

PROJECT

STRONGRCRAFT

Safe, Technically Robust and Optical New Generation fuel system to be integrated on new RotorCRAFT

Funding: European (Horizon 2020)

Duration: Feb 2018 - Jan 2023

Status: Ongoing

Total project cost: €2,666,150

EU contribution: €1,957,659



Call for proposal: H2020-CS2-CFP06-2017-01

[CORDIS RCN : 213586](#)

Objectives:

STRONGRCraft will develop, test (Attitude, circulation, water & fuel, slosh & vibration, drop) and manufacture a highly performant, lightweight, cost effective with innovative optical Fuel Level Sensor and limited environmental footprint Fuel System (FS). The project will also design, manufacture and install a test rig on the existing Universal Test Rig Platform at the OEM.

Fully supporting the rapid emergence of the high speed compound helicopter, this next generation of FS will demonstrate weight reduction up to 15%, monitored and decreased use of hazardous substances regarding REACH regulation, reduced environmental impact (energy, VOC emissions and waste) with Life Cycle Analysis, optimum between level of performances of the high speed compound helicopter and cost of potential product with a recurring cost estimation, conformance with CS29 and integration of an innovative technology for the optical fuel level sensor.

Also, there is a plan to access and use the STRONGRCraft results in the sector of Remotely Piloted Aircraft Systems (RPAS).

Methodology:

STRONGRCraft will be carried by a consortium of 4 partners (ASY, SM, CNR-IREA and NLR) with the required specific expertise and a proven track record of experience in RDI programs (e.g. H175 program, SAFUEL). The consortium has the necessary technologies at the expected maturity level to be accessed/used in STRONGRCraft, some of them reflecting first steps already achieved on FS weight improvement (ASY: TRL 2 NG Roll-over valve with lighter materials and TRL2 concept of lightweight piping for several hoses; SM: use of reinforced plastic polymers at TRL5 and use of protective conductive varnish at TRL3; CNR-IREA: TRL3 optical fuel level probe based on TIR; NLR: TRL3 optoelectronic interrogator and SAFUEL test rig). ASY, Coordinator of the project, is the unique EU FS provider approved by aviation authorities worldwide since several years, owning DOA and POA.

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-CFP06-FRC-02-25 Fuel System Detail Development, Testing and Manufacturing

Lead Organisation:

Zodiac Aerosafety Systems

Address:

RUE PIERRE CURIE 61
78370 PLAISIR
France

Organisation Website:

<http://www.zodiacaerospace.com>

EU Contribution: €1,059,441

Partner Organisations:

Stichting Centrum Voor De Ontwikkeling Van Transport En Logistiek In Europa

Address:

Van Nelleweg 1
3044 BC Rotterdam
Netherlands

Organisation Website:

<http://www.cetle.org>

EU Contribution: €154,513

Consiglio Nazionale Delle Ricerche

Address:

Piazzale Aldo Moro
185 Roma
Italy

Organisation Website:

<http://www.cnr.it>

EU Contribution: €150,000

Secondo Mona S.p.a.

Address:

Via Carlo Del Prete 1
21019 SOMMA LOMBARDO
Italy

Organisation Website:

<http://WWW.SECONDOMONA.COM>

EU Contribution: €593,705

Technologies:

Sensor technologies
Optical sensor

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