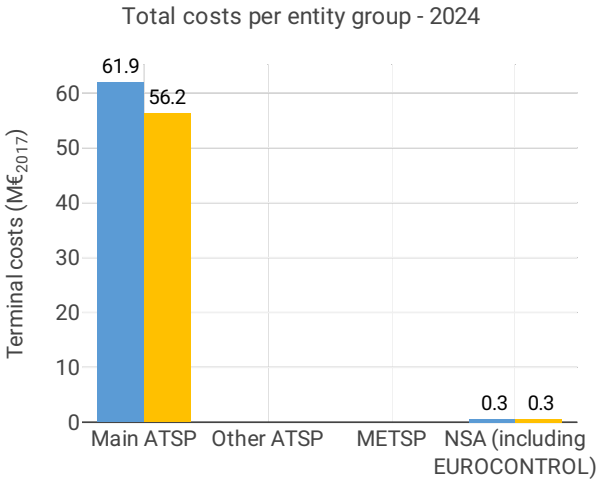
#### 5.4.1 Unit cost (KPI#1)



Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	110	60	63	65
Determined costs	111	61	64	66
Difference costs	0	-1	-1	-1

Inflation assumptions	2020-2021	2022	2023	2024
Determined inflation rate	NA	1.8%	1.2%	1.2%
Determined inflation index	NA	105.3	106.6	107.9
Actual inflation rate	NA	8.7%	5.9%	1.1%
Actual inflation index	NA	112.8	119.4	120.7
Difference inflation index (p.p.)	NA	+7.4	+12.9	+12.9



## Focus on unit cost

### AUC vs. DUC

In 2024, the terminal AUC was -15.6% (or -28.48 M€2017) lower than the planned DUC. This results from the combination of significantly lower than planned terminal costs in real terms (-9.1%, or -5.7 M€2017) and significantly higher than planned TNSUs (+7.6%). It should be noted that the actual inflation index in 2024 was +12.9 p.p. higher than planned.

### Terminal service units

The difference between 2024 actual and planned TNSUs (+7.6%) falls outside the  $\pm 2\%$  dead-band, but does not exceed the +10% threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional terminal revenues is therefore shared between the ANSP and the airspace users (see the main ANSP gain in Box 11).

### Terminal costs by entity

The 2024 actual real terminal costs are -9.1% (-5.7 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, ENAV (-9.2%, or -5.7 M€2017) and the NSA (-4.3%, or 0.02 M€2017).

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

Significantly lower than planned terminal costs in real terms for ENAV in 2024 (-9.2%, or -5.7 M€2017) result from higher than planned actual inflation index (+12.9 p.p.), and:

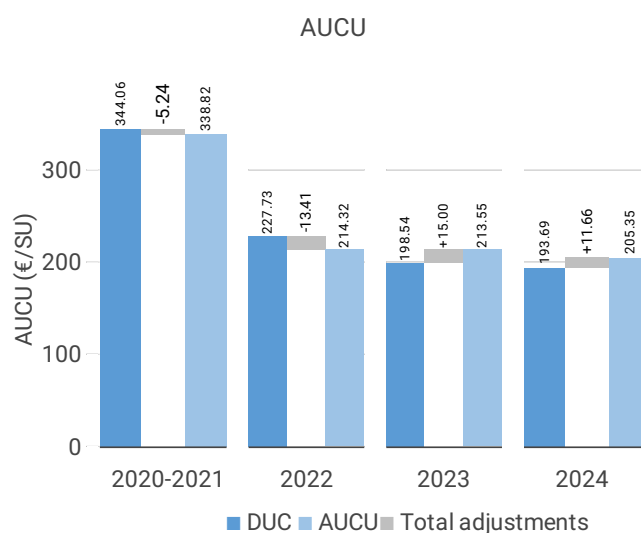
- Significantly lower than planned staff costs (-9.1%), although higher than planned in nominal terms (+1.7%) mainly due to increased assisted air traffic impacting the variable part of remuneration, particularly overtime, and a 2% revaluation of contractual minimums following the November 2022 agreements, and an increase in the workforce
- Significantly lower than planned other operating costs (-21.6%), mainly due to cost reduction actions implemented during the pandemic, which continue to have a positive effect in 2024.
- Significantly lower than planned depreciation costs (-8.8%).
- Significantly higher than planned cost of capital (+20.3%), mainly due to a revision of the actual cost of debt calculation (4.06% in 2024), excluding the risk-free rate, in line with Commission Decision (EU) 2024/2035 of 29 July 2024.

