

16th Florence Air Forum

Navigating Towards the Decarbonisation of European Aviation

24 September 2021

Hybrid event

Organised by the Florence School of Regulation, Transport Area, European University Institute, and DG MOVE, European Commission

Introduction

The [European Green Deal](#) sets the objective of transforming Europe into the world's first climate neutral continent by 2050. In order to place Europe on a responsible path to meeting this target, EU member states have subsequently committed to collectively reduce greenhouse gas (GHG) emissions by at least 55% from 1990 levels by 2030. The achievement of these ambitious targets will largely depend on our ability to make the transport system as a whole more sustainable.

Prior to the COVID-19 pandemic, aviation was one of the fastest-growing sources of greenhouse gas emissions, directly accounting for about 3% of the EU's total emissions and more than 2% of global emissions. The emissions from departing flights in Europe (EU 28 and EFTA) increased by 10% between 2014 and 2017, and before the onset of COVID-19, were projected to grow by a further 21% by 2040¹. Despite the fact that the pandemic has caused a visible drop in air traffic and aviation emissions, the upward growth in emissions will likely resume unless the aviation sector and governments take further measures to ensure the aviation sector's growth is compatible with set climate objectives.

A number of legislative processes are already underway at the EU level to support the aviation sector's decarbonisation. A key measure in the "Basket of Measures" is increasing the use of Sustainable Aviation Fuels (SAFs), such as advanced biofuels and electro-fuels, which hold significant potential to reduce aircraft emissions. To this end, the Commission's recently launched [ReFuelEU Aviation Initiative](#) is currently assessing options to boost the production and uptake of SAFs in the EU, which today account only for 0.05% of total jet fuel consumption. Significant efforts will also be needed to develop disruptive technologies to bring zero-emission aircraft to the market.

For these low- and zero-emission fuels and technologies to be deployed in the aviation sector an enabling EU policy framework will need to be put into place, including through the enactment of adequate carbon pricing policies and research and innovation (R&I), in particular, through the partnerships under Horizon Europe (e.g., 'Clean Aviation' and 'Clean Hydrogen'). The reduction of the EU Emissions Trading System (ETS) allowances allocated for free to airlines is another avenue the Commission will explore whilst closely coordinating with actions at the global level, notably with the International Civil Aviation Organisation (ICAO).



In October 2016, ICAO agreed on a Resolution for a global market-based measure, the so-called [Carbon Offsetting and Reduction Scheme for International Aviation](#), or CORSIA, which is set to compensate the growth of CO2 emissions from international aviation beyond 2019/2020 levels, as of 2021. More specifically, airlines will be required to monitor emissions on all international routes as well as to offset emissions from routes included in the scheme by purchasing eligible emission units generated by projects that reduce emissions in other sectors (e.g., renewable energy). In view of this, the Commission has initiated a [revision of the EU ETS Directive](#), including how it will put CORSIA implementation by the EU into effect in a way that is consistent with the EU's 2030 climate objectives.

The implementation of ambitious standards for the design and operation of aircraft can further improve energy efficiency and reduce aircraft emissions. What is more, operational measures, such as the establishment of more sustainable and efficient flightpaths, could reduce up to 10% of air transport emissions, while avoiding the unnecessary waste of jet fuel and related costs. The Commission's recent [proposal](#) for the upgrade of the Single European Sky regulatory framework seeks to achieve this as part of its overarching objective of modernising the management of the European airspace.

Against this backdrop, the 16th Florence Air Forum, jointly organised by the Transport Area of the Florence School of Regulation and the European Commission's DG MOVE, will take the 2030 and 2050 perspectives on the progressive decarbonisation of civil aviation in the EU and globally. This, in particular, will involve the examination of the industry's recently published [Destination 2050 roadmap](#), the ongoing work in the ICAO on establishing a long-term aspirational CO2 goal and the actions planned under the Commission's [Sustainable and Smart Mobility Strategy](#) in relation to the European Green Deal.

More specifically, the forum will bring together key aviation stakeholders representing EU and national policymakers, airlines, airports, technology manufacturers, air traffic control, and civil society, among others, for a timely discussion on the following three questions:

1. How aligned are the EU Sustainable and Smart Mobility Strategy, the Aviation Roundtable Report, Destination 2050 Report and (upcoming revised) ACARE Flightpath 2050 in terms of aviation decarbonisation? Where are the interconnections and possible gaps?
2. What EU policy framework support is needed for the two major avenues, i.e. Sustainable Aviation Fuels and "zero emission" aircraft?
3. How to extend the EU framework and approach to the global level? How to drive ICAO towards decarbonisation?

Programme

24 September

09:00 - 09:20 *Setting the Scene*

Matthias Finger | Florence School of Regulation, Transport Area, European University Institute

Filip Cornelis | DG MOVE, European Commission

A - How aligned are the EU Sustainable and Smart Mobility Strategy, the Aviation Roundtable Report, Destination 2050 Report and (upcoming revised) ACARE Flightpath 2050 in terms of aviation decarbonisation? Where are the interconnections and possible gaps?

09:20 - 10:20 *Roundtable discussion*

Martina di Palma | European Regions Airline Association (ERA)

Andrew Murphy | Transport and Environment

Annette Mann | Lufthansa Group

10:20 - 10:30 Break

B - What EU policy framework support is needed for the two major avenues, i.e. Sustainable Aviation Fuels and “zero emission” aircraft?

10:30 - 11:30 *Roundtable discussion*

Kevin Soubly | Clean Skies for Tomorrow, World Economic Forum

Tine Tomažič | Pipistrel

Ron Van Manen | Clean Aviation

11:30 - 11:40 *Break*

C - How to extend the EU framework and approach to the global level? How to drive ICAO towards decarbonisation?

11:40 - 12:40 **Olivier Husse** | Airbus

Konstantina Chrysikopoulou | Hellenic Civil Aviation Authority (HCAA) and ICAO CAEP Member of Greece

Michael Lunter | Netherlands, Co-chair of the ICAO CAEP Task Group on a Long-Term Aspirational Goal

D - Concluding Session

12:40 - 13:10 *Concluding Remarks*

Matthias Finger | Florence School of Regulation, Transport Area, European University Institute

Filip Cornelis | DG MOVE, European Commission