



Summer 2024 performance

In summer 2024 (June-August), traffic across the European network was up 4.8% compared to summer 2023. However, traffic growth was not evenly distributed, with some areas of the network facing increases of 20% or more compared to 2023.

Delays were much higher than expected; the average all-causes delay per flight was 21.4 minutes, 1.3 minutes higher than in 2023. En-route air traffic flow management delays were 4.6 minutes per flight, up 52% on 2023; the second-worst year ever.

The poor performance can be attributed to a combination of factors – a structural lack of capacity by some air navigation service providers (ANSPs) e.g. due to a lack of air traffic controllers, some ANSPs not delivering the capacity originally committed in preparation for the summer, the unexpectedly high traffic growth in some areas, frequent convective weather during the summer and a high volume of flights not adhering to their original flight plan.

A number of lessons have been learned and there is clearly an urgent need to take action. A strong commitment and collaboration by all involved stakeholders will be needed to work on the identified issues and ensure a better performance of the European network in summer 2025. Beyond these measures, a deeper structural reform is needed to face medium to long term challenges, such as the expected traffic growth or the effects of climate change.

Network traffic

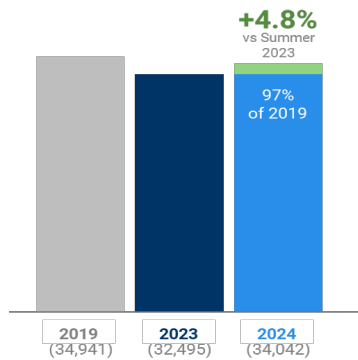
In summer 2024 (June - August), traffic in the European aviation network was 4.8% up compared to 2023, with an average of **34,042** flights per day.

Although traffic was still 2.6% below summer 2019, multiple factors substantially changed the traffic distribution across the network, with several Air Traffic Control centres (ACCs) facing significantly higher traffic levels in 2024 than in 2019.

Traditional holiday destinations in the south of Europe were in high demand. In the south-east this was compounded by the effect of changing traffic patterns as a result of Russia's full-scale invasion of Ukraine, as well as by geopolitical tensions in the Middle East.

Tbilisi (+26%), Tirana (+20%), Rome (+18%) and Casablanca ACCs experienced growth more than 15% up on 2023; 14 ACCs saw increases higher than 10%. In several cases, traffic was higher than expected/planned for.

FIGURE 1: Network traffic Jun-Aug 2024 vs 2023



Traffic variation June - August 2024 vs 2023

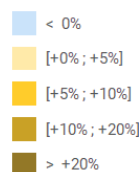
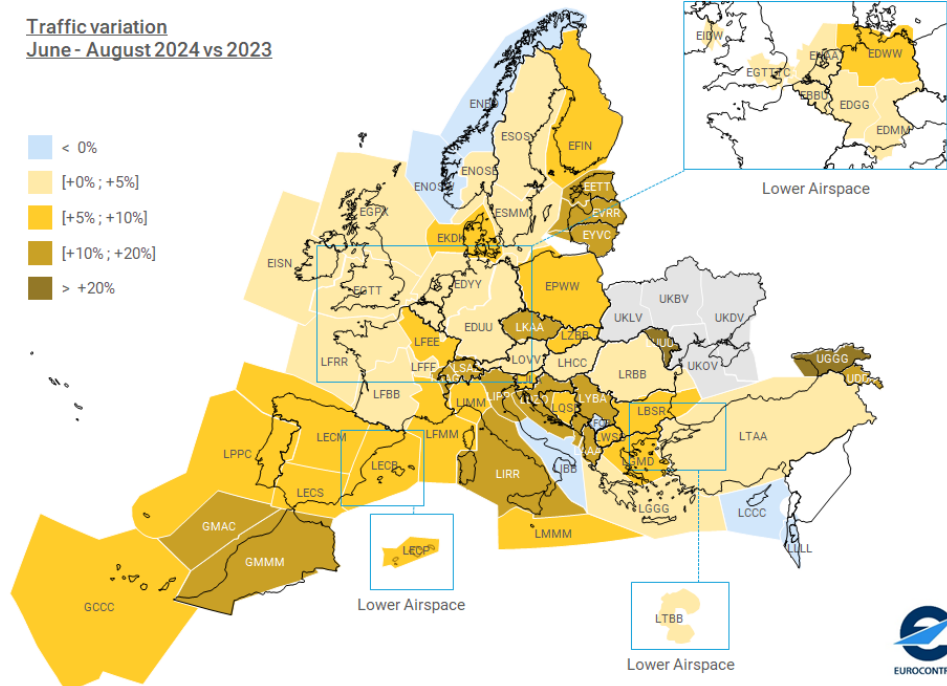


FIGURE 2: Traffic variation per ACC Jun-Aug 2024 vs 2023



All-causes delay and punctuality

Punctuality (OTP15) is a key indicator from a passenger point of view as it compares actual performance with published airline schedules.