### RP3 summary

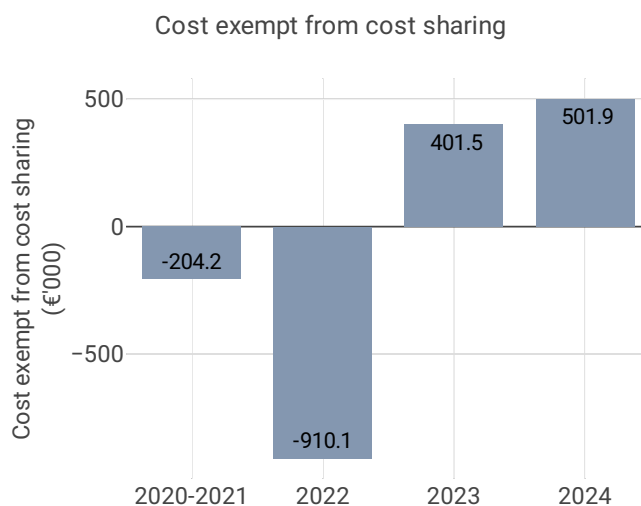
When considering the whole of RP3 (2020-2024) for Italy terminal charging zone 2, the actual TNSUs are +7.6% higher than planned, while actual costs in real terms are -5.5% lower than the determined costs (some -16.1 M€2017). As a result, the weighted average actual unit cost over RP3 (203.91 M€2017) is -12.2% lower than planned in the PP (232.21 M€2017).



