

# HUMBOLDT Workshop on Data Harmonisation

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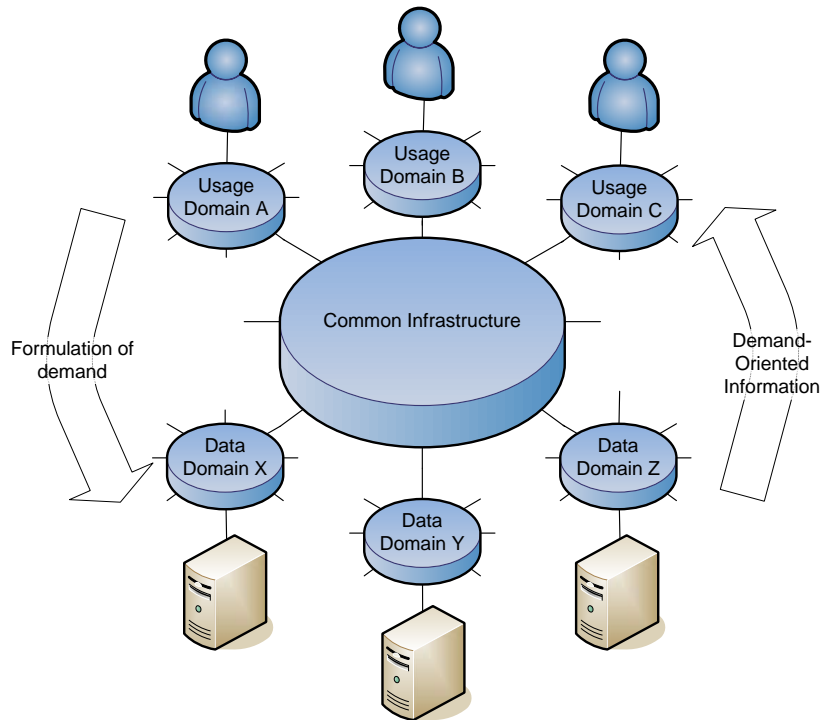
## Workshop Objectives

- ▣ What are the main data harmonisation issues from previous/ongoing SDI projects (e.g. RISE, ORCHESTRA, HUMBOLDT)
- ▣ What approaches were implemented (or suggested) to tackle these issues?
- ▣ Can we identify best practices identified in the above areas?

## AGENDA

- ▣ Overview HUMBOLDT Project
- ▣ Presentations on Problems and Approaches on Data Harmonization  
by:
  - Dominique Laurent, IGN: RISE Project
  - Jean-Jacques Serrano, BRGM: ORCHESTRA Project
  - Christine Giger, ETH Zurich: HUMBOLDT Project
- ▣ Discussion

## The HUMBOLDT Project (IP in FP6, 10/2006 to 09/2010)



### ▣ (Some of the) Objectives

- Transsectoral, Translingual, Transborder usage of geoinformation
- Common infrastructure to support transformation needs
- Support for INSPIRE (tools for data harmonisation) and GMES (theme-specific services in scenarios)

### ▣ Users' perspective on the SDI

- From a data-centric view to a usage centric view

## HUMBOLDT – Facts

- ▣ Full title *Development of a framework for data harmonisation and service integration*
- ▣ Term  
48 months  
01/10/2006 – 30/09/2010
- ▣ Effort  
~ 13.5 mill. €  
~ 110 person years
- ▣ Contracting authority Commission of the European Community  
FP6 – Aeronautics and Space (GMES)
- ▣ Consortium 28 partners (coordinator Fraunhofer IGD)



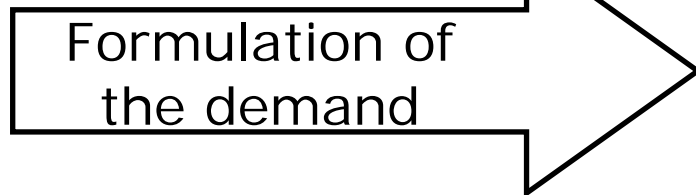
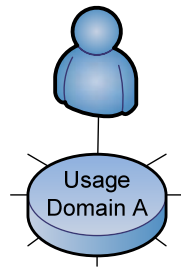
## HUMBOLDT Partners



