



Alliance for
Internet of Things
Innovation

AIOTI Signature Event 2022 • 27 September 2022

Session 1: IoT and Crisis Preparedness

Monica FLOREA

Head of Unit European Projects Department, SIMAVI

✉ monica.florea@simavi.ro



SIMAVI Overview

Software SME focusing on:

- Domains: Security & Cybersecurity, eLearning & eTraining, eHealth, eCustoms, eGovernment, eAgriculture
- Technologies: AI, Big Data & Analytics, Data&IoT platforms, DSS, GIS, Mobile apps, User interfaces, UX design, Cybersecurity frameworks, XR
- Integration, validation and pilot deployment
- R&D projects:
 - ✓ 45 H2020 projects (5 as Coordinator)
 - ✓ 13 Horizon Europe projects to start (2 as Coordinator)

Actively supporting community disaster

Innovative customized tools and technologies aimed at facilitating operations

Better response coordination and deployment of resources and FRs in the field

Interoperable and secure incident management and better integration of IoT

Enhanced preparedness, awareness, and reaction capability

Improved resilience of critical infrastructures

Societal trust and feeling of security

New knowledge about field validation of different tools, technologies and approaches in real-life scenarios

DRS and Crisis Management - Solutions &

TeamAware^S

[Coordinator SIMAVI]

Integration, validation and real-life demonstration for the TeamAware system that includes physically deployed sensor platforms, network infrastructure and communication protocols connecting the AI platform, AR/Mobile UI and HMI components.



IMPETUS

Cybersecurity framework for urban safety for the IMPETUS platform that combines IoT and Cloud computing approaches with local partners smart cities' solutions.



Holistic passenger ship evacuation and rescue ecosystem using PALAEMON Academy and AR Glasses for Ship Crew



**Search
& Rescue**

S&R Training System framework and aftermath knowledge capitalization mechanisms for the early location of entrapped victims under collapsed structures, risk assessment and FRs safety



LAW-GAME

Interactive, Collaborative Digital Gamification Approach to Effective Experiential Training and Prediction of Criminal Actions' with integrated physics engine - LAW-GAME



ISOLA

Crowdsourcing and mobile apps monitoring, 3D-visualization of early warnings modules and AR Glasses Interactive Simulators for ISOLA - 'Innovative & Integrated Security System on Board Covering the Life Cycle of a Passenger Ships Voyage'



SILVANUS

AR/VR content curation for training firefighters and forest fire ignition models - SILVANUS

TREEADS

Integrated Fire Management Systems (IFMS) and enhanced reality, UX design, training, including virtual reality simulators for air fleet and ground resources





www.search-and-rescue.eu

*Emerging technologies for the Early location of
Entrapped victims under Collapsed Structures and
Advanced Wearables for risk assessment and First
Responders Safety in SAR operations*

The S&R framework objectives will enable supportive approach using a wider range of decisional support features and monitoring systems and will also give to first responders an effective and unified vision of:

- *the dynamic changes going on during event's lifetime and*
- *the capabilities and resources currently deployed in the field.*

- S&R Training System, services interoperability framework and aggregation of components and available interfaces
- Design of an aftermath knowledge capitalisation mechanism
- Authoring tool for trainers with integrated player with live audio communication and role based access to specific content
- XR application that allows the FRs to better communicate and coordinate while having access to real time information from various sensors during the exercise:

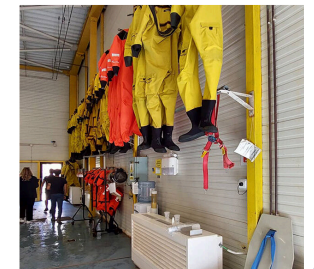
Virtual replica of Tuzla Airport(Romania) has been developed to allow simulation using real life conditions: the XR headset operator will have a satellite view over the airport and it will be able to easily coordinate the FRs using the assistive technologies.



USE CASE:

Resilience Support for Critical Infrastructures through Standardized Training on CBRN (Romania)

SEARCH AND RESCUE



The use case took place at the Regional Air Services (International Airport Tuzla), located near the Black Sea at about 300 km from Bucharest, early September 2022



Thank you for listening

Monica FLOREA
Head of Unit European Projects
Monica.Florea@simavi.ro

<https://www.simavi.ro/en/rd-projects>