DESTINATION 2050

A ROUTE TO NET ZERO EUROPEAN AVIATION

INDUSTRY COMMITMENTS

Destination 2050: The European Aviation Sector's Climate Mission

The Destination 2050 initiative and roadmap developed by NLR and SEO at the request of A4E, ACI EUROPE, ASD, CANSO and ERA show an ambitious decarbonisation pathway for European aviation:

1) In line with the *Aviation Round Table Report on the Recovery of European Aviation*[1] and on the basis of the Destination 2050 roadmap[2], A4E, ACI EUROPE, ASD, CANSO and ERA commit to work together with all stakeholders and policy-makers to achieve the following climate objectives:

   - Reaching net zero CO_2 emissions by 2050 from all flights within and departing from the EU.[3] This means that by 2050, emissions from these flights will be reduced as much as possible, with any residual emissions being removed from the atmosphere through negative emissions, achieved through natural carbon sinks (e.g., forests) or dedicated technologies (carbon capture and storage). For intra-EU flights, net zero in 2050 might be achieved with close to no market-based measures.

   - Reducing net CO_2 emissions from all flights within and departing from the EU by 45% by 2030 compared to the baseline.[4] In 2030, net CO_2 emissions from intra-EU flights would be reduced by 55% compared to 1990 levels.

   - Assessing the feasibility of making 2019 the peak year for absolute CO_2 emissions from flights within and departing from the EU.

2) With the Destination 2050 roadmap and through these commitments, the European aviation sector contributes to the Paris Agreement, recognising the urgency of pursuing the goal of limiting global warming to 1.5°C. By doing so, the aviation sector is also effectively contributing to the European Green Deal and EU's climate neutrality objective.

3) Putting into action our determination to Build Back Better from COVID-19, we invite European and national policy-makers to be strong partners in this endeavour, strengthening the pillars described in the Destination 2050 roadmap and taking into account the Air Transport Action Group's (ATAG) Waypoint 2050 report, presenting decarbonisation pathways for the global aviation sector. Indeed, the above-mentioned commitments are subject to securing the required supporting policy and financing framework at EU and national level.

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[1] Aviation Round Table Report on the Recovery of European Aviation, November 2022.

[2] https://www.destination2050.eu/report

[3] Destination 2050 encompasses all flights within and departing from the EU+, i.e. the European Economic Area, Switzerland + UK. For the sake of simplicity, "EU" is used to address this region throughout the document.

[4] The baseline is a hypothetical 'no-action' scenario whereby CO_2 emissions are estimated based on the assumption that aircraft deployed until 2050 have the same fuel efficiency as in 2018. Such a scenario is purely hypothetical, because even without additional sustainability measures, fuel efficiency is likely to improve due to already implemented climate policies and industry action.

4) We therefore urge national governments and the EU to establish a policy framework that effectively enables industry to decarbonise and provides the necessary clarity and stability. The European Green Deal offers a great opportunity for this. All actors of our sector should be able to recover the costs of decarbonisation through access to private capital and relevant public funding. As such, it is critical that decarbonisation initiatives of all stakeholders in the air transport ecosystem are included in the EU taxonomy for sustainable investments as well as the EIB lending policies.

5) Working towards these objectives will also require joint efforts from all actors in the European air transport ecosystem - including airlines, airports, Air Navigation Service Providers (ANSPs), manufacturers, ground handlers and fuel producers together with all policymakers. Taking this leadership position, the European aviation sector is also sending a strong message to the rest of the industry globally and will use its influence to encourage wider adoption of its objectives and related actions, including the long-term global aspirational goal for international aviation (LTAG) to be agreed at ICAO in 2022.

6) Policies must be designed in a way which avoids distortion of competition between European and non-European aviation stakeholders and within the single aviation market. In a similar vein, we call on jurisdictions outside the EU to further support and accelerate aviation decarbonisation, in particular by working under the mantle of ICAO. A level playing field is indispensable to enable aviation to decarbonise without compromising its ability to continue delivering social and economic benefits globally.

7) Industry action and policies are required across four main pillars:

   - Aircraft and engine technology
   - Air Traffic Management (ATM) and aircraft operations
   - Sustainable Aviation Fuels
   - Smart economic measures

8) These measures directly address reductions in net emissions. Based on the Destination 2050 roadmap, the additional costs of these efforts may have an effect on demand. As a result, affordable air connectivity could potentially be impacted along with other sectors that rely on it.

9) Air transport growth and the revenues it generates will enable the aviation ecosystem to invest into its successful green transformation. Based on the Destination 2050 roadmap, European air passenger numbers are still projected to grow by an average of approximately 1.4% per year until 2050, without compromising the sector's ability to reach net zero CO_2 emissions in 2050. Destination 2050 thus shows that European air transport can grow in a sustainable manner.

10) The modelling in Destination 2050 identified a range of emissions reductions stemming from the above mentioned four pillars (point 7)) which taken together can deliver net zero CO_2 emissions for flights within and departing from the EU by 2050.

11) To fulfil the CO_2 reduction potential of the four pillars analysed in the roadmap:

- **Industry will:**
    - Continue to substantially invest in decarbonisation
    - Develop more energy-efficient aircraft and bring these into operation through continued fleet renewal
    - Develop hydrogen-powered and (hybrid-)electric aircraft and supporting (airport and heliport) infrastructure and bring it to the market
    - Scale up drop-in SAF production and uptake
    - Implement the latest innovations in ATM and flight planning
    - Compensate remaining CO_2 emissions by removing CO_2 from the atmosphere
- **Governments should**:
    - Support industry investments through incentives or by reducing risk through a consistent and stable policy framework
    - Stimulate further development and deployment of innovations by funding research programmes and promoting carbon removal technologies (Clean Aviation, SESAR partnerships, etc.)
    - Work with the energy sector to ensure sufficient availability of renewable energy at affordable cost
    - Support the development of the SAF industry
    - Contribute to optimising ATM, in particular by fully implementing the Single European Sky

12) Through these commitments, the European aviation sector is also making a significant contribution to its proposed EU Pact for Sustainable Aviation, set forth in the *Round Table Report on the Recovery of European Aviation.* This Pact would allow the formalisation and enactment of the required partnership between industry and European & national policy makers ensuring agreement on joint sustainability targets and alignment between the related industry contribution and roadmap on the one hand and the enabling regulatory and financial framework on the other.

    We are counting on the European institutions and Member States to actively embrace and drive our proposed EU Pact forward.