



EREA launches Future Sky

A Joint Research Initiative to take Aviation Technologies development and integration at European level

Future Sky is based on the alignment of national institutional research for aviation by setting up joint research programmes.

EREA believes institutional co-operation of European research establishments is the best guarantee to ensure technological development to the benefit of European society and industry, beyond the current SESAR and Clean Sky timescales.

Future Sky's overall goal is "Twenty-four-Seven". This concept describes the full airside mobility, 24 hours a day, 7 days a week, resilient against any impacts e.g. from disruptive events like extreme weather, in line with the goals laid down by FlighPath 2050.

Although Future Sky finds its origins in the alignment of the research programmes of the national research establishments, industry and universities are explicitly invited to join Future Sky. The European Commission will be involved not only through the funding mechanisms for Future Sky under Horizon 2020, but also in giving guidance for the set-up and management of the joint research initiative.

Collaboration of national Research Establishments

The national research establishments that have gathered in EREA are all committed to contribute to Future Sky. For each joint research programme, the national research establishments will draft of roadmap for the next five to seven years. The research establishments will map out which areas of a certain research theme are covered by their institutional research programmes and where they see opportunities for sharing results and joint planning. The roadmap will also identify certain research gaps that are not yet or insufficiently covered by the national institutional research programmes. These gaps will be tackled in a new European research project in which the research establishments will actively seek to collaborate with universities and industry.

The aim of Future Sky is to enhance collaboration between national establishments and to involve the aviation research community as whole to prepare for a competitive European aviation industry in 2050.

How Future Sky contributes to Flightpath 2050

In order to fulfill Flightpath 2050 goals European aviation research needs to target the complete Air Transport System and to apply a full life cycle engineering approach, covering the full research and innovation chain. The ACARE SRIA envisages putting in place attractive and efficient research instruments, which ensure continuity between research on promising breakthrough concepts, their validation by focussed RTD actions and finally their demonstration in an integrated environment.

Furthermore Flightpath 2050 and the ACARE SRIA are proposing to establish multidisciplinary clusters of excellence for research and innovation, to achieve common technology goals (outcome of a common strategy to address societal issues). They ensure that the appropriate organizations are tackling activities at the appropriate level in the innovation chain. For demonstration activities on system level the well-known JTI concept lead by industry has been proven to be successful.

Future Sky will combine the power and the capacities of the research establishments in EREA into multidisciplinary clusters of excellence proposed by Flightpath 2050 in order to ensure appropriate mid and long term research on lower level TRLs complementing the industrial lead demonstration activities on higher TRLs. As mentioned above Future Sky will address the 24/7 Air Transport System as outlined in Flightpath 2050.

Full members:



Associate & Affiliate members, and Strategic Partner



The Joint Research Programmes under Future Sky

Twentyfour - Seven Enablers – the four major pillars of JRI, will be started one by one every two years. The joint research programmes, or so called TSE, under Future Sky will be:

TSE 1: SAFETY – EREA takes the responsibility to provide the research and validation needed to guarantee in the short term safety rules, regulations, measures and standards, and in the long term to fulfil the Flightpath2050 goals concerning safety.

TSE 2: VEHICLE – quiet operating air transport vehicle, serviceable from small airfields, make use of ultra-quiet or hybrid-electrical engines, use flow control for maximum lift on short runways, allow for fast boarding, fuelling, catering, etc.

TSE 3: SYSTEM – the air transport system ATS aspects shall be addressed by this joint research programme. A special focus will be on the insertion of UAVs in the civil ATS; this JRI shall define the base to fulfill the corresponding goal of FlightPath2050.

TSE 4: ENERGY – as a consequence to TSE 2 and TSE 3 asking for new energy concepts, the last TSE will address the energy system on-board and on-ground. Only with these four elements, the whole 24/7 goal can be gained, and the complete impact of aviation to the environment can be analyzed.

It is foreseen that Future Sky will be part of the European Commission's programme for research and innovation Horizon 2020.

For each joint research programme or TSE in which the research establishments will coordinate their institutional programmes and at the same time set up open European research projects to fill the gaps of a research roadmap, a European contribution of about 25 million is foreseen.



How to join Future Sky

Although Future Sky is an initiative of EREA, the joint research initiative is aiming to go well over the boundaries of EREA members: a contribution from all the aviation research stakeholders is needed to achieve the ambitious goals of the programme.

Apart from the coordination of national institutional research programmes, each Joint Research Programme will define research projects open to all. You will find the latest information about Future Sky, its Joint Research Programmes and contact information on the dedicated website.



www.futuresky.eu