



HEART AEROSPACE UNVEILS FIRST FULL-SCALE DEMONSTRATOR FOR 30-SEAT HYBRID-ELECTRIC AIRPLANE

News / Manufacturer



Heart Aerospace unveils its first full-scale demonstrator airplane, marking a major milestone in the development of its regional hybrid-electric aircraft, the ES-30. Built almost entirely in-house at Heart’s Gothenburg facilities, the demonstrator reflects the company’s strategy to simultaneously develop both the design and production processes. With a commanding 32-meter wingspan, the demonstrator, named Heart Experimental 1 (Heart X1), will serve as a platform for rigorous testing and development of Heart’s ES-30 aircraft.

Anders Forslund, co-founder and CEO of Heart Aerospace commented: “Our industry is approaching a 30-year innovation cycle, and we have less than 25 years to decarbonize aviation. We need to develop new methods to get net zero aerospace technologies to market faster. It is a testament to the ingenuity and dedication of our team that we’re able to roll out a 30-seat aircraft

demonstrator with a brand-new propulsion system, largely inhouse, in less than two years.“

Ben Stabler, Chief Technology Officer at Heart Aerospace stated: “Developing innovative net zero aerospace technologies demands a revolution in product development and manufacturing, much like what we’ve witnessed in the automotive and space industries.”

Initially, the HX-1 will be used for ground-based testing, focusing on charging operations, taxiing, and turnaround procedures. It is scheduled to undertake a fully electric first flight in the second quarter of 2025. In preparation for this flight, Heart will over the coming months, test critical systems by running hardware tests both on and off the airplane.

Development of the Heart X1 has been funded in part by grants provided by the Swedish Innovation Agency, Vinnova, highlighting the essential collaboration between government and industry that is needed to bring new aviation technologies to market.

Building on the experience of developing the Heart X1, Heart is now focused on creating a state-of-the-art aircraft manufacturing process that leans into the latest technologies in composite manufacturing and product lifecycle management, building a data-driven assembly line with high repeatability, automation and non-destructive inspection.

Heart’s next step in developing the ES-30 is the building of a pre-production prototype, the Heart X2, which will further mature the design and production methods based on lessons learned from the Heart X1.

The Heart X2 is scheduled for a hybrid-electric flight in 2026 and will demonstrate the company’s Independent Hybrid propulsion system. In August, Heart Aerospace was selected for a \$4.1 million grant by the Federal Aviation Administration’s (FAA) Fuelling Aviation’s Sustainable Transition (FAST) program to develop the management system for the hybrid-electric propulsion.

This momentum will continue with the establishment of a pilot manufacturing plant to accelerate prototyping toward the manufacturing of a fully conforming aircraft, with Heart targeting type certification of the ES-30 by the end of the decade. The ES-30 is a regional hybrid-electric airplane with a standard seating capacity of 30 passengers, which promises to deliver unparalleled sustainability and efficiency on short-haul routes. With an electric zero-emission range of 200 kilometres and an extended hybrid range of 400 kilometres.



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