Annex 1

Description of Work

(Best Practice Networks)

[318007]

Plan4all

e*Content*plus

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0 Project Summary

The project **Plan4all** will focus on the harmonisation of spatial planning data based on the existing best practices in EU regions and municipalities and the results of current research projects. The project involves detailed description and summarising of the current situation and standards, proposal, testing and implementation of spatial planning metadata profile, common data model and harmonisation procedures. The important part of the **Plan4all** project is networking standards of spatial planning data, based on previously collected and analysed experiences, and then defining common procedures and methodologies for spatial data sharing and utilisation of new pan-European standards for spatial planning data within the EU. The focus will be not only on technical and technological aspects, but also on Digital Right Managements and other IPR issues, security of data and data models. An important issue will be models for public private data sharing, and how spatial planning data could be used for social, environmental and economical development and also for protection of citizens. On the level of economical development, the sharing will support mainly real estate business and real estate investment across Europe. In a wider sense of course this can be seen as one business segment, but there is a differentiation as those investing in real estate are not necessarily the drivers and decision makers in real estate business. One of the core tasks of spatial planning is protection from natural disasters, for example flood protection. Nature preservation is another important task. Those are highly complex matters, and especially in cross-border-regions it is difficult to understand how planning limitations and measures on one side impact the system on the other side - therefore the cross-border-co-operation on those tasks is critical. Given the actual situation with planning information it is still very complicated (sometimes impossible) to have valid Environmental Impact Assessments (EIA) and Strategic Environmental Assessments (SEA) in cross-border settings. **Plan4all** can significantly contribute to improve this situation.

The expected results from **Plan4all** are European forums for SDI in spatial planning, a database of best practices, and analysis of best practices in terms of organisation, sharing, and harmonisation and SDI recommendations for spatial planning. The whole sector should profit from the availability of understandable and more transparent planning information throughout Europe. Although there are basically the same ideas and concepts behind urban and spatial planning across Europe, the legal situation is completely fragmented - sometimes down to NUTS3 or even local level. Nowadays planning laws are disjointed and even experts from one country might have difficulties to understand the planning regulations of a neighbouring country - for investors and decision makers it is almost impossible to compare (the meaning of) planning regulations across Europe. ISOCARP, the International Society of City and Regional Planners, which is a partner in the consortium, just recently issued the "International Manual of Planning Practice (IMPP)" (5th edition) that describes and compares the planning systems of more than 100 countries worldwide - including all European countries. This is very helpful for planning experts. **Plan4all** can be seen as the "next step" in such a comparison as it makes plans and their implications understandable.

1 Rationale and Objectives

1.1 Description of the issue addressed and the current situation (baseline)

Sustainable territorial planning and development is about the spatial, social and economic dimensions of development. It is concerned with where people live and work, the location of social and economic activity, and the way in which resources we possess in limited supply are exploited to achieve socio-economic objectives. National, regional and local authorities face important challenges in the development of territorial framework and concepts that balance-up and respect the needs of different stakeholders, guarantee economical development, environment protection, but also risk protection. Modern approaches to spatial planning emphasise the need for strong involvement of all levels of government, stakeholders and citizens in the planning process. Currently used methods of spatial planning do not make effective use of shared data and web technologies that insure the better use of geographic data and support the interoperability of planned solutions together with the active participation of all stakeholders of the planning process. Governments are generally very keen on evaluating quantifiable and qualitative goals and measures against their territorial planning processes, in order to improve the "performance" of government itself. On the other hand, spatial planning and related information are important not only for national, regional and local development, but also for the international dimension especially in Europe where the "continuum" of settlements characterises the transition between nations. The planning is also strongly related to natural disasters prevention, which has in many cases a cross border or international character. Therefore there is a strong need for harmonisation of data used for planning and there is an absolute need of some core of data sets for planning purposes to guarantee, that this information will be easily understandable across all Europe. This is important for all regions, and mainly for under developed regions, which need international investment together with the protection of natural resources which generally characterise these regions.

The objective of **Plan4all** is to build a network of local, regional and national public bodies, stakeholders, ICT industry, organisations dealing with planning issues and regional development, universities and international organisations to find consensus about harmonisation of Spatial Data Infrastructure (SDI) for spatial planning according to the INSPIRE Directive and also to contribute to standardisation of related Spatial Data Themes (hereinafter referred to as "Themes") from the INSPIRE Annexes. **Plan4all** will be an open network, which will cooperate also with other organisations, bodies and with related projects.

Spatial planning is defined as the comprehensive, coordinating spatially-oriented planning on all spatial scales (international – local). In contrast to the broad, comprehensive character of spatial planning, several sectoral planning authorities are in charge of single spatially relevant topics (e. g. forestry, water management, geological survey, landscape, transport etc.). **Plan4all** will focus on implementation of the INSPIRE Directive into spatial planning processes, mainly based on building spatial planning data models for selected Themes and implementing recommendations of INSPIRE Drafting Teams for Metadata and Network services. The project will use experiences coming from previous projects such as **ARMONIA**, **HUMBOLDT, c@r, NaturNet Redime, eSDInet+, GIS4EU and EURADIN**, whose partners are present in the **Plan4all** team. The project team will also use experience of OGC members working in the team for definition of technological standards, and take into account the recommendations of INSPIRE Drafting Teams. From the perspective of metadata standards it is expected, that a metadata profile for ISO19115/ISO19119 (implementation scheme ISO19139 respectively) will be defined. This will be an extension of the currently developed INSPIRE profile and Humboldt profile for Czech spatial planning data and services.

On the data model level the focus will be on:

- spatial and temporal representations of spatial objects across different levels of detail,
- spatial and temporal relationships between spatial objects,
- unique object identifiers,
- constraints, and
- references to common spatial and temporal reference systems as well as multilingual thesauri.

Spatial planning is multidisciplinary and reflects many Themes from various fields. It is not possible to cover all of them. In order to make the project achievable, **Plan4all** will cover just some of them.

Land cover

Physical and biological cover of the earth's surface including artificial surfaces, agricultural areas, forests, (semi-) natural areas, wetlands, water bodies.

Land use

Territory characterised according to its current and future planned functional dimension or socio–economic purpose (e.g. residential, industrial, commercial, agricultural, forestry, recreational). Land regulation is the general spatial planning tool at regional and local levels. Land use may be characterised as ordinary mapping of existing functions as an objective picture of the use and functions of a territory, but may also be plans characterising how land may be utilised at present and in the future.

Utility and Government services

Includes utility facilities such as sewage, waste management, energy supply and water supply, administrative and social governmental services such as public administrations, civil protection sites, schools and hospitals.

Production and industrial facilities

Industrial production sites, including installations covered by Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control, water abstraction facilities, mining, storage sites.

Agricultural and aquaculture facilities

Farming equipment and production facilities (including irrigation systems, greenhouses and stables).

Area management/restriction/regulation zones and reporting units

Areas managed, regulated or used for reporting at international, European, national, regional and local levels. Includes dumping sites, restricted areas around drinking water sources, nitrate-vulnerable zones, regulated fairways at sea or large inland waters, areas for the dumping of waste, noise restriction zones, and prospecting.

Natural risk zones

Vulnerable areas characterised according to natural hazards (all atmospheric, hydrologic, seismic, volcanic and wildfire phenomena that, because of their location, severity, and frequency, have the potential to seriously affect society), e.g. floods, landslides and subsidence, avalanches, forest fires, earthquakes, volcanic eruptions.

The spatial planning is dealing also with other INSPIRE Themes, which will be a key focus of **Plan4all**. It is for example **Cadastre**, which is currently solved in other *e*Content*plus* projects and whose partners are also members of **Plan4all**. Other topics which will be considered within the project include **Elevation**, even if it will be not defined in the data model as it is not directly used within spatial planning methodology in most countries.

1.2 Description of the project objectives

Due to the programmatic character that spatial planning has on the national level, **Plan4all** will be focused on the following more detailed spatial scales:

> **A. Regional Planning**: Regional planning is the task of settling the spatial or physical structure and development by drawing up regional plans as an integrated part of a formalized planning system of a state. Regional planning is required to specify the aims of spatial planning at an upper, overarching level. The regional level represents the vital link between a state-wide perspective on development and the concrete decisions on land uses taken at a local level within the land-use planning of the municipalities. Its textual and cartographic determinations and information normally range in the scales of 1:50,000 to 1:100,000.

B. Local Land-use planning: Local land-use planning is the creation of policies at a local/municipal level that guides the land and resource use inside the administrative borders of the municipality in charge of this task. Sometimes "urban planning" is used as a synonym. The main instrument of land-use planning is zoning or zoning ordinances, respectively. Land-use planning is situated below the regional planning level and consist normally of two stages: first a general or preparatory land-use plan (scale 1: 5,000 – 1: 50,000) for the whole municipality and second a detailed land-use plan for small part of it, mostly legally binding (scale 1: 500 – 1: 5,000).

Plan4all will be focused on the harmonisation of metadata and spatial planning data and building networking infrastructure for sharing spatial planning data based on the existing best practices in regions and municipalities in Europe. It will be based on the results of current research activities such as HUMBOLDT, c@r, eSDInet+, GIS4EU and EURADIN and on technological state of the art defined by OGC and W3C. This will involve description, summarising, optimisation, multilingualism and harmonisation of European metadata, data models and networking standards of data for spatial planning, based on previously collected and analysed experiences, and then seeking to define common procedures and methodologies for spatial data sharing and utilisation cross Europe of new spatial planning data standards for the EU. The focus will not only be on technical and technological aspects, but also on Digital Right Managements, and other IPR issues, security of data and data models. Important issues will be models for public private data sharing, and how spatial planning data could be used for social, environmental and economical development and also for protection of citizens. For economic development, the sharing will support mainly real estate business and investment across Europe.

In general, the technological and standardisation part of the work will be separated into three parts:

1. Description, summation, optimisation and harmonisation of European standards of data for spatial planning from point of view of metadata, data models and networking services.
2. Defining common procedures and methodologies for sharing and utilisation cross Europe of new spatial planning data standards for the EU.
3. Methods of monitoring SDI utilisation for spatial planning.

Plan4all will also have important networking activities:

1. Building European cluster for SDI in spatial planning under umbrella of ISOCARP and EUROGI. The cluster will use a model based on national clusters ad hoc developed by founding consortium members and other subjects which will join the network.[1]
2. To support exchange of best practices trough interactive workshops, but also using web technologies.

Plan4all will follow current research results from past and running projects related to spatial planning methodology, such as ARMONIA, HUMBOLDT, c@r, eSDInet+, GIS4EU, EURADIN and RISE and will take into account the recommendations of INSPIRE Drafting Teams.

The main focus of **Plan4all** will be on the following steps:

Analysis

- Analysis of different user group needs related to data from spatial planning.
- Analysis of data models used in different countries for spatial planning at regional and local level.
- Analysis of needs for common model for cross border territorial decision and cross border risk management.
- Analysis of pan European needs for spatial planning data harmonisation from the point of view of interest of real estate business and international investors.
- Analysis of INSPIRE requirements.
- Analysis of current standards.

[1] To this regard the presence of AMFM GIS Italia as national association is foreseen to play a key role for helping to promote a/the collaborative national planning INSPIRE model to help to fulfil the achievements at EU level.

Design

- Design of European spatial metadata profile as extension of INSPIRE profile (there already exists experience with this task from Czech Republic).
- Design of common European minimum data set for spatial planning including mentioned Themes, which seems to be important for spatial planning.
- Design of networking infrastructure based on INSPIRE recommendation.
- Design of Digital Right Management (DRM)
- Design business model for spatial planning data.

Testing of interoperability based on current infrastructure

- Testing of interoperability on vertical level.
- Testing of interoperability on horizontal level.
- Monitoring methodology.

Dissemination

- Spatial planning data Forum building under umbrella of ISOCARP and EUROGI.
- Relation to standardisation initiatives through OGC members (HSRS) or other standardisation initiatives through EUROGI, ISOCARP.
- Relation to European projects, namely HUMBOLDT, eSDInet+ and EURADIN.
- Promotion of standards to other regions using partners who are members of networks like Euro City, ERISA, GlobalCites and others (see chapter 6. Networking).

1.3 Expected results

The expected results from **Plan4all** will be:

- 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.

1.4 List of participants

List of Participants

Partic. No[1]	Participant full name	Participant short name	Country	Role in the project[2]
1	University of West Bohemia	UWB	CZ	coordination, research, standardisation
2	International Society of City and Regional Planners	ISOCARP	NL	evaluation, standardisation, dissemination, analyzing
3	Statutarni mesto Olomouc	OLOMOUC	CZ	content provider, testing, validating
4	Technology Development Forum	TDF	LV	analysing, testing, content provider, validating
5	Help service remote sensing s.r.o.	HSRS	CZ	content provider, technology provider, standardisation
6	Landesbetrieb Geoinformation und Vermessung	LGV Hamburg	DE	content provider, standardisation. testing, validating
7	Stichting EUROGI	EUROGI	NL	evaluation, standardisation, dissemination, analyzing
8	Bauska District Council	Bauska DC	LV	content provider analysing, testing, validating
9	Provincia di Roma	PROVROMA	IT	content provider, analysing, testing, validating
10	Fondazzjoni Temi Zammit	FTZ	MT	content provider, analysing, testing, validating
11	GEORAMA	GEORAMA	GR	content provider, analysing, testing, validating
12	Navarra de Suelo Residencial S.A.	NASURSA	ES	content provider, analysing, testing, validating
13	Hyperborea s.c.	HYPER	IT	standardisation, implementation, validating, testing
14	AYUNTAMIENTO DE GIJON	GIJON	ES	content provider, analysing, testing, validating

[1] Participant number 1 is the Coordinator. The remaining participants are beneficiaries.

[2] The main operational role that the participant plays in the proposed project. For example: content provider, technology provider, pedagogical expert, standardisation body, evaluation, dissemination etc.

Partic. No[1]	Participant full name	Participant short name	Country	Role in the project[2]
15	The National Microelectronics Applications Centre Ltd	MAC	IE	content provider, technology provider, standardisation
16	CEIT ALANOVA gemeinnützige GmbH	CEIT ALANOVA	AT	technology provider, standardisation
17	Asplan Viak Internet as	AVINET	NO	technology provider, standardisation
18	Dipartimento di Studi Urbani - Università degli Studi di Roma Tre	DIPSU	IT	designing, research, standardisation
19	Euro Perspectives Foundation	EPF	BG	content provider, analysing, testing, validating
20	Agentia de Dezvoltare Regionala Nord-Vest	ADR Nord-Vest	RO	content provider, analysing, testing, validating
21	Regione Lazio - Direzione Regionale Territorio e Urbanistica	Lazio	IT	content provider, analysing, testing, validating
22	Help forest s.r.o.	HF	CZ	content provider, testing, technology provider
23	AMFM GIS ITALIA	AMFM	IT	content providing facilitator, analysing, dissemination, validating, capacity builder
24	Ministry of Ecology, Energy, Sustainable Development and Town and Country Planning	MEEDAT	FR	content provider, analysing, testing, validating

2 Contribution to programme objectives

According to the *e*Content*plus* programme objectives and priorities (No 456/2005/EC decision of 24.3.2005), in order to attain the overall objective of the Programme ("*to make digital content in Europe more accessible, usable and exploitable*"), the following lines of actions will be addressed:

a) "*facilitating at Community level access to digital content, its use and exploitation*": **Plan4all** contributes to this objective, since it aims to facilitate access to spatial planning documentation (International Manual of Planning Practice (IMPP) and other documentation that is currently part of both local and regional SDI (INSPIRE Directive)) for user groups that are lagging behind and should receive adequate guidelines and opportunities (MAKING SPACES FOR THE CREATIVE ECONOMY, 2005).

b) *"facilitating improvement of quality and enhancing best practice related to digital content between content providers and users, and across sectors":* **Plan4all** aims to standardise spatial data which are part of spatial planning documentation, including 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 across Europe, and guarantee their multilingual description, discovery, viewing access, transformation and digital rights management to support their better utilisation and through this support sustainable regional development.

c) *"reinforcing cooperation between digital content stakeholders and awareness":* **Plan4all** focuses on a sharing of spatial planning documentation among different holders, their better utilisation in territorial planning processes, but also their effective utilisation for risk management and for international investment. The international Sustainable Development context (Agenda 21, Rio Declaration on Environment and Development, WSSD Johannesburg, etc) has marked the action area of the environmental policies in the European Union. The assessment of the above policies requires a measurement instrument common to all 27 Member States.

