



Association of
European Research Establishments in Aeronautics

Position on Aviation Research under Horizon 2020

EREA believes that Horizon 2020 is a necessary tool in order to achieve a greener, more efficient and competitive air transport in Europe according to the goals laid down in Flightpath 2050 and the subsequent Strategic Research and Innovation Agenda (SRIA).

The research budget for aviation as proposed by the European Commission is essential for reaching these goals and takes into account the full research and innovation chain.

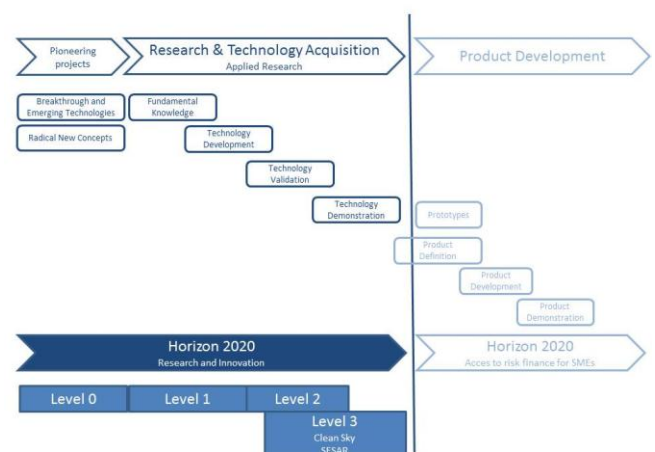
The Research and Innovation Chain

The research and development process should be split in three phases: exploratory research, applied research, pre-industrial research including experimental verification. Product development or technology/operations deployment is outside this R&TD process and shall not be funded by Horizon 2020. It is important that all stakeholders (universities, research establishments, industry and SMEs) contribute to all the phases of the R&TD process; this approach will allow to: 1) perform research that balances a technology push and a technology pull (e.g. industrial needs) 2) ensure a proper hand-over of technologies towards innovative products. In the different phases of the process the actors will have different roles and contribute in different volumes to the R&TD phases.

The funding instruments of Horizon 2020 should cover all these different phases of the R&TD process and funding should be set with an appropriate profile; this balanced approach of funding over all the R&TD cycles was well ensured under the previous Framework Programmes and in particular in FP 7.

There is logical development process with lower TRL projects/instruments feeding those at higher TRL. In order to ensure the development of innovative concepts and technologies to be demonstrated in future L3 projects, such as the current Clean Sky and SESAR, beyond 2020, L0, L1 and L2 are needed today.

Following this approach, Horizon 2020 will feed a virtuous and complete mechanism of R&TD ensuring the full coverage of Flightpath 2050.



Budget for Aviation research

The Commission proposed a budget of 87 billion euros for Horizon 2020 of which 7.2 billion are reserved for transport research.



Aviation research, by nature, belongs to the most technologically advanced fields of research among all transport modes, and the life cycle of aviation technologies and products is quite long. In addition technologies and products developed by and for the aeronautics industry are often adopted and adapted by the rail, automotive and naval industries. Thus, Aviation research needs high investments with high returns but in a long time frame.

The 50-50 split among aviation and surface transport research has ensured the right level of funding in the previous framework packages and EREA proposes to maintain such balance in Horizon 2020 in general.

The 3.6 billion euros allocated in the Commission's proposal for aviation research are vital in order to reach the goals set in Flightpath 2050 and the ACARE Strategic Research and Innovation Agenda.

Out of this budget, EREA supports a budget of 1.8 billion euros for Clean Sky 2, 350 million for SESAR 2, and 1.45 billion for collaborative research (with an equal split between L0/L1 and L2).

In case of a general budget cut for Horizon 2020, EREA is of the opinion that the relative distribution of money over the different funding instruments within the transport challenge should be unchanged. Anyhow, the budget for collaborative research should remain at least at the same level as under FP7 (meaning at least 960 million euros) to ensure the proper funding for exploratory and applied research in order to keep European competitiveness in the medium and long term.

Summary:

- Horizon 2020 should provide the full scale of instruments from L0 to L3
- Funding for Collaborative Research (L0- L2) should be at least at the level of FP7 funding
- The current split 50:50 for L0/L1 and L2 should be maintained.