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

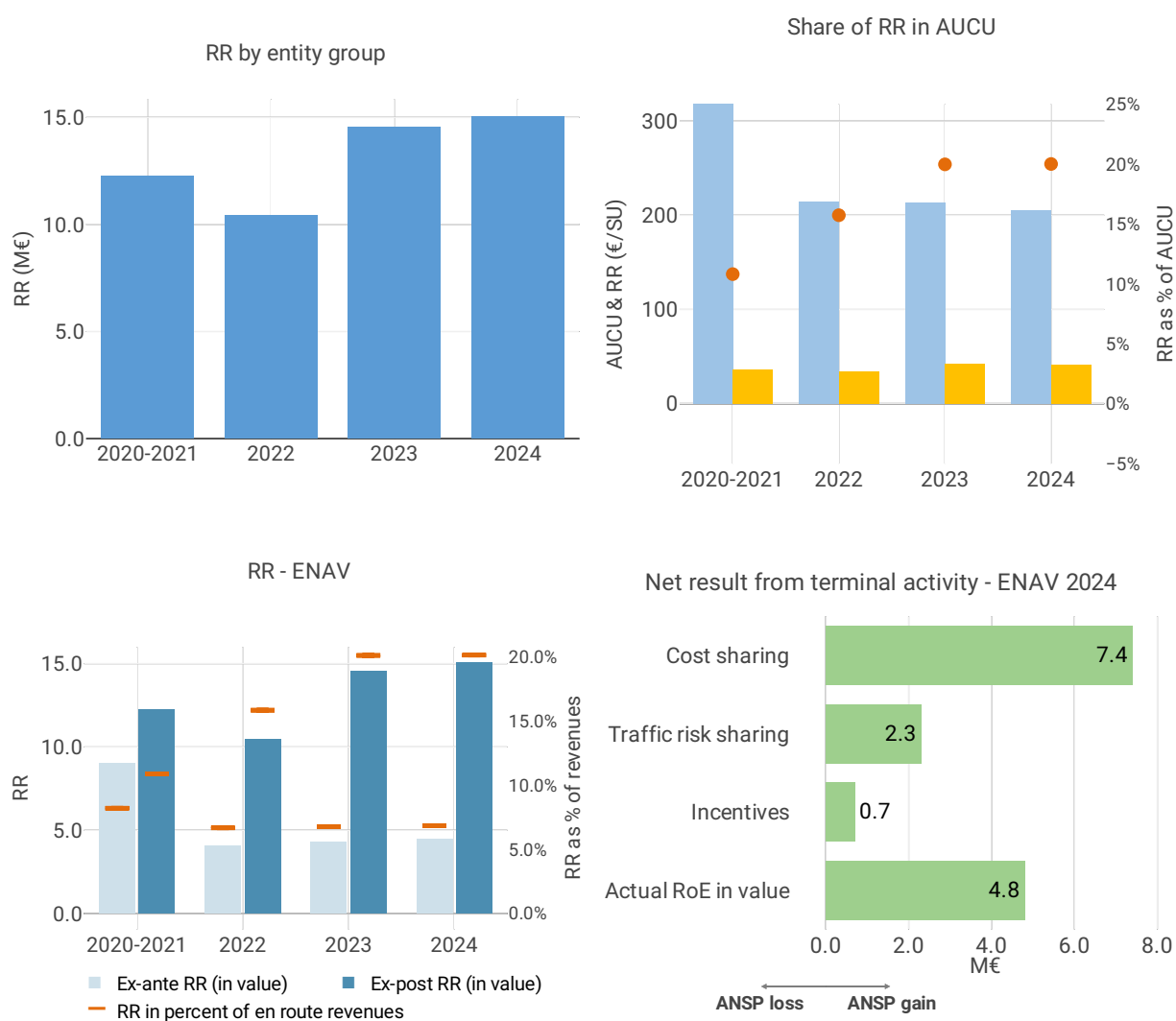


AUCU components (€/SU) - 2024	
<b>Components of the AUCU in 2024</b>	<b>€/SU</b>
<b>DUC</b>	<b>193.69</b>
Inflation adjustment	16.02
Cost exempt from cost-sharing	1.37
Traffic risk sharing adjustment	-6.56
Traffic adj. (costs not TRS)	-0.96
Financial incentives	1.79
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	0.00
Application of lower unit rate	0.00
Total adjustments	11.66
<b>AUCU</b>	<b>205.35</b>
<b>AUCU vs. DUC</b>	<b>+ 6.0%</b>



Cost exempt from cost sharing – 2024		
Cost exempt from cost sharing by item - 2024	€'000	€/SU
New and existing investments	-202.8	-0.55
Competent authorities and qualified entities costs	-15.1	-0.04
Eurocontrol costs	0.0	0.00
Pension costs	0.0	0.00
Interest on loans	169.7	0.46
Changes in law	550.2	1.50
<b>Total cost exempt from cost risk sharing</b>	<b>501.9</b>	<b>1.37</b>

### 5.4.3 Regulatory result (RR)



## Focus on regulatory result

### ENAV net gain on activity in the Italy terminal charging zone 2 in the year 2024

ENAV reported a net gain of +10.3 M€, as a combination of a gain of +7.4 M€ arising from the cost sharing mechanism, with a gain of +2.3 M€ arising from the traffic risk sharing mechanism and a gain of +0.7 M€ relating to financial incentives.



## **ENAV overall regulatory result (RR) for the activity in terminal charging zone 2**

Ex-post, the overall RR taking into account the net gain from the terminal activity mentioned above (+10.3 M€) and the actual RoE (+4.8 M€) amounts to +15.0 M€ (20.1% of the terminal revenues). The resulting ex-post rate of return on equity is 15.9%, which is higher than the 5.0% planned in the PP.

### **RP3 summary**

When considering the whole of RP3 (2020-2024), ENAV generated a cumulative gain in respect of cost sharing of +18.6 M€, as total actual costs in TCZ2 for RP3 were lower than planned. The traffic risk sharing mechanism generated a gain of +9.2 M€. Adding the gain of +1.3 M€ to be retained by the ATSP in respect of financial incentives and the actual RoE (+23.1 M€ over RP3) leads to an overall regulatory result of +52.3 M€, which corresponds to an average ex-post rate of return on equity of 11.5% (compared to 5.1% initially planned in the PP).

