Flying fuel cell: MTU Aero Engines and EASA develop approval requirements

Munich, November 2, 2021 – MTU Aero Engines has entered into an innovation partnership with the European Union Aviation Safety Agency (EASA). Together, the partners are investigating the potential ways forward for future certification of a flying fuel cell (FFC).

The hydrogen-powered fuel cell is a very promising propulsion concept on the way to emission-free flying and an integral part of MTU’s Clean Air Engine (Claire) technology agenda. Safety is a top priority in aviation, which is why entirely new standards, approval regulations and verification procedures must be defined for the safe operation of the new propulsion concept of the flying fuel cell.

“When it comes to the approval of a flying fuel cell, all parties involved are entering uncharted territory,” explains MTU’s Head of Quality Thomas Frank, “which is why we are seeking dialog with the certification bodies at such an early stage.” In this way, he says, MTU is underscoring its pioneering role in this new technology. “We rely on a strong network of partnerships and research collaborations. Together with EASA, we are breaking new ground for a sustainable orientation of aviation,” adds Barnaby Law, Chief Engineer Flying Fuel Cell at MTU.

“MTU is one of the first companies to cooperate with EASA in this area”, said EASA Chief Engineer Alain Leroy. “Our learnings from this innovation partnership will enable us to efficiently support the safe introduction of these disruptive technologies in the aviation world, with their expected benefits for the environment.”

MTU Aero Engines aims to advance a promising future option for zero-emission aviation with the flying fuel cell. Together with the German Aerospace Center DLR, the engine manufacturer is developing and validating a fuel cell powertrain. A Do228 aircraft will serve as a technology platform and flight demonstrator, equipped and tested in the coming years with a hydrogen-powered fuel cell and a single-sided electric propeller drive.

**About MTU Aero Engines**

MTU Aero Engines AG is Germany's leading engine manufacturer. The company is a technological leader in low-pressure turbines, high-pressure compressors, turbine center frames as well as manufacturing processes and repair techniques. In the commercial OEM business, the company plays a key role in the development, manufacturing and marketing of high-tech components together with international partners. Some 30 percent of today’s active aircraft in service worldwide have MTU components on board. In the commercial maintenance sector the company ranks among the top 3 service providers for commercial aircraft engines and industrial gas turbines. The activities are combined under the roof of MTU Maintenance. In the military arena, MTU Aero Engines is Germany's industrial lead company for practically all engines operated by the country's military. MTU operates a network of locations around the globe; Munich is home to its corporate headquarters. In fiscal 2020, the company had a workforce of around 10,000 employees and posted consolidated sales of almost 4 billion euros.

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