

## **THE HUMBOLDT PROJECT: DEVELOPING AN OPEN SOURCE FRAMEWORK AND TOOLS FOR GEODATA HARMONISATION**

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The four-year EU project HUMBOLDT ([www.esdi-humboldt.eu](http://www.esdi-humboldt.eu)), started in October 2006, aims at contributing to the implementation of a European Spatial Data Infrastructure (ESDI) that integrates the diversity of spatial data available for a multitude of European organisations, yet taking into account the goals of Global Monitoring for Environment and Security (GMES). Under the direction of Fraunhofer Institute for Computer Graphics, 28 partners from 14 European countries are working together.

The main goal of the project is to enable organisations to document, publish and harmonise their spatial information by integrating domain knowledge as far as possible. Research, development, demonstration and training activities are all carried out in a concerted manner to fulfil these goals.

An essential element of the project is the development of eight user-driven cross-border application scenarios in which the different components are applied and tested under realistic conditions. The scenarios ensure a good coverage of GMES/Kopernikus topics starting from environmental to security issues.

The project commenced with a comprehensive state of the art analysis on related themes (methods and tools for geodata and metadata management, software architectures, basic user requirements). A process analysis shows the steps necessary to harmonise data and metadata. A software framework serving as a basis for efficient reuse of components is being developed continuously, while practical data harmonisation steps are solved by integrating existing or developing new transformation components. Challenging data harmonisation steps where no ready-made solution exists, such as conceptual schema translation, were subject to thorough investigation and led to the development of new software solutions.

The project is based on a community-centred development process, open to project-external users from March 2009 (visit [community.esdi-humboldt.eu](http://community.esdi-humboldt.eu)). External users can also influence the development, with the intention being to attain a “critical mass” ensuring the exploitation of the HUMBOLDT results on the long term.

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