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RESCUER aims to design and develop a First-Responder-centered technology toolkit that will empower the next-generation of First Responders (FR) by enhancing their operational capacity and safety, specifically in adverse conditions, both environmental and infrastructure-wise.

Having completed the first half of the project, the technical partners and the end users are working closely on identifying use cases that will demonstrate the potential and importance of RESCUER technologies in empowering the next generation Emergency Responders. In this context, a series of events and field trials organised at pilot sites have taken place.



3rd General Assembly Thessaloniki: October 2022

The 3rd General Assembly meeting of RESCUER took place in Thessaloniki, Greece on 6th of October 2022 hosted by Centre for Research and Technology-Hellas (CERTH).



During the first two days, the process of project's subsystem integration was performed by the technical partners. The various subsystems were unified in order to create a single system with robust communication between the components. Moreover, the functionalities of each tool were presented to the FRs, in order to gather their feedback and use them as a baseline for further improvements.

On the 6th of October the participants were able to discuss the progress of the implementation and future steps to be taken.

Dear reader,

This is the third issue of the RESCUER project's newsletter.

We are pleased to welcome you and introduce you the RESCUER project.

Follow us for more news and updates about RESCUER



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Field trial Moosbach: June 2022

A field trial in Moosbach, with I.S.A.R. Germany and German Aerospace Center (DLR), has been successfully carried out in June 2022. Four first responders were equipped with the RESCUER Galileo localisation tool that is developed by DLR. The locations of the first responders could be retrieved accurately.



Practice tests Madrid: July 2022



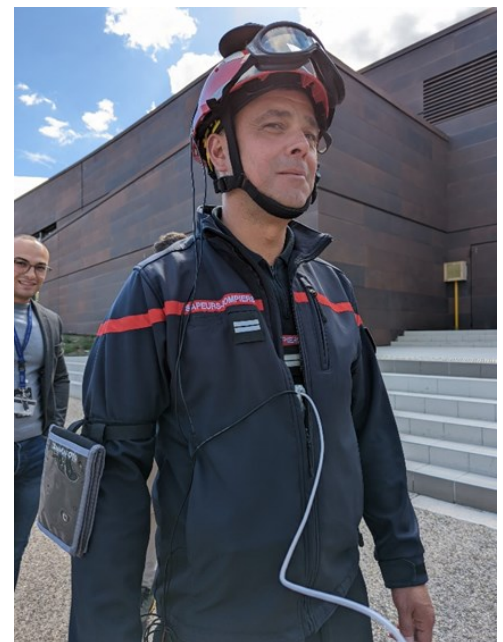
During July, UPM and SERMAS performed a set of practice tests for Cognitive Load Balance at the National School Of Civil Protection in Madrid, Spain. These tests are the first field trials for testing all the tools developed in “T7.2: Biosignals monitoring & Cognitive load balancing”. The tested tools were developed by UNIWA, VI-COM, SERMAS and UPM, aiming at the provision of specialized monitoring systems to track health status and to prevent excessive cognitive load to FRs. Inferring Cognitive Load Balance (CLB) in real time situations is not trivial, so first tests are devoted in understanding how biosignals are affected under a different CLB in real situations. In these first field tests, 20 first responders (doctors,

nurses, technicians and firefighters) were selected and performed two different multi-objective tasks in a collapsing structure field.

Field trial Aix-en-Provence: September 2022

On 27 September 2022, CS Group, DLR, University of Greenwich and SDIS 73 gathered at the ENSOSP (Aix-en-Provence, France) to carry out a Field Trial on the following RESCUER modules:

- AR Interfaces: about 15 first responders were equipped with HoloLens2 and CS Group and ENSOSP trained them on using the device through a prototype of the RESCUER AR interfaces;
- Galileo and Inertial Localisation: first responders were equipped with DLR localisation device and were asked to walk from outside to inside different spots. They were followed by UoG with a mobile phone to record localisation data. The raw data will be later processed to check its accuracy.
- Enhanced Hearing: first responders tested the comfortability / invasiveness of three different Bragi’s earbuds prototypes with and without a helmet



A series of valuable feedbacks were provided by the testers on those three RESCUER applications, to be used to guide the development process of the RESCUER toolkit.

For more follow the link on RESCUER’s YouTube channel:

https://www.youtube.com/watch?v=VyaBw9y9u_U



Pilot training Weeze: November 2022

During the start of the Testing Phase of the RESCUER project, finalising the first half of the project, tools are ready to be tested during pilot trainings. The first of the six pilot training courses took place at the end of November 2022, at the training base in Weeze, Germany hosted by the project partner ISAR Germany. During this pilot an earthquake scenario was designed for the first joint test of the RESCUER tools developed so far outside of laboratory conditions and individual tests. Partners as well as emergency services took advantage of the opportunity to test the tools, on the current state of development, indoors and outdoors and in a realistic scenario setting. After initial training on the tools, several teams were able to complete damage site evaluations after an earthquake, in a building with smoke development and to search for those affected in a realistic process, accompanied by technicians. Further possibilities, steps and necessities were discussed together, as well as the limits of implementation within the project. 15 technologies were tested after the training session carried out by ENSOSP, while the next step will be to collect and analyse first responders' feedbacks to improve the RESCUER applications.

For more follow the link on RESCUER's YouTube channel:

<https://www.youtube.com/watch?v=xDoYloydNVU>



News & Updates

RESCUER @ Safe Greece 2022

On 1st of October 2022, RESCUER was introduced at Safe Greece 2022 conference in Thessaloniki through the "Visual computing and Radar tools for improved situational awareness in Search and Rescue operations" presentation by the Hellenic Rescue Team.



RESCUER @ Nicosia Risk Forum 2022

On 16th of November 2022, RESCUER participated in the "Breakout Session 2 - Capabilities and Technologies for First Responders" during the Nicosia Risk Forum 2022 which this year was focused on "Challenges of the Effects of Climate Crisis". The session was organised and led by H2020 RESPOND - A – Next-generation equipment tools and mission-critical strategies for First Responders, supported by:

- H2020 Search & Rescue
- H2020 TeamAware
- H2020 RESCUER
- H2020 Ingenious
- H2020 ASSISTANCE



FIRST HELP Cluster

RESCUER is a part of the FIRST HELP Cluster of 3 EU-funded projects that are focused in developing novel solutions that support first responders in facing multiple dangers. FIRST HELP member projects, H2020-RESCUER, SIXTHSENSE & Med1stmr are joining forces to provide innovative tools to First Responders that will make a difference during emergencies.

FIRST HELP with the moto "Pioneering technologies for first responders" derives from the common pioneering technologies of these three projects that are focused on enhancing the FRs' sensory skills to better face emergency situations.

FIRST HELP receives the support of the Horizon Results Booster service.

For more follow the link on RESCUER's YouTube channel:

https://www.youtube.com/watch?v=cFV6kXbun_s



RESCUER @ IEEE WF – IoT 2022

RESCUER was presented by Prof. Ch. Patrikakis during the the Special Session "IoT and First Responders" which was marked as High Attendance at the IEEE 8th World Forum on Internet of Things (WF-IoT) 2022.



RESCUER Heroes adventures



Beatrix and Theseus, RESCUER's heroes are now part of a comic series that will be regularly released to update on the news and advancements of the project.

The first volume was released in December 2022, presenting the challenges that FRs have to deal during emergencies.

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