



*European Network of Best  
Practices for Interoperability  
of Spatial Planning Information*



Co-funded by the  
Community programme  
*eContentplus*



*The Plan4all is eContentplus project.*  
(Best Practice Network)



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

More at:

[http://ec.europa.eu/information\\_society/activities/econtentplus/index\\_en.htm](http://ec.europa.eu/information_society/activities/econtentplus/index_en.htm)

**START:** May 2009  
**DURATION:** 30 months

**The 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.**

## Infrastructure for Spatial Information in the European Community



<http://inspire.jrc.it>

# INSPIRE PRINCIPLES



- 1. Data should be collected once and maintained at the level where this can be done most effectively**
- 2. Combine seamlessly spatial data from different sources across the EU and share it between many users and applications**
- 3. Spatial data should be collected at one level of government and shared between all levels of government**
- 4. Spatial data needed for good governance should be available on conditions that are not restricting its extensive use**
- 5. It should be easy to discover which spatial data is available, to evaluate its fitness for purpose and to know which conditions apply for its use**

# INSPIRE SPATIAL DATA THEMES

## Annex I

- Coordinate reference system
- Geographical grid systems
- Geographical names
- Administrative units
- Addresses
- Cadastral parcels
- Transport networks
- Hydrography
- Protected sites

## Annex II

- Elevation
- Land cover
- Ordnance imagery
- Geology

## Annex III

- Statistical units
- Buildings
- Soil
- Land use
- Human health and safety
- Utility and Government services
- Environmental monitoring facilities
- Production and industrial facilities
- Agricultural and aquaculture facilities
- Population distribution – demography
- Area management/restriction/regulation zones and reporting units
- Natural risk zones
- Atmospheric conditions
- Meteorological geographical features
- Oceanographic geographical features
- Sea regions
- Bio-geographical regions
- Habitats and biotopes
- Species distribution
- Energy resources
- Mineral resources

Planeta

Commercial companies

Research institutes

Municipalities

Universities

Authorities

Regions

Data providers

Management team

Validation partners

Dissemination partners

Technological providers

Research and standardisation partners

# Plan4all Consortium



Coordinator: University of West Bohemia in Pilsen (CZ)

(NL) ISOCARP

(CZ) Statutarni mesto Olomouc

(LV) Technology Development Forum

(CZ) Help service remote sensing s.r.o.

(DE) LGV Hamburg

(NL) Stichting EUROGI

(LV) Bauska District Council

(IT) Provincia di Roma

(MT) Fondazzjoni Temi Zammit

(GR) GEORAMA

(ES) Navarra de Suelo Residencial S.A.

(IT) Hyperborea s.c.

(ES) AYUNTAMIENTO DE GIJON

(IE) The National Microelectronics  
Applications Centre Ltd

(AT) CEIT ALANOVA

(NO) Asplan Viak Internet as

(IT) Università degli Studi di Roma Tre

(BG) Euro Perspectives Foundation

(RO) ADRNord-Vest

(IT) Regione Lazio

(CZ) Help forest s.r.o.

