

PROJECT

EMS UHPE

Engine Mount System for Ultra High Pass Engine

Funding: European (Horizon 2020)

Duration: Mar 2016 - Feb 2022

Status: Ongoing

Total project cost: €5,207,428

EU contribution: €2,204,551



Call for proposal: H2020-CS2-CFP01-2014-01

[CORDIS RCN : 202616](#)

Objectives:

Our consortium is applying for the Engine Mounts System (EMS) of the Ultra High Propulsive Efficiency. Our 3 objectives are:

1. Assist the Engine Manufacturer & the Airframer in the evaluation & selection of the most promising & suitable Engine Mounts System (EMS) configuration. Criteria for evaluation: weight, cost, dynamic performance, certification, impact on engine & aircraft assembly.
2. Design, build, & test the selected concept for the Ground Test (GT) that is planned to validate study predictions & performances. Our intent is to develop solutions & technologies to minimize weight, reduce manufacturing process complexity, improve system dynamic performance, increase reliability, & provide continuous monitoring of system health & usage & measure in-flight EMS conditions & loads. The plan includes new solutions & technologies with a min. TRL 4 at CDR in order to advance to TRL 5, 6 at GT incl. EMS overall configuration validation & component optimization.
3. To develop & insert new solutions for ground test with lower TRL's than 4 at CDR as parallel activities. These lower TRL solutions selected on their potential to provide a significant leap in the performance, manufacturing, & assembly.

Our consortium consists of

1. International company with global reach & renown experience in the EMS industry, LORD Corp
2. A German SME, excelling in manufacturing of aerospace structures, HEGGEMANN
3. An Italian consulting SME in the field of structural mechanics, Vicoter
4. An Italian University, one of the leading science & technology universities in Europe, Politecnico di Milano

This consortium set up a Work Plan starting in 3Q 2015 for a duration of 72 months, which is divided into 7 Work Packages:

- WP1: Management & reporting
- WP2: Concept Studies & EMS Specification definition
- WP3: GT Design & Development
- WP4: GT Manufacturing & Delivery
- WP5: GT Qualification & Testing
- WP6: Support for Engine GT
- WP7: Innovation & new Technologies development

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)

Lead Organisation:**Lord Suisse Sarl****Address:**

CHEMIN DU PAVILLON 2
1218 LE GRAND SACONNEX
Switzerland

Organisation Website:

<http://www.lord.com>

EU Contribution: €0

Partner Organisations:**Heggemann Aktiengesellschaft****Address:**

Zeppelinring 1-6
33142 BUREN
Germany

EU Contribution: €525,000

Lord Italia Srl**Address:**

VIA MOSCATELLO 64
46040 MONZAMBANO
Italy

EU Contribution: €464,864

Vicoter Di Vigoni Edoardo, Cordisco Potito E Terraneo Mauro Snc**Address:**

VIA STOPPANI SNC
23801 CALOLZIOCORTE
Italy

Organisation Website:

<http://www.vicoter.it>

EU Contribution: €246,750

Politecnico Di Milano**Address:**

Piazza Leonardo Da Vinci 32
20133 Milano
Italy

Organisation Website:

<http://www.polimi.it>

EU Contribution: €967,938

Technologies:

Aircraft propulsion
Highly efficient aircraft engine

Development phase: Validation

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Geo-spatial type: Other