Secure Societies 2024: Horizon Europe Cluster 3 Brokerage Event in Istanbul Pitch Presentation Template

İdil Gökalp Köse
HAVELSAN

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Contact Details

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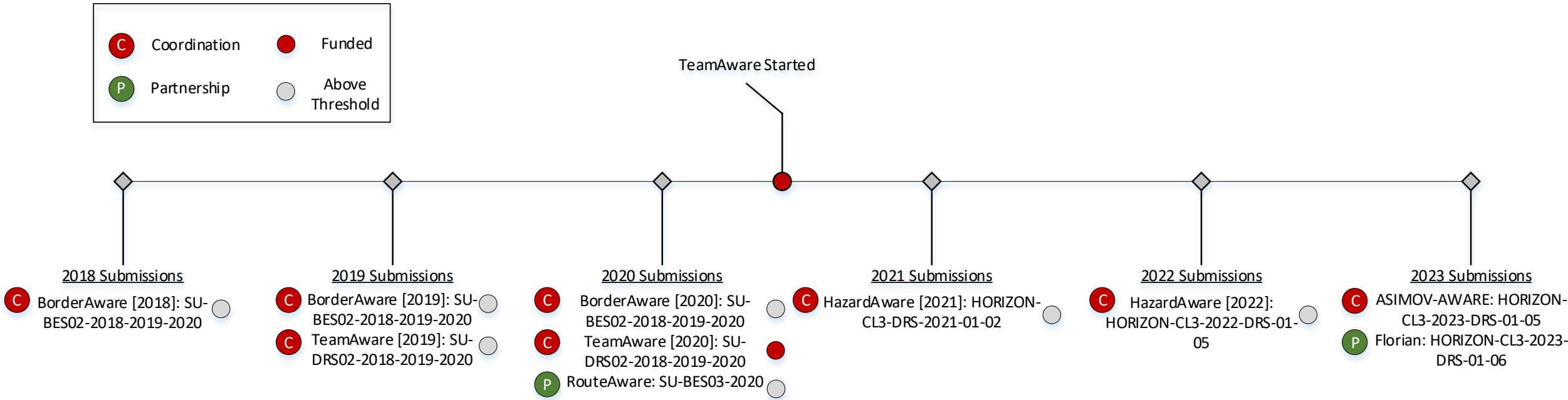
Proposal activity: CL3-2024-DRS-01-0(3/4) and CL3-2024-BM-01-02

Description of the Organization

- *For the CL3 projects, indicated team has the experience below:*



Description of the Organization

- *Besides the CL3 projects, the team was a contributing partner in 2024-CL4 calls:*
  - *DIGITAL-EMERGING-01-22*
  - *DATA-01-03*
- *The team was a partner in ITEA3 «e-watch» project and completed their task successfully.*
- *This year, in ITEA4 proposal named «ADVISOR», the team got the positive FPP result.*
- *The team involves in various national funds of TÜBİTAK and National Agency of Defence.*

HORIZON-CL3-2024-DRS-01-03: … Alert/impact forecasting systems as well as transnational emergency management in areas of high-impact climatic/geo disasters

- *Coordinator*
- *The major ambition of this project is to build a "people centred multi-hazard early warning and situational awareness platform" against natural disasters and such as wildfires, floods, and storms while considering the social reactions.*

- Objectives:
  - to develop a digital twin implementation
  - to provide early warning against natural disasters

- Expected results
  - to provide seamless communication, coordination, and information sharing, initial damage and need assessment, protection of vulnerable groups, perseverance of essential infrastructure services

Project participants

Existing Consortium

No	Partner Name	Type	Country	Role in the Project
1	HAVELSAN	LI	TR	Project coordination; technical management; operational domain task management, localisation, victim triage, area mapping, UGVs
2	SRDC	SME	TR	Cloud-based secure big data architecture; plug & play sensor interoperability; robust comm. network
3	ENIDE	SME	ES	Mobile interface development; AI/ML; dissemination, exploitation, and communication
4	FHG	RO	DE	System/software architecture design; data fusion, data processing, common situational awareness
5	TECNALIA	RI	ES	Flood forecasting system
6	RAN	END-USER	IE	End user network

HORIZON-CL3-2024-DRS-01-04: Hi-tech capacities for crisis response and recovery after a natural-technological (NaTech) disaster

- *Coordinator / UWB Localization and Communication Development*
- *The ASIMOV-AWARE's ambition is to develop an innovative, compact, and user-friendly UGV-based system tailored for FRs, enabling them to conduct remote surveillance and on-scene operations without compromising their safety.*
- Objectives:
  - to develop integrated sensor systems for continuous and real-time scene monitoring
  - to develop AI based decision-support tools
  - to develop optimised solution for UGV-based task execution
- Expected results
  - to perform remote surveillance
  - to perform remote on-scene operations

