#### GI2011-X-border-SDI/GDI-Symposium

23 – 24 May 2011 Bad Schandau /Germany- Děčín/Czech Republic



#### SPATIAL PLANNING IN EUROPE – A CHALLENGE OR A PIECE OF CAKE?

#### Tomáš Mildorf, Karel Janečka, Václav Čada, Karel Jedlička, Otakar Čerba, Jan Ježek, Radek Fiala

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Co-funded by the Community programme eContentplus







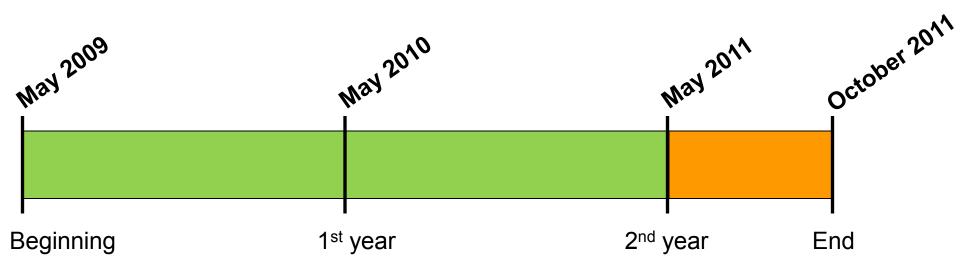
Full title: European Network of Best Practices for Interoperability of Spatial Planning Information

Cofinancing: eContentplus programme Type: Best Practice Network Total budget: 4.1 million Euro

A multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

## Plan4all - Main Goal

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Harmonisation of spatial planning data according to the INSPIRE Directive based on the existing best practices in EU regions and municipalities and the results of current research projects.

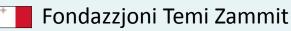
## Plan4all Consortium

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#### Coordinator: Maintenant Coordi

#### ISOCARP

- Statutarni mesto Olomouc
  - Technology Development Forum
- Help service remote sensing s.r.o.
- 📕 LGV Hamburg
- Stichting EUROGI
  - Zemgale Planning Region
- 📘 Provincia di Roma



- 🔄 GEORAMA
  - Navarra de Suelo Residencial S.A.
  - Hyperborea s.c.
    - AYUNTAMIENTO DE GIJON

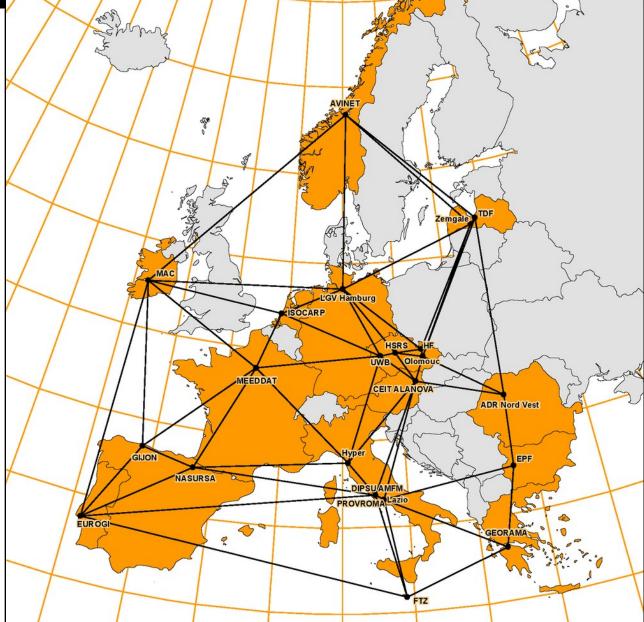
The National Microelectronics Applications Centre Ltd

**CEIT ALANOVA** Asplan Viak Internet as Università degli Studi di Roma Tre **Euro Perspectives Foundation ADR Nord-Vest Regione Lazio** Help forest s.r.o. AMFM GIS ITALIA Ministry of Ecology, Energy, Sustainable Development and Town and **Country Planning** 24 partners 14 EU Member States +

