



Project Reference: 258723

TRIC³DEC

Collaborative, Complex and Critical Decision-Support in Evolving Crises

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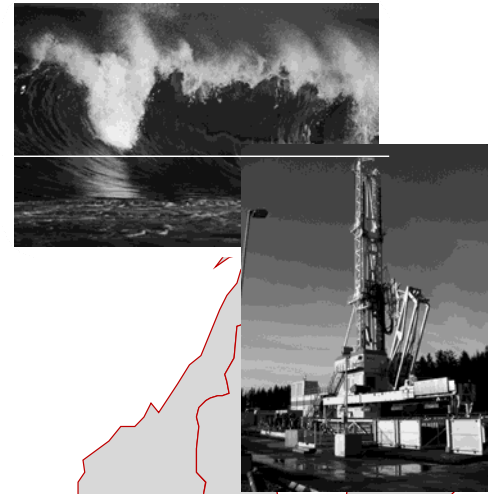


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ICT-2009.4.3 Intelligent Information Management; 258723

TRIDEC³



Project facts

Acronym: TRIDEC

Reference: 258723

Start Date: 01.09.2010

End Date: 31.08.2013

Duration: 36 months

Contract Type:

Collaborative project - IP

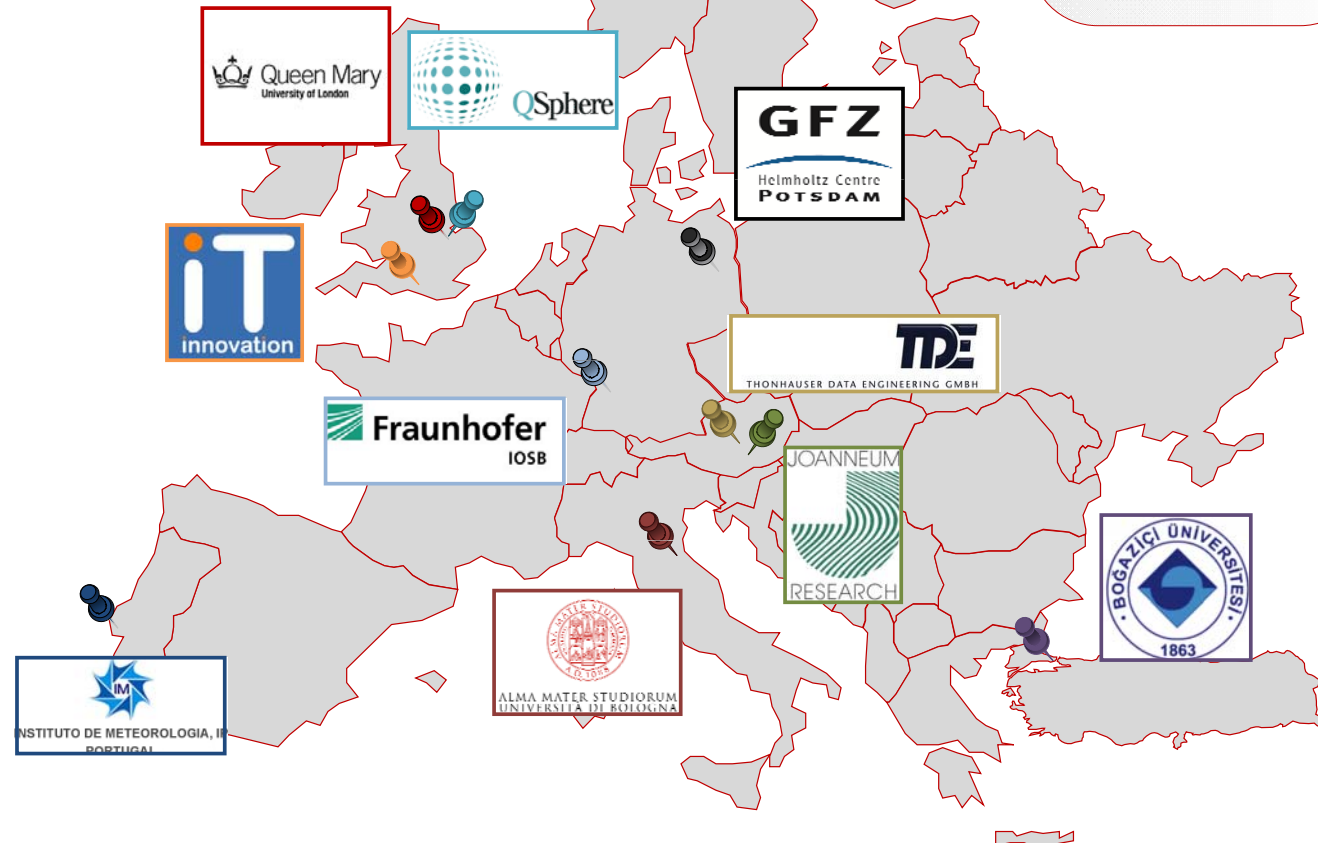
Cost: 8.9 million €

Funding: 6.79 million €

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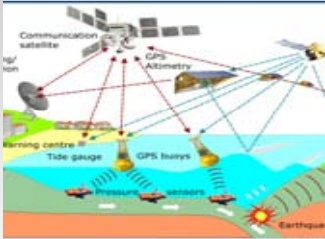
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- > Helmholtz Centre Potsdam GFZ - German Research Centre for Geosciences (Germany) Centre for GeoInformation Technology
- > University of Southampton, IT Innovation Centre (United Kingdom)
- > Queen Mary and Westfield College, University of London - Department of Electronic Engineering (United Kingdom)
- > JOANNEUM RESEARCH Forschungsgesellschaft mbH - DIGITAL - Institute of Information and Communication Technologies (Austria)
- > IOSB - Fraunhofer-Institute of Optronics, System Technologies and Image Exploitation (Germany)
- > TDE Thonhauser Data Engineering GmbH (Austria)
- > Q-Sphere Limited (United Kingdom)
- > Instituto de Meteorologia, I.P. - Departamento de Sismologia e Geofisica (Portugal)
- > Alma Mater Studiorum- Universita di Bologna - Department of Physics (Italy)
- > Bogazici Universitesi - Kandilli Observatory and Earthquake Research Institute (Turkey)



Objectives

TRIDEC focuses on new technologies for real-time intelligent information management in collaborative, complex critical decision processes in earth management.

