

PANEL DISCUSSION I: Sustainability in air transport system

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In the documents “Flightpath 2050”, published by the European Commission first in 2011, and “Fly the Green Deal”, elaborated by ACARE and published by the European Commission in 2022, the aviation sector has expressed a clear vision for a climate neutral, sustainable and competitive aviation, accounting for the needs of society. In the years following the publication of the Flightpath 2050, several research efforts have been undertaken, supported by significant investments of the public as well as of the private European aviation sector, to develop and enable the implementation of technologies leading to the desired aviation climate neutrality.

In this context, the Public Private Partnerships Clean Sky and Clean Sky 2, Clean Aviation and SESAR I, II, and III, which represent the principal European research efforts related to aviation in the last two decades, could demonstrate substantial progress towards decarbonization of aviation and elimination of emissions. Yet, despite the essential progress made, significant environmental and technological challenges are lying still ahead of us. Circularity in aviation is, for example, one of the environmental and at the same time economic challenges that is currently very far from being properly addressed. Issues like handling the non-Carbon related emissions, including the contrails, the wide digitalization of aviation, including digital certification, the safe implementation of alternative fuels, etc., are some of the subjects being still at a relatively low level of technological maturity, and require for appreciable, additional research efforts. In parallel, significant research efforts have been undertaken to keep European aviation competitive and retain its global leadership.

Yet, at the technology development level, environmental sustainability and competitiveness are handled in most of the cases as decoupled requests, although it is obvious that increased performance, improved quality, reduced costs, and reduced environmental impact are usually conflicting requests. To overcome this inconsistency a new holistic interpretation of sustainability as the tradeoff between the coupled requests for high performance and quality, cost efficiency, environmental neutrality and, not to forget, societal acceptance, is mandatory. It is encouraging that entities like EASN, in its recent position paper referring to the preparation of Framework Programme 10, and released in June 2024, are adapting this view.

I am optimistic that, in a properly funded, suitable research frame, joining all aviation stakeholders under a common roof, and supporting the integration of mature innovation to flying demonstrators on the one side, and the exploration and maturation of technologies which are currently missing to enable the targeted technological step changes in aviation on the other side, will allow us to meet the challenges lying ahead and come closer to our common vision for a sustainable and competitive European aviation, being global leader.