Norway

## Plan4all Consortium





## **INSPIRE Spatial Data Themes**

Annex I •Coordinate reference system		Annex III •Statistical units •Buildings •Soil				
•Geographical grid syst	ems	•Land use				
<ul> <li>Geographical names</li> <li>Administrative units</li> <li>Addresses</li> <li>Cadastral parcels</li> <li>Transport networks</li> <li>Hydrography</li> <li>Protected sites</li> </ul>		<ul> <li>Human health and safety</li> <li>Utility and Government services</li> <li>Environmental monitoring facilities</li> <li>Production and industrial facilities</li> <li>Agricultural and aquaculture facilities</li> <li>Population distribution – demography</li> </ul>				
	Ω					
	5	<ul> <li>Area management/restriction/regulation</li> </ul>				
		zones and reporting units				
		Natural risk zones				
•Annex II •Elevation	a	<ul> <li>Atmospheric conditions</li> <li>Meteorological geographical features</li> <li>Oceanographic geographical features</li> </ul>				
<ul> <li>Land cover</li> </ul>		•Sea regions				
<ul><li>Orthoimagery</li><li>Geology</li></ul>		<ul><li>Bio-geographical regions</li><li>Habitats and biotopes</li></ul>				
Cology		<ul> <li>Species distribution</li> </ul>				
		<ul> <li>Energy resources</li> </ul>				
		<ul> <li>Mineral resources</li> </ul>				

## **Plan4all Objectives**

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- 1. Promotion
- 2. Metadata profile
- 3. Data models
- 4. Networking architecture
- 5. Validation
- 6. Geoportal
- 7. Data and metadata deployment

- Land cover
- Land use
- Utility and Government services
- Production and industrial facilities
- Agricultural and aquaculture facilities
- Area management/restriction/regulation zones
   and reporting units
- Natural risk zones



## Promotion



# Promote Plan4all and INSPIRE in countries, regions and municipalities

- Workshops, multilingual flyers, newsletters ...
- Website: http://www.plan4all.eu
- Plan4all on social network sites:

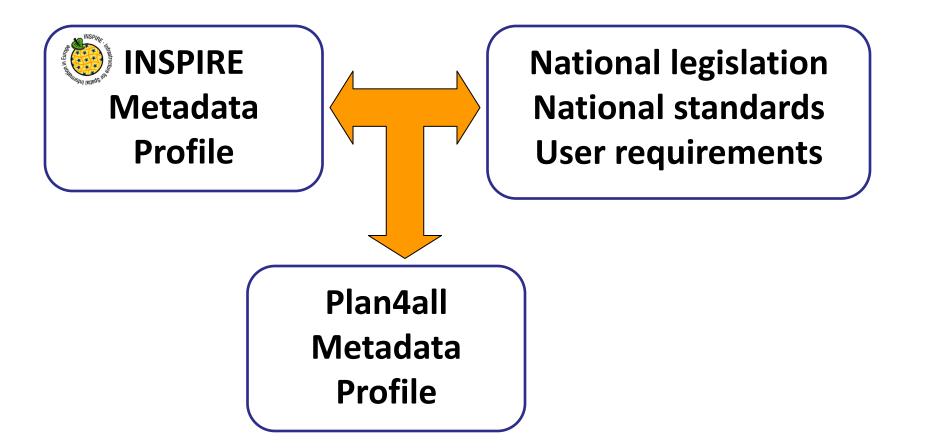




## Metadata profile



Design spatial planning metadata profile



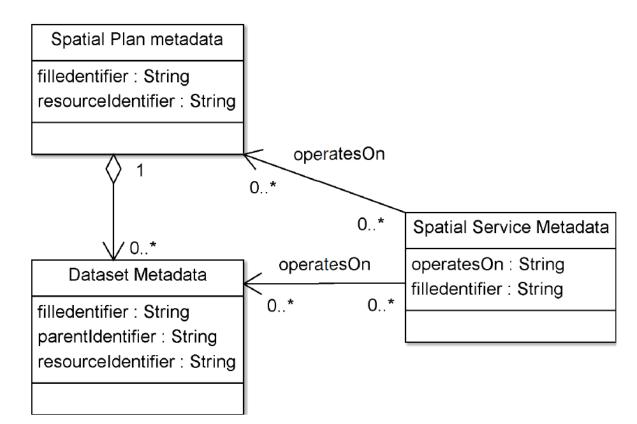
## Metadata profile

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#### The Plan4all metadata profile is compliant to:

- ISO 19115/19119/19139 standards,
- INSPIRE metadata profile,
- INSPIRE metadata implementing rules.

