



FASTER Overview

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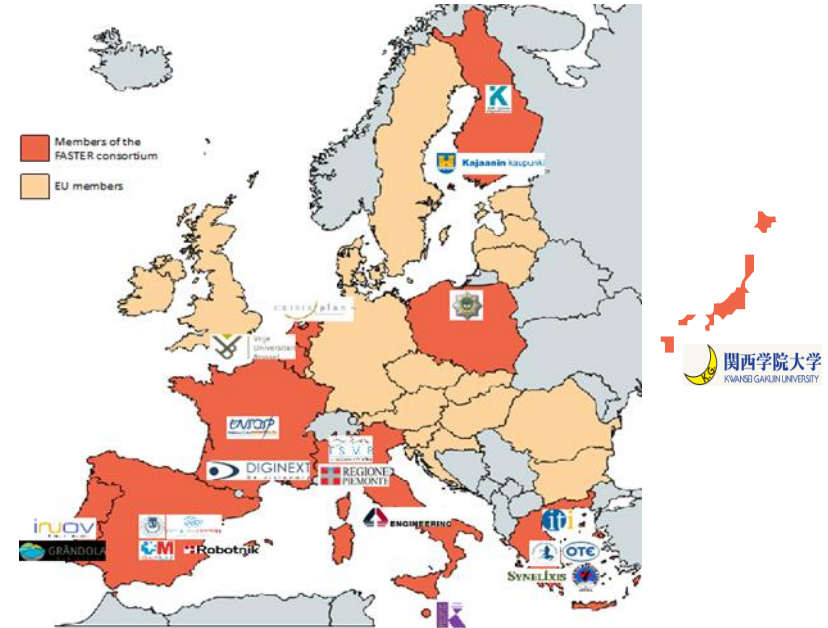
Project Information

Title:	First responder Advanced technologies for Safe and efficient Emergency Response
Acronym:	FASTER
Number:	833507
Start/End Date:	1 May 2019 – 30 Apr 2022
Duration:	36 months
Topic:	SU-DRS02-2018 - Technologies for first responders



Consortium

No	Participant organisation name	Short name	Role
1	Centre for Research and Technology Hellas	CERTH	Coordinator
2	Engineering Ingegneria Informatica	ENG	Industry
3	Hellenic Telecommunications Organization S.A.	OTE	
4	Diginext	DXT	
5	Crisisplan BV	CPLAN	
6	Drone Hopper, S.L.	DH	SME
7	Robotnik	ROB	
8	Synelixis Solutions S.A.	SYN	
9	INOV INESC Inovação	INOV	RTD/ACAD
10	Links Foundation	LINKS	
11	Kpeople Research Foundation	KPRF	
12	Kajaani University of Applied Sciences	KAMK	
13	Vrije Universiteit Brussel	VUB	First Responders
14	University of West Attica	UniWA	
15	Ayuntamiento De Madrid - Policia Municipal	ADM-POL	
16	Servicio De Urgencias Médicas De La Comunidad De Madrid	ERICAM	
17	French Academy for Fire, Rescue and Civil Protection Officers	ENSOSP	
18	Police Academy in Szczytno	WSPOL	
19	Kajaani Kaupunki	KAJ	
20	Hellenic Rescue Team Attica	HRTA	
21	Município de Grândola	MG	
22	Consorzio per il Sistema Informativo	CSIP	
23	Kwansei Gakuin Educational Foundation	KGU Japan	RTD/ACAD



FASTER MOTIVATION

“

Europe and Japan are experiencing an increasing number of disasters, derived either from natural phenomena, technological accidents or human actions. First responders are often operating in risky and hazardous disaster sites, being exposed to visible and non-visible threats. Moreover, lack of proper communication, coordination and resources in such environments, can lead to sub-optimal interventions.

We need to exploit rapidly evolving technological advances towards **protecting first responders** from multiple and unexpected dangers, and provide solutions **enabling them to operate in a seamless and efficient way** in any environment.