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Project participants (ASIMOV-AWARE)

Existing Consortium

No	Partner Name	Type	Country	Role in the Project
1	HAVELSAN	LI	TR	Project coordination; technical management; operational domain task management, localisation, victim triage, area mapping, UGVs
2	DUNE	SME	IT	Random deployment of localisation aiding infrastructure; AI-assisted victim detection system
3	TREE	SME	ES	Design of visual scene understanding system
4	SIMAVI	SME	RO	XR environment, training & simulation scenarios; UI & GUI specifications; system optimisation
5	EUCENTRE	RO	IT	Structural risk/damage assessment; emergency mng., visual detection; Situational Awareness Sys.
6	AITEX	RO	ES	Design, prototyping, and validation of the Environmental Risk and Hazard Detection (ERHD)
7	INT	SME	UK	Autonomous navigation of UGVs in hazardous environments, operational safety for UGVs, UGVs
8	SRDC	SME	TR	Cloud-based secure big data architecture; plug & play sensor interoperability; robust comm. network
9	ENIDE	SME	ES	Mobile interface development; AI/ML; dissemination, exploitation, and communication
10	ROMA3	UNIV	IT	Control algorithms and virtual/augmented reality for human/robot localisation; navigation mng.
11	FHG	RO	DE	System/software architecture design; data fusion, data processing, common situational awareness
12	SDSN	RO	BE	Social impact, social requirements, desirability, and acceptability assessment etc.
13	AFAD	AUTH	TR	Local authority; end-user; first responder; scenario provider; leader of the demonstration activities
14	AAHD	FR	TR	Association; end-user; scenario provider; support for the demonstration activities
15	HSEPC	FR	GR	End-user; first responder; scenario provider; demonstration activities
16	AHBVP	FR	PT	End-user; first responder; scenario provider; demonstration activities
17	PROGEDA	SME	TR	Administrative and financial coordination; communication and exploitation measures

HORIZON-CL3-2024-BM-01-02: Interoperability for border and maritime surveillance and situational awareness

- *Coordinator / Anomaly Detection Algorithms*
- *The projects ambition is to develop a multi-level, multi-authority and cross-border decentralised C2 system.*

- Objectives:
  - to develop integrated sensor systems for continuous and real-time scene monitoring
  - to develop AI based decision-support tools and C2 system
  - to develop optimised solution for ASV
- Expected results
  - to perform remote surveillance
  - to perform anomaly detection
  - to increase situational awareness in European maritime and borders

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Project participants

Existing Consortium

No	Partner Name	Type	Country
1	HAVELSAN	LI	TR
2	MIA	SME	TR
3	TCG	AUTH	TR
4	YTU	UNIV	TR
5	BYS	SME	TR

HORIZON-CL3-2024-(BM-01-05/DRS-01-01/FCT-01-07/INFRA-01-03): CBRN-E based calls in various use cases

- *Partner / CBRN Signal Processing and Anomaly Detection Algorithms*
- *HAVELSAN aims to participate CBRN calls to provide signal processing and anomaly detection algorithms from the sensors measurements gathered from another partner's CBRN system.*

Other CL3 calls + Open Topic Calls:

- We are interested in modelling sensors and physical aspects of the environment. Therefore we have our expertise in:
    - Systems engineering
    - Sensor modelling and sensor fusion
    - Localization
    - Navigation
    - Mathematical modelling
    - AI applications
- Past experience related to the topic (related projects, articles, etc.)
    - TeamAware – Activity Monitoring System
    - TeamAware – Technical Coordination and Management
    - National Project of Turkish Defence Industry Agency – UWB Relative Localization System
    - E-Watch – Indoor Localization System

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Expertise - Activity and Health Monitoring System

Activity Monitoring System		
System Elements	Body Motion Capture Unit	×5
	Health Monitoring Unit	×1
	Wearable PC	×1
	Charge Station	×1
Minimum Operation Time (h)	5	
Overall Worn Weight (gr)	1186	
Functionality	Vital Sign Detection	
	Activity Detection and Body Movement Monitoring	
	Alerting Health Situation Detection (Too Low SpO2, Too High HR etc.)	
	Anomaly Detection (Fall, Fatigue, Stress)	
	Data Transfer Over Wi-Fi and GSM	
Accuracy	≥90% (HR)	
	≥90% (SpO2)	
	±1°C (Body Temperature)	
	≥85% (Activity Detection)	
	±4° (Body Movement Monitoring)	

