

PROJECT

LATTE

Full Fairing for Main Rotor Head of the LifeRCraft demonstrator

Funding: European (Horizon 2020)

Duration: Sep 2017 - Jun 2021

Status: Complete

Total project cost: €464,438

EU contribution: €399,544



Call for proposal: H2020-CS2-CFP04-2016-02

[CORDIS RCN : 210617](#)

Objectives:

Continuously increasing air traffic and demand to go faster and further poses new challenges to the aviation industry - expectations have to be met, in terms of mobility, efficiency and capabilities.

LifeRCraft as a compound solution will combine performance of an aircraft with helicopter capabilities, like hovering. However, in order to introduce to the market a competitive product, an improvement beyond current 'state of the art' is needed, which concerns aerodynamic optimization of the aircraft.

The main rotor head has been identified as one of the first contributors to the overall aircraft drag. Full rotor head fairings with a sealing system may be a significant breakthrough leading to drag reduction. The LATTE project's aim is to contribute to the high-level objectives assigned to the LifeRCraft, by detailed design and prototype manufacturing of the Full Fairing for Main Rotor Head (JTI-CS2-2016-CFP04-FRC-02-18), which will be as step forward within the industrialization process of the new concept.

The LATTE project proposes realisation of the above topic by three different companies from Poland and Czech Republic - including research institutes and manufacturing plants. LATTE will cover design and manufacturing activities of the fairing prototype as well as testing and flightworthiness substantiation.

Part B. I of the proposal describes the applicants' ambitions and main objectives as well as the way they will be achieved. This includes description of the design and analysis approach, modern manufacturing technologies and solutions that are planned to be implemented. Expected impact of the project has been described. Implementation of the new solutions, work breakdown and description of each work-package has been provided.

Part B. II of the proposal covers applicants' profile description including their capabilities, research and development activities and also descriptions of national and international projects in which they were involved.

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:

Instytut Lotnictwa

Address:

Krakowska 110/114
02 256 Warszawa
Poland

Organisation Website:

<http://www.ilot.edu.pl>

EU Contribution: €106,875

Partner Organisations:**La Composite S.r.o.****Address:**

Beranovych 65
199 02 PRAHA 9
Czech Republic

Organisation Website:

<http://www.lacomposite.com>

EU Contribution: €151,419

Vyzkumny A Zkuebni Letecky Ustav, A.s.**Address:**

Beranovych 130
19905 PRAHA - LETNANY
Czech Republic

Organisation Website:

<http://www.vzlu.cz>

EU Contribution: €141,250

Technologies:

Aircraft propulsion
Highly efficient aircraft engine

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport

Transport policies: Other specified

Geo-spatial type: Other