

Humboldt project

**ESDIN kick-off meeting
24-25 September 2008**

A huge project

- **GMES project**
- **50% funded by European Commission**
- **4 years, started in October 2006**
- **1300 person.month**
- **27 partners**

The Humboldt partners

- Fraunhofer (Germany) project coordinator

- Universities:

- ETHZ : Federal Institute of Technology (Zurich)
- University of Gävle –Sweden
- Kaunas University of Technology

- TU Delft
- University of Rome
- University of the West of England

- NMCAs

- IGN France

- IGN Portugal

- FOMI

- thematic partners

- oceanography (IFREMER, MARIS, ...)
 - Meteorology

- Forest
 - Satellites

- Private companies (ETRA, Intergraph), ...

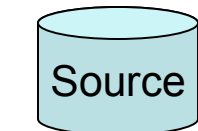
The Humboldt objectives

To contribute to the implementation of the European Spatial Data Infrastructure

- with INSPIRE as legal framework
- with focus on the data harmonisation process

Data harmonisation processes

Technical Process
Data harmonisation



Processing

HUMBOLDT Framework



Target Definition
Specification harmonisation

Decision-based specifications

Technical specifications

National Data Sources
for different themes,
e.g. parcels



INSPIRE



Applications



HUMBOLDT scenarios

Humboldt users

-Classification of Humboldt users:

- data providers / data custodians
- **developers**
- data users

-Involvement of users

- within the project
 - survey about user requirements
 - involvement of users through 8 scenarios
- without the project
 - will to involve key users to ensure sustainability of the project
 - will to create a community of Humboldt developers

Data harmonisation issues

Data (exchange) formats

Coordinate Reference Systems

Data structure, conceptual model

Classifications

Semantics, terminology

Metadata

Levels of detail

Portrayal

Humboldt scenarios

Border security

Urban planning

Forest

Protected areas

Risk atlas

Transboundary catchments (water)

Ocean (Oil/contaminants spill crisis impact and management)

Galileo

The key role of Humboldt scenarios

- develop harmonised specification (for given theme(s))
- Identify data harmonisation issues
⇒ harmonisation tools to be developed
- Test the harmonisation capabilities that have been developed by Humboldt

The Humboldt framework: objectives

- a common platform acting as an “orchestrator”
 - software components for specific data harmonisation issues
- ⇒ Open and extensible tool box

The Humboldt framework: methodology

- based on existing standards and open software (state of the art)
- methodology to make developments in common
- identification of “user” requirement through the 8 scenarios
- development
- validation, testing, evaluation

The Humboldt framework: main components

- UML modeller (based on Eclipse)
 - offering only the components allowed by INSPIRE
 - for harmonised specifications coming from scenarios
- Schema translation
 - based on mdWFS (Munich University + ETHZ)
 - matching rules given by the user
- CRS transformation
- traductor