

AVIATION SUSTAINABILITY BRIEFING

News and views on
how we can **make aviation
sustainable together**

In this edition:

**EUROCONTROL
Director-General
Raúl Medina addresses
aviation sustainability
at Airspace World
in Geneva**

Interview with Günther Ofner and Julian
Jäger joint CEOs of Vienna Airport

Plans for flight reductions at **Amsterdam-
Schiphol Airport**

Latest news on EUROCONTROL's work
on sustainability

Sustainable aviation news from around
the world

Editor's note



Marilyn Bastin

Head of Aviation Sustainability
EUROCONTROL

Contact:

sustainability-briefing@eurocontrol.int

A new episode on sustainability of EUROCONTROL's podcast series "Raising the Aviation Bar" is available here:

<https://eurocontrolraisingtheaviationbar.podbean.com/>



Dear readers,

I'm happy to share with you our 8th edition of the EUROCONTROL **Aviation Sustainability Briefing** bringing you some very exciting, newsworthy stories from the aviation sustainability field.

Airspace World gathered the aviation community in Geneva in spring this year and EUROCONTROL was proud to again host a joint stand with our "Europe For Aviation" partners: the European Commission, EASA, SESAR 3 Joint Undertaking, SESAR Deployment Manager, European Defence Agency, CINEA, EUROCAE and EUSPA. It was the perfect opportunity for **EUROCONTROL Director General Raúl Medina to share his priorities on aviation sustainability** and how EUROCONTROL will support aviation in its decarbonisation efforts with our #FlyingGreen roadmap. More details on our plans for the work on sustainability are also available in my interview on EUROCONTROL's new "Raising the Aviation Bar" podcast.

Also in this edition: Günther Ofner and Julian Jäger, joint CEOs **at Vienna Airport** kindly shared insight into their success story of being able to operate CO₂-neutrally since the beginning of 2023. They are truly leading by example and I hope that their case will encourage others to move forward with their plans for investing in green energy and implementing significant sustainability best practice.

Due to our close cooperation with the EUROCONTROL Member States to support them in their environmental impact assessments, we have realised the relevance and topicality of the Dutch government's plans to reduce flights to and from Amsterdam-Schiphol airport. **While reducing flights should be the last option according to the balanced approach principles**, it is also evident that governments and administrations are under pressure to deliver on their climate change targets while still balancing the needs of airport communities and the interest of the aviation industry and the local economy. The jury is still out on what will happen at Schiphol Airport but I hope you will find that our article helps to contribute to an informed, educated debate.

Enjoy reading this edition!

"To make aviation sustainable and to speed up decarbonisation we need to ensure that aviation has enough access to renewable energy"



Raúl Medina
EUROCONTROL Director General

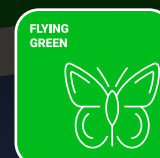
Taking to the stage on the "Europe for Aviation" stand at CANSO's Airspace World, EUROCONTROL Director General, Raúl Medina shared his position on sustainability, underlining for the air traffic management community that "sustainability is not a nice to have, but a key issue for all of us".

Introducing a high-level panel focusing on concrete contributions to sustainability through research, deployment and operations Raúl reminded the audience that while there is work on new aircraft designs and new propulsion systems, there is no single magic bullet; everyone in the aviation community needs to contribute. Efforts need to also include making existing aircraft more sustainable, reducing the use of engines when taxiing; as well as achieving more efficient vertical flight profiles and better horizontal routes. *"But apart from ATM and operational improvements, there are more elements in the equation such as sustainable aviation fuels (SAF) and market-based measures,"* he said. Raúl also highlighted that the debate on aviation sustainability cannot be dissociated from the energy transition: *"We need to connect aviation with a new ecosystem where aircraft will be powered by electricity, hydrogen or SAFs. It is therefore essential to ensure that aviation can get access to enough renewable energy to decarbonize by 2050".*

Raúl emphasised the challenge in front of us: *"by 2050, we not only have to achieve NetZero, we also have to handle an estimated 16 million flights in Europe's skies".* He closed by saying that reaching net zero emissions by 2050 will require coordinated action by multiple players: aircraft industry, airlines, airports, fuel companies, ANSPs, EUROCONTROL (especially in our role as Network Manager and innovation hub), governments and regulators.



Raúl's work programme **"Raising the Bar: Building EUROCONTROL 2030"** firmly commits to sustainability and has set out EUROCONTROL's plan to develop a **brand-new platform of green services called "FlyingGreen"** to support ECAC Member States and operational stakeholders in their efforts to decarbonise. The programme further refers to other areas of EUROCONTROL's work on sustainability, the environmental footprint of the ATM infrastructure, climate change financing and adaptation, how to integrate new entrants such as zero emission aircraft into the European network and more.



