INTERRISK

At a Glance

Project: InterOPERABLE GMES SERVICES for environmental RISK MANAgement in MARINE and COASTAL AREAS

Projects coordinator

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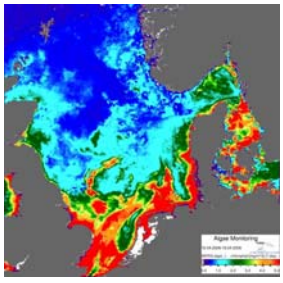
Duration: 36 months
From 01/09/2006 to 31/08/2009

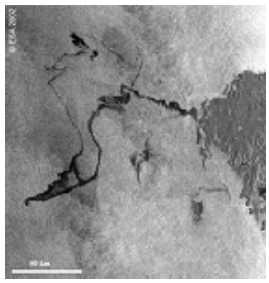
Total cost: 4.261.048 €
EC contribution 2,462.000 €

Programme:
Sixth Framework Programme

Project web site:
http://interrisk.nersc.no

Consortium: 15 Partners from 8 Countries





InterRisk addresses the need for better access to information for risk management in Europe, both in cases of natural hazards and industrial accidents. *The overall objective is to develop a pilot system for interoperable GMES monitoring and forecasting services for environmental management in marine and coastal areas.* The InterRisk pilot will have an open system architecture based on established GIS and web services protocols, and the InterRisk services to be implemented for several European regional seas.

The InterRisk services will utilise satellite data, in situ data and numerical models needed to monitor and forecast marine environmental degradation and crisis events. In order to enable data and metadata harmonisation between different service providers, InterRisk will develop ontologies and application schemas for the targeted application domains.

The InterRisk pilot (systems and services) will be validated by users responsible for crisis management in case of oil spills, harmful algal blooms and other marine pollution events, in Norwegian, UK/Irish, French, German, Polish and Italian coastal waters.

The network of InterRisk services will be embedded in the ESA Service Support Environment (SSE), which will provide the underlying infrastructure for the InterRisk system.

Project Objectives

The specific objectives of InterRisk are:

- To design and implement a system architecture for interoperable GMES services for environmental risk management, emergency handling and degradation assessment, based on used requirements analysis and using established web services and standards.
- To develop ontologies and application schemas needed for the InterRisk services.
- To develop specific interoperable service components compliant with the SSE (Service Support Environment) and Open Geospatial Consortium specifications, using marine oil spills, harmful algal blooms, eutrophication and environmental degradation in selected test areas.
- To develop data repository services for data to be used in monitoring/forecasting of oil spills, harmful algal blooms, eutrophication and environmental degradation in selected areas.
- To integrate the developed service components and provide customised products through a network of services in major European coastal and ocean areas (InterRisk services).
- To validate the usefulness of products and services delivered by InterRisk to users and solicit feedback for improvement of the project and services.
- To disseminate products and services to participants in GMES projects and to users responsible for environmental risk management and emergency handling in coastal regions.

Description of the work

The research is structured into 7 work packages:

- **WP1**: System Requirements.
- **WP2**: System Architectural Design.
- **WP3**: Ontologies and Application Schemas.
- **WP4**: Architecture and Subsystem Implemen-tation.
- **WP5**: Service Implementation for Marine and Coastal Areas.
- **WP6**: Validation, Evaluation and Impact Assessment.
- **WP7**: Dissemination and Exploitation.

Expected results

InterRisk will provide a number of different products from satellite data, in situ data and model simulation in several European seas from a single portal, deliver the products to users in each region and validate/assess the service system.
The InterRisk services will include basic services (satellite data processing, in situ data delivery, model simulations, metadata catalogues) and complex services such as oil drift prediction and ecosystem modelling.
The InterRisk portal and subsystem components will be compatible with the European Space Agency's Service Support Environment (SSE), which implements an open service-oriented and distributed environment among users (service users and service providers), enabling the integration of satellite data, meteorological, oceanographic and GIS data.

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