



ENHANCING THE CAPABILITIES OF EUROPEAN ARMED FORCES

INTERACT Project enhances the capabilities of European armed forces to safely and effectively operate **unmanned systems** together with **manned systems** in joint or combined operations. The project will deliver the effective means to ensure the interoperability and standardisation of different unmanned systems, equipment, components and procedures in order to maximise benefit and optimise adoption and integration of unmanned systems in the operation of armed forces.

The Challenge



Unmanned systems are already broadly used by the armed forces to conduct a wide variety of tasks ranging from data collection, providing services (like transport, navigation and communication), and providing effects (kinematic and non-kinematic). Currently, unmanned airborne systems are dominating, but unmanned ground vehicles, surface and underwater systems are also increasingly complementing traditional branch of services and expanding their range of applications. The complexity of the military tasks and missions are expected

to broadly expand the use of unmanned systems in the defence domain, often operating together with manned systems and human actors. The increasingly demand for competitive solutions has led to innovative unmanned military systems that have been developed and tested throughout Europe by various large manufacturers and industries. However, each manufacturer implements different ways of navigation and control, different interfaces for data acquisition and processing, and different possibilities of operating unmanned systems in a complex environment together with manned systems. Consequently, interoperability and compatibility among the systems is reduced, the vendor lock-in is increased and the system life cycle management is hampered.

The INTERACT Solution

The development of an interoperable open architecture for mobile, unmanned systems (land, air, water and sub-surface) by the INTERACT project provides a strategic value for both – operational end-users and industry. The ability to make the unmanned systems interoperable i.e. exchange data and information from various systems on one hand and ensuring interchangeability across system payloads in a flexible manner on the other hand, will enable the armed forces to react comprehensively to rapidly changing requirements.





In brief, the INTERACT solution:

- Will enable a smoothly adoptable composition of systems and teams (both manned and unmanned).
- Will facilitate that required resources can be exchanged rapidly and reallocated.
- System downtimes will be avoided or reduced by optimally distributing and exploiting systems or system parts.

All the above can apply within armed forces units, between different armed forces units or service branches but conceptually also across national forces. Lastly, standardized interfaces for human-machine interaction can achieve continuity in the handling of the systems with positive effects on the certification, training and relevance of the assets.

Objectives

The INTERACT project will propose a set of interoperability standards for military unmanned systems which will be compatible across the domains of:

- IT services,
- · data,
- · data links, and
- engineering procedures.

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Acronym: INTERACT

Title: INTERoperability Standards for Unmanned

Armed ForCes SysTems

Call identifier: PADR Call US-03-2019

Maximum Foreseen EU Contribution:

1.500.000 €

Project duration: 24 months

Start Date: 1st June 2021

Project Coordinator: Fraunhofer Gesellschaft

Consortium -

The INTERACT consortium is consisted of 19 prestigious project partners from 11 European countries which namely are Germany, Netherlands, Greece, Sweden, Spain, Italy, France, Denmark, Lithuania, Romania, and Poland.





































