The **latest technologies** against floods, fires and extreme weather events are unveiled and tested in Venice

- Big Data to process information in real-time during disasters, Artificial Intelligence applied to language filtering and a mobile app to alert citizens are some of the technologies presented.
- On the 9th and 10th of May, experts in flood, fire and extreme weather management from around Europe will meet in Venice to introduce the tools developed by the I-REACT project.
- The solutions are the result of a three-year European project that now starts its new stage as a company.

9th May 2019, Venice (Italy).- Drones that go in the air to offer an overview of the extent of a flood. Wearables that locate and monitor the status of fire responders. Updated and actionable satellite information to better assess how a fire, a flood or heavy rains may evolve. These are some of technologies that emergency responders will now be able to use, thanks to the Big Data platform developed by I-REACT. The results of this project, funded by the European Commission, will be presented on a workshop that will take place in Venice, the 9th and 10th of May, at the premises of UNESCO Regional Bureau for Science and Culture in Europe. Among the attendees of the workshop will be European Commission representatives from the DC ECHO (Directorate-General for European Civil Protection and Humanitarian Aid Operations), European Civil Protection agencies and emergency management experts from around Europe.

In the two-days workshop, the attendees will be able to test the tools first-hand, through a series of in-field simulations and flood and wildfire scenarios. This will be monitored through the main techinology of the project: a centralized, modular and interoperable Big Data platform. It combines data from multiple information sources such as weather predictions at different scales, models for climate projections and early warning forecasts for flood, fires and extreme weather events. The platform also incorporates a social media engine that uses natural language processing and machine learning to filter information from Twitter, providing real-time insights of the situation. "Big Data and Artificial Intelligence are the main strengths of the project, as they allow us to transform raw data into useful information", explains Dr. Dominici, head of the Mobile Solution research area at the LINKS Foundation of Torino, Italy, and coordinator of the I-REACT project. "This is extremely helpful nowadays, since Social Media has

turned each citizen into a source of information." In addition, the project also features a mobile app that enables citizens to share geolocalised photos and information on disasters.

"This event represents an excellent opportunity to show the results of more than three years of hard work and close collaboration between 20 European partners", adds Dominici. "All the technologies are now available for Civil Protection Agencies, emergency managers and insurance companies. Our tools are modular, easily integrated with the existing services, and enable a multi-agency, cross-border disaster management."

This two-day workshop is hosted by the UNESCO Regional Bureau for Science and Culture in Europe and will serve as a turning point for I-REACT, marking the end of the research and implementation phase, funded by the European Commission, and inaugurating the breakthrough of the technologies into the market.

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Additional information

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Resources

Motion graphic: I-REACT in two minutes

I-REACT brochure

I-REACT video resource reel: https://www.youtube.com/watch?v=gXFBiwk4Xpg

This reel showcases some of the video resources related to I-REACT. If you would like to use any of this material for your coverage of the project, contact us and we will provide original files: press@i-react.eu

The technologies

Big Data platform

The I-REACT Big Data platform integrates all the resources in a single place. Its comprehensive front-end web application provides a quick visualization through real-time map layers. These include Copernicus EMS information (rapid and on-demand mapping), updated situational maps of the safety operators on field, accurate weather forecasts and historical information from past events.

A key additional component is the Decision Support System (DSS) that generates suggestions for the user based on real-time information and customised to the specific protocols of action of the organisation.

Wearable

The project's wearable enhances the localisation of the personnel deployed on the ground. It also incorporates oxygen and motion sensors, to detect intoxication due to the lack of oxygen on the first-responders, as well as stumbles and falls.

Smart glasses

I-REACT's smart-glasses provide the wearer with additional information of their location and surroundings. They add a layer to reality, so responders can see incoming video-feed from other locations (to see how the situation is advancing), and allows them to send reports directly to their managers in an easy way.

Mobile app
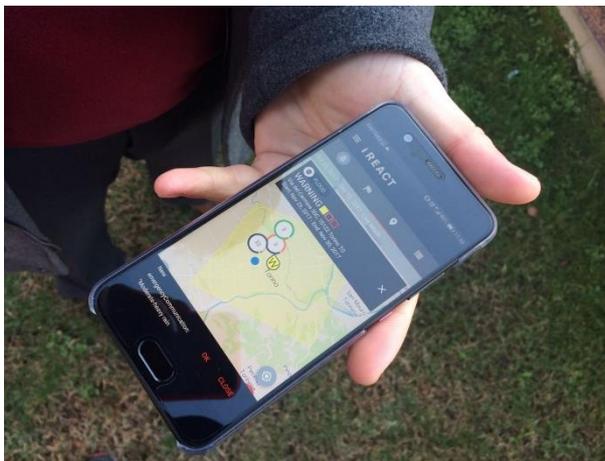
The project launched a mobile app back in October. It is freely available for European citizens, both on [Android](#) and [iOS](#), and enables the users to receive alerts on natural hazards directly on their phone, and share geolocalised reports with photos and information on the situation.