



Heart Aerospace partners with Aernnova to design and develop the structure for the ES-19 Electric Airplane



Gothenburg, Sweden, 26 Nov 2021 – Heart Aerospace today announced that it has selected Aernnova to co-design the structure for the new ES-19 electric airplane – an all-electric aircraft designed to carry nineteen passengers on short regional routes. The first ES-19 is scheduled to enter into service by 2026. The first-generation aircraft will have a maximum range of up to 400 km using lithium-ion batteries. The ES-19 will have zero operational emissions and offer significantly lower operating costs compared to similar sized gas-turbine aircraft. The ES-19 aircraft will also be quieter than its turboprop counterparts, with less vibration and noise, making it ideal for the development of short-range regional air travel.

“Aernnova has an impressive track record and an outstanding reputation in the industry, and we couldn’t be more excited to be partnering with them for the ES-19 airframe design. They bring world-leading experience in the design, manufacture and certification of airframes to our project, and we look forward to working with them in designing the plane that will reinvent regional air travel together”, says Anders Forslund, founder and CEO of Heart Aerospace.



Aerennova is a leading aerospace company specialized in the design, manufacturing and support of aircraft structures and components. The company's engineers will work together with Heart's own engineers in the design of the wing, the fuselage and the empennage of the airplane. The design of the ES-19 is based on an aluminum airframe with retractable landing gear, a high wing, a T-shaped empennage and a non-cylindrical fuselage to optimize the cabin interior.

"We are proud to be part of this unique and exciting project with Heart Aerospace where we expect to bring our significant experience and expertise of over 28 years in developing, manufacturing, certifying and supporting new aircraft structures. The development of this all-new electric aircraft is a step change in aviation and we are delighted to contribute", says Ricardo Chocarro, CEO of Aerennova.

About the ES-19

Heart Aerospace's first aircraft is the ES-19, a nineteen-passenger regional airplane driven entirely by batteries and electric motors. Heart anticipates delivering the first ES-19 for commercial use by 2026. The first-generation aircraft will have a maximum range of up to 400 km (250 miles), using today's lithium-ion batteries. Range will increase as battery energy densities improve.

The core of the ES-19 is the electric propulsion system. In 2020, Heart demonstrated its first iteration of this electric propulsion system, consisting of a 400kW electric motor, an electric motor controller and a battery pack with an integrated BMS system - all with world-leading performance.

The ES-19 will have zero operational emissions and offer significantly lower operating costs compared to similar sized gas-turbine aircraft. The ES-19 aircraft will also be quieter than its turboprop counterparts, with less vibration and noise. These characteristics make the aircraft ideal for the development of short-range regional air travel. For more info, visit heartaerospace.com/faq.

About Heart Aerospace

Heart Aerospace is an electric airplane company based in Gothenburg, Sweden. Founded in Gothenburg, Sweden, in 2018, the company is a spin-off from the Elise research program funded by the Swedish Government through the Swedish Innovation Agency Vinnova. Heart participated in the Y combinator startup accelerator in 2019 and closed its seed round in 2019 with lead investments from EQT Ventures and Norrsken Foundation. In 2021, United Airlines and Mesa Airlines made a purchase order for 200 ES-19 aircraft with an option for an additional 100 aircraft. The airlines also made large investments in the company, and in conjunction with the order, Heart Aerospace announced the closing of its Series A round, led by Breakthrough Energy Ventures.

Heart Aerospace is one of the founding members of the Nordic Network for Electric Aviation, together with airlines, airport operators and other stakeholders across the Nordic countries. In 2020, Heart was awarded a €2.5M grant from the European Investment Council as part of the European Green Deal. More information about Heart Aerospace can be found at <https://heartaerospace.com/>



About Aerennova

Aerennova is a leading company specialized in the design, manufacture, certification and support of aerostructures and a major supplier for the main aircraft manufacturers worldwide. With 1 billion USD in pre-covid revenues and over 4,500 employees, Aerennova is present in Spain, UK, Mexico, the United States, Brazil and China.

More information about Aerennova can be found in www.aerennova.com

Aerennova is fully committed to contributing to a net-zero carbon emissions goal by 2050 and to play a leading role towards a net zero aviation industry. Technological Development and Innovation is one of Aerennova's strategic growth vectors to meet this ambitious goal motivated by the need to reduce energy use, emissions, and noise, by adding value to products and services for our clients and ensure a lasting positive impact on our society, economy, and environment.

The ES-19 project forms part of Aerennova's plan to promote new technologies with an impact on sustainable development and this agreement with Heart Aerospace marks a new growth segment for Aerennova into the market for electric and hybrid-electric propulsion airplanes.