The profile is divided into three components including spatial plan metadata, dataset metadata and spatial service metadata.



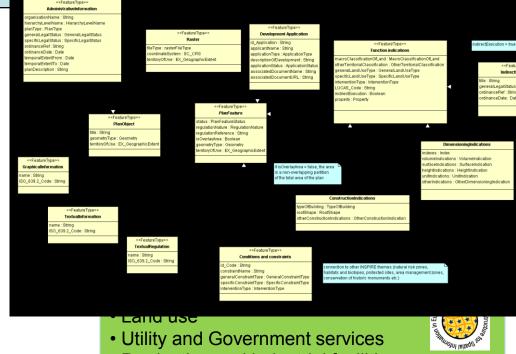
## Data Models

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# Design data models for the selected spatial data themes

- Feature Catalogues
- UML Models

#### Input for the INSPIRE Thematic Working Groups

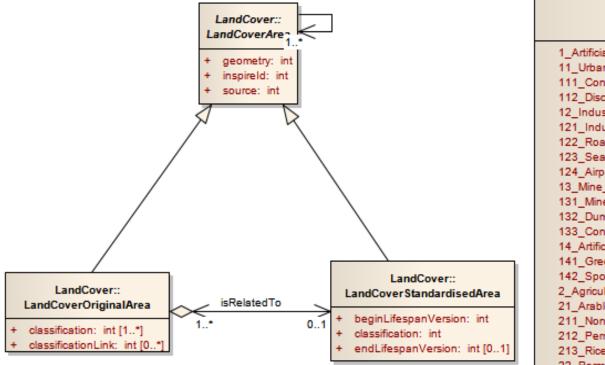


- Production and industrial facilities
- Agricultural and aquaculture facilities
- Area management/restriction/regulation
- zones and reporting units
- Natural risk zones

