UNITED NATIONS UNIVERSITY
CRIS
Institute on Comparative Regional Integration Studies

GR:EEN
Global Re-ordering:
Evolution through European Networks

Future Trends Series - GR:EEN Project

Title of the report

Flight Path 2050 – Europe's Vision for Aviation

Area

Science and Technology

Reporter

European Commission

Type of the Reporter

International Organisation

Periodically updated?

No

First issued year

2011

Latest update

/

Official website

http://ec.europa.eu/index_en.htm

Language available

English

Short summary

The report develops a vision for Europe's aviation system and industry, jointly built by key stakeholders of European aviation from the aeronautics industry, air traffic management, airports, airlines, energy providers and the research community. It focuses on two main challenges: meeting the needs of citizens and the market as well as maintaining global leadership. It thus appears to be extensive, holistic and highly ambitious. The European vision for the future of aviation set out in the document outlines projections for 2050 and also addresses the priorities to create relevant policy, research and innovation instruments.

Key trends

• In 2050, the passenger experience is paramount. Air transport is at the heart of an integrated, seamless, energy efficient, diffused intermodal system taking travellers and their luggage from doo-to-door, safely, affordably, quickly and without interruptions. Choices are offered between customized products and services offering levels of facilities, quality of service, on-board comfort, journey time, optional rescheduling and price.

• By 2050, the innovative, sustainable and highly competitive European aviation industry has cemented its place as the world leader. It is recognized globally for its vehicles, engines, services and a large range of very cost effective and energy efficient products. This position has been secured through a seamless

European research and innovation system that assures continuity through blue sky research, applied research, development, demonstration and innovation in products and services.

• In 2050, the effect of aviation on the atmosphere will be fully understood. A combination of measures, including technology development, operational procedures and market-based incentives mean that its environmental impacts have been mitigated at a rate outweighing the effects of increasing traffic levels. The public is informed, understands and is convinced that the aviation sector has made the utmost progress in mitigating environmental impacts and therefore considers that air travel is environmentally sustainable.

• European aviation will achieve unprecedented levels of safety and will continue to improve. Manned, unmanned, legacy and next generation, autonomous aircraft and all types of rotorcraft will operate simultaneously in the same airspace and in most weather conditions. A holistic, total system approach to aviation safety is integrated across all components and stakeholders. This will be supported by new safety management, safety assurance and certification techniques that account for all system developments.

• In 2050, Europe's aviation industry is underpinned by world-class capabilities and facilities in research, test and validation and in education.

Suggestions

• Funding and financing framework must ensure that simple and effective mechanisms accepted by all stakeholders are put in place to enable coordination of shred and common objectives for projects at private, European, national and regional levels. They must establish innovative European funding and financing instruments and means that provide excellent governance, well-founded roadmaps, long-term goals and improved administration. They need to enable and incentivize a much shorter time to market from initial research to commercialization assisted by an integrated, research and innovation friendly environment. They have to create a global level playing field to allow European industry to compete fairly under market conditions. They must provide the means for coordinated oversight of a comprehensive research programme including aeronautics, traffic management and alternative fuels related research.

• Full participation of representatives of airline, airport and other operational aviation areas must be achieved.

• Authoritative, senior figures from all aeronautics and air transport stakeholders, Member States and the European Commission must be brought together to build consensus in favour of strategic actions.

• Appropriate mechanisms to connect to the equivalent platforms of other transport modes and relevant technology sectors (e.g. energy) need to be created.

• There is a need for an urgent development of a new strategic roadmap for aviation research, development and innovation, which will account for both the evolution of technology and technology shocks or step changes. This roadmap is needed to guide and support future actions in public and private funding programmes.

Methodology

Modelling

Reference to other trends reports? If yes, which reports?

/