More details on #FlyingGreen are also available in the second episode of EUROCONTROL's podcast "Raising the Aviation Bar":
<https://eurocontrolraisingtheaviationbar.podbean.com/>

The session also saw an introductory speech from ICAO president Salvatore Sciacchitano and an intervention on the EU's Fit for 55 package by Henrik Hololei at the time Director General for Transport and Mobility at the European Commission. Raúl's intervention was followed by a high-level panel debate between SESAR 3 Joint Undertaking Executive Director Andreas Boschen, SESAR Deployment Manager Executive Director Mariagrazia La Piscopia, and Iacopo Prissinotti, EUROCONTROL Director Network Management.



(from left to right: Henrik Hololei, European Commission, Andreas Boschen, SESAR 3 Joint Undertaking, Athanassios Tziolas, EASA, Mariagrazia La Piscopia, SESAR Deployment Manager, Anna De Groote, EUROCAE, Raúl Medina, EUROCONTROL, Olivier Silla, CINEA, Christoph Vivier, European Defence Agency, Antonija Katusic, EUSPA.



INTERVIEW

Since January 2023 Vienna Airport has been CO₂-neutral in its operations. Julian Jäger (left) and Günther Ofner (right), joint CEOs of Vienna Airport, tell us what this actually means and how the airport was able to reach this sustainability milestone this year.



Can you tell us what you concretely mean when you say that Vienna Airport's operations are CO₂-neutral? What were the main challenges to reaching CO₂-neutrality? How did you achieve this – and what makes you stand out in the European airport ecosystem?

Günther Ofner, Joint CEO and CFO Vienna Airport:

"In recent years, the airport has reduced its CO₂ emissions per traffic unit by 80% and energy consumption by more than 40%. (Editor's note: One traffic unit equals either one passenger or 100 kg of freight.) Since January 2023, Vienna Airport has been running CO₂-neutral operations, which includes all the operational activities for which the airport is responsible. For this we operate eight photovoltaic systems, one of which is in fact the largest open space photovoltaic system in Austria. By the end of 2023 we will double our PV capacity to 45 hectares. This means that Vienna Airport will in future produce around 40% of its annual electricity consumption itself. Other important influencing factors are the supply of CO₂-neutral district heating, the increased use of e-mobility and sustainable building management."

If you had to give advice to other airports on how to improve their sustainability, what would you say should be their priorities?

Julian Jäger, Joint CEO and COO of Vienna Airport:

"Many European airports are already taking extensive measures here and some airports have already come a long way. With its CO₂-neutral operations, Vienna Airport has joined the ranks of green airports. This was made possible by being open to new innovative approaches, looking for cooperation and thinking outside the box. The next step will be the inclusion of external partners and suppliers in the CO₂ analysis of the site. Our goal is to achieve net-zero carbon emissions by 2033."

To reduce any residual emissions, airports use the so-called Negative Emissions Technologies (NETs). NETs rely on natural processes ('carbon sinks' such as forests) or dedicated technologies (carbon capture and storage) to eliminate CO₂ from the atmosphere. Is this something Vienna Airport has also used?

Günther Ofner: "We implement and support reforestation measures on land in the airport region. In 2022, for example, we planted over 1,700 trees in an area near the airport. The rewetting of moors is also interesting for us and we are already planning some projects."

In your opinion, what can aviation actors, from airspace users to airports, to policymakers and EUROCONTROL, do to make aviation more sustainable faster?

Julian Jäger: "I am convinced that air travel will be the first mass transport mode to operate in a CO₂-neutral manner, through the use of sustainable aviation fuels (SAF). These fuels can be used with conventional propulsion systems and that is a huge advantage. The manufacturing processes already exist, and with the admixture specifications provided by the European Union, demand will also increase. Support for investments in research and development is also important in order to advance large-scale production. From my point of view, this is at least the most important measure with which international aviation can be made CO₂-neutral across the board, and I believe far-reaching improvements for climate protection can be achieved."



photovoltaic system at Vienna Airport



Plans for flight reductions at Amsterdam-Schiphol: the debate is still open

Balancing the needs of local communities, the industry and climate targets is more than ever a challenging task, as experienced by the Dutch government in its attempt to raise the bar in favour of the environment. The government had proposed to reduce the number of flights to/from Amsterdam-Schiphol airport from 500,000 to initially 460,000 a year with the intention and expectation to arrive at 440,000 by the end of 2024 (11% less than in 2019). While welcomed by many local residents, the unprecedented initiative gave rise to much concern from the aviation sector and in particular, the affected airlines. In April, a Dutch court ruled in favour of IATA, KLM and other airlines stating that the State had not followed the correct procedure and as a result will not be allowed to reduce flights for the coming year. Shortly after, the Ministry of Infrastructure announced that it will appeal. During a EUROCONTROL webinar Lisanne van Houten, Lead Aviation and International Relations (Planned Capacity Reduction Schiphol), Dutch Ministry of Infrastructure said:

"The Dutch government's decision to reduce slots at Schiphol has not been an easy one and was not taken only due to noise but due to a broader trade-off between the interests of local residents and the environment on the one hand and Schiphol's function as aerial gateway to the world on the other hand."



