I-REACT will provide greater emergency mitigation through accurate weather forecasts that, coupled with historical knowledge, satellite and risk maps, crowd-sourced reports, and social media information, will allow predicting extreme weather events.

A decision support system will be created to support decision makers in appropriate actions for disaster risk reduction.

To allow greater anticipation to emergency situations, I-REACT will monitor existing emergency management services, extract data from satellite earth observation, analyze data from social media streams, and develop a cross-platform application for mobile devices to report incidents and provide awareness information.

To improve the reaction speed, smart glasses will be provided to first responders to show them visualized critical information and emergency details without using their hands. In turn, I-REACT will allow decision makers of control centres to send real-time instructions to responders and issue real warnings to citizens.

I-REACT will implement a system to extract valuable information about ongoing disasters from the messages published on Twitter.

The project will develop a cross-platform application for mobile devices to report incidents and provide awareness information.

The project will work with the Copernicus Sentinel-1 and Sentinel-2 satellites to provide almost real-time information and maps.

I-REACT app
Social Media data streams
Big Data
Earth Observation
Augmented Reality
Unmanned Aerial Vehicles (UAV)
Wearables

To improve geop-targeted information, advanced positioning systems with a Galileo ready receiver and GNSS/EGNOS will achieve better accuracy.