

PROJECT

C-ALM AOHE

Compact - Additive Layer Manufactured Air Oil Heat Exchanger

Funding: European (Horizon 2020)

Duration: May 2019 - Apr 2022

Status: Ongoing

Total project cost: €1,888,810

EU contribution: €1,191,905



Call for proposal: H2020-CS2-CFP08-2018-01

[CORDIS RCN : 222569](#)

Objectives:

The C-ALM AOHE project will design, develop, manufacture and test a compact air-oil heat exchanger for next generation geared VHBR/UHBR turbofan engines. The work will include:

- Design a C-ALM AOHE incorporating novel geometry and construction with step change technology attributes
- Create a thermal model of the proposed design using computational techniques
- Build a thermally representative C-ALM AOHE
- Performance test the C-ALM AOHE concept and validate the thermal model
- Refine the C-ALM AOHE design and build an optimised C-ALM AOHE
- Test and validate the C-ALM AOHE in line with the Topic Manager's requirements

The C-ALM AOHE project will deliver a fully validated air-oil heat exchanger to TR 6, MCRL4 and MRL6 with a heat load of 80kW and a dry weight of significantly less than 10kg that can directly flow into follow on flight demonstrator and NPI programmes.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: JTI-CS2-2018-CfP08-LPA-01-53 Compact Matrix Air Oil Heat Exchanger

Lead Organisation:

Meggitt Advanced Composites Limited

Address:

Atlantic House Aviation Park West Bournemouth International Airport
Christchurch Dorset
BH23 6EW
United Kingdom

Organisation Website:

<http://www.meggitt.com>

EU Contribution: €696,905

Partner Organisations:

Twì Limited**Address:**

Granta Park Great Abington
Cambridge
CB1 6AL
United Kingdom

EU Contribution: €495,000

Technologies:

Aircraft propulsion
Air-oil engine cooling system

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Other specified

Geo-spatial type: Other