



Climate Friendly Flying: eCap and Breezer Aircraft Cooperate

The goal of making air travel more climate-friendly is bringing together the two companies eCap and Breezer Aircraft. The provider of electro-mobility solutions and the manufacturer of ultralight aircraft have now signed a cooperation agreement to create an electric drive system for the conversion of existing single-engine aircraft.

During Luftsportverein (Air Sports Club) Lüneburg's New Year's reception held on Friday, 10th January 2020, eCap Mobility and Breezer Aircraft agreed to cooperate in converting motorised aircraft in future, enabling them to contribute to the aim of reducing greenhouse gas emissions in aviation by the use of modern electric drives.

"In the coming years we expect a growing demand for reliable, safe and environmentally-friendly propulsion and conversion solutions for aircraft," said Dirk Lehmann, founder of eCap, and Dirk Ketelsen, Managing Partner of Breezer Aircraft. Both entrepreneurs want to make a difference in the area of environmentally-friendly air mobility and complement each other perfectly with their ideas and technical expertise.

The aim of the partnership is to enable a motorised aircraft to fly using a fuel cell that converts hydrogen into electricity. The hydrogen required for this is generated beforehand by environmentally-friendly wind turbines. "This is how air mobility can take place in a really clean way", says Ketelsen, who is also the owner of Dirkshof in North Frisia, where in future hydrogen will be produced by existing wind turbines.

In the first step of the project, an aircraft is now being electrified as a prototype. This will involve the intelligent integration of a new high-performance electric propulsion system from Breezer Aircraft including a high-performance battery storage system from eCap. In the second project phase, the fuel cell will then be installed next to the battery in another prototype, enabling electricity to be generated from hydrogen.

About this innovation, Lehmann says: "The attractiveness of electric aircraft in aviation comes from the high system efficiency of the electric drive train." The efficiency is significantly higher than that of internal combustion engines. In addition, the elimination of local emissions of nitrogen oxides, CO2 and particulate matter also argues in favour of this type of drive.

"In the long term, the airport in Lüneburg should be the place where the conversion of the aircraft takes place", says Leonie Behrens, Managing Director of eCap, "we are planning a production site with ten manufacturing jobs there". This is, however, only conditional, as it has not yet been ascertained whether the airfield in Lüneburg will remain in operation. Initially, production will therefore take place at eCap headquarters in Winsen (Luhe).

(continued on page 2)

(continued from page 1)

About eCap: Founded five years ago, eCap is already among the leading electrification experts. The scope of projects ranges from passenger and classic cars, and trucks to new areas of application for alternative drives in boats and now aircraft as well. At the end of 2019, eCap started a partnership with Chinese fuel cell manufacturer Re-Fire, in which both partners are using their technical and business expertise to jointly pursue fuel cell projects in Northern Europe.

About Breezer Aircraft: The company is an aircraft manufacturer located in Bredstedt, North Frisia, where high quality and customised ultralight and LSA aircraft are produced in meticulous precision work. The first Breezer was built in 1999. Today, a team of 25 engineers, mechanics and technicians is working on the continuous development of the superbly-designed Breezer. With its entry into electric and hydrogen-powered aviation, the next trailblazing step is being made in its third decade.

Available image material (© eCap, aircraft motif © Breezer Aircraft), additional motifs and higher resolutions available on request:



Signing of the cooperation agreement by (from left to right) Henning Boysen (Breezer Aircraft) and Dirk Lehmann (eCap)



Luftsportverein Lüneburg's New Year's reception



Breezer B400-6 type aircraft will be converted