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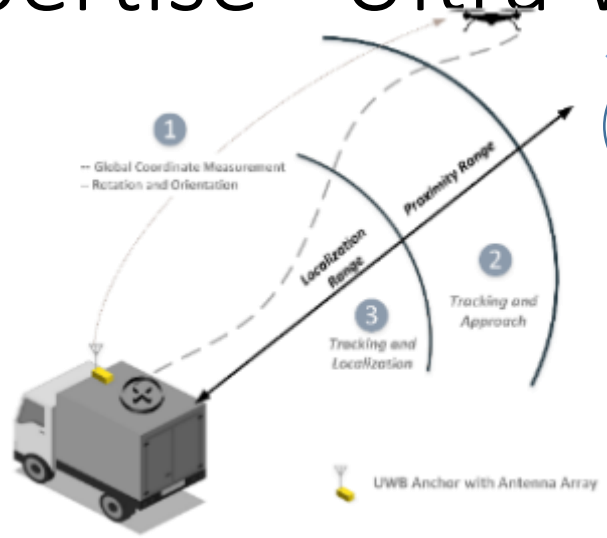
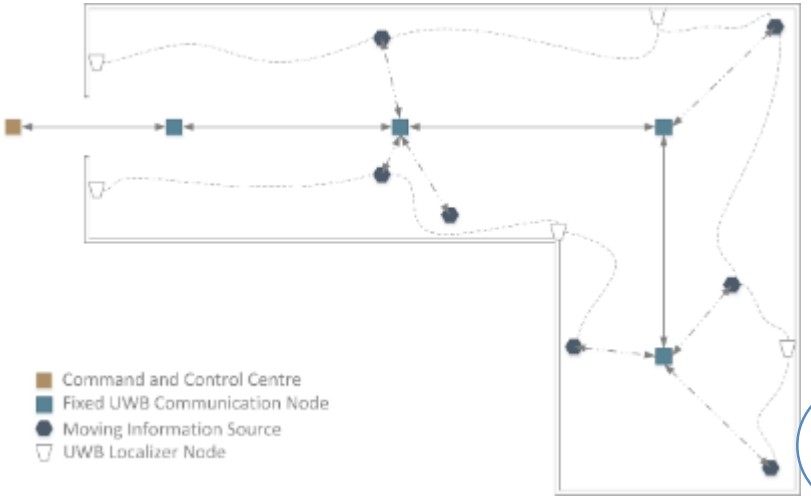
Expertise - Ultra Wide Band (UWB) Portfolio

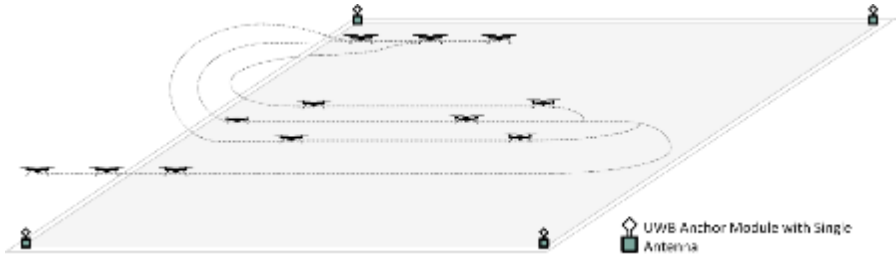


Autonomous Take Off And Land On

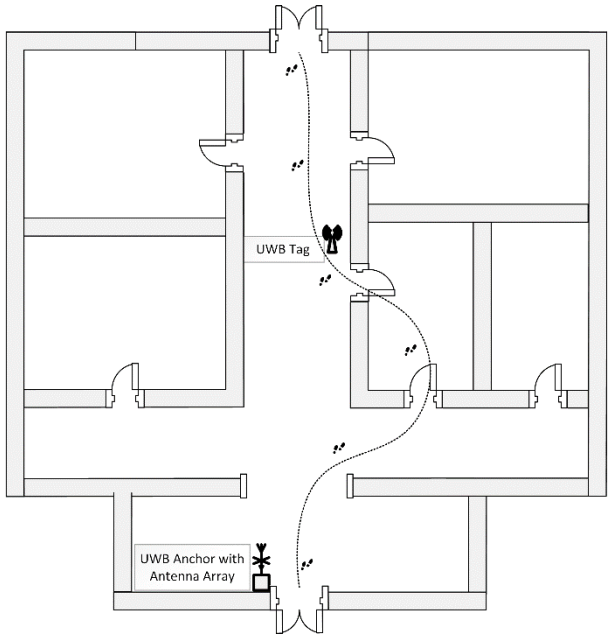


Communication System Using UWB Gateways

- Positioning and Formation Control of Autonomous Ground/Aerial Vehicles (Fixed/Relative)
- Indoor Localization System Using UWB Units
- Positioning Support for Indoor Discovery and SLAM Applications
- Autonomous Take Off And Land On
- Detection and Localization of Package Equipped with an UWB Receiver and Collective Package Cary Mission of a SWARM
- UWB Module Equipped UAV For Follow VIP Mission
- Communication System Using UWB Gateways



Positioning and Formation Control of Autonomous Ground/Aerial Vehicles (Fixed/Relative)



Indoor Localization System Using UWB Units

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