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Einladung zum Vortrag

How to get to Aviation Net-Zero CO_2 in 2050 Challenges and Potential

Fred Abbink, HFAIAA and FRAeS
Reviewer of the Clean Sky2 Technology Evaluator.
Retired CEO of NLR and part-time full professor TU-Delft Aerospace Engineering

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The number of Revenue Passenger Kilometers (RPK) is forecasted to increase by a factor 2 to 3 from 2023 to 2050. ICAO and IATA have agreed to reach net-zero CO_2 in 2050. Much research and development effort is devoted to zero-emission technologies as battery and hydrogen. These technologies are not expected to have a great impact by 2050. The only short-term solution is the use of Sustainable Aviation Fuels (SAF). In addition, a significant reduction in CO_2 emissions can be the development of new aircraft, that are optimally designed for the operational range and with best cruise Mach number. For the aircraft manufacturers and for the airlines however, it is advantageous to have a minimum number of different aircraft types.
The introduction of the European Emission Trading System (ETS) and the ReFUelEU requirements for SAF (70% in 2050), will greatly increase the cost of aviation fuel and CO_2 emissions and thus the Direct Operating Cost (DOC) and ticket price. This will strongly stimulate the airlines to require new aircraft that burn less fuel and generate less CO_2 emissions. The first step can be the optimal design range and Cruise Mach number for the successors of the A320neo and B737Max families, expected to have an Entry-into-Service around 2035. Furthermore, an increasing problem is the airport runway slot capacity. This forces the airlines to use (long-range high-speed) wide-body airliners for short ranges, The design and introduction (also around 2035) of a short-range wide-body airliner (range < 4000 km and cruise Mach number of 0.7) could reduce that problem. Both new designs could contribute significantly to the target of aviation net-zero CO_2 in 2050.

Wir freuen uns auf Ihre Teilnahme. Gäste sind herzlich willkommen.

Mit freundlichen Grüssen
Dr. Jürg Wildi, Präsident