After poor performance in the summers of 2022 and 2023, when traffic rebounded from the COVID crisis and stakeholders were struggling to scale up operations to accommodate demand, punctuality in Summer 2024 also remained close to the worst levels on record over the past 20 years.

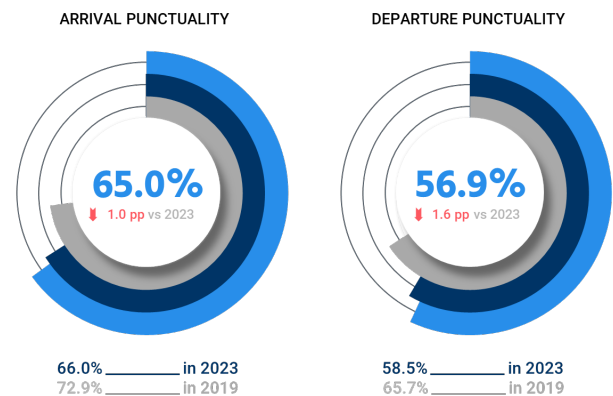
On average, only **65% of the flights arrived within 15 minutes of their scheduled arrival time**, 1 pp worse than 2023 but, more significantly, 8 pp below 2019 levels.

For summer 2024, the average **all-causes departure delay was 21.4 minutes per flight**, 1.3 minutes more than in 2023 and 4.5 minutes above 2019.

The largest share was **reactionary delay** (11.8 minutes/flight), i.e., the delay caused by the late arrival of aircraft, crew, passengers or baggage from previous journeys.

En-route Air Traffic Flow Management (ATFM) delay contributed both directly (4.6 min/flight) and also indirectly, as ATFM delay in the morning propagates through the network as reactionary delay due to the knock-on effect it has on daily operations.

FIGURE 3: Network punctuality (OTP15) (June-August)

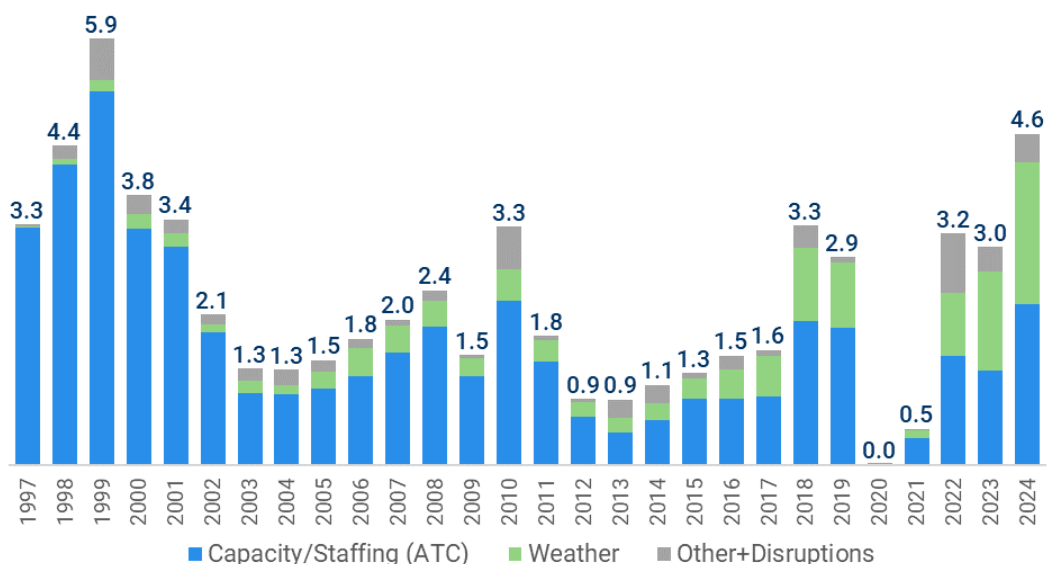


Network en-route ATFM delay

Whereas traffic growth this summer marks a positive trend for the aviation sector, en-route ATFM delays in summer 2024 reached the highest level on record, totalling 14.5 million minutes.