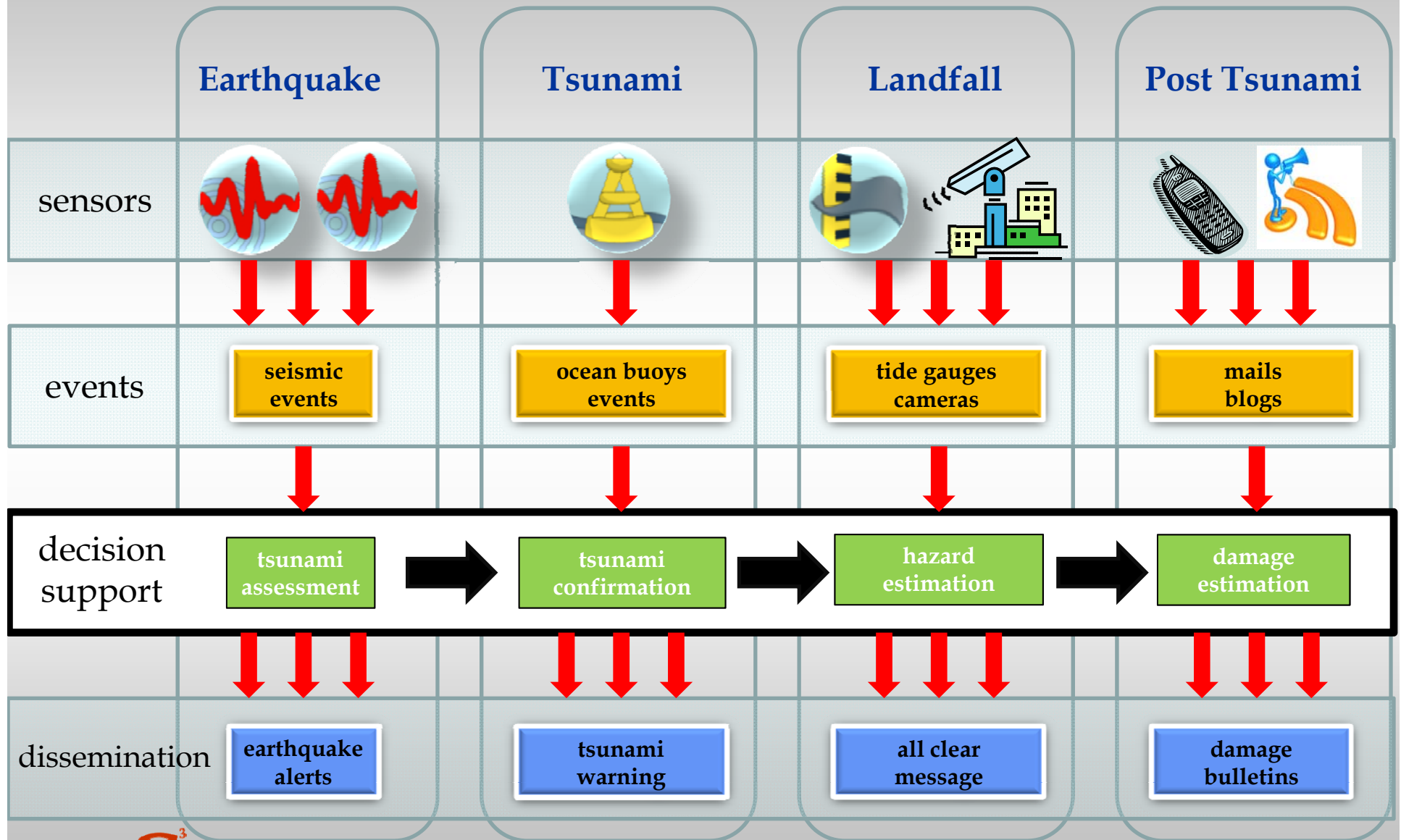


Key developments:

- A communication infrastructure of interoperable services for the intelligent management of dynamically increasing volumes and dimensionality of information.
- A robust and scalable service platform supporting the integration and utilisation of existing and- growing resources such as sensor systems, geo-information repositories, simulation-, and data-fusion-tools.
- A knowledge-based service framework for context information and intelligent information management with flexible orchestration of system resources.
- An adaptive framework for collaborative decision making with the support of complex business processes and workflows.

Demonstration in two real scenarios: **Tsunami Early Warning System** (Natural Crisis Management) and **Drilling Operations** (Industrial Subsurface Development).

Example: Tsunami Scenario



Architectural Challenges



- Management of dynamically increasing volumes and dimensionality of information
- Collaboration in very loosely coupled, distributed systems
- Synchronisation of complex business processes
- Complex event processing
 - Data quality and reliability
 - Filtering and aggregation of events
 - Knowledge base with context information e.g. sensor data, geo-information repositories, historic events
 - What-if calculations supported by simulation components
- Collaborative decision making with the support of complex business processes and workflows

Collaborative Information Space for Decision-Support

