



Press release I REACT



The latest technology against floods, tested for the first time in Ipswich

- The technological tools for flood response developed by the innovation project I-REACT will be tested for the very first time in a two-day workshop and flood drill.
- The flood drill exercise is **open to the press** and will be held the 14th of June at the Holiday Inn Ipswich (Orwell). More details at the end of this press release.

13 June 2018, Ipswich, UK. - Satellites, drones, augmented reality glasses, wearables and a mobile application are some of the technologies that the international project I-REACT will be presenting in Ipswich the 13th and 14th of June. A **two-day flood simulation exercise** where the project will put these tools together to the test for the first time. The event is organised by [Aquobex](#), a British company specialised in flood risk management and flood protection, and partner of the project I-REACT. The exercise is being supported by the Environment Agency and the Suffolk Fire & Rescue Service. Selected attendees from the Environment Agency, the UK Flood Forecasting Centre, County Councils and insurance professionals will work together in the drill, that will **simulate the flood** of the Orwell river.

Floods constitute the 47% of all weather-related disasters of the last 20 years. During this period, flooding has killed 157 000 people, affected 2.3 billion people and had an economic loss of \$662 billion. The **technological tools** developed by I-REACT provide protection agencies with services that offer real-time information before, during and after the disaster situation. The project integrates and models data coming from European monitoring systems, satellite observations, historical information and weather forecasts. It also combines this information with data gathered by new technologies created by I-REACT: **augmented reality glasses and wearable technology** for emergency responders, **and a social media analysis tool** for the emergency response coordinators at the decision room, that monitors Twitter to gather real-time information on the disaster situation. For citizens, the project has developed a mobile app, that enables them to send reports about upcoming or running emergencies. Depending on the uptake of this system in the different countries, citizen reports could also reach the central I-REACT system, providing the emergency coordinators at the control room with real-time information.



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That is why this exercise will count with a team of volunteers, that will not only perform as victims trapped by the rising water levels, or people injured in the flood or citizens in need of displacement, but also will be provided with the **I-REACT app**, that allows them to report real-time information that will be visualized at the emergency coordination services about the flood situation, like geolocated photos.

Meanwhile, at the control room, the emergency coordinators will test the visualisation software developed by I-REACT. Thanks to this system, the experts at the control room will be able to **track the position** of the people affected by floods and the emergency responders on the ground. They will also **communicate** with them and **see the information reported** by them, shortening the response time and providing the emergency services with crucial information that will help them take the best decision possible.

Although some technologies have been tested in previous drills (within the frame of PieMODEX 2018 in [Piedmont, Italy](#) and with the International Sava River Basin Commission in [Zagreb, Croatia](#)), this is the first time that all the technologies developed by the I-REACT project will be used together.

The solution developed is **highly modular**, which ensures that the individual tools (satellite image interpretation, risk maps, historical data, wearable devices, drones, social media crowdsourced information and mobile app) can be adopted separately by the emergency services, so they can **integrate them with existing technologies**. Innovative cyber technologies, like those proposed by I-REACT, can provide a more accurate situational awareness and response in flood related emergencies, which improves the response to floods, and help them save lives.

Contact

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Flood drill exercise (Open to the press)

Date and place: **9:00**, 14th of June, Holiday Inn Ipswich (Orwell). Please contact before John Alexander, organiser from Aquobex: john.alexander@aquobex.com

If you cannot attend the event, a [video resource reel](#) is available for the press. Contact us and we will provide original files: press@i-react.eu



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Additional information

Official website: www.i-react.eu

Video animation: www.youtube.com/watch?v=4t5ScCh6XU0

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

UK Participation

To meet this scientific and technological challenge, the project brings together a multidisciplinary team of international experts that will provide their contribution to a more resilient future. Among them, Aquobex, a British company with over 50 years of combined experience and expertise in flood risk management and flood protection.

Citizens protecting citizens: Crowd participation to reduce disaster impacts

A smartphone application is one of the elements of the new platform. Through this app, citizens and civil protection agents will be able to submit photos and real-time reports. The platform will also analyse messages from social media such as Twitter and extract key information published about ongoing disasters. This approach has proven very helpful in recent crisis like the 2013 super typhoon Haiyan in the Philippines where Twitter was the single greatest information source for response and recovery efforts.

Smart glasses and other new technologies to improve response

I-REACT integrates also information coming from bespoke wearables to improve positioning, and augmented reality glasses to visualize information in real-time and submit accurate reports to the operation centres without using their hands.

Aiding decision-making before and during disasters

All this information is integrated into a Decision Support System for authorities that helps prevent future disasters, and improves the communication with first responders and citizens during emergencies.



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I-REACT, a collective effort to fight disasters

I-REACT (Improving Resilience to Emergencies through Advanced Cyber Technologies) is a 3-year project (2016-2018) funded by the European Commission Horizon2020 programme.

The project is coordinated by the Istituto Superiore Mario Boella of Turin. Consortium partners include: Geoville, EoXplore, Terranea, Alpha Consult, UNESCO (Regional Bureau for Science and Culture in Europe, Venice), Politecnico di Torino, Celi, JoinPad, Fondazione Bruno Kessler, Finnish Meteorological Institute, Meteosim, Bitgear, Ansur Technologies, Technical University of Vienna, Scienseed, CSI Piemonte, Aquobex, Answaretech, and Joint Research Centre (JRC) of the European Commission.

Flood statistics

Understanding flood statistics gives us opportunities to manage, prevent and find solutions to reduce the impact of flood risk. Learn about the effects of flooding with the facts and information below.

1. Around 5 million people live in flood risk areas in England and Wales.
2. One in six homes in England are at risk of flooding.
3. Total rainfall in the UK during 2012 was 1,330.7mm, just 6.6mm short of the record set in 2000.
4. 2012 was the UK's wettest year on record.
5. Annual flood damage costs are in the region of £1.1 billion across England.
6. 5.2 million properties are now at risk of flooding in England.
7. You are more likely to get flooded than burgled.
8. Drawing on more resources and investing 10% locally could unlock 90% of central Government funding for flood risk in communities.
9. Only 41% (276,000) of people eligible for free flood warnings are registered to receive them.
10. The Flood and Coastal Resilience Partnership Fund controls how money is allocated to community projects.
11. Flash floods can bring walls of water from 10 to 20 feet high.
12. 25% of flooding occurs outside areas formally designated as being flood prone.
13. 40% of businesses do not reopen after suffering a catastrophic loss.