The conditions that the *e*Content*plus* Work Programme identifies for Best Practice Networks are met. **Plan4all** is a multinational consortium that includes content providers, technology providers, researchers, professional bodies and users tackling the issue of SDI, but also planning and territorial development. This has been judged necessary, considering that each EU region has its own ICT adoption level of SDI and requires different scenarios and technology implementation. The project involves different content users, developers and holders. The pilot trials and the validation events aim to serve as the feedback mechanism for the usability, quality, and efficiency of planning content, delivered services, and spatial data publishing and sharing. Multilingual and multicultural aspects are addressed (see chapter 4.2). The evolving feedback mechanisms and the planned liaisons with specification and standardization bodies/groups demonstrate convincingly a potential of having a strategic impact on pre-standardization activities. The consortium is supported by an international organisation of the magnitude of the OGC. OGC members are represented in the team too. ISOCARP is an added value for accomplishing **Plan4all** main aims.

The cooperation structure that emerges from **Plan4all** aims to facilitate interoperability in applications of spatial planning technologies, setting up cooperation networks with interested organisations, establishing liaisons with specification & standardization groups, as well as participating and exchanging results with other relevant thematic networks and projects.

For this reason, a bottom-up approach is necessary in order to integrate all of the skills available in each country and to take into account the present level of heterogeneity of the system. Spatial planning competencies and know-how remain nationally, even regionally, but the overall problem **Plan4all** will address is the European dimension. **Plan4all** proposes the use of geospatial databases and their metadata to support the development of tools and to set up a web services network that will allow each region to calculate relevant indicators for the management of their agro-environmental policies. The European dimension of the project rests on the nature of this bottom–up approach that will enable the creation of European tools and a network group and participates in the construction of multi-scales environmental management tools facilitating the implementation of multifunctional land use and sustainable rural development policies.

By implementing **Plan4all**, we will create a critical mass of 14 Member States plus Norway. This new network will join existing INSPIRE SDIC group and it will help to disseminate the INSPIRE approach within the spatial planning community. By enlarging the working groups throughout the project, we will reach a consensus on the elementary spatial units used for management and reporting in each country. The interoperability of spatial data sets and services will concern all of the European Union territory and, thanks to the multinational nature of the project network, spatial data will be accessible across borders in several languages.

Our main expertise and our originality are based on this bottom-up strategy that will keep the spatial planning skills at the national and regional level while implementing a European methodology for the development of application services. **Plan4all** addresses the core objective of the *e*Content*plus* program as it represents an opportunity to reuse the geographical data existing at the European level.

3 European dimension

The **Plan4all** project will be focused on European interoperability of spatial planning data. The **Plan4all** project will support exchange of best practices in spatial planning and will design models, tools and methodologies for integration of spatial planning data around Europe. It will impact on several aspects of society, science & technology and impart added value to a range of scientific and technological processes and products. **Plan4all** will thereby enrich the development of human knowledge and capacity building in the enlarged EU.

As the Lisbon Summit underlined, the term «sustainable development» covers economic, socio-cultural and environmental aspects in a mutually reinforcing way. In this context **Plan4all** will also support the approach that investment in human resources contributes to prosperity, economic and social cohesion as well as to improved quality of life. It will promote innovative approaches in e-government based on better governance of spatial data and spatial knowledge management. Decision-support tools will contribute to a range of social and economic objectives providing public administrations and other bodies the means to contribute to and benefit from effective knowledge management. The focus of **Plan4all** is not only on the period of the project duration, but it is also focused on post-project period (**Plan4all** exploitation roadmap).

The global result of **Plan4all** will be an improved and more effective model for spatial planning and access to spatial planning information. The project will build a European Team of different specialists working on data management, data modelling, spatial development, decision making and planning. It will enable them to effectively collaborate with new partners, thus increasing research and business opportunities for planners and their individual organizations (but it will particularly have a major impact on European SDI) and improving their ultimate competitiveness and increasing business activity for all European countries. This effect of research and improved competitiveness in economies will at the same time benefit the European economy by an exchange and balance of commercial and research transactions.

Again, the **Plan4all** Forum will advise on the selection of topics.

Topics will be addressed in a uniform manner dealing with:

- The capabilities of the technology, appropriate standards, interconnection and interoperability issues.
- How the technology can be applied in the e-government domain, obstacles to deployment.
- Potential benefits.
- Risks that needs to be assessed, expertise, financial management,
- Organizational aspects, regulatory and standard issues.
- Case study examples of successful implementation.

The project intends to provide a strong impact upon awareness, knowledge and usage of INSPIRE principles. It will prepare the necessary conditions for building common global monitoring systems. However, this impact will be generated not only through **Plan4all** partner's involvement in future projects, but also in the wider adoption of skills of building interoperable SDI applications and mutual co-operation among all partners. In wider context, it will strengthen the position of Europe in the GI field.

There is no limitation to specific regions foreseen in the project, but of course not every single technical implementation can be done within the project, so for some tasks it makes sense to have pilot regions and develop pilot solutions there. The consortium is active in all EU-countries. Solutions developed in one region will be documented and made available for implementation in other regions.

One of the results of the **Plan4all** will be the cooperation with other projects or networks, mainly with the ESPON network.

Environmental Protection & Management. Through its support of territorial planning the **Plan4all** project will particularly strengthen the identification and protection of environmentally sensitive areas, while the application of the principles of environmental management (e.g. EMAS 2, ISO 14001) will provide the important methodological basis of its integrated systems approach.

Multisectoral Spatial Development. The nature and structure of the **Plan4all** project will prepare local stakeholders for the establishment and monitoring of integrated land use and economic and sustainable development in a group of European local and regional areas.

Coordination and Impact on Lateral R&D Projects. The **Plan4all** project with its focus on training depends on the efficient collaboration of a wide diversity of scientific, professional and commercial expertise in Europe. It will use results of previous projects, but it will also collaborate with already existing or parallel initiatives and programmes (e.g. INSPIRE, GMES, FP7, INTERREG, e-Content, etc.). It will use ongoing studies on land use, sustainable development, standards & indicators, externalities and thresholds, and investigate the integration of any available results of their research & development.

Plan4all includes partners from data holders, software and planning, SMEs, consultancy, research organisations and academia in European countries and international organisations. There is substantial added value in European collaboration as none of the participants has the critical mass in human or financial terms to undertake the work alone. European collaboration increases access to pooled resources and technology transfer and emulates the 'global' marketplace.

The project adds a wider dimension to the work because of perceived and real problems in collaboration and technology transfer between new and old EU countries. Some partners already do this and need to introduce IT solutions to known difficulties in communication and control of the required two way flow of engineering, commercial and manufacturing information. The **Plan4all** results will be of mutual benefit to old and new EU country's stakeholders trading in both directions.

4 Content

4.1 Underlying content

The **Plan4all** project covers 15 European countries. The existing content for spatial planning exists in all of these countries and project will demonstrate possibilities, namely, how this content could be standardised. The level of content is not equal in all countries, in some countries content is developed well, in some countries until now there is content in development. However, the selected partners represent examples of content from different countries and regions and provide an excellent chance for standardisation of spatial planning data. The following table provides a list of the digital objects which the consortium undertakes to make available:

Quantity and Quality of the Content								
Provider	**Type**	**Quantity & Definition**	**Format & Quality**	**IPR**	**Current Use**	**Existing Metadata**	**Language**	**Additional comments**
Olomouc - ÚPnSÚ	maps	10 km^2 ;66MB – 90 layers;	*.dgn,	Public domain	Olomouc municipal office	NO	Czech	Municipal Plan of the Olomouc Urban Unit (Local plan)
Olomouc - ÚPnSÚ	text	Cca 300 pages of text	*.doc	Public domain	Olomouc municipal office	NO	Czech	Municipal Plan of the Olomouc Urban Unit (Local plan)
Olomouc – RP MPR	maps	0.8 km^2; 30MB	*.dgn	Public domain	Olomouc municipal office	NO	Czech	Regulatory plan of Urban Conservation Area
Olomouc – RP	text	100 pages	*.doc	Public domain	Olomouc	NO	Czech	Regulatory plan of Urban

MPR					municipal office			Conservation Area
Olomouc - ÚAP	maps ÚAP-	45 km^2	*.shp; *.dgn	Public domain	Olomouc municipal office	ISO 19115	Czech	planning analytical materials
Olomouc - ÚAP	graphics ÚAP- adjusted data from different providers	45 km^2	*.shp	corporate/restricted	Olomouc municipal office	ISO 19115	Czech	planning analytical materials
Olomouc - ÚP	maps	10 km^2	format of vector graphic not decided	Public domain	-	ISO 19115	Czech	Concept of new Local plan To come in 2009
Olomouc – Cenová mapa	map	1 layer; 10 km^2	*.dgn	Public domain	Olomouc municipal office	NO	Czech	Price mp of building plots
Government of Navarre- POT	Text, image	10.421km^2	PDF	Public domain	Government of Navarre- Navarre Region	NO	Spanish	Regional Spatial planning Programme
Government of Navarre- PEDP	Text, image	1.894 km^2, 291 pages	PDF	Public domain	Government of Navarre- Pyrenees	NO	Spanish	Pyrenees Development Plan
Government of Navarre- Grisi4soho	Text, image, cartography	1.894 km^2, 21 scanned maps, 91 pages	PDF	Public domain	Government of Navarre- Pyrenees	NO	Spanish	Interreg IIIC Subproject
Government of Navarre- SIUN	Text, image, cartography	10.421km^2, 272 scanned maps and 272 texts	PDF	Public domain	Government of Navarre- Navarre	NO	Spanish	Urban Information System of Navarre
Government of Navarre- ETN	Text, image, cartography	10.421 km2, 191 pages	PDF	Public domain	Government of Navarre- Navarre	NO	Spanish	Territorial Strategy of Navarre

Government of Navarre- SITNA	Text, image, cartography	10.421 km^2, 191 layers		Public/corporate/restricted	Government of Navarre- Navarre	ISO 19115	Spanish, English	Land Information System of Navarre
Government of Navarre- IEN	Data, graphs	10.421 km2, several data		Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	Statistical Institute Of Navarre
Government of Navarre. Geographical grid systems (harmonised multi-resolution grid)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Geographical names	Maps	10.421km^2	JPG	Public/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Administrative units (local, regional and national boundaries)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Addresses	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Cadastral parcels	Maps	10.421km^2	JPG	Public/corporate/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Transport networks (road, rail, air, water and links	Maps	10.421km^2	JPG	Public/corporate/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	

between networks)								
Government of Navarre. Hydrography (including marine areas, all water bodies, river basins, etc.)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Protected sites (designated by national, EU or international legislation)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Elevation (land, ice and ocean surfaces; terrestrial elevation, bathymetry, shoreline)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Land cover (physical and biological)	Maps	10.421km^2	JPG	Public/corporate	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Orthoimagery (geo-referenced image data)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of	Maps	10.421km^2	JPG	Public domain	Government of	NO	Spanish	

Navarre. Geology (including bedrock, aquifers and geomorphology)					Navarre- Navarre			
Government of Navarre. Statistical units (for dissemination or use of statistical data)	Maps	10.421km^2,	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Buildings (geographical location of buildings)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Soil (and sub-soil characteristics)	Maps	10.421km^2	JPG	Public/corporate	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Land use (e.g. residential, industrial, commercial, etc.)	Maps	10.421km^2	JPG	Public/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Human health and safety	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Utility and governmental services (sewage,	Maps	10.421km^2	JPG	Public/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	

waste management, energy, etc.)								
Government of Navarre. Environmental monitoring facilities (emissions, ecosystem parameters)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Production and industrial facilities (water abstraction, mining, storage sites)	Maps	10.421km^2	JPG	Public/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Agricultural and aquacultural facilities	Maps	10.421km^2	JPG	Restricted	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Area management / restrictions / regulation zones / reporting units	Maps	10.421km^2	JPG	Public/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Natural risk zones (e.g. atmospheric, hydrologic, seismic, volcanic,	Maps	10.421km^2	JPG	Public/restricted	Government of Navarre- Navarre	ISO 19115	Spanish	

wildfire)								
Government of Navarre. Meteorological geographical features (weather conditions, measurements)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Bio-geographical regions (areas with homogeneous ecological conditions)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Habitats and biotopes (geographical areas for specific ecological conditions)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	ISO 19115	Spanish	
Government of Navarre. Species distribution (geographical boundaries for animal and plant species)	Maps	10.421km^2	JPG	Public domain	Government of Navarre- Navarre	NO	Spanish	
Province of Rome	Raster Data	5 Bases topographical 4 Mosaics from orthophotos 17 satellite imagery	TIFF, ECW 300<r<400 dpi 1<r<3 meters	public domain while respecting the constraints of copyright	Private, Public Administrations and all registered users to the website	Maximum of 28 fields subset of ISO 19115	Italian	
Province of	Vector Data	700 layer	ORACLE	public domain while respecting	Private, Public Administrations	Maximum of 28 fields	Italian	

Rome			DBMS	the constraints of copyright	and all registered users to the website	subset of ISO 19115		
GEORAMA	Text	Emergency Plans (3) Municipal Management Plan (1)	Doc, paper	Public domain	Deciders and technical personnel	Under preparation	Greek	
Bauska District Council	maps	19288 Files 8,50 GB	shp	No	Municipality	ISO 19115	Latvian, English	Bauska District Spatial Plan
Gijón City Council	Maps	181 Km2	*.dgn	corporate/restricted	Gijón municipal office	NO	Spanish	Municipal Plan of Gijón
Gijón City Council	Text	424 Mb	*.doc	Public domain	WebSite & municipal offices	No	Spanish	PGOU
Gijón City Council	Maps	9 files 29,9 Mb	*.pdf	Public domain	WebSite	No	Spanish	Maps of districts
Gijón City Council	Maps	27 files 23,7 Mb	*.pdf	Public domain	WebSite	No	Spanish	Industrial Areas
Gijón City Council	Maps	835 Mb	*.pdf 1/4000 1/2000 and 1/1000	Public domain	WebSite & municipal offices	No	Spanish	PGOU
Gijón City Council	Maps	15 MB	*.jpg	Public domain	WebSite & municipal offices	No	Spanish	Topographic, Hydrographic, 3D
Gijón City Council	Maps	4,52 Gb	*.jpg	Public domain	WebSite & municipal offices	No	Spanish	Orthophoto 2006, Orthophoto 2002
FHH/BSU (Free and Hanseatic City of Hamburg Ministry of Urban Development	Image / vector data	OGC Web Map Service (raster images of protected sites, hydrography, geology, natural risk zones, noise emissions, urban landuse plans, land cover,	Format: GIF, PNG, JPG, TIFF, BMP, SVG, GML & Quality: colored	Public (limited access to data, free of charge), licensed (for registered users, on the bases of	public authorities and residents of the federal states of Hamburg, Schleswig-Holstein and	yes; based on the software 'Environmental Data Catalogue'	German	

and Environment)		administrative and social governmental services in Hamburg), Web Feature Service (vector data for selected data sets), Web Feature Gazetteer Service (eg. Address Register)	images	agreement, for payment)	Lower Saxony			
Topographic map	Tiff, WMS	All Latvia	PosGIS	Public	Public	Yes	LV	No
Grisi plus data for Latvia	WMS, WFS	Bauska. Jelgava region	PosGIS	Public	Public	Yes	LV	No
FTZ-Malta	Text	10,000 pages	PDF	License	None	None available	English	
FTZ	Image	15,000 pictures and maps	JPEG, 300 dpi	License	None	None available	English	
FTZ	Video	500 clips	Qicktime	License	None	None available	English	
Limerick County Council, Ireland, working with MAC	Maps	Thousands, various definitions from county-wide to specific building planning map.	MapGuide (.mwf) with some GeoMedia (.pmf)	Public/Corporate Restricted	Web-based public planning applications.	No	English	Used with iPlan and other planning web applications.
Cork County Council, Ireland, working with MAC	Maps	Thousands, various definitions from county-wide to specific building planning map.	MapGuide (.mwf) with some GeoMedia (.pmf)	Public/Corporate Restricted	Web-based public planning applications.	No	English	Used with iPlan and other planning web applications.
Kerry County Council, Ireland, working with MAC	Maps	Hundreds, various definitions from county-wide to specific building planning map.	MapGuide (.mwf) with some GeoMedia (.pmf)	Public/Corporate Restricted	Web-based public planning applications.	No	English	Used with iPlan and other planning web applications.
Galway County Council, Ireland,	Maps	Hundreds, various definitions from county-	MapGuide (.mwf) with	Public/Corporate Restricted	Web-based public planning	No	English	Used with iPlan and other