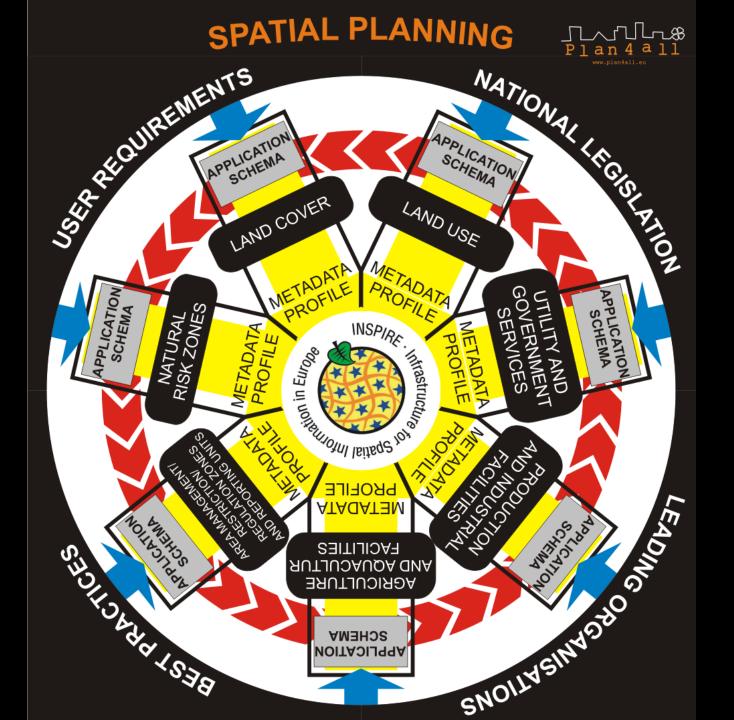
## Data Models

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#### Land Cover



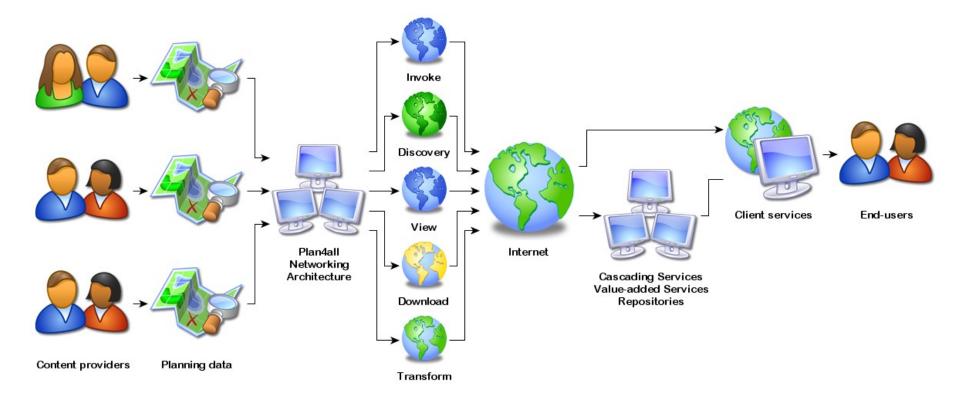
«enumeration» LandCover::StandardClassification 1 Artificial Surfaces 11 Urban Fabric 111 Continuous Urban Fabric 112 Discontinuous Urban Fabric 12 Industrial Commercial And Transport Units 121 Industrial And Commercial Units 122 Road And Rail Networks 123 Sea Ports 124\_Airports 13 Mine Dump And Constructions Sites 131 Mineral Extraction Sites 132\_Dump\_Sites 133 Constuction Sites 14\_Artificial\_Non\_Agricultural\_Vegetated\_Areas 141\_Green\_Urban\_Areas 142 Sport And Leisure Facilities 2 Agricultural areas 21 Arable Land 211\_Non\_Irrigated\_Arable\_Land 212 Permanently Irrigated Arable Land 213 Rice Fields 22 Permanent Crops 221 Vineyards 222\_Fruit\_Trees\_And\_Berry\_Plantations 223 Olive Groves



## Networking



# Design networking architecture for sharing data and services in spatial planning



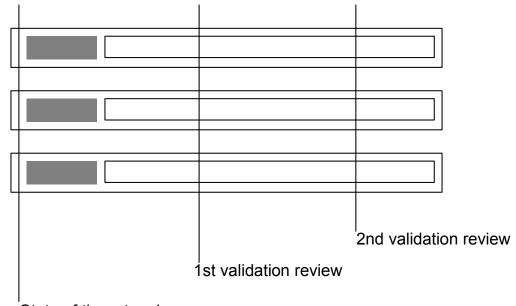
## Verification & validation $\int_{Plan 4 all} \sqrt{1}$

Verificate & validate metadata profile, data models and networking architecture on local and regional level

Product assessment

Platform assessment

Stakeholders requirements



State of the art review



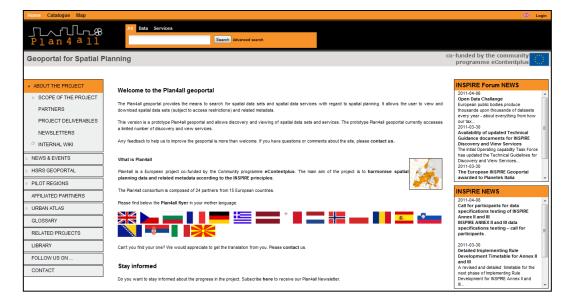


# Establish European portal for spatial planning data

The Plan4all Geoportal is available at:

