

Airbus takes superconductivity research for hydrogen-powered aircraft a step further

- Confirmed interest in the potential of superconducting technologies for hydrogen-powered aircraft
- Launch of a new demonstrator with a megawatt-class superconducting motor

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Paris, 23 May 2024 - Airbus UpNext, a wholly-owned subsidiary of Airbus, has launched a new technological demonstrator to accelerate the maturation of superconducting technologies for use in electric propulsion systems of a future hydrogen-powered aircraft.

Known as Cryoprop, the new demonstrator will integrate and mature a two megawatt-class superconducting electric propulsion system cooled by liquid hydrogen via a helium recirculation loop and developed by Airbus teams in Toulouse, France, and Ottobrunn, Germany.

“Our previous demonstrators have shown that superconducting technologies would be a key enabler for the high-power electrification of future hydrogen-powered aircraft. I truly believe that the new demonstrator will lead to performance improvements of the propulsion system, translating into significant weight and fuel saving potential” said Michael Augello, CEO Airbus UpNext.

Airbus has been developing superconducting technologies for high-power electric propulsion for several years, culminating in the power-on of an integrated 500 kW cryogenic propulsion system last year.

Cryoprop will confirm the potential of superconducting technologies for future aircraft applications, assessing all aspects related to safety, industrialisation, maintenance and operations. This demonstrator will also give Airbus the opportunity to develop high-level, in-house expertise and foster a new ecosystem to accelerate the introduction of new products in areas such as superconducting cables, motors, cryogenic power electronics and cryogenic cooling systems.

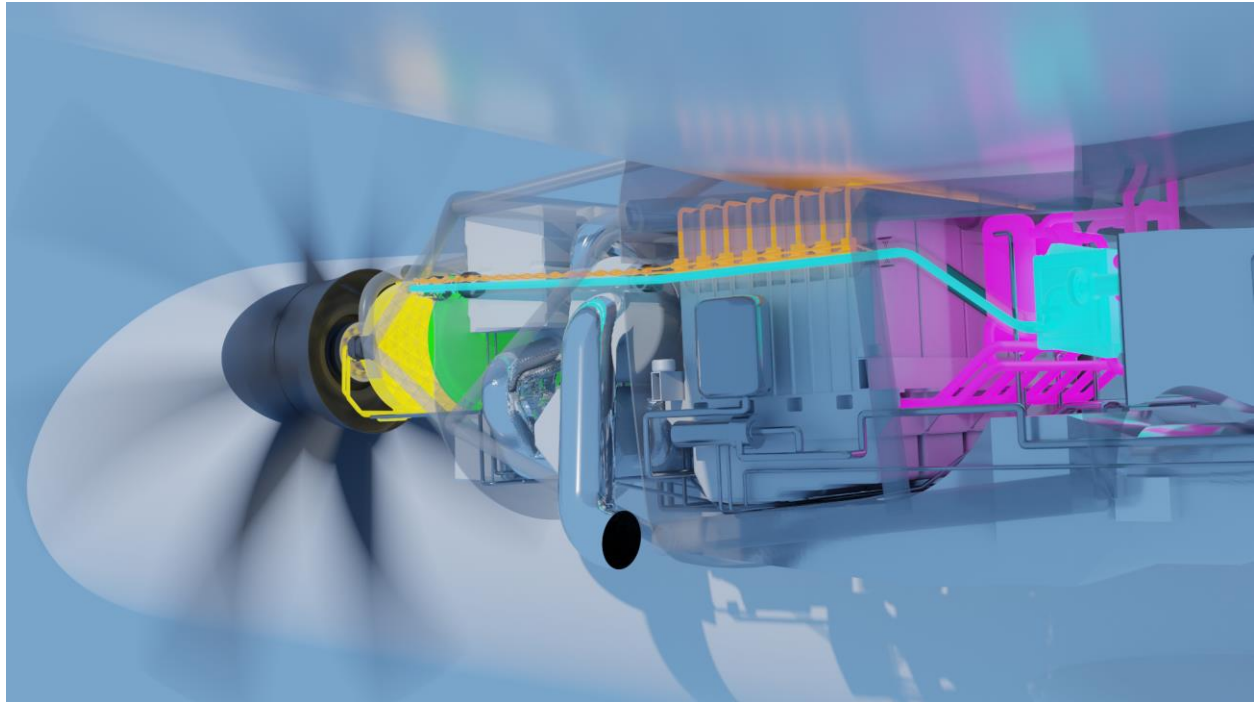
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Caption: sectional drawing of the Cryoprop demonstrator

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