working with MAC		wide to specific building planning map.	some GeoMedia (.pmf)		applications.			planning web applications.
DipSU	Vector Data	About 50 layers	*.shp	public domain while respecting the constraints of copyright	Municipality of Anguillara (Rome)	NO	Italian	Geographic information system for the local plan
DipSU	Vector Data	About 70 layers	*.shp	public domain while respecting the constraints of copyright	Municipality of Guidonia (Rome)	NO	Italian	Geografical information system for the local plan
DipSU	Vector Data	About 20 layers	*.shp	public domain while respecting the constraints of copyright	Province of Rieti (Lazio Region)	NO	Italian	Geographic information system for the development plan of the tiber valley
DipSU	Vector data	About 15 layers	*.shp	public domain while respecting the constraints of copyright	Lazio Region	YES	Italian	Geographic information system ofor the landscape territorial plan
DipSU	Vector data	About 20000 cadastral parcels	Geodatabase Postgis	public domain while respecting the constraints of copyright	All users - Webgis	YES	Italian	Gregorian cadastral geodatabase of Rome
SFCM	GIS-data, planning	County wide, 10 themes x 26 municipalities	Shapefiles, < > 1:5 000	SFCM + National mapping authorities	Offline, web atlas	ISO 19115	Norwegian	
SFCG	GIS-data, environment	County wide, 8 themes x 26 municipalities	Shapefiles < > 1: 5000	SFCG + Directorate of Nature Preservation + National mapping	Offline, web atlas	ISO 19115	Norwegian	

				authorities				
Lazio Region	image	Technical cartography, entire Region	TIFF, 1:10.000, grayscale	public domain	public and private	yes	Italian	
Lazio Region	image	Technical cartography, provinces of Rome, Latina, Viterbo	TIFF, 1:5000, colour	Public domain	public and private	yes	Italian	cartographies for remaining Provinces are ongoing
Lazio Region	vector	Technical cartography, provinces of Rome, Latina, Viterbo	shape, 1:5000	licensed	public	yes	Italian	numerical data or remaining Provinces are ongoing
Lazio Region	vector	administrative boundaries, entire Region	shape, 1:10000	Public domain	public and private	yes	Italian	
ISTAT	vector	statistical and administrative boundaries, entire Region	shape, 1:10000	Public domain	public and private	yes	Italian	
Lazio Region	vector	DBPrior, entire Region	shape, 1:10.000	Public domain	public and private	yes	Italian	
Lazio Region	vector	Corine Land Cover, entire Region	shape, 1:25000	Public domain	public and private	yes	Italian	
Lazio Region	vector	Regional Land Use, entire Region	shape, 1:10000	Public domain	public and private	yes	Italian	
Lazio Region	vector	Environmental plan, entire Region	shape, 1:10000	public domain	public and private	yes	Italian	
Tevere's Basin Authority	vector	Hydro-geological safety plan	shape, 1:10000	public domain	public and private	yes	Italian	
Lazio Region	vector	Geological maps, entire Region	shape, 1:25000	public domain	public and private	yes	Italian	
Lazio Region	vector	Burned areas, entire region	shape, 1:10000	public domain	public and private	yes	Italian	
TIME	Text, Images	Municipal plan for regional development(1)	Doc, paper (1&2) TIFF(2)	Public domain	Accessible for the public (including online), Deciders	Yes	Bulgarian	

		Municipal Master plan (2)			and technical personnel			
TIME	Basic geographical data (digital)	Municipality - 1/10000, aerial photographs, Quick bird Satellite Images	Geodatabase, raster	Public domain	Deciders and technical personnel	Under preparation	Bulgarian	
TIME	Planning data (digital)	Land cover and Landuse, special zones, infrastructure	Geodatabase	Public domain	Deciders and technical personnel	Under preparation	Bulgarian	
AMFM	Vector maps, ortophotos, alphanumeric data, images, text	Regional plans Maps, Regional plans rules, statistical associated data, obtainable from AMFM members	DWG, SHP, DBF, MDB, ORACLE DBMS, JPEG, WMS, WFS	public domain while respecting the constraints of copyright of the specific provider	Public Administrations, professionals, interested citizens	Subset of ISO 19115	Italian	AMFM members will be called to contribute with data to PLAN4ALL project
HSRS	Vector maps, WMS	CLC2000, CLC2006	Postgress	Licence for research purposes	Public administration	ISO19115/ISO19119	English	Land cover
HSRS	Raster data	IMAGE2000 IMAGE2006	Postgress	Licence for research purposes	Public administration	ISO19115/ISO19119	English	Ortophoto
HSRS	Vector maps, WMS	Murbandy	Postgress	Licence for research purposes	Public administration	ISO19115/ISO19119	English	Land cover
HSRS	Vector maps, WMS	Complex Land use for 20 municipalities	Postgress	Public domain	Public administration, investors	ISO19115/ISO19119	Czech	Land use, utilities, protected areas
Help Forest	Vector maps, WMS	Complex Land use for 2 municipalities	Postgress	Public domain	Public administration, investors	ISO19115/ISO19119	Czech	Land use, utilities, protected areas

4.2 IPR issues

In the **Plan4all** project, knowledge and Intellectual Property (IP) will be the property of the parties generating it. The parties concerned will agree between them on the arrangements for applying for, obtaining and/or maintaining such rights on a case-by-case basis, in accordance with the EU contract.

However in the broader context of Europe, the project will focus on Digital Right Managements (DRM), and other IPR issue, security of data and data models, but to do so while encouraging and facilitating public private data sharing, and the use of data from special planning for social, environmental and economical development and also for protection of citizens.

In analysing the state-of-the-art WP2 will explore the IPR issues in a global context of all stakeholders involved. Spatial data is often acquired, owned and used in a single context. One of the aims of **Plan4all** will be to explore new innovative possibilities to make it possible to reuse data and its metadata in various application contexts. This will need DRM models that respect the IPR of the original owners, while enabling the new applications and partnerships to use the data without infringing those rights. So instead of these IPR issues being major barriers to the use and exploitation of SDI data, **Plan4all** will explore innovative DRM models to encourage and reward the use and reuse of the data by stakeholders. This will be accomplished by laying the groundwork for a semantic interoperability of the data, as well as by providing modules for the automatic reclassification of data by a user's demands, and by creation of data views that 'remodel' the raw data for use in other applications. In this way, organizations from raw data providers to value-added service providers will be able to offer their products for new applications and thus address a wider audience.

In addition to exploring the technical issues involved, **Plan4all** will explore the non-technical issues such as IPR: who owns what, the DRM models in use, alternative IPR approaches to facilitate Public Private data sharing and viable Revenue and Business Models for spatial planning data, without affecting or constraining innovative local public sector applications and the participation of citizens in the decision making process. Deliverable D2.4 (User Analysis Report) will include a specific section addressing the various IPR issues, recommended approaches to enhance more widespread use of data, and recommendations to enable and facilitate the involvement of community groups, organisations and companies engaged in the development of spatial planning SDI, while recognising and protecting the IPR and ownership rights of the original data owners.

As well as demonstrating the technological feasibility of the designed models, the "Large Scale Testbed" of WP6 will provide analysis and recommendations on the DRM approaches to protect IPRs and data security in the deployment of services at local, regional, national and European levels.

Taking into consideration the specific issues of the **Plan4all** project, the general principles listed below will apply for the partners in the consortium, based on the Grant Agreement and will be explicitly documented in the Consortium Agreement that all partners will sign:

- Access to pre-existing know-how, local applications or conversion software that is required to provide data for the project, or for the execution of the project, will be provided free on the basis of bilateral agreement between the parties concerned.
- Access to knowledge resulting from the project needed for use outside the project, will be granted upon written request on a royalty-free basis, provided no financial profit will be made.
- Knowledge or data resulting from the project that is needed for commercial exploitation, such as developing a marketing product or for creating a service, will be granted upon written arrangements by the parties participating in the project. Knowledge owners and local database users must provide adequate and effective protection for information that is capable of being used for a commercial application or related to privacy matters (personal data).
- Access to databases will include the right to extract in whole or in part the content of these databases. However, the right to extract will not include the right to compile the data in a new database intended for dissemination purposes. Each contractor will undertake all the necessary actions to comply with its national legislation in relation to the collection and use of data. Some licensing schemes will be necessary to establish concerning the re-use of downloaded data in

vector format. These licensing schemes will depend upon general rules applicable in each country and upon data type (raw data or processed data).

- The general IT architecture described within the **Plan4all** project, in particular data models needed to ensure the integration of information in geo-databases, the central web services registry used to invoke the web services and the shared web services will be considered as a joint property of all parties. In particular, core data web data access will be open-access services. Except for the access to specific source codes that will be subject to separate agreements concluded between concerned parties, all the source codes related to the calculation of indicators will be freely available. They will be considered as open source codes.
- More specifically, the **Plan4all** Consortium Agreement will also settle the ownerships of knowledge in terms that partners will maintain the software they have developed. This applies to physical **Plan4all** databases, conversion software and testing software
- It is planned that software developed during **Plan4all** will be freely available for all partners (also after the end of the project). The **IPR for individual components developed during the project will belong to individual developers. T**hese components will be published on the basis of FOSS (or Open Source) licences. The access to personal data and associated data managed by national administrations will be formally decided between the **Plan4all** Executive Board and the relevant authorities.

Any ownership issues that may arise will be debated by the Executive Board. Decisions will be based on the board's interpretation of the Consortium Agreement, and always on the basis that the data required by the project and the results from it, should be publicly available.

4.3 Multilingual and/or multicultural aspects

Implementation of web publishing systems and minimum data sets by all partners will be INSPIRE compliant and will thus encompass multilingual featured metadata and navigation criteria. In addition to native language, multilingual features will be implemented at metadata level. **Plan4all** specifications will be only in English, as is standard in INSPIRE documentation. The output of the **Plan4all** project will use a common cartographic legend, which will be independent from concrete languages. This will guarantee that the **Plan4all** data and services will be universally understandable.

The Plan4all project will take into account the differences between countries (e.g. variations in map legends) and the differences in various user communities. The cartographic expressions will be modified for user groups, for example foresters, spatial planners etc. This will be done through the automatic conversion of data models.

To facilitate multilingual & multicultural access and reuse of the **Plan4all** results, the project outputs will be provided (according to their type and expected use) in multiple languages. The following table provides an overview of the major project results and their corresponding language versions that will make them more accessible, usable and exploitable in the different countries and cultures covered by the project.

Project results' type	**Languages**
Consortium-provided content	English and all project participating countries
Publicly-available content	English and all project participating countries
Domain model	English and all project participating countries
Metadata schema	English and all project participating countries
Other metadata schemas	English and all project participating countries
Software tools for repositories	English and all project participating countries
Project documentation	English
Plan4all Web portal	English and all project participating countries

5 Impact

5.1 Analysis of demand

The problem of spatial planning, its governance, participation of all stakeholders and open decision processes, is very important in whole Europe. With EU enlargement, its importance increases. There exist many cases, where low participation at all levels of government, low involvement of NGOs, stakeholders and citizens lead to non transparent processes, which in future phases of implementation can effectively block important investment opportunities. The conception of planning is interaction both between various levels of government in a region and between public authorities, business and citizens. A specific regional framework allows parties to weigh the influence of investment or administrative control by public agencies. At the same time, there are the benefits of legitimacy and transparency, public participation and the political backing of representative agencies.

On the other hand, Spatial Data Infrastructures (SDIs) are being created thanks to the INSPIRE Directive, and these SDIs are beginning to open doors to the release and exploitation of key Public Sector Information (PSI). Today's technology and know-how are such that common spatial data catalogues, housing metadata, can be queried from multiple locations, and thus provide a consistent coverage and availability of spatial data to all relevant decision makers, even if linked virtually. Spatial data duplication is minimized and decision contexts are harmonized.

The spatial planning objectives are as follows:

- Town and country planning deals systematically and globally with the land use, sets the principles of area arrangement and co-ordinates the construction and other activities influencing the land development as to their time and contents.
- Planning provides the background for sustaining the permanent harmony of all natural, civilisation and cultural values within an area, particularly with respect to the care of environment and the preservation of its elements - soil, water and air.
- Planning in its objectives emphasises the principles of complexity in using the land and changing its use, principles of consistence and continuity, and takes into account all social, economic, and cultural impacts of land development. It also respects the principle of sustainable land development.
- Planning creates a framework for private investment (including internationals) and regeneration that promotes economic, environmental and social well being for the area;

Spatial planning includes the following tasks and activities:

- defining the land use limits;
- regulating the functional and spatial dispositions of an area;
- determining the necessary clearance, restoration or reclamation interventions in an area and defining the way of its further use;
- delimitating preserved areas, preserved entities, zones of restricted activities and protective zones, and ensuring the protection of all preserved areas, preserved entities, zones of restricted activities and protective zones;
- specifying principles and conditions for time and material co-ordination of locally concentrated construction;
- assessing and evaluating area technical impacts of constructions and other measures in the area being prepared.

From the technological requirements point of view, the main demands are on data collection from different GIS and CAD systems, data management, data harmonisation from different formats and from different data models, providing metadata fulfilling INSPIRE requirements and national requirements for spatial planning guaranteeing access to data for planners and data publishing in a form, which will be understandable to citizens, but also to international investors.

5.2 Target users and their needs

Target user description	Needs	Involvement & Role	Country coverage
Regional and Local Government	Standardise all the available data and processes and improve the information access.	External stakeholder group	Europe
Local agents	Improve the information access.	Information users	Europe
Architects	Standardise all the available data and improve the information access.	Information users, information producers	Europe
Trades unions	Improve the information access.	Information users	Europe
Consultancies	Improve the information access.	Information users	Europe
Cities councils	Standardise all the available data and improve the information access.	Information users, information producers	Europe
Associations	Improve the information access.	Information users	Europe
Universities	Improve the information access.	External stakeholder group	Europe
Technical experts	Standardise all the available data and improve the information access.	Information users, Information producers	Europe
Surveyors	Standardise all the available data and improve the information access.	Information users, Information producers	Europe
Regional Consortiums	Standardise all the available data and improve the information access.	Information users	Europe
Public companies like utilities	Standardise all the available data and improve the information access.	Information users, information producers	Europe
Private companies	Standardise all the available data and improve the information access.	Information users, information producers	Europe
Real estate business	Standardize all the available data and improve the information access.	Information users, information producers	Europe
Emergency services	Standardize all the available data and improve the information access.	Information users, Information producers	Europe
Professional associations	Standardize all the available data and improve the information access.	Information users	Europe
Mancomunidades (association of local entities)	Standardize all the available data and improve the information access.	Information users	Europe
Security and defence organisations	Standardize all the available data and improve the information access.	Information users, information producers	Europe
Investors	Improve and standardise information access	Information users	Europe

5.3 Critical Mass

Plan4all project includes partners from 15 countries of Europe. It includes different groups of national, regional and local data holders represented by national public organisations (2), regional governments (5), regional development agencies responsible for data management (5) and local administration (3), SMES dealing with Spatial Planning and software development (6), International federation (2), Universities (4),

GI and a Public utilities association (1). This is required due the complexity problem of spatial planning. Spatial planning requires vertical harmonisation of data between national, regional and local bodies and as well as horizontal harmonisation.