If we look at en-route ATFM delay per flight, the Network recorded **4.6 min/flight**, 52% higher than summer 2023 and 59% than 2019. For the period June-August, this figure is only second to 1999, when the poor performance triggered the creation of the EU's Single European Sky initiative. However, we should note that in summer 2024 traffic was 43% higher than in 1999.

FIGURE 4: Evolution of en-route ATFM delays per flight (in min/flight, June-August)



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Like the traffic distribution across the European network (see Figure 2), the map in Figure 5 shows that en-route ATFM delay in 2024 was unevenly distributed.

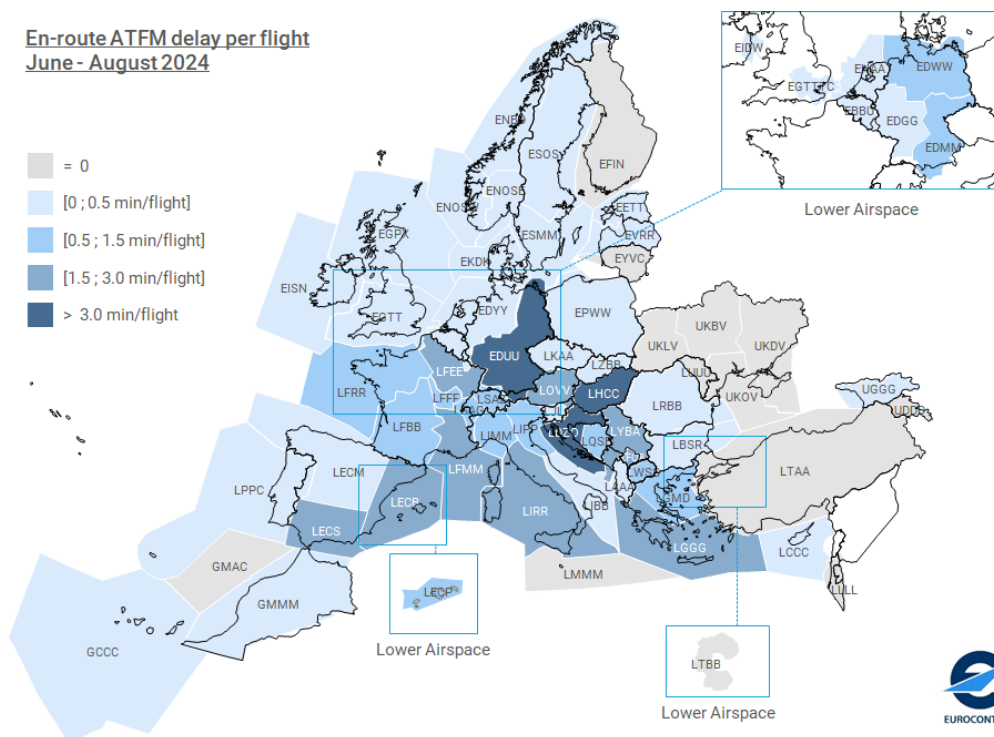
Not all areas with high traffic growth experienced significant delays. While most Air Navigation Service Providers (ANSPs) managed the increased traffic in South-East and South-West Europe, a substantial amount of delay occurred in the European core area, where traffic growth was lower. This was primarily due to capacity limitations, staffing constraints and weather issues.

Six ACCs registered more than 2.0 min/flight: Budapest ACC (7.0 min/flight), Zagreb ACC (4.1), Karlsruhe UAC (3.6), Reims ACC (2.6), Marseille ACC (2.6) and Roma ACC (2.2).

Table 1 (below) breaks down the **main causes**. For the second consecutive summer, **adverse weather** (thunderstorms, convective clouds, etc.) was the largest attributed cause of en-route ATFM delays (43%). En-route ATFM delays attributed to weather have significantly increased over the past few years, surpassing ATC capacity and staffing as the largest delay category in 2023.

It is worth noting that an [analysis](#) conducted by the Performance Review Commission (PRC) revealed that a substantial share of the delays attributed to ATC capacity or weather was also affected by staffing issues at the time of the regulation, even though this influence was not apparent from the assigned delay codes.

