

## HUMBOLDT Application Scenario

### European Risk Atlas

**The European Risk Atlas (ERiskA) Scenario aims at developing a cross-border disaster management application for the Lake Constance Region which includes Swiss, Austrian and German territories. This application can be used as an add-on to existing emergency operation systems at command and control centres dealing with the different steps in the disaster management cycle (e.g. prevention, preparedness, response) in the case of floods. ERiskA will facilitate cross-border cooperation between the agencies responsible for disaster management in the Lake Constance Region by enabling the exchange of information on potentially flooded areas and inundation of infrastructure like roads and railways.**

The heterogeneity of data available from three different countries in the test area proves to be the biggest challenge in the ERiskA development. Data harmonisation issues to be addressed include different data formats, spatial reference systems, scales / resolutions, conceptual data models, classifications, terminology, metadata and portrayal.

#### **Key features of the ERiskA application will include:**

- ⊕ Harmonised cross-border base data for the test area including roads, railways, watercourses, standing waters and elevation as well as background raster data including topographic maps and aerial images also taking into consideration INSPIRE data specifications.
- ⊕ Integration of in-situ measurement values at lake and river gauges (e.g. water level) by accessing the relevant information online using web services or by editing of measurement values manually. Measurement values are recalculated taking into consideration different vertical reference systems in different countries.
- ⊕ Selection of pre-calculated potentially flooded area extend features according to current water levels and intersection with the road and / or railway features in order to determine the grade of vulnerability of the transport infrastructure.
- ⊕ Delivery of results as a web map service for widespread use.

The ERiskA application will be developed by the HUMBOLDT Partners Technische Universität München, Intergraph (Deutschland) GmbH and Swiss Federal Institute of Technology. Data providers include the mapping agencies Landesvermessungsamt Feldkirch (Austria), Landesamt für Geoinformation und Landentwicklung Baden Württemberg (Germany), Landesamt für Vermessung und Geoinformation Bayern (Germany) and swisstopo (Switzerland).

Main user groups targeted by ERiskA are agencies responsible for disaster management in the Lake Constance Region as well as citizens living in this area. The Landeswarnzentrale Vorarlberg (office for warning affairs of the state Vorarlberg) will act as pilot user for the ERiskA demonstrator to be developed until 2010.

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