

Development of an amphibious aircraft concept, with a multi-motor drive concept with electric motors

Project management: Prof. Dr.-Ing. Robin Vanhaelst

Summary: The aim of this project is to develop – based on the current Flywhale model – a lightweight amphibious aircraft with an electric drive, which fulfils the requirements for classification as an ultra-light aircraft. To achieve this, Flywhale Aircraft GmbH & Co. KG need to adapt the existing concept (including the fuselage and wings) to the requirements pertaining to electric transport. The combustion engine used to date is to be replaced by a multi-motor drive concept with electric motors. The take-off weight is increased due to the need for a sufficiently large battery, and thus risks exceeding the permissible take-off mass. In order to retain its approval as an ultralight aeroplane, and at the same time continue to have an acceptable range, the Ostfalia University of Applied Sciences will develop a compact micro-gas turbine and construct a range extender.

Co-operation partner: Flywhale Aircraft GmbH & Co. KG

Funding: State-level funding European Regional Development Fund

Duration: 2017 – 2020

Funding amount: 299.900 €

Organisational unit: Faculty of Automotive Engineering

Research areas: Renewable Energies and Resource Efficiency
Intelligent Systems for Energy und Mobility



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