FIGURE 5: En-route ATFM delay per flight, per ACC, Jun-Aug 2024



ATFM delay causes

A combination of factors came together this summer to generate such high levels of en-route ATFM delays:

1. Some air navigation service providers (ANSPs) have a **structural lack of capacity**.
2. Some ANSPs faced **more traffic than they had planned for** due to unexpectedly high growth.
3. Some ANSPs were **unable to deliver** the capacity that they had originally committed to provide.
4. **Bad weather** had a significant impact this summer.
5. Half of all flights **did not stick to their original flight plan**.

Adverse weather often places additional strain on adjacent ACCs, as aircraft need to reroute through regions operating already close to, or at, capacity limits. This can have a knock-on effect on the Network, generating additional delays in these regions. Whenever these events are forecasted, the EUROCONTROL Network Manager aims at alleviating the situation by implementing coordinated cross-border scenarios that propose re-routings to airlines.

However, this procedure proved inadequate this summer. Local interests often prevailed over network performance and insufficient confidence in the weather forecasts affected the timeliness of decision-making.

TABLE 1: En-route ATFM delays per cause (June-August 2024)

June - August 2024	Total	Daily average	vs 2023	vs 2019
En-route ATFM delay:	14.5 million min	157.3k min	+59%	+55%
Weather:	6.2 (43%)	67.0k	+48%	+109%
ATC Capacity:	5.3 (37%)	57.8k	+106%	+35%
ATC Staffing:	1.7 (12%)	18.4k	+27%	-23%
ATC Disruptions:	0.4 (2%)	3.9k	+32%	+825%
Other:	0.9 (6%)	10.0k	+22%	+327%
En-route ATFM delay per flight:	-	4.62 min/flight	+52%	+59%

ATC capacity (37%) and **staffing** (12%) together accounted for **almost half of all en-route ATFM delay in summer 2024**.

While many ACCs were able to deploy sufficient capacity to accommodate the sometimes higher than forecast traffic growth, several ACCs, particularly in southern Europe, reached their limits and generated notable delay during peak periods.

At a limited number of ACCs, high traffic growth was not the main reason for the high delays; rather, the delays were more of a structural nature due to, for example, a lack of air traffic controllers (ATCOs). Often due to staffing issues, those ACCs were not able to deliver the capacity required to meet the Network targets or their commitments agreed in the Network Operations Plan.

En-route ATFM delays due to **'other'** causes were also significant, accounting for 6% of the delay. The bulk of these delays are a direct effect of Russia's invasion of Ukraine - they include the increased military activity and also the impact of re-routings due to the unavailability of Ukrainian airspace.

Finally, although accounting only for 2% of the total en-route ATFM delay, **ATC disruptions** were still 22% higher than in 2023. ATC disruptions include strikes by ATC staff and also technical equipment issues.

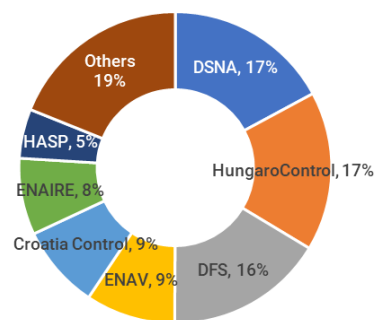
Stakeholder performance

ANSPs

Figure 7 shows the en-route ATFM delay per flight generated by the European ANSPs in Summer 2024 compared to the same period of 2023. Figure 6 shows how more than 80% of the delays were generated by 7 ANSPs:

- DSNA (France), where delays mainly caused by a lack of the delivery by some ACCs of the capacity committed in the European Network Operations Plan (NOP) in preparation for the summer 2024.
- HungaroControl did not deliver the capacity committed in the NOP as it faced unexpected staffing issues and very high demand, partly as a result of onloads due to the unavailability of Ukrainian airspace. Adverse weather was also a major factor.
- DFS (Germany) experienced structural capacity issues to due a lack of staff, in particular in Karlsruhe UAC, which was also hit by frequent adverse weather this summer. Nevertheless, all German ACCs delivered their NOP commitments
- ENAV (Italy) did not deliver their NOP commitments as it faced temporary staffing issues in July/August in addition to adverse weather.
- ENAIRE (Spain) did not deliver their NOP commitments for some of their ACCs.

FIGURE 6: Share of en-route ATFM delay per ANSP (June-August 2024)



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- Croatia Control and HASP (Greece) suffered from adverse weather, which was particularly impactful in the Balkan and Mediterranean regions. This was compounded by traffic growth higher than forecasted - for Croatia Control traffic was 13% higher than in summer 2023 and 25% above 2019 levels; for HASP it was 6% higher than 2023 and 18% higher than in 2019.