The critical mass of partners is provided not only by data holders, but also by the set of organisations dealing with planning, spatial planning data management and academic and research sector dealing with harmonisation. There is substantial added value in European collaboration as none of the participants has the critical mass in human or financial terms to undertake the work alone. European collaboration increases access to pooled resources and technology transfer, and support for global sharing of planning data and tools for non-commercial and commercial purposes.

Plan4all adds a wider dimension to the work because of perceived and real problems in collaboration and technology transfer between new and old EU counties. Some partners already do this and need to introduce to spatial planning SDI infrastructures known difficulties in communication and control of the required two way flow of engineering, commercial and manufacturing information. The project's results will be of mutual benefit to old and new EU country's stakeholders trading in both directions - harmonisations inside of regions and among regions.

All issues are respected and in the project it will be possible to provide the following large-scale tested harmonised data sets:

- Land cover - 15 in regional scale, 2 in European scale
- Land use - 60 sets in regional and local scale
- Utility and Government services - 50
- Production and industrial facilities - 50
- Agricultural and aquaculture facilities - 50
- Area management/restriction/regulation zones and reporting units - 50
- Natural risk zones - 50

5.4 Added Value

Plan4all will implement INSPIRE principles in spatial planning practice. The INSPIRE initiative intends to trigger the creation of a European spatial information infrastructure that delivers integrated spatial information services to the users. These services should allow users to identify and access spatial or geographical information from a wide range of sources, from the local level to the global level, in an interoperable and interactive way for a variety of uses. The target users of INSPIRE include policy-makers, planners and managers at European, national and local level and the citizens and their organizations. Possible services are the visualization of information layers, overlay of information from different sources, spatial and temporal analysis, etc.

The spatial information infrastructure addresses both technical and non-technical issues, ranging from technical standards and protocols, organizational issues, data policy issues including data access policy and the creation and maintenance of geographical information for a wide range of Themes[1].

Harmonise and improve interoperability of spatial planning data sets.

Geodatabases already exist in different Member States at different scales and for different layers. Spatial data can already be re-used in many countries or regions thanks to the standardisation process conducted under the umbrella of the INSPIRE Directive. As far as spatial planning databases are concerned, each country is still shaping its own database schemes and content. Thus their cross border use meets difficulties since re-use at the cross border level is only possible when data has a well-identified and unified record layout. No common database scheme exists yet at European level for spatial planning or

[1] INSPIRE Infrastructure for Spatial Information in Europe Environmental Thematic User Needs Position paper (see http://inspire.jrc.it)

spatial information. This is however a basic step for enabling applications to re-use them and particularly to support the European Sustainable Development Strategy.

Increase of network services sharing

There exists a great diversity of indicators that may be derived from planning information. Apart from standardisation aspects, there is a need to develop modelling algorithms for the calculation of environmental indicators in a homogeneous way. Unfortunately, the development of operational tools and standardised procedures to calculate all these indicators represent a huge amount of work that can not be performed without a integration of resources at the European level. Based on standardised data sets the development of indicator calculation tools may be conducted in the different countries and shared through dedicated web services. This is a key element of the project that will improve the usability and quality of existing digital content of spatial planning databases, creating the conditions for the emergence of quality trans-European content-based services as well as infrastructures to allow local SDIC to retrieve processed information through dedicated web services.

Facilitate cross border use and data integration.

The project consortium mainly consists of administrative bodies (content providers) which have significant experience in collecting, storing and publishing spatial data. Some national initiatives already exist, bringing together experiences from different administrations. The European dimension of an initiative **Plan4all** putting together experiences and having its main purpose in creation of a consensual platform and identifying commonly agreed tools is also an added value. One objective of the project is to assure that metadata for data sets and services created in accordance with best practices will be accessible through discovery services.

6 Networking

6.1 Networking Capacity

Plan4all will stimulate networking of organisations dealing with SDI for spatial planning (universities, high schools, long life education). The project will pay specific attention to the promotion of spatial planning SDI as one pillar for regional innovation, which is a cross-cutting objective throughout the Research & Innovation Area, and very specifically the support to potential activities oriented to exploit the results. In order to reach the required critical mass and to assure the highest impact of **Plan4all** results, it is of primary relevance to involve spatial planning organisations from a large enough number of EU countries. Implementing the project at European level allows the consortium to have the necessary breadth to cover the complete chain and will allow know-how, experience, methodologies, and general practice to disseminate throughout Europe. The involvement in **Plan4all** of European associations with large numbers of members, such as ISOCARP, EUROGI, IFHP, Eurocities and ERISA, and the exploitation of their communication channels (e.g. mailing lists and databases of contacts) guarantees the wide dissemination of the project and its results to a very large number of educational institutions.

The networking capacity of **Plan4all** is increased as many of the project partners are members of international bodies, and they will be able to use this network to extend the impact of the project. The project partners are members the following international organisations:

- Region Bauska - Latvian Association of Local and Regional Governments, EURO-NET
- ISOCARP is involved as NGO (Non-Governmental Organization) in: Relations with International Organizations United Nations, Economic Commission for Europe, Geneva – CHE UNESCO, Paris - FRA
- Council of Europe, Strasbourg – FRA, UN-HABITAT, ISOCARP has an accredited status with several International Organisations, a.o: Accredited Representatives, UNECE, Geneva - Charles Lambert (FRA), UNECE, New York - Gilles Laheurte (USA), UNESCO, Paris - Hari Baral (FRA, COUNCIL of EUROPE, Strasbourg - Wassy Bacharyar, UN-HABITAT - Federico Malusardi (ITA)
- DIPSU founding member of the PLANUM[1] association CEIT and CEIT ALANOVA as organisations are involved in * ISOCARP - International Society of City and Regional Planners, ENoLL - European Network of Living Labs (with the City of Schwechat), * EARTO - EUROPEAN ASSOCIATION OF RESEARCH AND TECHNOLOGY ORGANISATIONS, OeGR - Austrian Society of Spatial Planners AGEO - Austrian Umbrella Organisation for Geoinformation , OCG - Austrian Computer Society, OeVG - Austrian Society for Transport Planning, VOeSI - Association of Austrian Software Industry, CORP - Competence Center of Urban and Regional Planning, that organizes the annual international CORP-conferences, see www.corp.at
- North-West RDA is involved in: EURADA (European Association for Regional Development Agency), IRE (Innovating Region for Europe), EEN (Europe Enterprise Network),
- Olomouc A.V.E.C. - Alliance Of European Cultural Cities, European Cities Marketing
- GIJON - Gijón participates actively in different networks at different level: European, worldwide and municipal. The most representative are: Conference of Atlantic Arc Cities, -EUROCITIES , - Ciudades Europeas para la Cooperación y el Desarrollo Cooperación europea en el ámbito local , Energie-Cités , -RETIS : European Transregional Network for Social Inclusion, -European Cities Marketing , -E2C: European Association of Cities, Institutions and Second Chance Schools - EUREXCTER: European Association for Territorial Excellence, FEDARENE (European Federation of Regional Energy and Environment Agencies), -CMRE: Council of European Municipalities and Regions, -CGLU: United Cities and Local Governments, -OICI: Organización Iberoamericana de Cooperación Intermunicipal, -CIDEU: Centro Iberoamericano de Desarrollo Estratégico Urbano ., - AICE: International Association of Educating Cities, -W3C Consortium, Global Cities Dialogue, -

- [1] publishing an international periodical Journal registered with the Court of Rome on 4/12/2001 under the number 514/2001 and distributed through the Internet and its protocols.

International Healthy Cities Foundation, Mayors for peace, -International Congress & Convention Association (ICCA)

- The AMFM GIS ITALIA members represent regional and local public administrations, public utilities companies and GI stakeholders industries as well as SMEs, moreover AMFM is member of EUROGI.
- HSRS – OGC member, through WirelessInfo member of ENNOL.
- EUROGI – which is a pan European non governmental organisation having members with a multidisciplinary profile through which the organisation reaches more than 6 500 entities across Europe. Some major GI-SDI related companies are also members of EUROGI bringing in the capacity to deal with technological issues related to spatial planning. Moreover, EUROGI has strong connections with many international organisations of which it is to highlight the informal of the EGIN - European Geographic Information Network (coordinator) and the GSDI - Global Spatial Data Infrastructure Association (founding member and board member).

In addition, both the awareness and training activities of the project (such as the expert workshops) as well as the exploitation and sustainability activities (such as the partner affiliation networks of planners, universities, content publishers, and professional/planning associations) aim to particularly promote the uptake of results from interested stakeholders, and invite interested organisations to join the project. This is the aim of the *Affiliation & Networking Program* that aims to openly involve interested organisations in the project's progress and implementation. Affiliated partners will have access to most project documentation, events and results; they will be also invited (when desired) to participate in pilot trials and validation events. Details of particular rights and obligations of affiliated partners will be defined in the Consortium Agreement to be signed by all partners before the project is launched.

6.2 Clustering Activities

Plan4all aims to actively contribute to clustering activities with input initially on (intended, implemented, and finally also assessed) implementation of selected SDIs and spatial planning technologies (specifications/standards for spatial planning) that provides access to large numbers of potential users with particular needs. It will also allow testing (and collecting data from) the application of already developed approaches in a virgin, technologically undeveloped, field that may provide very useful feedback about the potential of SDI for spatial planning technologies for the development of the regions in Europe. Apart from a large number of domain-related experts and users, the **Plan4all** consortium also includes high-expertise organisations that are already involved in a variety of initiatives of the SDI and spatial planning initiatives. These partners will bring into the project their expertise and experience regarding the implementation of standards/specifications. They will also report back to clustering activities and standardization initiatives the results from the implementation in the spatial planning sector. Finally, the overall aim of **Plan4all** is to create a synergy between the clustering activities of *e*Content*plus*, the spatial planning technological and standardization bodies/groups and the OGC standards. Liaisons will also be sought at a project level, aiming to take advantage of experience collected by already implemented *e*Content*plus* and FP projects, such as Humboldt or c@r[1]. Humboldt as an IP research project is designing rules and harmonisation processes for European SDI based on INSPIRE Directive. One from Humboldt scenario is Urban Planning. IP project c@r under IST defines European wide collaborative methods and tools. The pilot application is spatial planning.

During the project, additional domain applications, based on clustering with existing projects, are expected to be identified and integrated into the **Plan4all** approach. These applications will stress principles of sustainable development and the relation between different domains, including environmental, economic and social aspects of sustainability and regional development. **Plan4all** will assist existing clusters to adopt "outward looking" approaches by exchanging experiences, information, good practices and knowledge. Such an exchange of knowledge and experience will facilitate the

[1] Collaboration and Rural (C@R) is a project that aims to enable people in remote and rural Europe to fully participate in the knowledge society as citizens and as professionals.

exploitation of synergies, the joint development of collaborative projects, and overall will assist clusters from different domains to move towards the desired aim of *e*Content*plus* for a single European Information Space offering rich and diverse educational content and services through an interconnected federation of INSPIRE principles that adopt commonly agreed or harmonized SDI technology standards.

7 Performance monitoring

7.1 Success indicators

Indicators	Expected Progress		
	Year 1	Year 2	Year 3
Number of the subjects which will implement the metadata of their own planning information according to INSPIRE Metadata Implementing Rules including thesauri.	20 subjects publishing INSPIRE metadata	35 subjects publishing INSPIRE metadata	50 subjects publishing INSPIRE metadata
Number of the subjects which will use the catalogue services for planning metadata.	100 users of catalogue services	200 users of catalogue services	500 users of catalogue services
Number of metadata of planning data sets :	1000 data records	2000 data records	5000 data records
Implementation of existing technology standards – Common Data Model. Indicator will measure how many components of the "national/sub-national" data models will be considered and inserted in the common data model. Mainly the indicator will focus on the usability of the developed common data model. Due to the characteristics of the model the indicator will be mainly of qualitative type.	Definition of common data model	Implementation of common data model by 20 organisation	Implementation of common data model by 50 organisation
Implementation of networking standards	Design of Networking infrastructure	Implementation of networking infrastructure by 20 organisations	Implementation of networking infrastructure by 50 organisations
Aggregation of critical mass of content	4	10	20
Consensus building. The indicator will measure the number of organisations participating in the work of different working groups defining Plan4all standards.	20	50	100
Expert workshops on spatial planning technologies.	4	4	4
Conferences organised	0	1	1
Affiliated partners	10	80	150
Project web site hits	400,000	1 000 000	2 000 000
Produced newsletters	2	2	2

Project publications/presentations	10	15	20
Cooperation and links with other projects. How many attendances and presentations will be given in the context of other EC. At the moment the following projects are foreseen to start exchanges with: EURADIN, eSDInet+, GIS4EU, HUMBOLDT, VESTA-GIS,Nature-GIS	6 projects	10 projects	15 projects
Organisation of events with user participation	18	18	18
Edited special issues in scientific journals	0	3	6

7.2 Performance measurement and evaluation

A monitoring mechanism will be set up by the Project Board to collect data from all partners. The data collected will be used to calculate detailed indicators of the following implementing rules for all project activities. The basis for monitoring is a prior list of indicators and also expected numbers for every stage of the project. The indicators described in the previous chapter were chosen in order to be clear to partners, measurable, capable of showing progress of the main elements and goals of the project. Each indicator will be described in the following way:

a) Reference to the project objective.

b) Numbers, which has to be reached in every period of the project.

For every period, indicator values achieved will be compared with expected results. This will be the basic input for the Project Manager and Project Board to assess progress of the report. The indicators will be defined for periods of Month 12, Month 24 and Month 30, but these indicators will be estimated every quarter to provide feedback to the project management team and to define concrete and immediate actions in case that some indicator targets will not be achieved.

Another important part of the performance measurement will be to monitor implementation in tested content deployment based on the INSPIRE Monitoring and Reporting Implementing Rules. This will give feedback on how the **Plan4all** results are compliant with INSPIRE. The monitoring will be based on the INSPIRE Implementing Rules.

The monitoring will be focused on:

- **the existence of metadata for:**
  - the spatial data sets of the Themes in Annex I of the INSPIRE Directive;
  - the spatial data sets of the Themes in Annex II of the INSPIRE Directive;
  - the spatial data sets of the Themes in Annex III of the INSPIRE Directive;
  - the spatial data services.
- **the compliance of metadata for:**
  - the spatial data sets of the Themes in Annex I of the INSPIRE Directive;

  - the spatial data sets of the Themes in Annex II of the INSPIRE Directive;
  - the spatial data sets of the Themes in Annex III of the INSPIRE Directive;
  - spatial data services.
- **the extent of spatial data sets of the Themes in:**
  - Annex I of the INSPIRE Directive;
  - Annex II of the INSPIRE Directive;
  - Annex III of the INSPIRE Directive.
- **the compliance of spatial data sets of the Themes in:**
  - Annex I of the INSPIRE Directive;
  - Annex II of the INSPIRE Directive;
  - Annex III of the INSPIRE Directive.
- **the accessibility of metadata about:**
  - spatial data sets;
  - spatial data services.
- **the accessibility of spatial data sets** through:
  - view services;
  - download services.
- **the use of spatial data services:**
  - discovery services;
  - view services;
  - download services;
  - transformation services;
  - invoke services.
- **the compliance of spatial data services:**
  - discovery services;
  - view services;
  - download services;
  - transformation services;
  - invoke services.
- **the use of the infrastructure for spatial information. In particular:**
  - the use of the spatial data services of the infrastructure for spatial information based, inter alia, on the results of the monitoring indicators;
  - the use of spatial data sets of the three Annexes by public authorities, including what and how;
  - with particular attention to good examples in the field of environmental policy;
  - if available, evidence to indicate use of the infrastructure for spatial information by the general public;
  - examples of cross-border usage and efforts made to improve cross-border consistency;
  - how transformation services are used to achieve data interoperability.

Partners will report on the organisation of the quality assurance processes within their infrastructures for spatial information. The report will comprise:

- a description of the quality assurance procedures including the maintenance of the infrastructure for spatial information;
- an analysis of the quality assurance problems related to the development of the infrastructure for spatial information based, inter alia, on the results of the monitoring indicators;
- measures taken to improve the quality assurance of the infrastructure;
- available description of the setup of the certification mechanism.

