RESPOND-A

“NEXT-GENERATION EQUIPMENT TOOLS AND MISSION-CRITICAL STRATEGIES FOR FIRST RESPONDERS”

- Belgium
- Bulgaria
- Cyprus
- France
- Germany
- Greece
- Italy
- Montenegro
- Netherlands
- Spain
- Sweden
- Portugal
- United Kingdom

Wildfires, Floodings, Earthquakes and man-made incidents are striking Europe on a frequent basis. Often unforeseen, these crises elicit a complex response mechanism involving different categories of First Responders such as firemen, police, medical intervention teams and volunteers. Yet the participation of such heterogeneous groups with specific operational procedures and chain of command poses real challenges in terms of coordinating actions and getting a clear overview of the emergency response. RESPOND-A is a European Project funded under the Horizon 2020 Research Program composed of 34 partners from 12 European countries.

respond-a-project.eu

Technologies

With the evolving threat of climate change and the consequences of industrial accidents to becoming more severe, there is an increasing need for First Responders to access reliable and agile information management systems that offer as higher Situational Awareness and better Common Operational Picture.

To match with current trends, the RESPOND-A project aims at developing holistic and easy-to-use solutions for First Responders by bringing together the complementary strengths of its Investigators in 5G wireless communications, Augmented and Virtual Reality, autonomous robot and unmanned aerial vehicle coordination, intelligent wearable sensors and smart monitoring, geovisual analytics and immersive geospatial data analysis, passive and active localisation and tracking, and interactive multi-view 360o video streaming.

PILOTS

In the course of its three year life span the project will test and implement the Respond-A platform using real-world training facilities through three pilot sessions.

Pilot Session 1: Forest Fire (Cyprus)

The Cyprus Use Case describes the situation of a severe forest fire as it happens almost every year in the southern European countries. The scenario focuses on Emergency Response Communications and Information Technology (ERCIT) for FRs and the use of wearable sensors, AR/VR technologies, and UAV platforms.

Pilot Session 2: Earthquake (Greece)

The Greek use case simulates a severe earthquake scenario evolving as well as a fire in a damaged building and involves two (2) scenarios: The 1st scenario accommodates the rescue of a victim inside a collapsed building due to an earthquake. From the technological aspect, this scenario involves a crisis management control platform, 5G PCS, 5G mobiles and a location awareness system using UWB technology and drones. The 2nd scenario accommodates the rescue of a victim and a rescuer inside a flaming building due to an earthquake. From the technological aspect this scenario involves a crisis management control platform, 5G PCS, 5G mobiles with an integrated thermal camera, smart health jackets (vests) and a location awareness system using UWB technology and drones.

Pilot Session 3: Maritime incident (Spain)

Between 75 and 96 % of marine accidents are a result of human error (e.g. fatigue). Over 50% of all the oil spills happen in port areas. In the past years, approximately 71% of all the attacks on ships registered by the International Maritime Bureau took place on vessels in ports (vessels berthed or anchored). Big ports such as the Port of Valencia require a specific protection plan to respond rapidly against natural and provoked disasters in the port area and surroundings. The Port Authority of Valencia has a Self-Protection Plan (SPP) which plans the necessary intervention actions in emergency situations. Cutting-edge technologies such as 5G, smart health or the usage of UAVs boost the save and rescue actions while increasing the First Responders' safety.

TRAINING

Training is a core and crucial component of RESPOND-A. It will allow solution and services providers to test and operate various use case configurations in predominantly live settings and verify behaviour and reliability of the RESPOND-A platform. End users will simulate emergency response in the field, testing the equipment. Complex exercises will be carried out in each of the trainings, while users in the field will be connected to the command and control room were information is monitored. Technological Partners will be either in the field or in the control room to test the equipment performance. The field trainings will test the integration of the RESPOND-A tools in a real environment and demonstrate how the RESPOND-A platform strengthens the First Responders' capacities and activities, thereby improving First Responder preparedness and skills. Furthermore, during the final field training's the end-users will have the opportunity to operate the RESPOND-A tools without the assistance of the technical developers. KPIs will be used to monitor the success of the training's and assure that all developed services of the RESPOND-A platform are demonstrated in the field trainings.

WORKSHOPS/ WEBINARS

In the course of its three year lifetime, the consortium will convey a series of open workshops and webinars to present the RESPOND-A platform or some of its components to interested stakeholders. These events typically feature contributions from external experts, related EU projects and also serve as platforms to share knowledge and experience on the use of innovative technologies for First Responders' operations. Information on our upcoming activities is available on our website.

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