



European Aeronautics

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A strategic proposal beyond 2020

by

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Parliament (SSI)



Aeronautics is a vital sector of our society and economy and must be considered as a wide ecosystem composed of industrial actors (manufacturers for civil and military markets), airport platforms and airlines. It is also of importance for the sovereignty and strategic interests of the European Union and its Member States. It is a sector which meets society's needs by:

- ensuring appropriate and sustainable mobility for passengers and freight
- generating wealth and economic growth (total turnover equates to more than €160bn) supporting and stimulating the role of SMEs, start-ups and entrepreneurship in the EU
- contributing significantly to the balance of trade and European competitiveness (€46bn extra-EU exports, accounting for a third of the world market)
- providing highly skilled jobs (half a million highly qualified jobs) and stimulating innovation
- fostering Europe's knowledge economy through substantial R&D investment (ca. 12% of turnover)
- contributing in many different ways to global safety and security
- supporting the most sustainable, the most economical and least energy consuming technology

In addition to the above, as part of the overall aviation sector, the aeronautics sector contributes to 15 out of 17 UN Sustainable Development Goals, to some in small ways and to others with much more significant influence [ATAG 2017 report].

The strength of today's aeronautical industry results from the combination of a highly qualified workforce, robust strategies and continuous efforts on quality, safety, environment standards, and more widely on innovation. As an illustration, each new generation of aircraft is usually 15-20% more efficient than the previous generation of aircraft it replaces. In this respect, EU financial support has been critical to success. Clean Sky 2, SESAR 2020 and transport collaborative programmes have achieved impressive results in terms of cleaner technologies for civil aviation:

- more efficient engines and bio-fuels,
- more efficient aircraft (i.e. airframes, components, wings, etc.),
- improved Air Traffic Management technologies and procedures,
- greener taxiing technologies and improved airport operations,
- more environmentally friendly materials as well as
- longer term research on break-through technologies including electrically powered aircraft.

However, **there is no time for complacency**. The international competition is becoming increasingly fierce from established traditional rivals such as the US and from strong new challengers, notably Brazil, Canada, China, India and Russia. The industry is also exposed to excessive and hidden state subsidies in other parts of the world as well as to technical demands aimed at reducing emissions, despite a considerable increase in passenger numbers and a duplication of passenger planes until 2035. Furthermore, complex new requirements in the field of security (e.g. countering terrorist threats, cybersecurity) and changes resulting from digitalisation and innovation (e.g. drones, autonomous flights) are part of these enormous challenges.

Five High Level lines of action are proposed to enable Europe to succeed:

1. Develop an EU industrial strategy for the European aeronautical industry to ensure its competitiveness and continued leadership in the global civil aviation market. Ensure this competitiveness meets the optimal standards of transparency to support fair competition. Implement in this context also a SME-oriented strategy with economic diplomacy tools in order to foster the internationalization of European companies.
2. Ensure Europe remains a leader in terms of sustainable, safe and more environmental-friendly aviation.
3. Ensure Europe also stays in a leading position in developments relating to energy transition for civil aviation.
4. Ensure that Europe becomes a leader on cybersecurity, digitalization and emerging technologies
5. Increase EU funding for civil aviation research and innovation and increase EU support against market-distorting measures of third countries

These five high-level lines of action can be broken down in 12 concrete action points where the European Institutions can make the difference:

1. **Increase EU civil aviation research/innovation funding** to adequately support the European industry in reaching the ambitious ACARE Flightpath 2050 goals and maintaining the grant-based funding system in FP9. As part of that effort, funding for SESAR and CleanSky in the next MFF should be doubled to 5 bln €.
2. Support and increase the funding of SMEs and start-ups to continue creating jobs and adding value to EU internal market.
3. Support Europe's continued leadership in **sustainable and more environmental-friendly aviation**, which is highly dependent on continued funding for civil aviation research programmes through
 - a. launching **Clean Sky 3**, which should encompass the full scope of aeronautic research from upstream to full scale demonstrators involving the whole industrial ecosystem (from large companies to SMEs, Academia and Research Organisations), in order to further develop cleaner technologies and safeguard EU industrial competitiveness.
 - b. launching **SESAR 3** which should continue to encompass the full scope of ATM research, as the technological pillar of the Single European Sky Initiative.
 - c. **Accelerate the deployment of SESAR solutions** building on the existing work of the SESAR deployment manager. An appropriate budget should be dedicated to SESAR deployment as part of the successor programme to the Connecting Europe Facility (CEF) in the next Mid Financial Framework (MFF). Public funding should mainly be used to give bigger incentives to customers that are deploying new technology early.
4. **Digitalization** (including Digital Aviation Structure to accommodate new automated flying platforms), **automation and electrification** should be key priorities of the next European Research and Innovation policy agenda. European technology has always been an important contributor to the very high **safety** levels achieved by the worldwide civil aviation community (3.8 accidents per million departures for scheduled commercial flights above 5.7 tonnes). Safety should never be taken for granted however and work should therefore continue to develop new technology which can enhance safety even further.
5. Develop **education & training programmes** which should include **civil aviation cybersecurity, automation and digitization skills** as an **EU-wide strategy**.
6. Support ambitious EU research, deployment and regulation for **drones** (from small to large certified drones) and **urban air mobility** into a safe and effective interconnected transport system.
7. Initiate a **high level sectoral group** bringing together the EU institutions and the industry and task a **single Commissioner** to ensure a coherent and efficient Aeronautics industrial strategy.
8. Build an "**Aerospace Watchtower**" at Commission level, i.e. monitoring non-tariff barriers in key aerospace regions and assessing the relative competitiveness of the EU aeronautics industry.
9. "**Promote European safety regulations, certification standards and policies**" on the international stage as a core official mission of **EASA's** new mandate (mirroring the US FAA) and where beneficial, allow EASA to set up **more offices in third countries**; calls further for a **swift adoption of the EASA mandate**.
10. **Strengthen the voice of the EU in international bodies, such as ICAO** to ensure that international standards and policies take into account the European civil aviation concerns in **trade agreements** by appointing an aerospace representative in the Advisory Group on trade agreements to be created by Trade Commissioner Malmström.
11. **Encourage the insertion of aeronautics as key sector for EU economic diplomacy** as in the trade policy of the EU led by EEAS and concerned directorate generals.
12. **Ensure a high level for the rights of workers** in the aeronautics industry as in the area of social security, a financially secure income base and regular advanced training especially in the area of digitalization; further respect of the rights of passengers.