8 Project work plan

8.1 Description of work and roles

This section describes the approach and provides the detailed work-plan to achieve the objectives of the **Plan4all** network of best practices for the full duration of the project. It explains the structure of the **Plan4all** work-plan and how the plan will lead the Partners to achieve the objectives on time.

For spatial planning data holders it is important to understand whether and how existing ICT tools and related applications can enhance their data sharing in appropriate ways. They are also concerned with protecting their IPR and the business security of information.

The strategic focus of **Plan4all** underlines the interest in the support of spatial planning information sharing throughout Europe among different levels of administration and also between administrations, citizens and businesses. It is also evident that some areas within Member States already have the necessary infrastructure for spatial planning SDI and have already responded to new and emerging opportunities. Identification of such areas and the examination of how they use, or can use, spatial planning SDI to drive local change is a necessary and integral part of the work. There is a need to examine areas that have already successfully built spatial planning SDI as a driver of regional change. Identifying areas and examples of what has already taken place will be achieved through identification of innovation challenges in specific areas and analysis of spatial planning SDI framework conditions for innovation.

To achieve the objectives of Best Practice Networks for geographic information, **Plan4all** will undertake to support local and regional public administrations for participation in the INSPIRE process and on the economic and societal potential impact estimation of participation of such SDI in different public services and its use in different market sectors, including public online services and information, particularly focused on development of regions. This will take into account new forms of collaboration, work organisation and working environments. Innovation will focus on the impact of these new methods and on the implications for the modernisation of institutions and democratic practices in European regions.

The overall strategy of the project is based on a bottom-up approach and will aim to respond to the needs of municipalities and regions or end-users through analyses in WP2. Our method goes from the municipalities, regions and countries towards Europe. To ensure complete coherence with the expectations of the end-users during the project, the work of all the committees (see management structure) will be organised into workshops in order to establish a consensus on the methodology, validate results and approve the next steps. The project has been planned in three distinct and complementary phases involving a variable number of partners. The aim is to establish the initial consensus about needs and demands in WP2 and WP9 through the user partners and universities;, to define standards and architecture in WP3, WP4 and WP5 through research and technical partners; and to implement solution and content deployment to all partners, validate the results and find EU consensus through technical partners and end users.

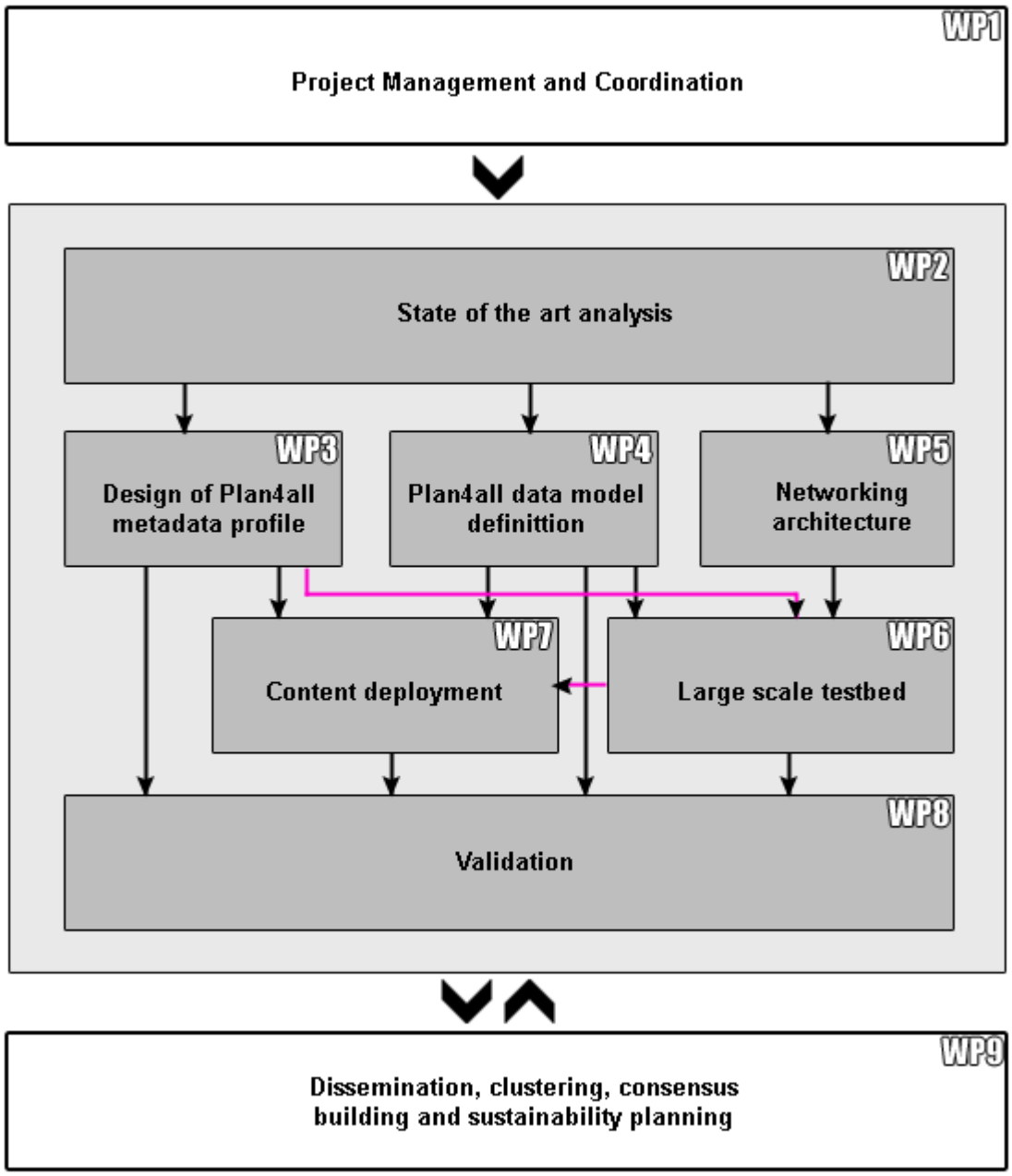

Fig.1 Organisation of WPs.

The work-plan of **Plan4all** has been structured into nine Work Packages (hereinafter referred to as "WPs") (see Fig. 1). They facilitate the proper organisation and implementation of the project. The WPs are as follows:

WP1 Project Management and Coordination – will ensure the proper organisation, implementation and orchestration of the rest of the project activities, in order to monitor and evaluate the progress of the project.

WP2 State of the art analysis - will be focused on identification of leading regional and local administration, identification of innovation challenges and a framework structure for analysing relevant technology developments and trends, analysis of technology and application developments that are relevant to spatial planning SDI needs and on analysis of standard metadata, data models, networking technologies and on analysis of user requirements on planning systems.

WP3 Design of Plan4all metadata profile – will define common metadata profile for European Spatial Planning as overlapping of national legislation for spatial planning and INSPIRE profile.

WP4 Plan4all data model definition – will be focused on national models and their combination and translation into common models covered by selected INSPIRE Themes.

WP5 Networking architecture – will extend the INSPIRE networking principles for the purpose of European Spatial Planning.

WP6 Large scale testbed - aims at using existing technologies and services that are already successfully implemented and operating in some regions by the project's technical partners, in order to appropriately deploy them for the needs of **Plan4all.**

WP7 Content deployment - will populate the **Plan4all** spatial data repositories using semantically rich and multilingual metadata.

WP8 Validation – will provide the quality framework for the evaluation of the outputs of **Plan4all** through pilot evaluation and validation activities to be performed within the targeted user organisations.

WP9 Dissemination, clustering consensus building and sustainability planning – will include all activities planned to promote and valorise the project results. A major aim is to achieve wide dissemination at multiple levels, including publicity/dissemination activities. It will also involve all activities related to creating liaisons with SDI technology standards, as well as formulating networks for future sustainability of the **Plan4all** network and the promotion of its results.

Milestones (M):

Milestone 1 (M1) in Month 6 - End of initial analysis

Milestone 2 (M2) in Month 9 - Design of Spatial Planning Metadata

Milestone 3 (M3) in Month 12 - Closing of first year and first financial statement

Milestone 4 (M4) in Month 16 - Spatial planning data model and networking architecture design

Milestone 5 (M5) in Month 18 - Progress report

Milestone 6 (M6) in Month 24 - Platform and content deployment

- Closing of second year and second financial statement

Milestone 7 (M7) in Month 30 - End of validation and reports from validation

- Project ending and third financial statement

8.1.1 Role of partners

The partners will be divided into groups according to their skills and also according to the task for which they will be responsible. Every partner could eventually participate in more groups, which will follow the structure of WPs. The groups will be:

- **Data providers group** will deal with user requirements, deployment of local and regional platforms, and deployment of the content and validation of platform. The group of content providers is formed by OLOMOUC, HSRS, LGV Hamburg, Bauska DC, PROVROMA, FTZ, GEORAMA, NASURSA, GIJON, CEIT ALANOVA, EPF, ADR Nord-Vest, Lazio, HF, AMFM, MEEDAT;
- **Research and standardisation partners** will deal with analysis of INSPIRE requirements and definition of standards. The research partners are UWB, ISOCARP, EUROGI, HSRS, Hyperborea, MAC, CEIT ALANOVA, AVINET, DIPSU, AMFM ;
- **Technological partners** will deal with deployment of the local and regional platforms and central **Plan4all** portal. They will also play main role in exploitation of platform. The technological partners are HSRS, Hyperborea, MAC, CEIT ALANOVA, AVINET, HF;

- **Validation partners** will deal with validation methodology and will also participate on validation of standards and cooperate with data holders on validation of platform. The partners are ISOCARP, EUROGI and all Data providers;
- **Dissemination partners** will deal with dissemination of results and also with strategy for future exploitation. The dissemination partners are ISOCARP, EUROGI and all Research and standardisation partners.
- **Management team** will be formed by UWB, HSRS and by all WP leaders.

8.2 Technologies and Standards

The main objective of **Plan4all** is not to develop and implement one common platform, but to define the rules for European spatial planning data interoperability. These rules have to be technologically independent and they will allow implementation of a solution based on either commercial or Open Source platforms. For the demonstration of feasibility of such a solution, there will be an implemented solution covering all pilot areas, which will be an effective combination of both Free and Open Source Software (FOSS) and commercial systems.

The following outlines the technical approach that will be followed to deliver and make recommendations on the harmonisation of spatial data related to spatial planning. The approach addresses the strategic questions, namely:

a) What are the needs for harmonisation of spatial planning documentation at European level? Which are the main layers to be harmonised? Which thematic layers are affected by spatial planning? What could be the benefit and how could it be quantified on the level of public and private sector?

b) What are the positive experiences of data holding partners with building SDI for spatial planning?

c) What are experiences of technological and scientific partners with SDI for spatial planning?

d) What are the responsible organisations in single EU countries for definition of models for spatial planning documentation?

e) What are the current experiences, best practices and projects at European and national levels leading to harmonisation of spatial documentation?

f) How the experience from the regional level and municipality level could be transferred to national level? Spatial data are managed at the regional and municipality level. Important question is how to transfer best practice experience from network based at the level of regional or municipality partners to national level.

g) What are the main barriers for better sharing of data for spatial planning from the point of view of metadata, data models, networking services and legal and business issues?

h) What are the socio-economic costs and benefits for harmonisation of spatial planning data across Europe?

i) How can common technological solutions support harmonisation of spatial planning data?

Underlying these questions is the perception that differences between municipalities, regions and countries could be reflected in spatial planning methodology and also in existing planning SDI and that there will be found consensus about future common spatial planning SDI, which could be demonstrated by the examples of existing best practices. The use or application of new technologies and standards can now largely determine or impact the development of regions, protection of citizens and opportunities for businesses and services. Answering these questions is also very important for demonstration of the INSPIRE advantages, but also feasibility of the INSPIRE directive, because **Plan4all** will bring to INSPIRE implementation lower levels of administration, regions and municipalities. And there will be also established a strong link with industries, as parts of spatial planning documentation are also data from private companies.

The **Plan4all** is focused on the standardisation, harmonisation and processing of geospatial data in urban planning. The **Plan4all** project will be focused on the 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

The changes of European cities and countryside are expected for the spatial planning data flow processes of urbanisation, re-urbanisation, de-urbanisation, suburbanisation, re-cultivation of landscape, etc. The geospatial data will be necessary in all decisions associated with ecological risk or sustainable growth. Therefore, the activities connected with acquisition, processing and providing of urban planning data are only generically addressed today. The fundamental problems of spatial planning are that data providers use data in different data models (e.g. GIS model, CAD model, raster images, data models of sensor measurements etc.), data formats (e.g. SHP, GML, DGN etc.), mediums (e.g. web services, files on CD, printed map etc.), quality, portrayal rules, and other aspects (e.g. terminology, reference models, spatial and temporal aspects, language, metadata, data transformation, data consistency, etc.). The main problem connected with acquisition, processing and the provision of spatial planning data is data heterogeneity, because the data come from many different sources (data providers). The heterogeneity of data is even more important, because the heterogeneity results in better or worse data accessibility and use.

The need for data sharing and their harmonisation is driven by economic considerations, but also by the need for environment protection and risk management. In a consequence of growing globalisation the interconnection is related to more and more economic subjects and data sets. In addition, there are all of the relations with the European Union members and other European countries. While the majority of data is created on the local level, this data is used at higher levels (e.g. regional administration or government). The spatial plans are extremely important for international real estate business, but spatial planning is also a critical issue for risk management and environmental protection, which is global and cannot be solved in one region or country.

Acceptance of these datasets depend above all on delivery of metadata based on national and international legislation rules (e.g. INSPIRE requirements). Therefore **Plan4all** will create the common spatial planning metadata profile (combination of requirements of ISO 19115, INSPIRE and national legislatives). After its acceptance, spatial planning experts will be able to process data originating from different sources. It could mean their cataloguing, storage (mainly in some database tool), and preparation for the distribution to end-users (mainly through web services). Presently, they must use many different software products to perform these operations (generally for conversions of heterogeneous data properties). After an implementation of the **Plan4all** solution in this step the experts or system will be able to prepare harmonized model for spatial planning data by leveraging the many heterogeneity issues that are presently: data format conversion, datasets merging, datasets re-projection, data model transformation, terminology harmonisation (and language translation) for thematic attributes, generalisation to needed scales and standardized portrayal. In practice it implies also that their storage (mainly in some DBMS) will require adjustments for previous operations. With the introduction of the **Plan4all** solution for the harmonisation process, the GIS expert will need only one common tool based on Web Services. The main goals of this solution are better possibilities of manipulating, searching, visualising and sharing data, improved data access and higher quality of data and easier uniform data processing. Finally, after having harmonized datasets and corresponding metadata, it is possible to offer a catalogue interface to the data and also the catalogued data could be published (mainly through web services) (Fig.2).

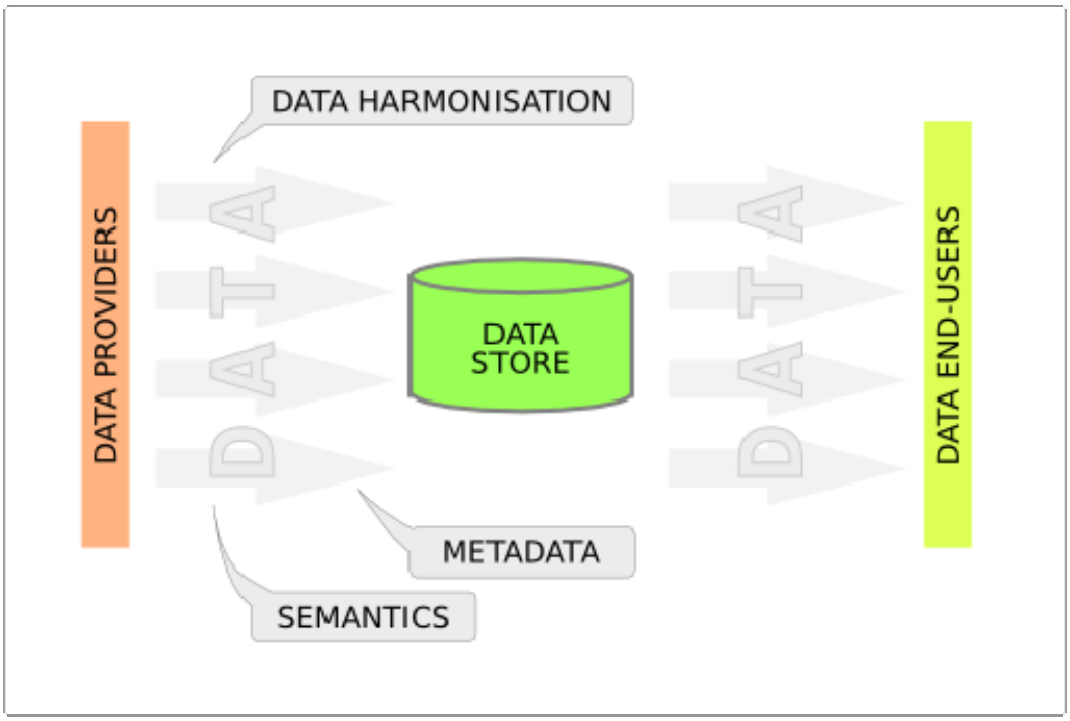

Fig.2 Data processing.

