Epsilon	2026	ARGO: Search & Rescue Single Window and C3, for Large-Scale Trauma Events (AI-Enabled Emergency Coordination & Autonomous Response for Large-Scale Trauma Events)						
	Country	**Contract value (€)**	**% by Epsilon**	**Staff # provided**	**Client**	**Origin of funding**	**Date (start/end)**	**Consortium Members**
	EU-27	4,000,000	10%	10 key experts	HORIZON EU	European Commission	36 months	EPSILON Coordinator, and 23 Partners

Proposed Project (2026)

ARGO Horizon Europe proposed system-of-systems is aimed to develop, integrate and validate an AI-enabled European Search & Rescue (S&R) Single Window and Command, Control and Communications (C3) System-of-Systems to improve preparedness, situational awareness and coordinated response to large-scale natural and technological disasters.

The platform federates existing national emergency management systems through secure, interoperable interfaces, preserving Member States' operational authority. Seven integrated subsystems support a 12-step emergency management cycle, encompassing event detection, information verification, notification, national activation, disaster prediction, decision support, resource mobilisation, response, reassessment and post-event learning.

ARGO combines Copernicus Earth Observation, Galileo/EGNOS, multilingual open-source intelligence, sensors, autonomous UAV/UGV technologies, resilient communications, Artificial Intelligence and Digital Twins. Its two-stage Operations Research Decision Support System optimises national and cross-border emergency resources, including first responders, medical teams, autonomous assets and specialised equipment, while retaining human control over operational decisions.

Five operational pilots in Malta, Spain, Austria, Italy and Romania will validate interoperability, predictive performance, responder safety and cross-border coordination under realistic disaster scenarios. The project targets integration with at least four national systems, measurable improvements in assessment and resource allocation, and participation by at least 150 practitioners.

By month 36, ARGO aims to achieve Technology Readiness Level 8 for the integrated platform. Its exploitation strategy prepares the establishment of ARGO.eeig, a European Economic Interest Grouping, to coordinate licensing, maintenance and commercial deployment, targeting TRL9 by 2032 and sustainable European emergency response services from 2033 onwards, strengthening European resilience and operational cooperation.



Services to be provided by EPSILON

- **Project Coordination and Technical Governance:** Support consortium management, technical coordination, quality assurance, risk management and compliance with Horizon Europe requirements.
- **System-of-Systems Architecture:** Design and integrate the seven ARGO subsystems into a federated European Search & Rescue Single Window and C3 platform.
- **Interoperability Engineering:** Develop secure APIs, common data models and national C2/C3 interfaces for cross-border information exchange and operational coordination.
- **AI-Enabled Situational Awareness:** Integrate multisource intelligence, Copernicus Earth Observation, Galileo/EGNOS, sensors and OSINT for event detection, verification and operational intelligence.
- **Digital Twins and Predictive Modelling:** Develop and integrate disaster evolution, casualty, infrastructure impact, evacuation and emergency resource-demand models.
- **Decision Support and Resource Optimisation:** Implement explainable AI and two-stage Operations Research models for national and cross-border response planning.
- **Autonomous Response and Communications:** Integrate UAVs, UGVs, robotics, medical response technologies and resilient terrestrial, satellite and mesh communications.
- **Operational Demonstration and Validation:** Support five European pilots, cross-border exercises, practitioner training, KPI assessment and integrated TRL8 validation.
- **Ethics, Security and Standardisation:** Address applicable regulatory requirements, cybersecurity, interoperability standards and operational acceptance procedures.
- **Exploitation and Commercialisation:** Develop intellectual property arrangements, licensing, business planning, procurement pathways and the proposed ARGO.eeig, supporting TRL9 transition and EU service deployment in 2033.