(IT) AMFM GIS ITALIA

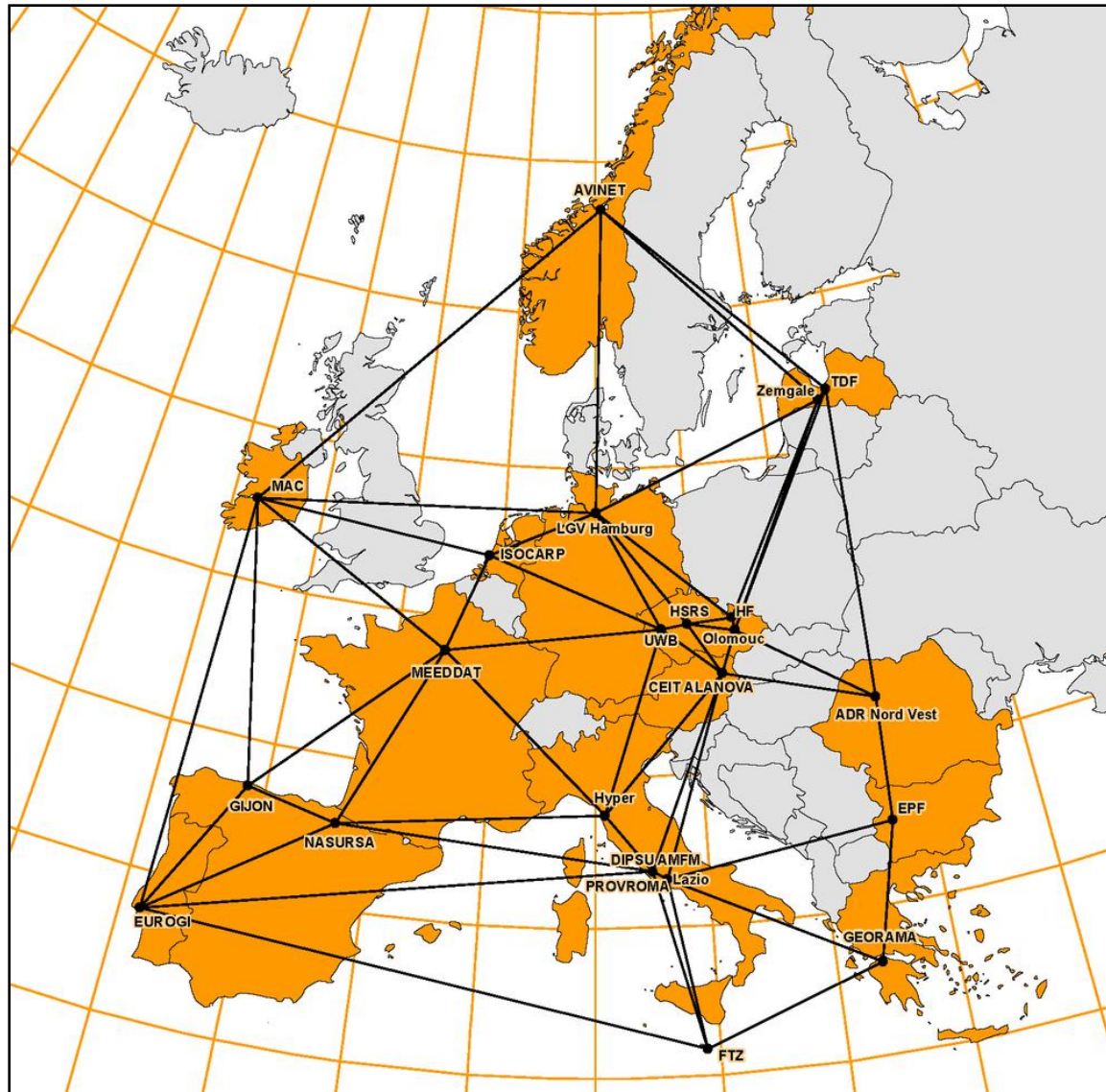
(FR) Ministry of Ecology, Energy,  
Sustainable Development and Town and  
Country Planning

**24 partners**

**14 EU Member States +  
Norway**



# Plan4all Consortium



# Plan4all Objectives



- 1. Promote Plan4all and INSPIRE in countries, regions and municipalities**
- 2. Design spatial planning metadata profile**
- 3. Design data model for selected spatial data themes related to spatial planning**
- 4. Design networking architecture for sharing data and services in spatial planning**
- 5. Validate metadata profile, data models and networking architecture on local and regional level**
- 6. Establish European portal for spatial planning data**
- 7. Deploy data and metadata on local and regional level**

