



Comp4Drones - Framework of key enabling technologies for safe and autonomous drones' applications

Start date:	1-10-2019
Runtime:	36 months
End date:	30-9-2022
EC Funding:	EC Horizon 2020
Coordinator:	INDRA SISTEMAS SA (INDRA)

General information:

Drones/UAVs can perform air operations that manned aircrafts struggle with, and their use brings significant economic savings and environmental benefits whilst reducing the risk to human life.

Drone-based service and product innovation, as driven by increased levels of connectivity and automation, is limited by the growing dependence on poorly interoperable proprietary technologies and the risks posed to people, to other vehicles and to property. SESAR JU identified that issue has a high impact on European innovation, which demands R&D investments and incentives for the convergence of shared technologies and markets as a remedy. Actions creating globally harmonized, commercially exploitable yet widely accessible R&D ecosystems should be publicly performed.

Vision and impact:

The COMP4DRONES project complements SESAR JU efforts with a particular focus on safe software and hardware drone architectures.

COMP4DRONES will bear a holistically designed ecosystem ranging from application to electronic components, realized as a tightly integrated multi-vendor and compositional drone embedded architecture solution and a tool chain complementing the compositional architecture principles. The ecosystem aims at supporting efficient customization and incremental assurance of drone embedded platforms, safe autonomous decision making concerning individual or cooperative missions, trustworthy drone-to-drone and drone-to-ground communications even in presence of malicious attackers and under the intrinsic platform constraints, and agile and cost-effective compositional design and assurance of drone modules and systems.

COMP4DRONES will also build an open sustainable ecosystem around public, royalty-free and goal-driven software platform standards that will ease the development of new drone functionalities for multiple application domains. Lead applications driving ecosystem development and benchmarking on the fields of transport, infrastructure inspection, urban logistic, precision agriculture, parcel delivery, among others, will be produced.

Project Website:

www.comp4drones.eu



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