

PROJECT

IMPETUS

Information Management Portal to Enable the inTegration of Unmanned Systems

Funding: European (Horizon 2020)

Duration: Oct 2017 - Feb 2020

Status: Complete

Total project cost: €899,160

EU contribution: €899,160



Call for proposal: H2020-SESAR-2016-1

[CORDIS RCN : 210371](#)

Objectives:

IMPETUS will research on the application of the 'micro-services' paradigm as a flexible and cost efficient solution for lifecycle support of the expected high variety of drones and missions. Moreover, IMPETUS will explore how to design an Smart UTM Concept taking into consideration the 'Function as a Service' paradigm to develop a cloud-based server-less environment that will be characterized by its scalability to respond to multiple users with diverse business models, its mechanisms to assure the data quality and integrity, and its flexibility to facilitate the integration with manned traffic management systems.

IMPETUS consortium consists of key stakeholders that provide complementary views on the current and envisioned UTM and ATM information management processes. ALTITUDE ANGEL offers its current UTM capabilities to support recreational and commercial drone operations under VLS and its experience in previous engineering tests for B-VLS and autonomous tests. JEPPESEN, with the technological support of TU DARMSTADT, contributes with its expertise in Information Technology Services to ensure the quality of aeronautical safety-critical data. BOEING offers its expertise to analyse if SWIM standards can be used as the main bridge to exchange UTM and ATM information. INECO strengths the consortium as certified company in the commercial use of drones for bridges inspection services and with its expertise on innovative Smart solutions based on IT technologies (Big Data and Business Intelligence among others). This experience is shared with CRIDA, which is the reference research centre in integration and analysis of multiple aeronautical data sources through advanced data analytics in order to support decision-making at ENAIRE, Air Navigation Service Provider in Spain. Finally, C-ASTRAL provides a wide view and extensive market experience for diverse drone related business models, with applications in surveying, border protection or surveillance operations among others.

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:

Centro De Referencia Investigacion Desarrollo E Innovacion Atm, A.i.e.

Address:

Avda De Aragon 402 4 Edificio Allende
N/A Madrid
Spain

EU Contribution: €180,750

Partner Organisations:

Ingenieria Y Economia Del Transporte Sme Mp Sa**Address:**

Avenida Del Partenón
28042 Madrid
Spain

EU Contribution: €155,131

Jeppesen Gmbh**Address:**

Frankfurter Strasse 233
63263 Neu-Isenburg
Germany

Organisation Website:

<http://www.jeppesen.de>

EU Contribution: €107,334

Altitude Angel Limited**Address:**

DAVIDSON HOUSE, THE FORBURY
READING
RG1 3EU
United Kingdom

EU Contribution: €160,168

Boeing Research & Technology Center**Address:**

Cañada Real de las Merinas 1-3, Edificio 4
28042 MADRID
Spain

Organisation Website:

<http://www.boeing.com>

EU Contribution: €121,401

C-Astral Proizvodnja Zracnih In Vesoljskih Plovil Doo**Address:**

GREGORCICEVA ULICA 20
5270 AJDOVSCINA
Slovenia

EU Contribution: €26,043

Technische Universitat Darmstadt**Address:**

KAROLINENPLATZ 5
64289 DARMSTADT
Germany

Organisation Website:

<http://www.tu-darmstadt.de>

EU Contribution: €148,334

Technologies:

Aircraft operations and safety
Drone traffic management system

Development phase: Research/Invention

STRIA Roadmaps: Network and traffic management systems, Smart mobility and services

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Geo-spatial type: Other