For effective reuse of spatial data outside of its original context it is necessary to ensure also the semantic interoperability of the data: the meaning of the data content (the semantics) has to be understandable for new users. Semantic matching (or 'mapping') between terminology and concepts used in different contexts (and different countries) is therefore an important part of the data harmonisation effort in this project. For this purpose one or more spatial ontologies will be built. In these ontologies the relationships between terms (e.g. synonyms, or terms that are aggregate concepts for other more detailed ones) can be described in a formalized way, so that computer software can 'understand' and reason with this information. The spatial ontologies can be used as input for the metadata search engines to assist the user in finding his/her way in the metadata. In this way the fitness-for-use can be better assessed and the chance of misinterpretation is reduced. The semantic mapping rules can also be put to use in the querying and analysis (data integration) of the spatial data, for example for the reclassification based on user's needs. Semantic mapping will furthermore help in the harmonization process itself as part of creating the harmonized models and profiles by specifying conversion rules between the original 'local' data models and the global harmonized models.

The common **Plan4all** data model will be a conceptual data model: which is not concerned with implementation details (data formats, storage systems, and other implementation issues). It merely describes the information from a usage viewpoint: what is the information that is needed, how can it be modelled into classes, attributes and relations between classes, what are the definitions (in words) for these information items (what is a 'Stream', a 'River', a 'WaterSurface', a 'Parcel', what categories are there in the case of 'Flooding Risk': 'low', 'high', 'very high'; how are these categories related to sensor measurements, what is the meaning of these categories in terms of emergency response, …). This will support implementation of these models in different platforms using different technologies.

For the inventory of data harmonisation issues a checklist will be used based on:

- one table that describes causes for heterogeneity in spatial information
- one table that helps in carrying out a gap-analysis: the comparison between the existing (pre-harmonised) state of the data and the required (harmonised) state of the data,

- a list of types of geometry (from an INSPIRE Survey), to more easily describe the geometry of the data that will be used in the Scenario (points, lines, curves, polygons/surfaces, 3D volumes, coverage's, network data)

UML is an excellent tool for conceptual modelling and to provide definitions for classes, attributes, etc. On the other hand, UML is not practical for real data sharing, which will be based on ISO and OGC standards. There is no way to implement UML models inside of OGC services. Therefore, as for implementation of services based on the INSPIRE Directive, a feature catalogue (ISO 19110) will be used as a second way to describe a data model. As there is an overlap between these two ways to describe a data model, it will be investigated how overlapping parts of the feature catalogue can be derived from the UML diagrams.

The **Plan4all** architecture will be based on an analysis of needs of spatial planning data sharing among regions and among countries. The main focus will be on the tasks related to risk management and international investment, but we will look also for other needs for sharing spatial planning information. The result of the analysis will be a set of services which will be required for **Plan4all**

For the **Plan4all** architecture the following principles will be considered to set up a commonly designed infrastructure. It will include:

- Accessibility
- Multilingualism
- Security
- Privacy
- Subsidiarity
- Use of Open Standards
- Use of Multilateral Solutions

The design and implementation of the **Plan4all** networking demonstration platform will use a basic set of INSPIRE services.

Discovery Services will make possible to search for spatial data sets and services on the basis of the content of the corresponding metadata and to display the content of the metadata. The goal of discovery will be to support discovery, evaluation and use of spatial data and services through their metadata properties. The important aspect will be:

- Nature of the Metadata
- Availability of the Metadata

View Services will make possible, as a minimum, to display, navigate, zoom in and out, pan or overlay viewable spatial data sets and to display legend information and any relevant content of metadata. The implementation rules for the directive highlight the following aspects of a view service:

- Multiple datasets View Geometry (supported spatial reference systems)
- Multiple datasets View Output Format (supported formats and their possible integration)
- Temporal data dimension
- Legend availability and handling
- Restriction of access and e-commerce
- Multilingualism
- Relationship with client applications

Download Services will enable copies of spatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly. A download service will support download of a complete dataset or datasets, or a part of a dataset or datasets, and where, practicable, provide direct access to complete datasets or parts of datasets. Gazetteer like services are also covered by a type of download service.

Transformation Services will enable spatial data sets to be transformed with a view to achieving interoperability, it will include coordinate transformation service, but also generalisation services.

Invoke Spatial Data Services service will support usage of individual (spatial) services as well as combinations of individual (spatial) services both synchronous and asynchronous through a (web) service orchestration or "workflow engine". For spatial data services available on the Internet, the service will enable a user or client application to run them without requiring the availability of a GIS.

The **Plan4all** Services will be tested on the current European standardisation effort given by INSPIRE directive and implementation rules, worldwide standardisation effort of Open Geospatial Consortium and W3C consortium, and on the results of European and National research activities and will extend European best practices in the area of European and national research and innovative projects into the solution, which will on one side guarantee feasibility of implementation **Plan4all** platform on all levels of public sector. The **Plan4all** project will analyse given standards and will combine these standards with the needs of spatial planning. The focus will be also on an optimal combination of commercial and open source platform to reuse existing solutions.

Plan4all functionality will be based as much as possible on standards defined in INSPIRE implementation rules to ensure maximum interoperability and extensibility around Europe. The most important standards for geospatial information are ISO 19100 series and Open Geospatial Consortium (OGC) standards. The shared system will be built on service oriented architecture (SOA). OGC services should be preferred. The design of architecture of platform for test beds will be based on analyses of mentioned standards

In the INSPIRE Implementing Rules the INSPIRE metadata profile is defined (seemingly standard independent, but the ISO 19115/19119/19139 implementation is proposed in Technical Guidelines). The CSW servers may be cascaded.

A Web Map Service (WMS) will produce map compositions of georeferenced data. WMS doesn't provide data itself but produces map images. It may be used as a portrayal service in the portal architecture. The original OGC standard WMS 1.3 was adopted by ISO (as ISO 19128). Maps may be rendered in several reference systems depending on WMS implementation. Implementation of optional functions is expected:

- querying map features
- legend, metadata URL,
- user defined styles support and filtering (Symbology Encoding, Styled Layer Descriptor and OGC Filter Encoding specs.)

Web feature service (WFS) is intended for use on spatial vector data transfer in GML format based on OGC Simple Feature Model. Basic WFS only enables reading data from server. The client may query data using OGC Filter Encoding expressions. Transactional WFS (WFS-T) enables also inserting and updating data on server with transactions.

Web coverage service (WCS) is intended for use on coverage data transfer, typically raster data (eg. satellite and airborne images, DEM etc.). Output format is georeferenced raster, eg. geoTIFF etc. Data may be retrieved in different coordinate reference systems. Multiband data may be also retrieved. Former standard version was 1.0. Current standard version 1.1.2. It includes transaction support.

Gazetteer profile for WFS is not officially adopted until now. On the basis of current specification (version 0.9.3) it is planned to extend WFS providing elements mapping parent / children / relative relationship enabling client to transverse the tree similar to thesauri implementation. The implementation will enable sophisticated searching of places and objects. For the portal simple WFS may be used in the first phase.

Web processing service (WPS) will enable implementation of spatial analysis as a web service. It enables implementation of whatever analysis without bounds. Input may be:

- data sent in the request XML body
- data from another web services (WFS, WCS, ...)

- data tightly bound with the service itself (opaque for end client)
- combination of above mentioned data sources

Response XML body may include output data or URL to result data.

Services may be cascaded to provide desired functionality.

Other expected standards will be:

- Filter encoding - Specification defines XML based query language for OGC services (WMS, WFS, CSW). The language introduces both attribute and spatial operators.
- Styled Layer descriptor (SLD) for enabling predefined or user defined styles. The colour, size, patterns, markers, labels etc. may be defined. Filter encoding may be used for filtering features.
- Web Map Context (WMC) will support to store and retrieve map composition e.g. on local disk for WMS.

For the integration of the Sensor environment with the Web Environment, a Web Interface will be used defined by the Open Geospatial Consortium, Inc. (OGC) initiative called Sensor Web Enablement (SWE). The standards could be divided between encoding and services.

8.3 Project plan

		Responsible partner	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
WP1	**Project Management and Cordination**	**UWB**																														
T.1.1.	Project Management and Reporting	UWB																														
T.1.2	WP management and Horizontal management	UWB																														
T.1.3	Project Communication and Meetings	UWB																														
WP2	**State of the art analysis**	**PROVROMA**																														
T.2.1	Identification of leading regional and local administration in building SDI for spatial planning	ISOCARP																														
T.2.2	Identification of innovation challenges and a framework structure for analysing relevant technology developments and trends	CEIT ALANOVA																														
T.2.3	Analysis of INSPIRE requirements	EUROGI																														
T.2.4	Analysis of user requiroments on planning systems	HF																														
WP3	**Design of Plan4all metadata profile**	**HSRS**																														
T.3.1	Analysis of requirements given by national legislation	UWB																														
T.3.2	Plan4all metadata profile	HSRS																														
WP4	**Plan4all data model definition**	**DIPSU**																														
T.4.1	Models used in single countrie for selected themes	TDF																														
T.4.2	Conceptual data model definition for selected themes	UWB																														
WP5	**Networking architecture**	**AVINET**																														
T.5.1	Analysis of needs of data sharing	TDF																														
T.5.2	Design of Plan4all networking architecture	DIPSU																														
WP6	**Large scale tesbed**	**GIJON**																														
T.6.1	Regional implementations	Bauska DC																														
T.6.2	Pan European Deployment	HSRS																														
WP7	**Context deployment**	**LGV Hamburg**																														
T.7.1	Metadata deployment	LGV Hamburg																														
T.7.2	Data deployment	HF																														
WP8	**Validation**	**Bauska DC**																														
T.8.1	Validation methodology	ISOCARP																														
T.8.2	Validation of standards	AMFM																														
T.8.3	Validation of platform	GIJON																														
WP9	**Dissemination, clustering, consensus building and sustainability planning**	**ISOCARP**																														
T.9.1	Dissemination strategy	ISOCARP																														
T.9.2	Clustering and consensus building	ISOCARP																														
T.9.3	Plan4all workshops	UWB																														
T.9.4	Dissemination materials	HF																														
T.9.5	External publishing	AMFM																														
T.9.6	Exploitation strategy	HSRS																														
								M1			M2			M3				M4		M5						M6						M7

8.4 Work package and labour effort overview

Due the fact, that some partners will cover part of their activities trough subcontracting (reason are described in chapter 11.1), this table contains also information about activities covered by subcontracting. The effort is described detail for every task.

