PANEL DISCUSSION II: Alternative Propulsion

Dr. Andrea Milli, *General Electric Aerospace, Avio Aero and GE Aerospace Senior Technical Programme Manager for Clean Aviation*

As one of the world's largest suppliers of aircraft engines, systems, and services, GE Aerospace looks to continue leading the aviation industry for development of technologies to help reduce emissions.

We're taking an across-the-board approach to a more sustainable future of flight. That includes development of more efficient jet engine technologies, alternative fuels testing, and deploying software solutions for optimizing aircraft operations.

GE Aerospace and Safran Aircraft Engines came together in 2021 to unveil a bold technology demonstrator, the CFM International Revolutionary Innovation for Sustainable Engines (RISE) program. Through RISE, CFM is advancing a suite of pioneering technologies, including advanced engine architectures like Open Fan, compact core, and hybrid electric systems. The CFM RISE program targets more than 20% better fuel efficiency with 20% lower CO2 emissions compared to the most efficient commercial engines in service today. New technologies are also being tested for compatibility with alternative energy sources, such as unblended Sustainable Aviation Fuel (SAF). To date, more than 250 tests have been completed for the RISE program, showing real progress.

In Europe, Avio Aero and other GE Aerospace affiliates are advancing three main projects – OFELIA, AMBER, and HYDEA – in partnership with the Clean Aviation Joint Undertaking to power next generation aircraft that support European Union climate goals. New technologies are being advanced for ground and flight tests this decade for potential entry-into-service in the mid-2030s.

In OFELIA, which is coordinated by Safran Aircraft Engines, we are working to mature and accelerate advanced propulsion technologies for an Open Fan flight test demonstrator with Airbus.

In AMBER and HYDEA, both coordinated by Avio Aero, we are respectively developing a MW-class hybrid electric propulsion system powered by hydrogen fuel cells and hydrogen combustion technology.

For more information, visit **GEAerospace.com/sustainability**.