

**FUTURE
STARTS
ABOVE**



BDLI Position on Aviation Research in FP10

BDLI – German Aerospace Industries Association



1. Summary

The European aerospace industry is at a turning point. Without strategic and sustainable support, Europe risks losing its global leadership position in this **key strategic industry**.

In order to meet the challenges of the future and establish a stable framework that provides the **necessary financial planning security for industrial co-financing**, a future EU Framework Programme for Research and Innovation FP10:

- should be designed as an **independent programme** within the EU's Multiannual Financial Framework (MFF) in terms of **budget and content**,
- should continue to provide **targeted support for aeronautics research** and provide a long-term and **binding budget** for this purpose.

The Clean Aviation and SESAR public-private partnerships have already proven to be a successful funding instrument in the EU Research Framework Programme, and we recommend that they be continued/followed up in the future.

Through decisive action, Europe can **shape the future of aviation** and enable the industrial transition to a more sustainable, competitive and sovereign aviation.

2. Strategic importance of the aviation sector

- **Economic Contribution:** The European aviation industry directly supports over one million jobs and contributes €286 billion annually to the EU's GDP. Globally, aviation supports 86.5 million jobs and accounts for 3.9% of global GDP. These figures underline the sector's central role in economic stability and growth. Beyond direct employment, the industry significantly influences supply chains, tourism, and manufacturing.
- **Global and Regional Connectivity:** Aviation remains vital for international trade, tourism, and mobility. In 2023, global air traffic transported 4.4 billion passengers and goods worth over €8 trillion – including critical medical supplies and vaccines. This connectivity creates business opportunities, fosters cultural exchange, and facilitates humanitarian aid.

- **Environmental Impact and Sustainability:** Technological advances have significantly reduced aviation's environmental footprint over recent decades. Modern aircraft consume 80% less fuel than those from the 1960s, and CO₂ emissions per passenger kilometer have decreased by over 50% since 1990. However, further efforts are necessary to achieve climate neutrality by 2050. Europe must invest in technologies such as sustainable aviation fuels (SAF), hybrid-electric propulsion, hydrogen-based solutions, and optimized air traffic management to ensure a greener future for aviation.

3. FP10 as a key element of an EU aviation strategy

The aviation industry must manage the transition to a low-carbon economy while remaining globally competitive. This requires coordinated strategic support from the EU and its member states. Key priorities include:

- **Sustainable R&D Investment:** A dedicated EU research and innovation framework programme – FP10 – should enable cross-border and cross-sector collaboration among industry, SMEs, research institutions, universities, and users. It supports projects and results that national programmes alone cannot achieve. Success has depended on integrating the full R&D spectrum, from basic research to large-scale demonstrators. Public-private partnerships (PPPs) such as Clean Aviation and SESAR provide critical mass for major demonstration projects that would otherwise be unfeasible.
- **Doubling Aviation Research Funding:** Achieving major advances in fuel efficiency, noise reduction, alternative propulsion, and air traffic optimization requires doubling the current funding levels for aviation research. All stages of the innovation chain should be considered.
- **Flexible and Efficient Financing Mechanisms:** Simplified access to funding – especially for technology providers, SMEs, and startups – will accelerate innovation.
- **Strengthening Industrial Competitiveness:** Europe must safeguard its leadership through investment in pilot plants, a resilient supply chain, and digital transformation across all segments.

- **Sovereignty over Critical Resources:** Dependence on external suppliers for key technologies and materials should be reduced through European initiatives.
- **Regulatory and Certification Reform:** New aviation technologies demand updated certification processes that accelerate approval while maintaining safety and efficiency.
- **Infrastructure Development:** The transition to sustainable aviation requires significant investment in airports, including hydrogen refueling stations, electric aircraft charging infrastructure, and optimized ground operations.
- **Workforce Development:** The industry must train skilled professionals in new technologies such as digitalization, automation, and alternative energy. Investment in education, certification and vocational training is crucial for future-proofing the sector.

4. Technological priorities for future aviation

To maintain global leadership, Europe must invest in cutting-edge technologies. Key areas include:

- **Next-Generation Aircraft and Propulsion Systems:** Future aircraft must incorporate lightweight materials, hybrid-electric or hydrogen propulsion, advanced aerodynamics and system architectures to reduce fuel consumption and emissions.
- **Digital Transformation in Aviation:** Artificial intelligence, the Internet of Things, and real-time data analysis will revolutionize aircraft operations, maintenance, and efficiency. High-performance connectivity between aircraft, ground data centers, and air traffic control will enhance safety, reduce costs, optimize flight paths, and help reduce non-CO₂ climate effects.
- **Cybersecurity:** Increased digitalization calls for robust cybersecurity protocols to protect aviation infrastructure from cyberattacks.
- **Sustainable Materials and Circular Economy:** The industry must invest in advanced lightweight materials, improve circular reuse of aircraft components, and implement environmentally friendly manufacturing processes.
- **Noise Reduction:** Aircraft noise remains a public concern, especially near airports. Future aircraft must feature quieter engines and optimized flight routes.

5. Policy recommendations for a future EU research and innovation framework programme FP10

To meet future challenges and provide a stable framework for co-financing by industry, FP10 should:

- Be established as a **financially and programmatically independent** component within the EU's Multiannual Financial Framework;
- Continue to provide **targeted support for aviation research**, backed by a **long-term and binding budget**;
- Allocate at least **double the budget** for aviation research compared to Horizon Europe;
- Take a **comprehensive approach** that includes aircraft development, certification, infrastructure, maintenance, and operations;
- Cover the **entire innovation chain**, from low Technology Readiness Levels (TRL) to industrialization (TRL 6+), using appropriate funding instruments and ensuring accessibility for all players, including major manufacturers, SMEs, large-scale research organizations, universities, and startups;
- Introduce a **dedicated regulatory framework** for aviation to accelerate the deployment of new technologies (e.g., via PPPs);
- Reduce **bureaucratic burden** in research administration, e.g., by limiting reporting requirements.

Contact

BDLI Research and Technology Committee
Thomas Belitz, belitz@bdli.de

German Aerospace Industries Association
(Bundesverband der Deutschen Luft- und Raumfahrtindustrie e.V. – BDLI)

ATRIUM | Friedrichstr. 60 | 10117 Berlin
Tel. +49 30 2061 40-0 | kontakt@bdli.de

www.bdli.de

About the aerospace industry

The German aerospace industry, represented by the BDLI e.V., is an integral part of the European aerospace industry. As a key strategic industry, the sector plays a decisive role in the technological and economic sovereignty of the European Union. It promotes economic growth, technological innovation and international connectivity. In Germany alone, the industry contributes significantly to GDP with over 115,000 employees and an annual turnover of over 46 billion euros.

Over the decades, Europe has worked together with industry, member states and the European Union to achieve a leading position in the aerospace industry. This must be maintained and further expanded in the face of international competition. In view of far-reaching technological, political and industrial changes, this requires sustained investment in research and innovation.



German Aerospace
Industries Association

www.bdli.de