		Responsible partner	Start (months)	End (months)	Total Person months	UWB own resources	ISOCARP own resources	Olomouc own resources	Olomouc contractor	Olomouc TOTAL	TDF own resources	TDF contractor	TDF TOTAL	HSRS own resources	HSRS contractor	HSRS TOTAL	LGV Hamburg own resources	EUROGI own resources	EUROGI TOTAL	Bauska DC own resources	Bauska DC contractor	Bauska DC TOTAL	PROVROMA own resources	PROVROMA contractor	PROVROMA TOTAL	FTZ own resources	FTZ contractor	FTZ TOTAL	GEORAMA own resources	GEORAMA contractor	GEORAMA TOTAL	Nasursa own resources	Nasursa contractor	Nasursa TOTAL	Hyper own resources	GIJON own resources	MAC own resources	CEIT ALANOVA own resources	AVINET own resources	DIPSU own resources	DIPSU contractor	DIPSU TOTAL	EPF own resources	ADR Nord Vest own resources	Lazio own resources	Lazio contractor	Lazio TOTAL	HF own resources	AMFM own resources	MEEDDAT own resources	MEEDDAT contractor	MEEDDAT TOTAL
WP1	**Project Management and Cordination**	**UWB**	1	30	47	18	1	1		1	1		1	1		1	1	1	2		2	2	1	3	1		1	1		1	1		1	1	2	1	1	1	2		2	1	1	2		2	1	1	1		1
T.1.1.	Project Management and Reporting	UWB	1	30	6	6				0						0			0			0		0			0			0			0						0			0					0			0
T.1.2	WP management and Horizontal management	UWB	1	30	19	6	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5	1		1		0.5	0.5	0.5		0.5			0	0.5		0.5	0.5	1	0.5	0.5	0.5	1		1	0.5	0.5	1		1	0.5	0.5	0.5		0.5
T.1.3	Project Communication and Meetings	UWB	1	30	19	6	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5	1		1		0.5	0.5	0.5		0.5			0	0.5		0.5	0.5	1	0.5	0.5	0.5	1		1	0.5	0.5	1		1	0.5	0.5	0.5		0.5
WP2	**State of the art analysis**	**CEIT ALANOVA**	1	6	164	4	8	6	1	7	4	2	6	0		0	4	3	8		8	8	5	13	6	2	8	10	2	12	7	3	10	2	8	3	6	4	5		5	7	9	8	5	13	8	6	8	2	10
T.2.1	Identification of leading regional and local administration in building SDI for spatial planning	ISOCARP	1	6	37		4	1		1	1	1	2			0			1		1	3		3	3		3	2	1	3		2	2		2	1	2		2		2	2	2			0	2		4	1	5
T.2.2	Identification of innovation challenges and a framework structure for analysing relevant technology developments and trends	CEIT ALANOVA	1	6	19			1		1	1	1	2			0	1				0			0			0			0			0	1		1	2	2	1		1	1	2			0	2	3			0
T.2.3	Analysis of INSPIRE requirements	EUROGI	1	6	17	4				0	1		1			0		3			0	2		2			0			0			0	1				1			0				0	2	3			0
T.2.4	Analysis of user requirements on planning systems	HF	1	6	90		4	4	1	5	1		1			0	3		7		7	3	5	8	3	2	5	8	1	9	7	1	8		6	1	2	1	1		1	4	5	8	5	13	2		4	1	5
WP3	**Design of Plan4aLL metadata profile**	**HSRS**	**5**	**9**	52	11	0	1		1			0	12		12	0	1	1		1	4	2	6	0		0	0		0			0	0	1	0	6	3	3		3	0	0	4		4	0	3	0		0
T.3.1	Analysis of requirements given by national legislation	UWB	5	7	30	7		1		1				6		6		1	2		2	1	3				0			0			0		1		3	1	3		3			3		3		1			0
T.3.2	Plan4all metadata profile	HSRS	7	9	22	4				0				6		6		1			0	2	1	3			0			0			0				3	2			0			1		1		2			0
WP4	**Plan4all data model definittion**	**DIPSU**	**5**	**16**	77.5	16	5	1		1	2	2	4	0		0	6	1	1		1	2	1	3	0		0	0		0	0		0	2	1	1	8	8	7	3	10	0	0	2		2	0	6	2.0	0.5	2.5
T.4.1	Models used in single countrie for selected themes	TDF	5	10	40.5	6	3	1		1	1	1	2			0	3		1		1	2	1	3			0			0			0	1	1	1	4	4	4		4			2		2		2	2.0	0.5	2.5
T.4.2	Conceptual data model definition for selected themes	UWB	7	16	37	10	2			0	1	1	2			0	3	1			0			0			0			0			0	1			4	4	3	3	6			0		4			0
WP5	**Networking architecture**	**AVINET**	**6**	**16**	95	9	4	1		1	3	1	4	12		12	0	0	1		1	2	1	3	3		3	0		0	0		0	3	1	1	8	12	7	5	12	6	0	2		2	13	0	0		0
T.5.1	Analysis of needs of data sharing	TDF	6	9	53	4	2	1		1	2		2	6		6			1		1	2	1	3	3		3			0			0	1	1	1	4	6	4	3	7	5		2		2	4				0
T.5.2	Design of Plan4aLL networking architecture	DIPSU	9	16	42	5	2			0	1	1	2	6		6		0			0			0			0			0			0	2			4	6	3	2	5	1				0	9				0
WP6	**Large scale tesbed**	**GIJON**	**10**	**21**	147	0	0	8	1	9	4	2	6	6	2	8	12	0	5	5	10	3	1	4	5		5	7	1	8	0		0	4	10	6	4	12	5		5	5	7	6	4	10	13	0	6	2.5	8.5
T.6.1	Regional implementations	Bauska DC	10	17	89			6	1	7	3	1	4	2		2	5		4	4	8	3	1	4	4		4	6	1	7			0	1	8	3	2	4	2		2	4	6	3	4	7	4		5	2	7
T.6.2	Pan European Deployment	HSRS	16	21	50.5			2		2	1	1	2	4	2	6	1		1	1	2			0	1		1	1		1			0	2	2	3	2	8	3		3	1	1	3		3	9		1	0.5	1.5
WP7	**Content deployment**	**HF**	**10**	**30**	83	0	3	8	2	10	4	2	6	0		0	5	0	8		8	2	1	3	0		0	2	1	3	0		0	3	8	0	4	3	3	2	5	5	4	5		5	3	2	3		3
T.7.1	Metadata deployment	LGV Hamburg	10	30	33.5		2	3	1	4	2		2			0	2		3	3	1	0.5	1.5			0	1		1			0	1	3		2	1	2		2	2	2	2		2	1	1	1		1
T.7.2	Data deployment	HF	17	30	49.5		1	5	1	6	2	2	4			0	3		5	5	1	0.5	1.5			0	1	1	2			0	2	5		2	2	1	2	3	3	2	3		3	2	1	2		2
WP8	**Validation**	**Bauska DC**	**1**	**30**	104	0	6	6		6	4	2	6	0		0	2	2	12		12	2	1	3	4		4	3	1	4	5	2	7	3	12	3	4	3	4		4	5	3	6		6	0	6	3		3
T.8.1	Validation methodology	ISOCARP	1	6	18		4			0	2		2			0			2		2			0			0			0			0	1	2	1	1	1	1		1			1		1		2			0
T.8.2	Validation of standards	AMFM	7	18	17					0	1	1	2			0	1	2			0			0			0			0			0	2	2	1	1	1	2		2					0		3			0
T.8.3	Validation of platform	GIJON	17	30	69		2	6		6	1	1	2			0	1		10		10	2	1	3	4		4	3	1	4	5	2	7		8	1	2	1	1		1	5	3	5		5		1	3		3
WP9	**Dissemination, clustering, consenss building and suistenability planning**	**ISOCARP**	**1**	**30**	92	12	10	1		1	1		1	4		4	2	3	2		2	2	2	4	4	2	6	2		2	2		2	1	2	3	3	3	5		5	2	3	6	4	10	4	5	2		2
T.9.1	Dissemination strategy	ISOCARP	1	6	11	3	2			0				0		0			0		0			0			0			0			0	0.5	0.5	0.5	0.5	1		1	1.5				0		1	0.5		0.5
T.9.2	Clustering and consensus building	ISOCARP	1	30	17.6		2	0.3		0.3	0.3		0.3			0	0.6	1	0.6		0.6	0.6	0.6	1.2	1		1	0.6		0.6	0.6		0.6	0.6	0.5	0.5	0.5	0.5	1		1	1.5	1	1		1	1	1	0.25		0.25
T.9.3	Plan4all workshops	UWB	1	30	25.3	3	2	0.5		0.5	0.5		0.5	1		1	1	2	1		1	1	1	2	1		1	1		1			1	0.5	0.5	0.5	0.5	1		1	1.5	1	1		1	1	1	0.75		0.75
T.9.4	Dissemination materials	UWB	6	30	11.5	3	2			0				1		1			0		0	1		1			0			0			0					0.5		0.5	0.5			2	2					0
T.9.5	External publishing	AMFM	6	30	17.5	3	1			0				1		1			0		0	0.5	1	1.5			0			0			0	0.5	0.5	0.5	1		1	1.5			2	2	1	1	0.25		0.25
T.9.6	Exploitation strategy	HSRS	13	30	15.5		1	0.2		0.2	0.2		0.2	1		1	0.4		0.4	0.4	0.4	0.4	0.8	0.5	1	1.5	0.4		0.4	0.4		0.4	0.4	0.5	1	1	1	0.5		0.5	1.5	1			0	1	1	0.25		0.25
		TOTAL			861	70	**37**	33	4	**37**	**23**	**11**	**34**	35	2	**37**	**32**	**11**	40	5	**45**	27	15	**42**	**23**	**4**	**27**	25	5	**30**	15	5	**20**	**19**	**45**	**18**	**44**	**49**	**41**	**10**	**51**	**31**	**27**	41	13	**54**	**42**	**29**	25	5	**30**

8.5 Work package description

Work package Description					
Work package number :	**1**	**Start date:**	**M1**	**End date:**	**M30**
Work package title:	**Project Management and Coordination**				

Objectives

The aim of this WP is to ensure the quality levels of the project's results through the continuous monitoring of the project activities and their proper execution, the coordination of the work-plan, and the optimum coordination of the partners. More specifically, the objectives of this WP are:

- To define, describe and implement a project management structure that will be agreed between all partners, facilitating the coordination of work from the various working teams and through various work activities.
- To arrange a series of project meetings that will bring together the consortium members, fostering collaboration and cooperation towards reaching the common goals of the project.
- To regularly report to the EC the progress of the project's implementation, as well as details regarding the financial support of the project.

Description of work

This WP will be implemented through the following tasks:

T.1.1 Project Management & Reporting (UWB)

This task deals with defining, agreeing and specifying the management structure, processes and planning that will be followed by the consortium in the project. In addition, it aims at regularly reporting the results from the physical and financial administration of the project. It will address issues such as: establishment of the project management structure; project scope definition, planning and update; cost and time management; elaboration and submission of periodic progress reports and cost statements; preparation of annual review reports and review presentations; submission to the EC of deliverables; supervision, in close collaboration with consortium partners, of corresponding subcontracts; overall co-ordination and reporting to the EC representatives, including the submission of all project documentation requested by these representatives; ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information; identification of potential project management risks and monitoring of them; definition and application of contingency plans. As part of this task, D1.1 "Project Management Structure, Processes and Quality Assurance" will be delivered on M3. It will include the description of the consortium management structure and responsibilities, reporting types and acceptance procedures, assessment protocol for the project results, milestone quality criteria for each WP, as well as a risk management plan at a WP level.

T1.2 WP management and Horizontal management (UWB)

WPs will be managed by WP leaders with assistance of Task leaders. The WP leader will form WP Steering Committee. For harmonization of efforts among WPs, horizontal management structure coming trough WP will be established. It will be formed by Steering Sub-Committees:

- Content SC
- Technology SC
- Quality Assurance SC
- Exploitation SC
- Standards SC

- Scientific SC
- Dissemination SC

T.1.3 Project Communication and Meetings (UWB)

This work item defines a number of bi-annual consortium meetings aiming at the setting of interim implementation goals and evaluating interim results. Smaller meetings may also be foreseen among partners working closer on specific aspects of the project, for example the development of educational methods, technical design and deployment, pilot evaluation trials design and development, etc. Also, this task involves the organisation of in-between meeting communication among partners through electronic means (e.g. phone discussions, videoconferences, on-line application sharing), the organization of consortium meetings (e.g. preparation of agendas, chairing and elaboration of meeting minutes), and the elaboration of an internal consortium agreement.

(Inter-) Dependencies, milestones and expected result

This WP covers the coordination and management needs of the project; its results are not depended to any other WP. The main results per project milestone are the following:

With the management they are dealing Milestones 1, 3,5,6,7. Milestones 1, 6 and 7 are shared with other WPs. Milestones 3 and 5 are relevant only for project management.

Milestone 1 (M6): This period will close first mainly analytical part of the project, which will be cover by State of the art analysis and dissemination strategy. In the management, there will be focused on work on quality assurance (D1.1) and on first progress report (D1.1.1)

Milestone 3 (M12): The work of first year will be closed by a periodical progress report, an Annual report and a Financial statement (with a pre-finance request)

Milestone 5 (M18): This milestone will close validation of standards, and on the side of management the period will be closed by Periodical management report, ,

Milestone 6 (M24): The project will move into validation period. Data and metadata will be deployed and validation will run. The management period will be closed by periodical progress report, Annual report and Financial statement and pre-financial request

Milestone 7 (M30): Will close all project activities. The management will be closed by progress report, Final report and Financial statement

Deliverables

No	***Title***	***Leader & contributors***	***Nature***	***Dissemination Level***	***Delivery date***
D1.1	Project Management Structure, and Processes	**UWB** & All partners	R	CO	M3
D1.1.*i*	Progress Report (i=1,..5)	**UWB** & All partners	R	CO	M0+*i**6
D1.2.*j*	Annual Report (j=1,..2)	**UWB** & All partners	R	PU	M0+*j**12
D1.3.	Financial Statement	**UWB** & All partners	R	CO	M12
D1.4	Pre-financing Request	**UWB** & All partners	R	CO	M12
D1.5	Financial Statement	**UWB** & All partners	R	CO	M24
D1.6	Pre-financing Request	**UWB** & All partners	R	CO	M24
D1.7	Financial Statement	**UWB** & All partners	R	CO	M30
D1.6	Final Report	**UWB** & All partners	R	PU	M30

Work package Description

Work package number :	2	Start date:	M1	End date:	M6
Work package title:	State of the art analysis				

Objectives

The aim of the WP is to analyse the current state of the art in spatial planning, used technologies, INSPIRE requirements and also identify the requirements that will affect the specialization and implementation of spatial planning SDI. More specifically, the objectives of this WP are:

- Identification of local and regional leaders in area of SDI spatial planning
- To analyse latest development in arte of SDI for spatial planning in Europe
- Analyse requirements coming from INSPIRE directive towards spatial planning
- Analyse requirements of different user groups on SDI for Spatial planning

Description of work

T.2.1 Identification of leading regional and local administration in building SDI for spatial planning (ISOCARP)

The task will identify leading public administration dealing with spatial planning SDI to establish **Plan4all** Forum and analyse existing best practices.

There will be eight steps:

- Identification of leading regional and local administration in building SDI for spatial planning
- Identification of administrations on local, regional and national level, also outside of the consortium (open network) - integration in discussion
- Identification of public and private companies, innovation leaders -integration in discussion
- Establishment of European Clusters
- Vertical and horizontal integration of stakeholders
- Construction of regional cooperation between clusters and policymakers
- Establishment of cross-regional cooperation
- The analysis of existing best practises for SDI for planning, provided through interactive events, including workshops, an annual conference, a web 'portal' for the **Plan4all**.

T.2.2 Identification of innovation challenges and a framework structure for analysing relevant technology developments and trends (CEIT ALANOVA)

The first step will be to establish a framework for classifying technologies and services with focus on technology convergence and the emergence of applications.

The checklist of application areas, services, issues, factors and actions will be drawn up as they relate to existing applications, potential applications, technological potential and telecommunications infrastructure provisions, plans and standards, etc.

Detailed examination of existing related EU projects, reports, results and experiences with Spatial planning SDI implementation will be undertaken with the objective of evaluating technology applications and developments. .

Work will entail:

- Set up evaluation and quality assessment criteria for appraisal of sources

- Prepare template for data collection and presentation
- Identify and make contact with the other sources, collect relevant documents and case studies. Includes standards, guidelines, research reports, web material
- Review and coordinate with all other Spatial planning SDI EU projects that are in progress. With **Plan4all** focusing specifically on the situation, requirements and realities..
- Assessment of National and regional policies
- Overview of the main technology development likely to impact in the areas during the time-frame of the study.

T.2.3 Analysis of INSPIRE requirements (EUROGI)

The analysis will start from results of previous projects like HUMBOLDT and Orchestra and their recommendation for harmonisation of a European Spatial Data Infrastructure (ESDI). Next step will be the transition to the common models to use within the ESDI for spatial planning. The focus will be on implementation-neutral description of the modelling concepts for geographic data and metadata, This will be created in close coupling with the INSPIRE Drafting Teams, in this case with the Data Specification Drafting Team and the Metadata Drafting Team. This task is aiming to map the INSPIRE requirements related to spatial planning against the real user needs of the public administrations involved in planning within an EU framework.

T.2.4 Analysis of user requirements on planning systems (HF)

In task 2.4 in partners regions more detailed analysis will be realised through case-studies. Such case study analysis will include data relating to metadata, data models, networking technologies. This additional data can be used for spatial modelling and for design of common models as an intersection of existing solutions. This work will see the preparation of, for identification of gaps and barriers in:

- services and applications (by Theme and by type of user community)
- standards and regulatory framework
- technical possibilities and alternative infrastructures

Relevant models will be evaluated in accordance with a strategy for facilitating more cohesive development.

The work in 1.4 will also identify issues and Themes that require more in-depth discussion. For example the non technical issues that will impact on the IPRs and monitoring. Thematic topics could be for example

- Used IPRs models
- Public Private data sharing
- Revenue and Business Models for spatial planning data
- Local public sector applications
- Involvement of citizens' in decision process
- Demand Aggregation
- Identify tools and tool kits suitable for community groups, organisations and companies engaged in the development of Spatial planning SDI.

(Inter-) Dependencies, milestones and expected result

This WP initiates the actual work in the project, and its results are not directly depending on by any other WP. The main results per project milestone are the following:

The WP2 is running in first 6 Month of the project. It will be closed by

Milestone 1 (M6), which is critical for analysis in WP3, WP4 and WP5. Milestone 1 is critical pass and combine work of WP2. The Milestone 1 is critical for deliverable Cluster of leading organisation in

SDI for Spatial Planning (D2.1), Analysis of Innovative Challenges (D2.2), INSPIRE requirements analysis (D2.3) and User Analysis report (D2.4). The deliverables of WP2 will not have internal dependencies. They will be independent and led by different task leaders.
All WP2 deliverables are due on Month 6.

Deliverables					
No	***Title***	***Leader & contributors***	***Nature***	***Dissemination Level***	***Delivery date***
D2.1	Cluster of Leading Organisation in SDI for Spatial Planning	**ISOCARP**	O	PU	M6
D2.2	Analysis of Innovative Challenges	**CEIT ALANOVA**	R	PU	M6
D2.3	INSPIRE Requirements Analysis and Capacity Building.	**EUROGI**	R	PU	M6
D2.4.	User Analysis Report	**HF**	R	PU	M6

Work package Description

Work package number:	3	Start date:	M5	End date:	M9
Work package title:	Design of Plan4all metadata profile				

Objectives

The aim of the WP is to define European metadata profile, which will cover requirements given by national legislations and INSPIRE directive. The work will include:

- To analyse, what are requirements on spatial planning metadata given by national legislations
- To define European Metadata profile (platform neutral) for spatial planning

Description of work

T.3.1 Analysis of requirements given by national legislation (UWB)

The first part of the work will be focused on metadata in urban planning according legislation of single partner countries. The goal is compare these national legislations and define common sets of items, which will be used for common metadata sharing. Any country could extended this set of items

T.3.2 Plan4all metadata profile (HSRS)

The proposed Urban Planning Metadata Profile must fulfil the requirements of National legislative and INSPIRE directive. With respect to the support of INSPIRE directive the proposed metadata profile will support the international standards ISO 19115 (Core metadata for geographic datasets) and other ISO and OGC standards. So result will be European Spatial Planning Metadata profile, which will be extension of INSPIRE profile. This profile could be eventually extended by single countries; it will be minimal set, which has to be respected.