Ministerie van Infrastructuur
en Waterstaat

ICAO's Balanced Approach focused on aviation noise Annex 16 of the Chicago Convention contains provisions for the so-called Balanced Approach to Aircraft Noise Management which states are obligated to follow when taking measures to managing the noise impacts of aviation.

Key requirements are:

- Consultation with affected parties
- The use of flight reductions only as a last resort
- Balancing the needs and concerns of local residents, the environment and the local economy for aviation's economic and social benefits.

Amsterdam Schiphol Airport has an extensive international route network that connects the Netherlands to the world contributing significantly to the country's prosperity. In 2019, on average 1,395 flights arrived/departed the airport every day leaving a significant noise impact in the highly urbanised area. Local residents are exposed to aircraft noise and are also concerned about the impact of air traffic and airports operations on their health, the natural environment and the climate more generally.

Operating restrictions are a measure of last resort in international aviation rules. Lisanne van Houten has made it clear that the Ministry is still planning to evaluate measures based on the four Balanced Approach pillars: noise reduction at source, land-use planning and management, noise abatement operational procedures and finally noise operating restrictions. All measures have been included in the Ministry's Balanced Approach consultation document, which was issued on 15 March. The 3-month consultation phase will run until 15 June.

"The final number of flight movements is still subject to the outcome of the Balanced Approach procedure. We intend for the movement reduction to apply for five years and it is therefore a temporary solution. For the future, we are developing a norms-based system, incorporating noise and other emissions. Under this future system, there will be room for the development for the aviation industry, if and when noise nuisance and other emissions have decreased."

Aircraft operators remain worried about the Dutch government's plans as they see connectivity and jobs threatened and their investment in fleet renewal and other efforts for more sustainable air transport disregarded. But it is not just that airlines see instability for their planning or dropping revenues. Aviation experts from across different fields also wonder if flights that will no longer be able to take off/arrive at Schiphol will shift to other airports in the vicinity such as Rotterdam, Eindhoven, Liege or Brussels. This could reduce the airspace capacity around these neighboring airports and add additional noise to their communities. Adjusted air traffic flows would then in consequence also lead to higher CO₂ emissions in the overall transport cycle.

A KLM spokesperson said: *"The demand for airline tickets is not declining, people want to continue to travel. With fewer flight movements at Schiphol there is a risk that there will be more noise nuisance: if you have to perform fewer flights, you will use larger aircraft. The decision does not take into account alternative measures that have the same or even better result. It is precisely those alternatives that produce less CO₂ and noise while retaining the network. So that millions of Dutch people can continue to fly from Schiphol for business, vacation, study or family visits. The Ministry's plans take insufficient account of negative consequences for travelers in the Netherlands such as more frequent transfers and longer travel time. It also creates a less attractive business climate. In addition, the draft experimentation scheme is in conflict with national and European legislation and with international treaties. We see that America, among others, is very concerned about this. We think that with fleet renewal, the purchase of SAF and operational measures we can achieve a better result."*

Following the court decision that freezes the application of a flight cap for the year to come, no doubt consultations will intensify. The debate will also be fed by the latest Dutch government announcement of a separate plan to implement a CO₂ ceiling at each airport in the Netherlands to guarantee the country reaches its climate goals. This CO₂ emissions cap is set to apply from 2025 onwards. In an ECAC webinar held on 29 March, a representative of the Dutch government clarified that this should not be seen as an additional restriction, but simply as a means to turn the 2030 targets already set for the CO₂ emissions of international aviation from the Netherlands (a reduction of at least 50% by 2050 compared to the 2005 baseline) – into binding and enforceable regulatory limits.

"We think that with fleet renewal, the purchase of SAF and operational measures we can achieve a better result."

KLM spokesperson

Latest news on
EUROCONTROL's

work on sustainability

EUROCONTROL MUAC to improve prediction on contrail prevention



In partnership with the German Aerospace Centre (DLR), EUROCONTROL Maastricht Upper Area Control Centre (MUAC) carried out the world's first live contrail prevention trial in 2021 and now continues its investigations. The trial proved that contrail formation can be prevented by diverting aircraft and changing the altitude at which they fly, thus reducing their impact on climate change and global warming. However, it was discovered that predicting areas where contrails will form is difficult in practice, as is the verification of contrails via geo stationary satellite images. The plan is now to build on the results of trials held in 2021 by carrying out more concentrated trials using real-time simulations to set up working procedures and capacity measures. Working with new partners from weather services, EU consortia, science and industry, the MUAC/DLR contrail prevention project team expects to be able to improve predictions of contrail-prone areas using cameras and satellite pictures.

