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Session 1: IoT and Crisis Preparedness

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SIMAVI Overview

Software SME focusing on:

- 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 & Experiences

**TeamAware**
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.

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

**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

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

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European R&D Projects | Simavi  
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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.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 882897
USE CASE:
Resilience Support for Critical Infrastructures through Standardized Training on CBRN (Romania)

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

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