Fraunhofer-IGD (GER), ETRA (ES), HSR (CZ), Logica CMG (UK), IGN (F), Intergraph (CZ), ETH Zürich (CH), TU Delft (NL), Uni Rome (I), FÖMI (H), MARIS (NL), KTC (Lit), INI-GraphicsNet (GER), IFREMER (F), NERC/BODC (UK), HCMR (G), SMHI (S), UWE (UK), Telespazio (I), GISIG (I), TUM (GER), CNR-IREA (I), FMI (CZ), IGP (P), CLS (F), HiG (S), Promiteas (Cyp), Intergraph (GER)

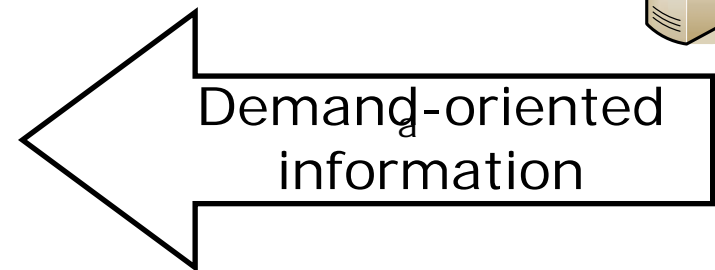
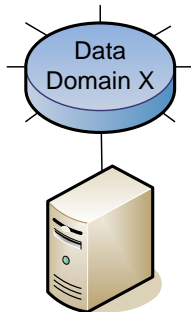
## HUMBOLDT – Vision

- ▣ Format
- ▣ Spatial reference
- ▣ Graphical form
- ▣ Object generation
- ▣ Language
- ▣ Object semantics



- ▣ Expected quality

- ▣ Provision of information in the language area / semantics of the application domain
- Information directly useable



- ▣ Quality information / information about the level of goal achievement

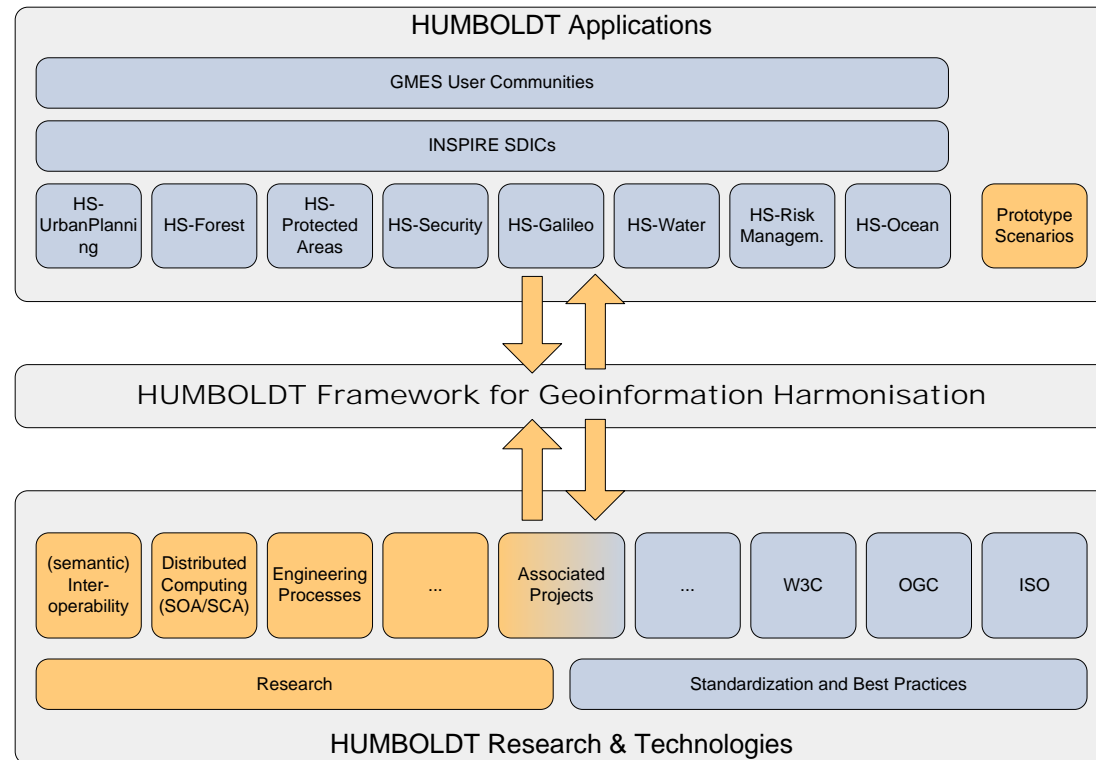
## HUMBOLDT Implementation

### Application-driven Approach

- Identification of user requirements
- Proof of concept in different domains (scenarios)
- Evaluation of framework against user requirements