Aircraft operators¹

Figure 8 shows the **arrival punctuality** for the top 30 European aircraft operators for the June-August 2024 compared to the same period of 2023.

It should be noted that arrival punctuality is affected by factors not always controlled by the aircraft operators – in

particular those operating to/from busy airports or flying through congested airspace. It is however an important indicator from the point of view of passengers.

12 operators saw improvements compared to 2023, with SAS, Aer Lingus, Turkish Airlines and TAP improving more than 5 pp.

18 registered punctuality decreases – SunExpress, Austrian, LOT, Eurowings, Iberia, Finnair and Ryanair all show a decrease of more than 5 pp.

On the positive side, there was a 30% improvement by airlines in scheduling (block times and turnaround times) comparing to summer 2023. Performance on first rotation was also better than in 2023, up by 12%.

FIGURE 7: En-route ATFM delay per flight (min) per ANSP (June-August 2024 vs 2023)

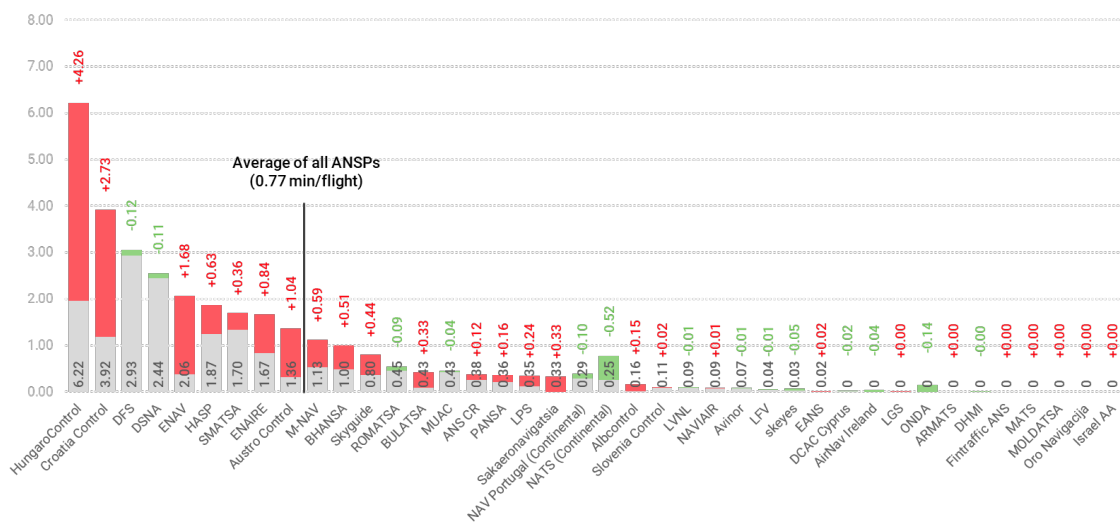
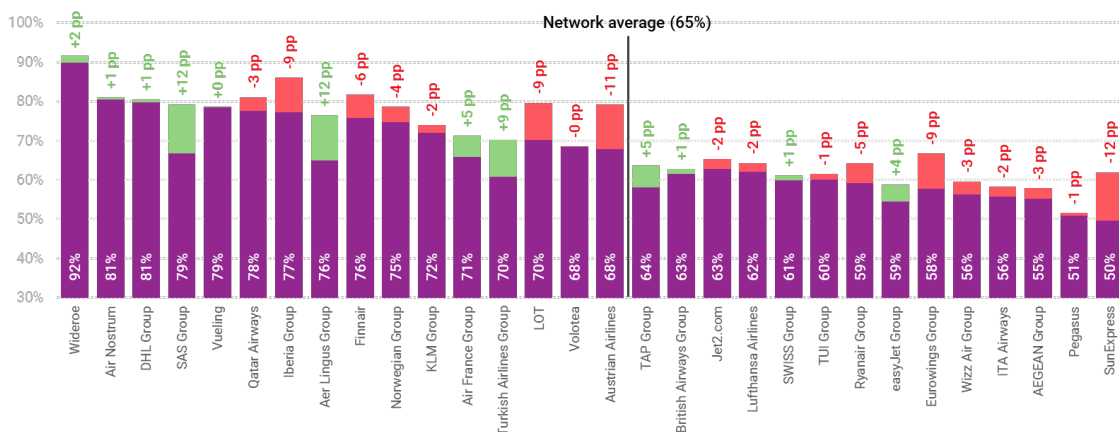


FIGURE 8: Arrival punctuality of top 30 European aircraft operators (June-August 2024 vs 2023)



¹ Aircraft operator groups composition can be found @ [EUROCONTROL airline groups lookup \(Group 1\)](#).