EU Tourism Dashboard supported by EUROCONTROL data



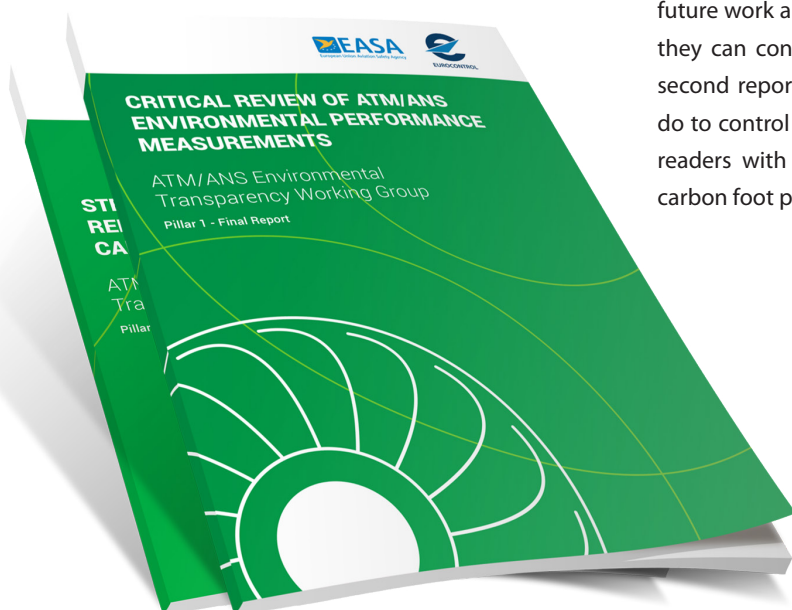
<https://tourism-dashboard.ec.europa.eu/>

EUROCONTROL has supported the European Commission's recently released EU Tourism Dashboard with aviation emissions data. The aim of the tool is to help policy-makers to get better access to statistics and policy-relevant indicators for tourism, supporting destinations and public authorities in tracking their progress in the green and digital transition. The tourism ecosystem was one of the most heavily affected by the measures put in place to curtail the COVID-19 pandemic. Making this ecosystem more resilient through the twin transition has become a strong European policy priority.



EUROCONTROL and EASA release **report on environmental transparency for air navigation service providers** and **step-by-step guide to improve**

EASA and EUROCONTROL - in close cooperation with a dozen of sustainability experts from different air navigation service providers (ANSPs) - have released two environmental reports. One report looks at environmental performance measurements and identifies strategic and technical recommendations for future work aiming to help the ANSPs to identify areas where they can contribute to strategic decarbonisation goals. The second report is a step-by-step guide on what ANSPs can do to control their own environmental impact. It also equips readers with the knowledge and tools necessary to apply carbon footprinting into their own ANSP business processes.



Sustainability developments from around the world



UK drives forward initiatives on Sustainable Aviation Fuel

In March, the UK's government unveiled a package of measures to turbocharge the progress towards decarbonising transport. It opened the second application round of the £165 million Advanced Fuels Fund to help deliver on the commitment to have at least 5 commercial scale UK sustainable aviation fuel (SAF) plants in construction by 2025, a central piece to the UK's Jet Zero Strategy. Additionally, a second consultation on the SAF mandate has been launched, and the University of Sheffield has been chosen to deliver the UK's first Sustainable Aviation Fuel Clearing House - to support the testing and certification of new SAF.

Sustainable Aviation Fuel (SAF) producer NESTE and WizzAir agree on SAF supply



Wizz Air has signed a Memorandum of Understanding (MoU) with Neste, for the supply of sustainable aviation fuel (SAF) from 2025. The MoU gives Wizz Air the opportunity to purchase 36,000 tons of SAF from Neste per annum for the supply across the airline's route network in Europe and the UK. The co-operation will ensure Wizz Air's progress in reducing carbon emissions intensity by 25% by 2030 and reach net-zero by 2050.

Lufthansa Group rolls out green fares



Lufthansa

The Lufthansa Group offers a new product for more climate-friendly flying since mid-February. The Green Fares will make it possible to fly more sustainably in the future with just one click, as the new fares already include offsetting of flight-related CO₂ emissions. This is achieved by using 20 percent Sustainable Aviation Fuels (SAF) and 80 percent by contributing to high-quality climate protection projects. The Green Fares also offer additional status miles and a free rebooking option. The Green Fares were already successfully tested in 2022 for flights from Denmark, Sweden and Norway. Now Lufthansa Group is adding them to their fare-structure for flights throughout Europe and North Africa.



www.eurocontrol.int