Commercial hydrogen airships get closer

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How the H2 Clipper airship will look. Photo: H2 Clipper

H2 Clipper is being given a helping hand to develop and commercialise a global fleet of hydrogen-powered airships to aid sustainable transport.

The aerospace and alternative energy company has been selected for Dassault Systèmes' 3DEXPERIENCE Lab accelerator programme.

H2 Clipper, which saw its first patent granted in 2012, anticipates completing a detailed design and construction of a 100% green prototype to fly in 2024, with the goal of flying its first full-sized airship in 2027.

H2 Clipper's 21st-century airship is designed for transporting pure hydrogen from where it is least costly to produce to markets where clean energy is most needed, and for enabling a 100% carbon-free method of transporting freight and other cargo, 7-10 times faster than by ship, truck, or rail, and at a 70% savings over traditional air transport.

H2 Clipper founder and chief executive, Rinaldo Brutoco, said: "We are honoured to be selected to join the 3DEXPERIENCE Lab accelerator programme. The opportunities this will open for us will greatly help our work of providing a rapidly scalable hydrogen infrastructure solution that is critical to realising the disruptive potential of hydrogen."

The company already has developed design and intellectual property assets with the aid of Dassault Systèmes' CATIA software applications. The H2 Clipper team will now have an opportunity to expand its use of software applications from Dassault Systèmes.

H2 Clipper will have full access to its own cloud-based virtual environment on the 3DEXPERIENCE platform, Dassault Systèmes' platform of integrated design, engineering, simulation, and data intelligence applications, to continue digitally developing its transformative airship.

The company will also have access to Dassault Systèmes' worldwide network of customers, partners, and technology collaborators, and, when applicable, mentoring and expertise.

Dassault Systèmes, said companies are selected for the accelerator program by demonstrating significant technological breakthroughs with the greatest potential to positively impact and transform society in alignment with one or more UN Sustainable Development Goals (SDGs).

UK company Hybrid Air Vehicles is currently developing its Airlander 10 airship. It is developing electric motors with the goal of delivering a hybrid-electric Airlander 10 from 2025.

In 2018, the company was awarded a Design Organisation Approval (DOA) by the European Aviation Safety Agency (EASA). However, development of the airship hasn't been a smooth process. In 2016, it **sustained cockpit damage** in a heavy

landing at a UK airfield, while the following year it sustained damage when it broke free of its mooring.