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Focus Areas

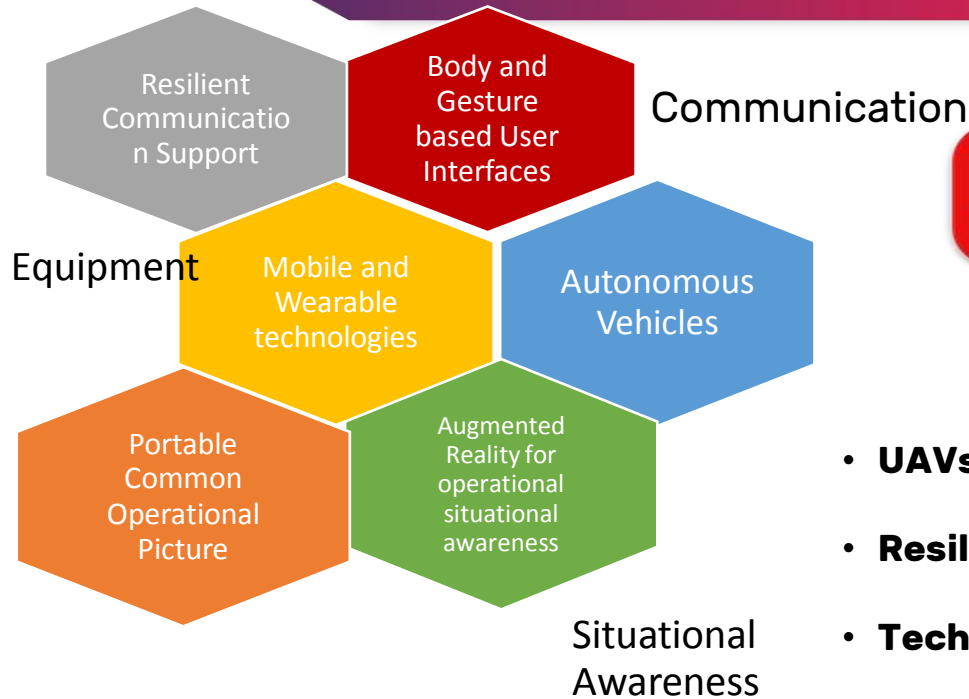


Objectives

- ***SO1: Transforming First Responders' needs into validated solutions, acceptable from the society/citizens***
- ***SO2: Early identification of operational risks enhancing first responder's safety***
- ***SO3: First Responders' engagement, training and experimental pathway***
- ***SO4: Enhanced situational awareness for first responders through augmented reality technologies***
- ***SO5: Highly ergonomic tools for first responders' operations***
- ***SO6: Robust and resilient emergency communication and cooperation infrastructure***
- ***SO7: Employing autonomous vehicles, as units or in swarms, for risk identification and physical mitigation***
- ***SO8: Portable Common Operational Picture for maximizing situational awareness***



FASTER Tools - Supporting Technologies



- **UAVs and UGVs**
- **Resilient Communications**
- **Technologies for K9 & mini-UAVs**