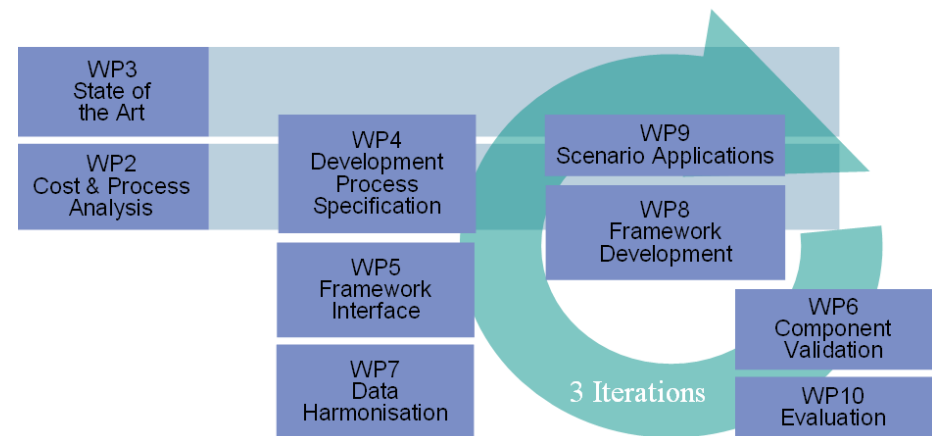
### Technology-driven Approach

- Technical concept, implementation, and evaluation of the framework
- Contributions and use of standards (OGC, W3C)



## Technical Approach: Harmonisation Framework

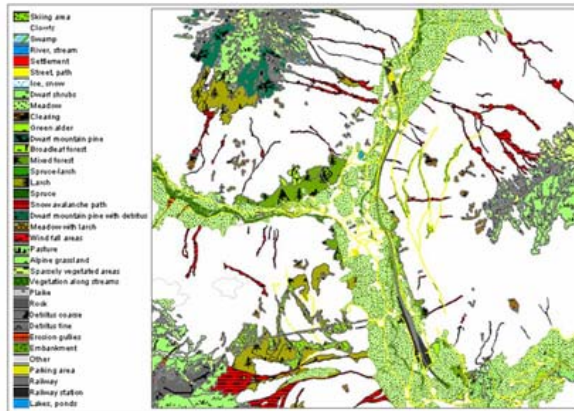
- ▣ Collection of tools for harmonisation (and use) of spatial data with a level of automation as high as possible
  - Concepts
  - Components
  - Tools
  
- ▣ Provision as Open Source Framework



## User-driven Approach: Scenarios



Tackling the Alpine Convention – Multi-Scale Monitoring of the Alps



### List of Scenarios

- Border Security                      ERiskA
- Urban Planning                      Water
- Forest                                  Ocean
- Protected Areas                      Galileo

### Applies to each scenario :

- Implementation of an end user application using harmonised data
- Evaluation against user requirements
- Demonstrator for the framework

## HUMBOLDT – Results (selected)

- ▣ “HUMBOLDT Open Source Framework“
  - Collection of tools, components, and concepts for harmonisation and use of spatial data
- ▣ “HUMBOLDT Applications“
  - Scenarios the HUMBOLDT framework will be used in
- ▣ “HUMBOLDT Developer Community“
  - Formation of a developer community for the advancement of the HUMBOLDT framework
- ▣ “HUMBOLDT User Community”
  - Formation of a community of end users using HUMBOLDT-based applications
- ▣ Contributions to standards
- ▣ Contributions to the development of the market for geoinformation

# THANK YOU

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Next:

- ▣ Dominique Laurent, IGN: RISE Project
- ▣ Jean-Jacques Serrano, BRGM: ORCHESTRA Project
- ▣ Christine Giger, ETH Zurich: HUMBOLDT Project