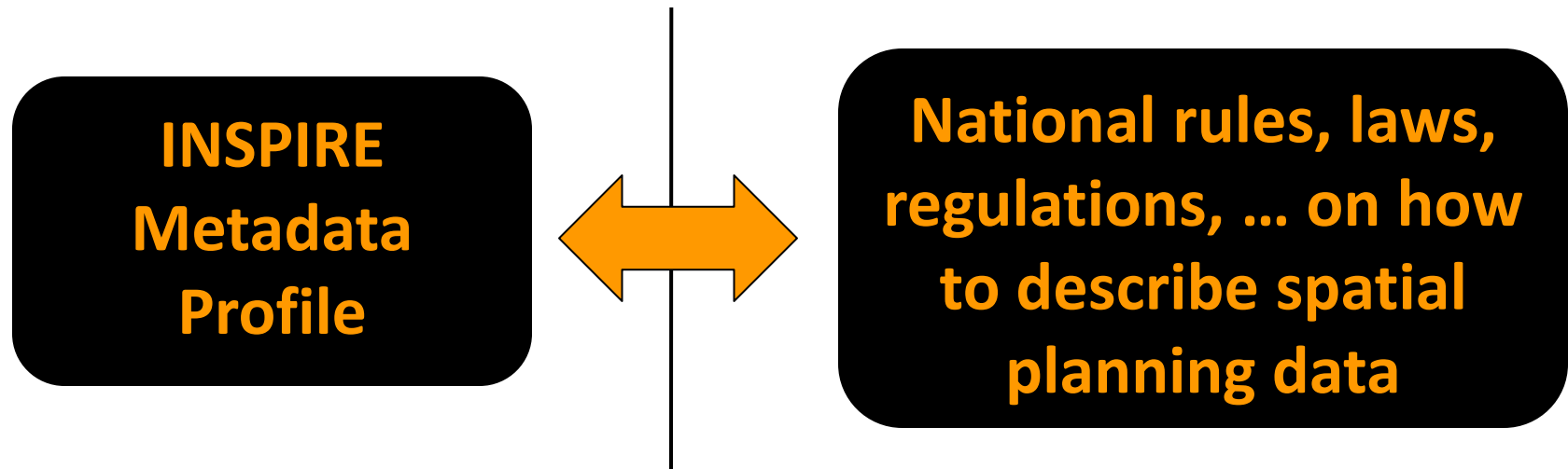
# Objective 1

Promote Plan4all and INSPIRE in countries, regions and municipalities

- Establish local forums
- Organize workshops
- Promote INSPIRE through solutions

# Objective 2

Design spatial planning metadata profile



- There is need to have common European profile, which will be extension of INSPIRE profile and which will support European exchange of information related to spatial planning

# Objective 3

Design data model for selected spatial data themes related to spatial planning

- Data specifications including UML data models for for Annexes II and III are not defined yet. Plan4all will contribute to define them
- Contribution will be ensured by providing reference materials, leading a specific data theme, providing experts, testing, providing comments, ...

# Objective 4

Design networking architecture for sharing data and services in spatial planning

- Design an architecture that will allow, with respect to current infrastructure, to discover, visualize and to share spatial data according to INSPIRE principles
- It includes transformation services, which will support off line or on the fly transformations of current data into INSPIRE model
- Design architecture for portal for spatial planning

# Objective 5

Validate metadata profile, data models and networking architecture on local and regional level

- There will be implemented tools for every project partner (data holder). This will allow to reuse their infrastructure (software, metadata and data), but also to transform existing metadata and data into INSPIRE compliant form

# Objective 6

Establish European portal  
for spatial planning data

- This portal will be European gate for investors, planners, real estate business, ...
- It will allow municipalities and regions to publish their information in central place



# Objective 7

Deploy data and metadata on local and regional level

- Publishing local and regional data or transferring existing data and metadata into INSPIRE models (off line, on the fly)

# Plan4all – based on



- ARMONIA - Applied Multi Risk Mapping of Natural Hazards for Impact Assessment
- HUMBOLDT - Harmonisation of Spatial Information in Europe
- c@r - Collaboration and Rural project enables people in remote and rural Europe to fully participate in the knowledge society as citizens and as professionals.
- NaturNet Redime - education and decision support model for active behaviour in sustainable development based on innovative web services and qualitative reasoning.
- eSDInet+ - Network for promotion of cross border dialogue and exchange of best practices on SDI throughout Europe.
- GIS4EU - system to share base cartography layers
- EURADIN - European Addresses Infrastructure

# Work packages



- WP1 Project management and coordination
- WP2 State of the art analysis
- WP3 Design of Plan4all metadata profile
- WP4 Plan4all data model definition
- WP5 Networking architecture
- WP6 Large scale testbed
- WP7 Content deployment
- WP8 Validation
- WP9 Dissemination, clustering, consensus building and sustainability planning

