

PROJECT

TecALSens

Advanced Load Sensing technology for Aerospace Application

Funding: European (Horizon 2020)

Duration: Nov 2018 - Oct 2020

Status: Complete

Total project cost: €865,158

EU contribution: €605,610



Call for proposal: H2020-CS2-CFP07-2017-02

[CORDIS RCN : 218786](#)

Objectives:

The objective of the TecALSens project is the provision of an advanced and validated load sensor for integration in the Smart Integrated Wind Demonstrator and validation in an industrially relevant environment. The project covers the whole process chain taking into consideration specific requirements: from designing of all sensor components through manufacturing of load cell, electronics and sensor body up to validation and verification of its properties and operational behaviour. Electronics will be designed and manufactured considering DO-254 specifications; The complete systems will be tested according to DO-160 requirements.

Methodology:

In TecALSens a two-step approach will be pursued. After manufacturing, the load sensor will be tested for TRL 4 and TRL 5 compliance. The design phase will support the experimental validation by taking into consideration the environmental conditions. On the basis of these results a critical review and improvement of all steps will be performed. The improved sensor will be tested again following the same procedures. The project will provide a robust and reliable solution based on innovative sensor principle for further application in primary, secondary flight controls and landing gear systems. With this solution, their functional safety can be enhanced. An industrialisation path will be defined and verified at each step for further production.

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-CS2-2017-CfP07-SYS-02-36 Advanced Load Sensing technology for aerospace applications

Lead Organisation:

<p>Tecsis Gmbh</p> <p>Address: CARL-LEGIEN-STRASSE 40-44 63073 OFFENBACH AM MAIN Germany</p> <p>EU Contribution: €605,610</p>

Technologies:

Condition monitoring Sensor condition monitoring systems

Sensor condition monitoring system

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport

Transport policies: Safety/Security, Digitalisation

Geo-spatial type: Other