#### http://www.plan4all.eu/

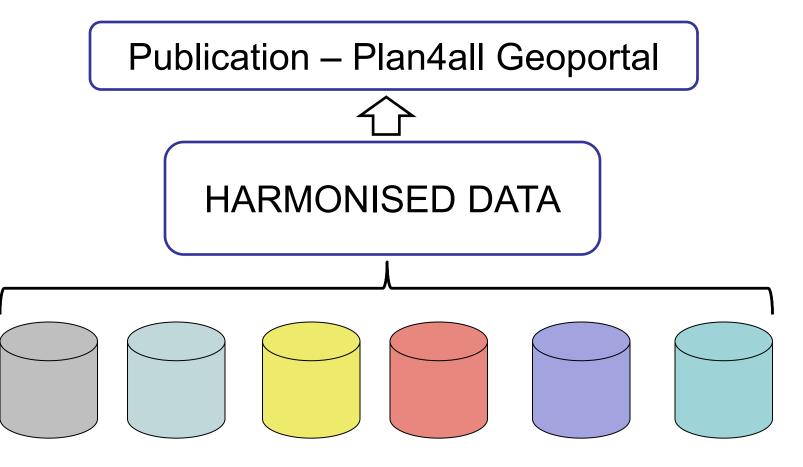
- OGC Web Services
- Metadata Catalogue
- Map Client







Deploy data and metadata on local and regional level



Non-harmonised data of pilot partners

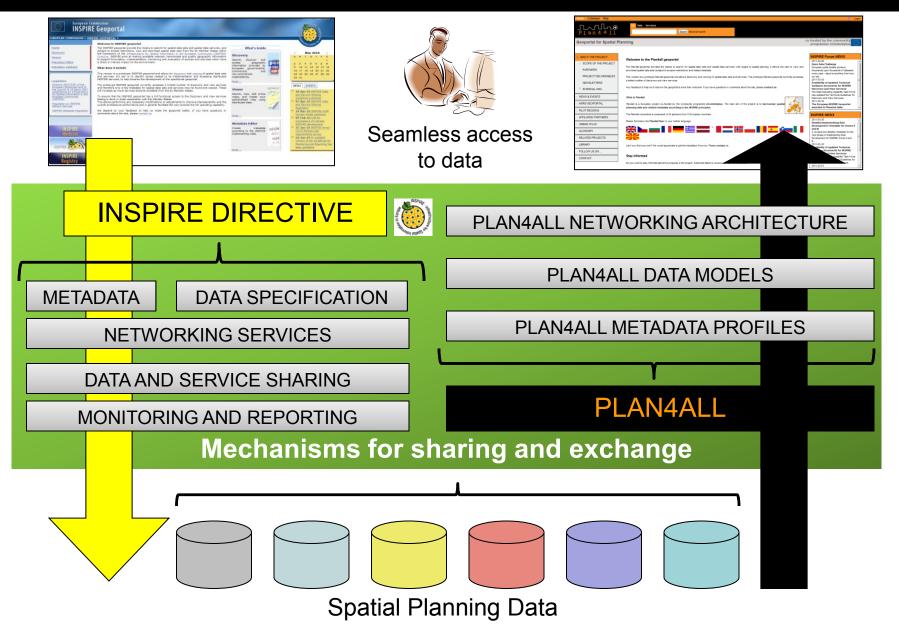
## Plan4all Work Flow

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	End date: 31 <sup>st</sup> October 2011 WP 8 Validation							October 2011
	WP 6		WP 7					
WP 1 Project management and coordination	Large scale testbed		Content deployment			WP issemin cluster	ation	····· <i>y</i> -··
	WP 3 Plan4all metadata profiles	Plan	<b>/P 4</b> 4all data nodel	WP 5 Networking architecture	co bui sus	consen ouilding ustainal planni	sus and bility	d (May 2010
	Stat	WP 2 tate of the art analysis						
Start date: 1 <sup>st</sup> May 2009								🖣 May 2009

## Case study

#### J\_\_\_\_% Plan4a11



### Thank you for you attention

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http://www.plan4all.eu