

PROJECT

EMPHASIS

EMPowering Heterogeneous Aviation through cellular Signals

Funding: European (Horizon 2020)

Duration: Feb 2018 - Jan 2020

Status: Complete

Total project cost: €937,130

EU contribution: €937,130



Call for proposal: H2020-SESAR-2016-2

[CORDIS RCN : 213191](#)

Objectives:

The key objective of the project EMPHASIS (EMPowering Heterogeneous Aviation through cellular Signals) is to increase safety, reliability and interoperability of General Aviation/Rotorcrafts (GA/R) operations both with commercial aviation and with emerging drones' operations. These aspects are foreseen as critical elements to secure and improve airspace access for GA/R users in future airspace environments and improve operational safety of their operations.

This objective is planned to be achieved through affordable CNS capabilities tailored for GA/R users where the envisioned path to reduce avionics costs is driven by:

1. Deep analysis of Communication, Navigation and Surveillance system requirements (including reliability and integrity) based on the specificities of GA/R operations. The analysis should allow to identify requirements critical for operational safety and potentially lower requirements with limited applicability to GA/R operations.
2. Optimal combining of ground and airborne technologies enabled through advanced communication means.
3. Innovative approach to certification allowing to achieve overall safety objectives with reduced impact on the cost.

The most promising technologies (combining both on-board and ground elements) will be developed up to the proof-of-concept maturity level.

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:

Honeywell International Sro

Address:

V PARKU 2325/16 CHODOV

148 00 PRAHA

Czech Republic

EU Contribution: €341,303

Partner Organisations:

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Tty-Saatio**Address:**

Korkeakoulunkatu 10
33720 Tampere
Finland

EU Contribution: €199,893

Airbus Defence And Space Gmbh**Address:**

Ludwig-Boelkow-Allee 1
85521 Ottobrunn
Germany

Organisation Website:

<http://www.airbus-group.com>

EU Contribution: €248,435

Evektor Spol. S R.o.**Address:**

Letecka 1008
68604 KUNOVICE
Czech Republic

Organisation Website:

<http://www.evektor.cz>

EU Contribution: €147,500

Technologies:

Aircraft operations and safety

Safety (and maintenance) improvement through automated flight data analysis

Development phase: Research/Invention

STRIA Roadmaps: Network and traffic management systems

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Safety/Security

Geo-spatial type: Other