

## Press Release

### **New Mixed Reality Crisis Training Technology Created**

**The IN-PREP platform - the first of its kind - ensures a more coordinated response to emergencies**

- *Scientists, engineers and crisis managers across Europe have developed a new Mixed Reality training platform – for collaborative training in joint crisis operations*
- *The IN-PREP training platform known as the Mixed Reality Preparedness Platform allows agencies and emergency personnel to train for a more coordinated response to crises, ensuring more lives are saved*
- *Since 2001, emergency personnel across Europe have responded to over 300 joint crisis operations worldwide, including the wildfires in Greece, Sweden and Latvia this year*
- *This novel Mixed Reality training technology will be tested for the first time by over 20 crisis specialists in Italy on November 29<sup>th</sup> 2018*
- *IN-PREP is a European Union research and innovation project funded under the Horizon 2020 programme*

**20th November 2018**

The Horizon 2020 EU funded project, IN-PREP, is taking action in preparedness of crises with a system that enables response agencies to train, plan and collaborate together. Scientists, engineers and crisis managers across Europe have developed a new Mixed Reality training platform for collaborative training in joint crisis operations. For the first time, with the cooperation of the municipality of Spoleto, IN-PREP will test their **Mixed Reality Preparedness Platform (MRPP)** with a disaster training table top exercise. The Italian hilltop town sits on the foothills of the Apennines, close to the area of Abruzzo where avalanches and 3 emergencies occurred in 2017. The exercise, based on the scenario of a hazmat accident, will train civil protection responders to hone their skills for an effective coordinated response. The cascading crisis will be pitted against civil protection responders and the prototype training platform.

*“As the crisis scenarios change unexpectedly on the MRPP platform, the coordination and speed of the response team to allocate resources, evacuate people and assess risks will be tested. Communication between different agencies and their systems (known as interoperability) and the Command and Control room will be monitored. Drones, sensors and satellite images will also be used to enhance realism of the training sessions and provide an overview of the crisis. Our vision is that the IN-PREP tools will ultimately lead to better understanding of preparedness levels and enhancement of collaborative response plans,”* said Evangelos Sdongos project manager of IN-PREP.



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 740627.



Currently, many civil protection operating systems are decentralised. Information exchange between organisations is limited as they have different technology, protocols and security layers. Interagency collaborative exercises involving the entire chain of command are costly and labour intensive, requiring a high trainer to trainee ratio. During a major crisis that cascades rapidly, affecting thousands of people in diverse political areas, different organisations need to communicate with each other easily and make decisions quickly in order to save people's lives. The IN-PREP team have developed a training system that targets interoperability. Using the platform, different responder agencies can plan, train and communicate with each other seamlessly. The training platform will help responders to have a more efficient approach that will save precious seconds when responding to crisis events enabling more lives to be saved.

*"Crises in this era require response teams to be both efficient and effective. They need to have increased situational awareness, receive and share rich information while coordinating their efforts. IN-PREP will provide the necessary tools to help response teams address these goals, subsequently increasing the quality of humanitarian aid"* said Dr Angelos Amditis IN-PREP coordinator.

The growth of disaster risk means that there is a need to strengthen disaster preparedness for response. Since its launch in 2001, the EU Civil Protection Mechanism received close to 300 requests for assistance and intervened in devastating disasters in [Haiti](#) (2010), [Japan](#) (2011), the [Philippines](#) (2013), the [Ebola outbreak](#) (2014), and was actively used in responding to the forest and wild fire emergencies in [Greece](#), [Sweden](#) and [Latvia](#) this year. IN-PREP will test effective ways to implement the mechanism through their joint exercises.

The table top exercise, held with the cooperation of the municipality of Spoleto, will take place on the 29<sup>th</sup> of November 2018 and will be useful for fire fighters, emergency medical practitioners and police in emergency response. After observing the exercise, the floor will be open for feedback and discussion. Crisis managers and civil protection personnel interested in the development of the IN-PREP system for training and preparedness should register for the event at <https://www.in-prep.eu/ttx/>

**For more information visit <https://www.in-prep.eu/> or contact Dr. Angelos Amditis [a.amditis@iccs.gr](mailto:a.amditis@iccs.gr) IN-PREP Project Coordinator, Research director and Head of I-Sense Group**

**ENDS**



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### **Interview**

IN-PREP Project Coordinator Dr. Angelos Amditis & Project Manager Mr. Evangelos Sdongos are available for interview.

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### **NOTES TO THE EDITOR:**

#### **What is the IN-PREP Project?**

IN-PREP is an EU funded research project under the Horizon 2020 research programme. The project aims to:

- Improve collaborative response during crisis operations across Europe through better training and planning
- Increase effectiveness of planning operations through better situational understanding

The IN-PREP consortium is made up of 20 partners from 7 countries in the EU:

1. Project coordinator - Institute of Communications and Computer Systems (Greece)
2. Crisisplan BV (Netherlands)
3. Airbus DS SAS (France)
4. Deutsches Zentrum fuer Luft-und Raumfahrt e.v. (Germany)
5. Diginext SARL (France)
6. Italian Ministry of Interior – Vigili del Fuoco (Italy)
7. EXUS Software Ltd (Greece)
8. Satways Ltd (Greece)
9. Fraunhofer INT (Germany)
10. SAMU Urgences de France – Assitance Publique- Hospitaux De Paris (France)
11. University of Greenwich – Fire Safety Engineering Group (UK)
12. Trilateral Research Ltd (UK)
13. CARR Communications (Ireland)
14. Intelligence for Environment & Security – IES Consulting SRL (Italy)
15. Deutsche Hochschule der Polizei (Germany)
16. Safety Region IJsselland (Netherlands)
17. Municipality of Rhodes (Greece)
18. AIR Worldwide Ltd (UK)
19. Police Service of Northern Ireland (UK)
20. Health Service Executive (Ireland)



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### **What is the Mixed Reality Preparedness Platform?**

The Mixed Reality Preparedness Platform (MRPP) is a training tool that combines many types of technologies to integrate how responders perceive information on the ground and how they direct their resource.

It is both user-friendly and intuitive. It provides an interactive, realistic 3D visualisation of the crisis environment combining a vast spectrum of data, both simulated and from the field. The MRPP will be useful for responders from different agencies and countries as it enables them to simulate future scenarios and practice together. It will enable practitioners to make sense of a crisis situation from different perspectives. Participants will be able to create and adapt scenarios during training.

In a preparedness session, a simulated crisis would be merged into the real-world environment using a combination of technology such as augmented reality, sensor networks, evacuation possibilities and risk assessment.

Responders in the field will be able to visualise information about the simulated crisis while it evolves. While in the control room, the person in charge will be able to visualise how close the person in the field is to the simulated incident. All the different parts transform into a common operational picture to facilitate informed decision making. These simulated training sessions enable people who have never worked together before to practice together in preparation for real-life crisis events.

### **What is the EU Civil Protection Mechanism?**

In 2001, the [EU Civil Protection Mechanism](#) was established to enable coordinated assistance and response to victims of natural and man-made disasters in any country in the world. The purpose of the mechanism is to improve response capacity so that the European Union is able to respond to multiple requests for aid. It provides additional relief to each state's capacity or responsibilities.

The Mechanism currently includes civil protection authorities from 28 EU Member States in addition to Iceland, Montenegro, Norway, Serbia, FYR Macedonia and Turkey. In response to the high number of recent emergencies the EU Commission announced in November 2017, new plans to strengthen the EU's civil protection response to support Member States to better respond and prepare for natural and man-made disasters.



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