

Consortium

The HYCARUS Consortium is in total composed of 10 partners from 5 countries, the Netherlands, the Czech Republic, France, Germany and Spain. ZODIAC AEROSPACE, leads the project composed of:



Zodiac Cabin Controls
Zodiac Aero Electric
Zodiac Galleys Europe
Zodiac Aerotechnics



Commissariat à l'énergie atomique et aux énergies alternatives



DASSAULT Aviation



Air Liquide



European Commission,
Directorate-General Joint
Research Centre,
Institute for Energy and
Transport



Spanish National
Institute for
Aerospace
Technology



ARTTIC

Hydrogen Cells for Airborne Usage



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HYdrogen Cells for AiRborne USage

www.hycarus.eu



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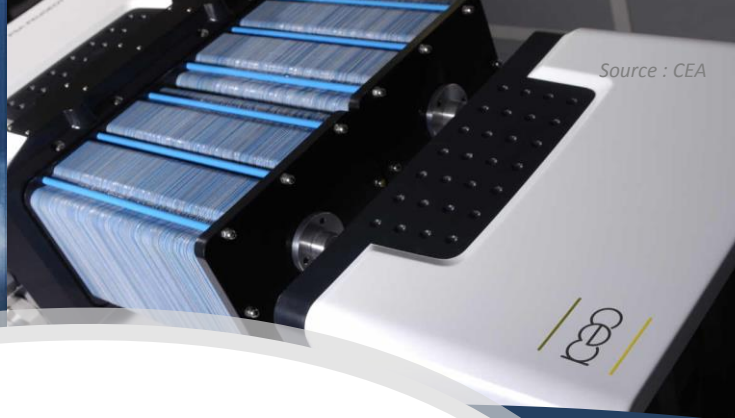
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Source : Dassault Aviation



Source : Dassault Aviation



Source : CEA



Source : Zodiac Aerospace

First mid-term results

By mid-2015 HYCARUS successfully passed a number of milestones including:

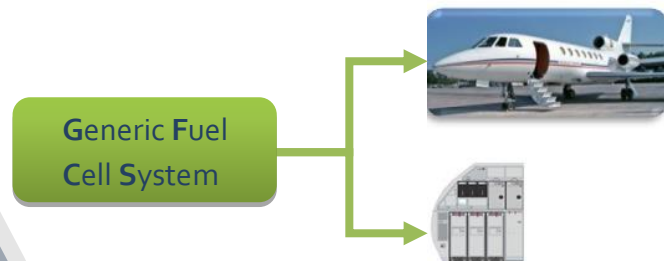
- ✓ Completion of specifications and sizing of the GFCS
- ✓ Design of the different sub-systems and components of the GFCS. (Fuel cell stack, Battery, Hydrogen High Pressure Storage, Hydrogen Low Pressure Supply, Air supply, Electrical Power Management, Monitoring and Control, etc.)
- ✓ Preliminary Safety analysis
- ✓ Preliminary integration of the GFCS for the flight test configuration and for the galley configuration
- ✓ Qualification Program Plan and Test Flight conditions
- ✓ Initiation of preparations for the "Permit to Fly"

The Consortium will now build on these first results to provide and test the GFCS in a representative aircraft environment, in accordance with the TRL6 level.

HYCARUS develops a **Generic Fuel Cell System (GFCS)** in order to power non-essential aircraft applications such a galley in a commercial aircraft or as secondary power sources on-board business jets. Demonstration of GFCS performances in relevant and representative cabin environment will be achieved through **flight tests** on-board a Dassault Falcon aircraft.

HYCARUS thus addresses the global concern of European airlines and business jet operators to find alternative sources to power non-propulsive aircraft systems in order to positively impact the environment and address future emission regulations.

For more information on HYCARUS, see www.hycarus.eu



By-products

HYCARUS assesses the **by-products** in different airborne applications – galleys, lavatories, warmers, chillers or inerting functions such as fuel tank.



HYCARUS at a glance

Starting Date: 1st May 2013

Consortium: 10 partners, 5 countries

Programme: HYCARUS is a European project partly funded by the Fuel Cells and Hydrogen Joint Undertaking. For more information on FCH JU, visit the official website: www.fch-jueu