# Added Value



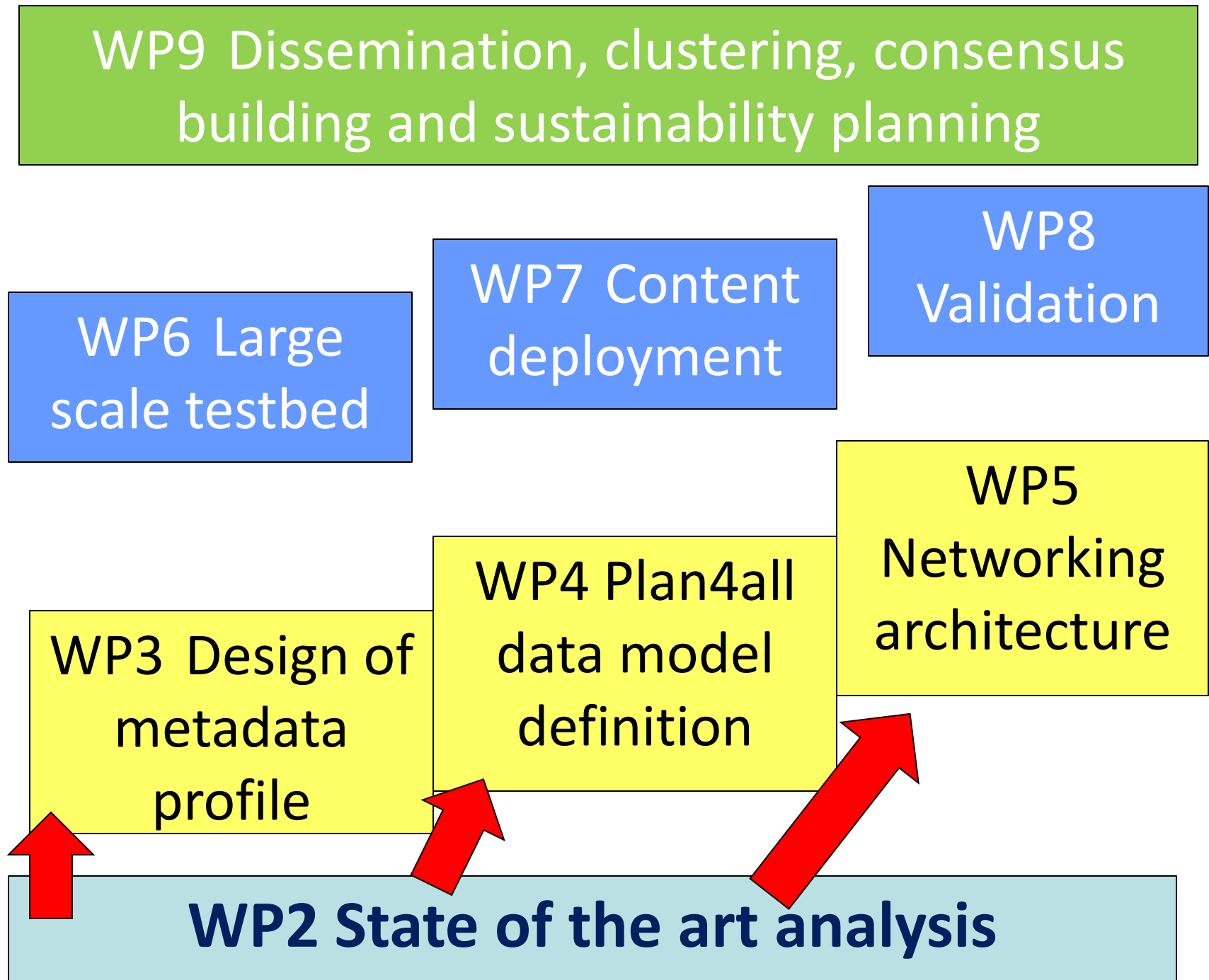
- Harmonise and improve interoperability of spatial planning data sets.
- Increase of network services sharing
- Facilitate cross border use and data integration.

# Results



- **European forums for SDI in spatial planning under umbrella of ISOCARP and EUROGI;**
- **Analysis of INSPIRE requirements and capacity building;**
- **Analysis of best practices in terms of organisation, collaboration, harmonisation in region;**
- **Recommendation for spatial planning SDI in following areas:**
  - **Spatial Planning Metadata profile;**
  - **Conceptual Data Model covering following Themes: 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;**
  - **Encoding schema for previous models;**
  - **Networking infrastructure design including registry, discovery, view, download, transformation, invoke spatial data, and Geo RM service;**
  - **Business model;**
- **Pilot application of ESDI for Spatial Planning;**
- **Four regional workshops organised by EUROGI and ISOCARP;**
- **One European conference under the umbrella of EUROGI and ISOCARP.**

**Plan4all – workflow**



Project Coordinator:

Tomáš Mildorf

[mildorf@plan4all.eu](mailto:mildorf@plan4all.eu)

University of West Bohemia in Pilsen

Univerzitni 22, 30614 Pilsen

Czech Republic

<http://www.plan4all.eu>

# Thank you for you attention

Plan 4 a 11



ISOCARP



CEIT ALANOVA  
Institute of Urbanism,  
Transport, Environment  
and Information Society



Hyperborea



Asplan Viak Internet  
[www.avinet.no](http://www.avinet.no)



TEHNOLOĢIJU ATTĪSTĪBAS FONDS