Airports

Figure 9 shows the **arrival punctuality** for the top 30 European airports for June-August 2024, compared to the same period of 2023.

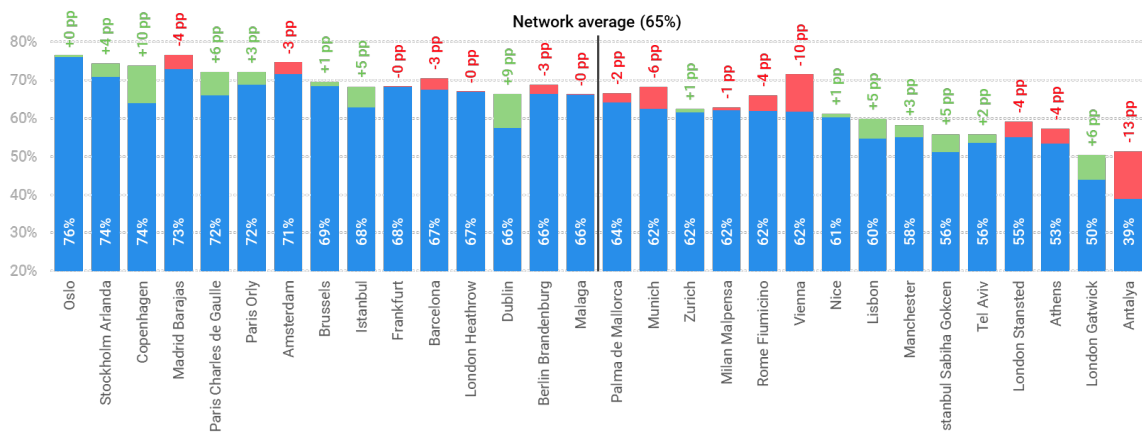
As for airlines, airport arrival punctuality is impacted by many factors mostly out of the control of the airport operator, as the flight will arrive with the delay accumulated in previous phases of flight (e.g. en-route) or from previous flights (i.e. reactionary).

15 of the top 30 airports improved compared to 2023, with Copenhagen, Dublin, Paris CdG, Gatwick and Lisbon registering increases higher than 5 pp. For the other 15 airports, arrival punctuality deteriorated - Antalya, Vienna and Munich showing a decrease of more than 5pp.

During summer 2024, Antalya airport experienced (almost) daily ATFM Arrival delays due to a combination of aerodrome and ATC capacity regulations which in turn drove reactionary delays for the airport-based operators. Vienna and Munich saw a significant impact of convective weather during the summer months. Airports with a high traffic share of flights on the southeast axis also experienced a negative impact due to ATC capacity delays in Karlsruhe UAC and Budapest ACC.

Another positive this summer was the tangible effort made by airports to reduce **ground delay** by close to 7% compared to summer 2023, in particular for the first rotation of the day where the improvement was 11%.

FIGURE 9: Arrival punctuality of top 30 European airports (June-August 2024 vs 2023)



Way forward

It is important for the aviation community to take stock of the summer 2024, to acknowledge the root causes of such poor performance and to take urgent action to prepare for summer 2025 and the years beyond. A strong commitment by all involved stakeholders will be needed.

The following lines of action have been identified as **priorities**:

- Increased network capacity through ATCO recruiting and improved rostering as an input to the capacity levels set in the NOP.
- Better demand prediction, in particular through the early sharing of airline schedules.
- Stronger ANSPs commitment to the NOP capacity levels, once these have been agreed.

- Improved flight level adherence by both airlines and ANSPs.
- Continued prioritisation of the first rotation, to prevent reactionary delay.
- A more network-centric weather management process, with stakeholder commitment to implement the agreed measures through collaborative decision-making.

Beyond these measures, a deeper structural reform will be needed for the system to be able to cope with medium to long term challenges, such as the expected traffic growth or the effects of climate change.

In the meantime, EUROCONTROL will continue working intensively with all aviation stakeholders to federate all efforts and improve the performance of the European aviation network for a better passenger experience in summer 2025.