AR for operational situational awareness



Mobile Augmented Reality (AR) for Operational Support

Extended vision technologies using commercial lightweight UAVs



Mobile and Wearable technologies/ Autonomous Vehicles

Mission management and
progress monitoring



Wearable sensors and smart
textiles



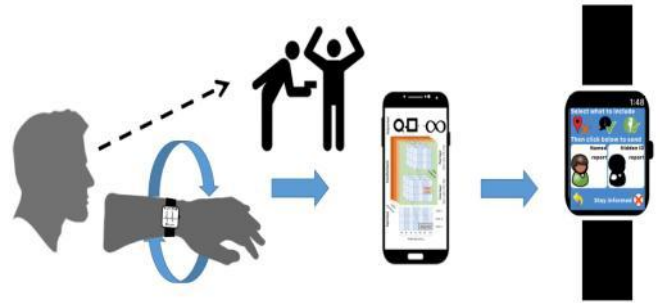
Robotic Platform



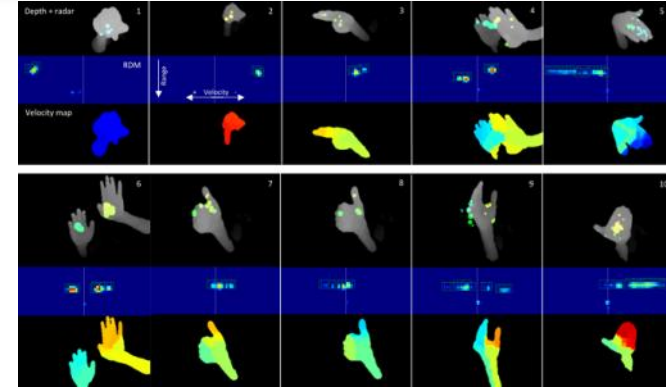
Heavyweight drones
for mapping/physical
operations



Body and Gesture based User Interfaces

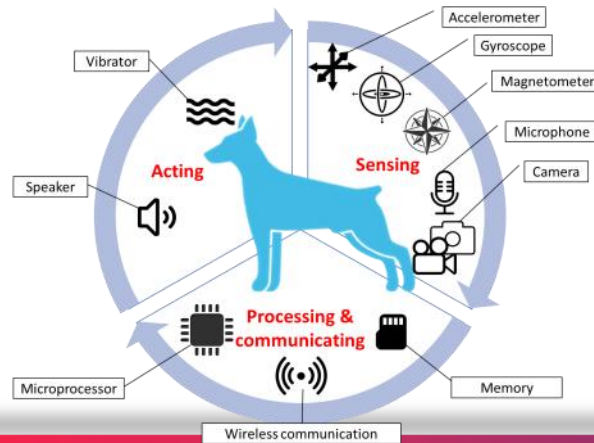


Hand gesture recognition



Gesture-based UxV navigation

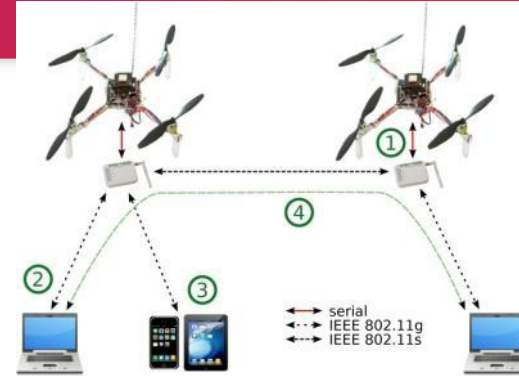
K9 Behaviour Recognition



Resilient Communications Support



Emergency Communication Box



Communication mesh through opportunistic relay services

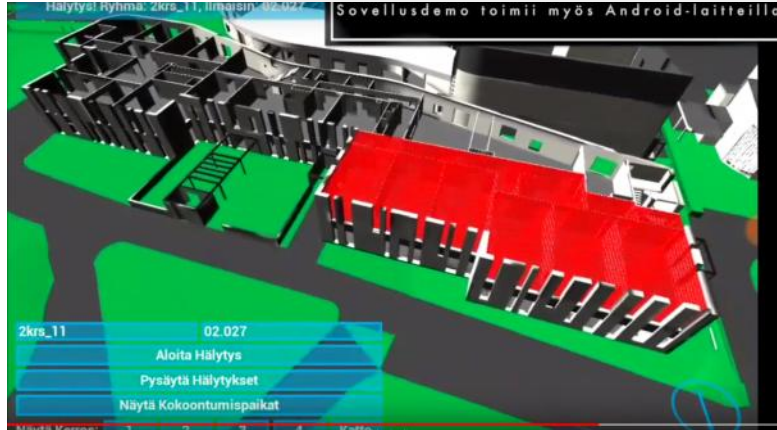
5G-enabled communication infrastructure



Blockchain distributed network



Portable Common Operational Picture



Portable Control Centre

Social Media Analysis



Use Cases Overview

Campo de Prácticas



Collapsed Building



Urban flooding



Indoor Disaster





Thank You

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