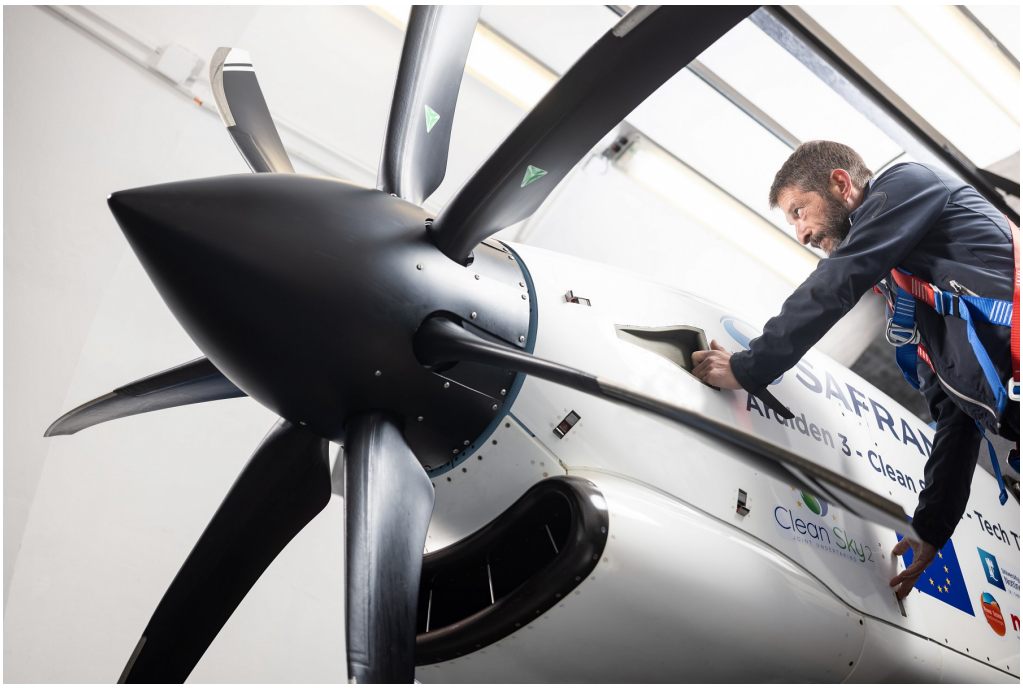
PRESS RELEASE

First run of Tech TP ACHIEVE hybrid electric turboprop demonstrator



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Safran Helicopter Engines has successfully completed ground tests of a "more-electric" variant of its Tech TP turboprop engine at its Tarnos facility. The Ardiden 3-based technological demonstrator incorporates technologies from Clean Sky[1] ACHIEVE project, resulting in more efficient and more sustainable operating modes.

ACHIEVE (Advanced mechatronics devices for a novel turboprop electric starter-generator and health monitoring system) is a Clean Sky project coordinated by the UK University of Nottingham and supported by NEMA Ltd and Power System Technology. Within this project, an innovative and more powerful electrical motor-generator has been developed and integrated in the Tech TP propeller and accessory gearbox (PAGB). This device comprises an electrical machine, an electronic power converter and associate controllers.

It allows to drive the propeller electrically, enabling new operating modes such as taxying without using power directly from the main turbine engines or in-flight electric assistance. This saves fuel and reduces noise and emissions, resulting in more sustainable operations.

Didier Nicoud, Safran Helicopter Engines EVP Engineering said: "Leveraging hybrid electric technologies is an important pillar in our strategy to reduce fuel consumption and carbon emissions. ACHIEVE Tech TP also paves the way for a new Clean Aviation demonstrator managed by the HE-ART (Hybrid-

Electric propulsion system for regional AiRcrafT) consortium. By 2025 HE-ART, bringing together 38 partners (with Safran Helicopter Engines as technical coordinator), plans to ground test a hybrid electric propulsion engine intended for regional turboprop aircraft."

Tech TP is a technology demonstrator developed as part of the European Clean Sky 2 research program. It features 18% lower fuel consumption and CO_2 emissions compared to similar engines currently in service, as evaluated by Piaggio Aerospace on a virtual 19-seater commuter installation. It is optimized for operations at medium and high altitudes (45,000 feet) and will be particularly easy to operate, thanks to an innovative throttle lever interfaced with a Full-Authority Digital Engine and Propeller Control (FADEPC) computer. More than 20 partners from eight European countries are contributed to this project.

[1] *Clean Sky 1 and 2 are the European aeronautics research programs that preceded Clean Aviation. Launched in November 2021, Clean Aviation is the European Commission's public-private partnership for sustainable aviation.*

Safran is an international high-technology group, operating in the aviation (propulsion, equipment and interiors), defense and space markets. Its core purpose is to contribute to a safer, more sustainable world, where air transport is more environmentally friendly, comfortable and accessible. Safran has a global presence, with 76,800 employees and sales of 15,3 billion euros in 2021 and holds, alone or in partnership, world or regional leadership positions in its core markets. Safran undertakes research and development programs to maintain the environmental priorities of its R&T and innovation roadmap.

Safran is listed on the Euronext Paris stock exchange and is part of the CAC 40 and Euro Stoxx 50 indices.

Safran Helicopter Engines is the world's leading manufacturer of helicopter engines, with more than 75,000 produced since being founded. It offers the widest range of helicopter turboshafts in the world and has more than 2,500 customers in 155 countries.

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