Zero-Emission Aviation: Commission launches new Alliance to make hydrogen-powered and electric aircraft a reality

Brussels, 24 June 2022

Today, the Commission officially launches the Alliance for Zero Emission Aviation, calling on the members of the aviation community to join forces in preparing for the advent of zero emission aircraft.

The Alliance for Zero Emission Aviation aims to prepare the aviation ecosystem for the entry into service of hydrogen- and electric-powered aircraft, to ensure that air transport contributes to Europe's 2050 climate neutrality objective. It will gather representatives of aircraft manufacturers, airlines, airports, energy companies and fuel providers, standardisation and certification agencies, passenger and environmental interest groups and regulators.

They will jointly work to identify all barriers to the entry into commercial service of these aircraft, establish recommendations and a roadmap to address them, promote investment projects and create synergies and momentum amongst members. In particular, the members will look at issues such as the fuel and infrastructure requirements of hydrogen and electric aircraft at airports, standardisation and certification, and the implications for operators (airlines) and air traffic management.

Over the next two decades, more than 44,000 new aircraft are expected to be placed on the market. The potential market volume for zero emission aircraft has been estimated at 26,000 by 2050, with a total value of €5 trillion.

The Alliance will eventually deliver on the commitment to align the sector with the EU's climate ambition, goals and other related policies. The international dimension of the sector is also a major element, as tackling climate change is a global effort.

Members of the College said:

Executive Vice-President for the Digital Age, Margrethe Vestager, said: "With the advent of zero emission aircraft Europe is writing the next chapter in aviation. Climate-neutrality is the passport for growth, and the Alliance for Zero Emission Aviation will help the European aeronautical industry to pave the way for a competitive and clean aviation."

Commissioner for Internal Market, Thierry Breton, said: "Europe's aeronautics industry is the most innovative in the world. And its enthusiasm – from large manufacturers to equipment suppliers and small companies and start-ups – to lead the way to hydrogen and electric propulsion aircraft is really encouraging. But the entire aviation ecosystem, including fuel suppliers, airport operators and regulators, also needs to get ready. The Alliance for Zero Emission Aviation will help coordinate efforts by companies and organisations to maintain a competitive and sustainable aviation sector."

Commissioner for Innovation, Research, Culture, Education and Youth Mariya Gabriel, said: "I welcome the launch of the Alliance for Zero Emission Aviation, which is an important step to ensure that we can bring our European research and innovation activities on clean aviation to the market. The activities of the Alliance will deliver the framework conditions that will be needed for the successful future deployment of zero emission aircraft in Europe."

Next Steps

Private and public entities from the aviation community who committed to supporting the entry-into-service of zero emission aircraft are invited to join the Alliance for Zero Emission Aviation through the online form.

A first meeting of the general assembly will take place in autumn this year.

Background

The European aeronautics industry together with other European players in the aviation sector made the commitment to ensure that air transport in Europe meets Europe's 2050 climate objectives. The
Commission is supporting this objective through concrete action like the Clean Aviation Programme under Horizon Europe, carbon-pricing mechanisms (e.g. EU ETS) and the Innovation Fund. These initiatives support the development of zero emission aircraft based on novel propulsion technologies (e.g. electric, hydrogen). Such environmentally sustainable aircraft have huge market potential and may strongly contribute to industry’s future competitiveness in all market segments.

Under Horizon Europe, the EU Framework programme for research and innovation, the Commission together with industry is investing €1.7 billion in research and innovation activities for climate-neutral aviation in the Clean Aviation partnership. Building on previous EU research and innovation partnerships, the Clean Aviation Partnership aims to have zero emission technologies ready by 2027-2029 in order to have zero emission aircraft ready for entry into service by 2035. The disruptive new technologies that are being developed within the Clean Aviation Partnership are expected to reduce greenhouse gas emissions by 30-50%, compared to 2020 and are thus crucial for the delivery of the European Green Deal.

On 4 February 2022, the Member States of the European Union, several Member States of the European Civil Aviation Conference and the Commission as well as companies and stakeholders from air transport and energy sectors endorsed the Toulouse Declaration on future sustainability and decarbonisation of aviation.

Zero emission propulsion technologies are key to mitigating aviation's CO₂ emissions, corresponding to at least 3% of global warming. This does not include, the impact of non-CO₂ emissions, which are responsible for two thirds of the sector's climate impact. The introduction of hydrogen and battery-electric propulsion will entail major changes to the air transport system. These technologies will not only lead to a new generation of aircraft but also require major changes to airport infrastructures, airlines, air traffic management and energy networks.

The alliance will work in full complementarity with the Renewable and Low-Carbon Fuels Value Chain and the Clean Hydrogen Industrial Alliances.

**For More Information**

- Video on Alliance for Zero Emission Aviation (AZEA)
- Alliance for Zero Emission Aviation (AZEA) webpage
- Terms of Reference for the Alliance
- Declaration of the Alliance
- Factsheet on the AZEA
- EU Industrial Alliances webpage

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