(Inter-) Dependencies, milestones[1] and expected result

This WP will depend on the results of WP2 so critical pass is Milestone 1. The main results of WP will be closed by project **Milestone 2 (Month 9)**, which will be critical for WP6 and WP7. The deliverable related to this Milestone are the following:

Analysis of national requirements on spatial planning metadata D3.1 in Month 7 and European Spatial Planning Metadata Profile (D3.2) in Month 9.

Deliverables

No	*Title*	*Leader & contributors*	*Nature*	*Dissemination Level*	*Delivery date*
D3.1	Analysis of National Requirements on Spatial Planning Metadata	**UWB**	R	PU	M7
D3.2	European Spatial Planning Metadata Profile	**HSRS**	R	PU	M9

[1] Milestones are control points at which decisions are needed, for example concerning which of several technologies will be adopted as the basis for the next phase of the project.

Work package Description

Work package number :	4	Start date:	M5	End date:	M16
Work package title:	Plan4all data model definition				

Objectives

The aim of the WP is to define data models for the following INSPIRE 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

On the basis of experiences from single countries. The work will include:

- To analyse of data models for these Themes used in single countries
- To define conceptual models for selected Themes (platform neutral)

Description of work

Task 4.1 Models used in single countries for selected Themes (TDF)

The conceptual models, used in single countries (if they exist) will be analysed and compared. The result of this analyse will be description of conceptual models, which are used in single European countries. The analysis will be important for common agreement across Europe

Task 4.2 Conceptual data model definition for selected Themes (UWB)

The focus of work will be an overall data model (at conceptual level, so implementation details left out) that contains all information elements as classes with their attributes and possibly methods, and specify the relationships between classes:

- association (Building has an Address)
- generalization/specialization (River is a subclass of Water Surface)
- aggregation (City consists of Neighbourhoods)

The Land cover will be used as guidelines and examples. UML will be used to specify the data models in diagrams. For the integration of data model with metadata UML model will be transformed into feature catalogue

(Inter-) Dependencies, milestones and expected result

This WP will depend on the results of WP2 Milestone 1. There are two milestones:

- Milestone 3, which will close work on the deliverable Analysis of conceptual data models for selected schemes used in single countries (D4.1). This milestone is critical only internally.
- Milestone 4 (Month 16), is critical because will have direct influence on WP6, WP7 and WP8. With this Milestone is related critical deliverable Conceptual data model for selected Themes (D4.2) in Month 16

Deliverables

No	*Title*	*Leader & contributors*	*Nature*	*Dissemination Level*	*Delivery date*
D4.1	Analysis of Conceptual Data Models for Selected	**TDF**	R	PU	M10

	Schemes Used in Single Countries				
D4.2	Conceptual Data Model for Selected Themes	**UWB**	R	PU	M16

Work package Description

Work package number :	5	Start date:	M6	End date:	M16
Work package title:	Networking architecture				

Objectives

The aim of the WP is to define networking services for the purpose on European sharing of Spatial Planning data. The objective are:

- To analyse the needs for sharing of spatial planning data across Europe
- To define architecture (platform neutral) and basic set of networking services in compliance with INSPIRE directive for sharing of spatial planning data

Description of work

T.5.1 Analysis of needs of data sharing (TDF)

The work will be based on results of WP2, where the needs will be analysed. Some partners have already existing SDI infrastructure, implemented in the past and which will partly cover needs of **Plan4all**. But usually part of this infrastructure is missing. The work of this task will be focused on the definition of missing SDI services for every partner The analysis will be focused on these questions:

- Which data of every partner has to be shared?
- How will be managed DRM?
- Which rules has to be used for sharing?
- Which services has to be used for sharing?

T.5.2 Design of Plan4all networking architecture (DIPSU)

Network services will be necessary for sharing spatial planning data between both the public and the private sector, because both sectors play important role in spatial planning tasks. **Plan4all** will define the interfaces by which the different parties will communicate spatial planning data. **Plan4all** will adopt INSPIRE protocols to guarantee:

- Discovery
- Access to data and visualisation
- Machine-to-machine communication.
- workflow that follows the “publish – find – bind” design pattern
- Processing services.
- Geo RM services

(Inter-) Dependencies, milestones and expected result

Milestone1 (Month 6) with input from WP2 is of critical importance for WP5.

There are two milestones during the WP5 period, which are important for the implementation of WP5 and WPs 6 and 7. They are as follows:

- Milestone2 (Month 9) is mainly internal to WP5. It is related to D5.1 "Analysis of demand on European spatial planning data sharing" and this work has to be ready in Month 9.

- Milestone4 (Month 16) will be critical for WP6 and WP7. The work of these WPs depends on WP5. For the deployment of data and metadata (WP6) and for the large testbed (WP7) it is critical to have Networking Architecture (D5.2) in Month 16 implemented.

Deliverables					
No	***Title***	***Leader & contributors***	***Nature***	***Dissemination Level***	***Delivery date***
D5.1	Analysis of Demand on European Spatial Planning Data Sharing	**TDF**	R	PU	M9
D5.2	Plan4all Networking Architecture	**DIPSU**	R	PU	M16

Work package Description

Work package number :	6	Start date:	M14	End date:	M24
Work package title:	Large scale testbed				

Objectives

The aim of this WP is to demonstrate the technological feasibility of designed models from WP3, WP4 and WP5. Based on the analysis and recommendations, large scale testbeds will be realised. The standards and models coming from the previous WPs will be platform neutral, to give content providers a chance to reuse their current technological platform. The large scale testbed will possibly require additional investment into technologies covering functionality, which is necessary for publishing the data and metadata with respect to spatial planning based on INSPIRE implementing rules. The partners, which do not yet have the technology necessary for testing a solution, will be supported by the technological partners. The large scale testbed will be focused on building a platform supporting common sharing of content related to spatial planning, including issues such as Digital Right Management. In establishing such a solution, there are two basic objectives:

- To extend or to fully implement platforms on the premises of every single content providers, which will allow them to publish data and metadata according to INSPIRE principles
- To implement one central spatial planning portal supporting access to spatial planning data of all partners based on Pan European **Plan4all** Networking services

Description of work

Task 6.1 Regional implementations (Bauska DC)

The regional deployment will be focused mainly on deployment of metadata systems with **Plan4all** profiles, it these platforms are not used till now and on the deployment of Network services on the premises of content providers, which will be recognised as critical for single regions. Important part of this deployment will be implementation of transformation services, which will support transformation of data in existing models into data following the designed conceptual models

Task 6.2 Pan European Deployment (HSRS)

Pan European deployment will be focused on deployment of central portal with client applications and using network services like discovery and portrayal services, where important role will play multilingual search for data and common portrayal rules. This will be critical services for sharing and understanding spatial planning data across Europe

(Inter-) Dependencies, milestones and expected result

This WP will depend on the results of WP3, WP4 and WP5. WP7 and WP8 activities will depend on work carried out in WP6. These WPs will be running in parallel to guarantee feedback to the implementation of platform, and for the successful implementation of the whole project. There are two deliverables. First is Deployment of platforms on local, regional and national levels (D6.1) in Month 20. But critical will be Milestone 5 in Month 24, when deliverable Pan European **Plan4all** platform (D6.2) in Month 24 has to be finalised.

Deliverables					
No	***Title***	***Leader & contributors***	***Nature***	***Dissemination Level***	***Delivery date***
D6.1	Deployment of Platforms on Local, Regional and National Levels	**Bauska DC**	P	PU	M20
D6.2	Pan European Plan4all Platform	**HSRS**	P	PU	M24

Work package Description

Work package number :	7	Start date:	M14	End date:	M30
Work package title:	Content deployment				

Objectives

The aim of the WP is to publish:

- existing metadata
- existing data

related to spatial planning, which are in the ownership of single data providers. Publishing will use the platforms deployed in WP6 based on standards defined in WP3, WP4 and WP5. The publishing of data will respect IPRs, which will be agreed between data holder and project team. Thus, every partner will be able to decide which data will be publicly available. All metadata will be publicly available.

Description of work

Task7.1 Metadata deployment (LGV Hamburg)

Existing local, regional or national metadata will be transformed into the **Plan4all** metadata profile and will be published using the platform from WP6. Important part will be the integration of a thesaurus supporting multilingual discovery of data. The metadata will be deployed from the beginning of task in month 16, to give feedback to implemented platform.

Task7.2 Data deployment (HF)

Existing local, regional or national data will be transformed into data following new common conceptual models using transformers implemented in WP6. Data will be published using services from WP6. The transforming and publishing of data will start already from Month 16 in parallel with deploying the platforms, to test their functionality

(Inter-) Dependencies, milestones and expected result

This WP will depend on the results of WP3, WP4, WP5 (through WP6) and WP6. The deployment of data and metadata will run in two stages to guarantee validation of concept and platform. First will be finished by Milestone 6 Month 24 with first stage deployment of metadata and data (D7.1), (D7.2) in Month 24 and second stage deployment of metadata and data (D7.3), (D7.4) by Milestone 7 in Month 30. The work is critical for validation of concept WP8.

Deliverables

No	*Title*	*Leader & contributors*	*Nature*	*Dissemination Level*	*Delivery date*
D7.1	Metadata Deployment Stage 1	**LGV Hamburg**	P	PU	M24
D7.2	Data Deployment Stage 1	**LGV Hamburg**	P	PU	M24
D7.3	Metadata Deployment Stage 2	**HF**	P	PU	M30
D7.4	Data Deployment Stage 2	**HF**	P	PU	M30

Work package Description

Work package number :	8	Start date:	1	End date:	30
Work package title:	Validation				

Objectives

The objective of this WP is to continuously validate the results of **Plan4all** work. The validation will be done throughout the entire project and will give feedback to all other WPs and to the project management team. The objectives of the WP are:

- To setup a validation methodology which will be used for following validation
- To validate standards and recommendations coming from **Plan4all** WPs 3, 4 and 5 and to guarantee their consistency with INSPIRE implementing rules
- To validate the deployed platform and transformed content and give recommendations for future exploitation, and also to give feedback to the INSPIRE team

Description of work

T.8.1 Validation methodology (ISOCARP)

WP8 will validate the concept of the methodology and involving the development of sets of models which are arranged by category and enabled by a virtual collaborative strategy and innovation management environment. The assessment and synthesis will provide not only possible answers to the question 'what are the results', but also 'if we reach the objectives of Plan4all project, taking into account both the probable and real risk. It is an iterative process that includes the following steps:

1. Seeing into the future: What challenges will we face in the future? What is missing at the moment?
2. Inventing possible solutions: What are the future desired states to get to?
4. Compare and contrast the alternatives: What are the positive and negative aspects of each possible step?
5. Select the best way forward.
6. Design the steps to get there: How can we shape and – possibly – speed the outcome?
7. Go back to step 1.

The generic methodology uses a range of techniques and analytical models in the following areas:

- Knowledge Acquisition: This is the starting point of this approach. Knowledge must be gathered in a structured, formatted and relevant way. The present state and the desired future vision are derived from a close examination and synthesis of this knowledge and from this the positioning) can be established on a continuum.
- Models will be structured and stored in a suitable repository that enables multiple layers of analysis allowing for the development of multiple versions of current states and multiple future visions
- Model Analysis: The models need to be compared and contrasted against models deemed to lie between an origin (position zero on the continuum) and the currently perceived ultimate destination
- Risk Analysis: There can often be numerous solutions that need to be analysed with regard to the potential hazards associated with each solution.
- When the optimal solutions are chosen there needs to be a structured plan (or even set of plans) which allow the vision to be achieved. This may be broken down, for example, into project planning and portfolio management, analysis, requirements determination and design and development. The environment for synthesis and assessment needs to enable collaborative, team-based innovation and change management.

The final stage involves executing the plans and closing the loop for feedback to previous stages

T.8.2 Validation of project solutions (AMFM)

The recommendations of **Plan4all** data model and networking infrastructure will be assessed according to the methodology given by Task8.1. The assessment will be continuous and will give feedback to all WP3, WP5 and WP7

T.8.3 Validation of platform (GIJON)

The platform will be validated with respect to compliance with INSPIRE implementing rules and technical guidelines, but also from the point of view of usability for potential users. The validation results will be the base for broader dissemination of **Plan4all** results to the rest of European community. For validation of platform it will be important to implement monitoring tools as part of **Plan4all** architecture on the base of INSPIRE Monitoring implementation rules.

(Inter-) Dependencies, milestones and expected result

This WP will monitor the results of WP3, WP4, WP5, WP6 and WP7. So this WP will depend mainly on milestones of those WPs, because the main objective is to give feedback. Critical Milestone is Milestone 1 in Month 6, when Validation Methodology has to be established (D8.1) in Month 6.

Other milestone is Milestone 4 Month 18, when will be closed report from validation of standard (D8.2) in Month 18. The validation of platform will run continuously trough Milestone 6, when will be discussed current status of deployment by PB till Milestone 7, when final validation report will be published (D8.3) in Month 30

Deliverables

No	*Title*	*Leader & contributors*	*Nature*	*Dissemination Level*	*Delivery date*
D8.1	Assessment Methodology	**ISOCARP**	R	PU	M6
D8.2	Assessment of Project Solutions	**AMFM**	R	PU	M18
D8.3	Assessment of Platform	**GIJON**	R	PU	M30

Work package Description

Work package number:	9	Start date:	1	End date:	30
Work package title:	Dissemination, clustering, consensus building and sustainability planning				

Objectives

The aim of this WP is to disseminate the results of **Plan4all** to regions, municipalities, technology providers, national government and to the INSPIRE team, which will be the main users of the project results. More specifically, the objectives of this WP are:

- The dissemination concept will be the basis of the work and be integrated in the working structure of the project.
- Results will be consequently / regularly published and spread out to intensify the dialogue within the partners and the open network.
- Discussion Forum will be integrated.
- 4 Regional Workshops will be prepared with local stakeholders and thematic related ones.
- 1 Final European conference will take place in the last months of the project (e.g. after 28 months work) in Brussels (Spring 2011) Dissemination materials: also case studies will be uploaded on the web and be accessible to everybody - classified in topics

Description of work

T.9.1 Dissemination strategy (ISOCARP)

Dissemination is core to the impact of **Plan4all** as a Network of Best practices action, and on-going publishing of results is a key to creating a space for discussion of spatial planning SDI development issues. The key dissemination will be about and to the rural areas of Europe, to the regions, municipalities, ICT vendors, planners, and to the various public and private sector actors involved in policy. As SDI is such a fast-changing dynamic area, and there are already so many initiatives in the area, the **Plan4all** dissemination will be mainly on-going dissemination of the trends and developments that are relevant to SDI in spatial planning. To succeed **Plan4all** will need open feedback from regional interests, high visibility and useful content for participants – the work of this WP. All these aspects will be defined in the dissemination strategy, which will be introduced in Month 6 of the project. This will include the initial Plan4all communication/dissemination plan, which will clearly define who the intended audience is, what sort of information will be published, how the Plan4all website will be updated, who will be responsible to provide it with fresh content, maintain the website and post updates, and how the EU funding will be acknowledged. This will enable the website to be completed and go online. Within the defined Plan4all Dissemination Strategy, it is envisaged that the Plan4all communication/dissemination plan will evolve as the project progresses based on experience, user feedback, clustering and consensus building in task T9.2.

T.9.2 Clustering and consensus building (ISOCARP)

At this stage the target is establishing European cluster with representative areas in the different regions. The representative regions will be subjected to a more detailed examination of regional and local applications and a systematic compilation of models, applications ideas and infrastructure data.

Each of these representative regions will also be selected as venues for local workshops convened to discuss the initial findings from case studies, to explore the issues that arise, as well as possible solutions and their acceptability. This dialogue will in particular focus on the role and impact of standards and data models as a potential agent for change in spatial planning. Identifying whether and how policy interventions might speed up the rate of adoption of relevant applications in the future will be central to the topics discussed.

This work will begin by developing an agreed complete Dissemination Plan very early in the project. As

broadband is such a fast-changing dynamic area, and given the many initiatives in the area, the **Plan4all** dissemination will be mainly on-going dissemination of the trends and developments that are relevant to spatial planning.

It is envisaged that the Dissemination Plan will involve:

- Products – **Plan4all** logo, Website, Leaflet, Banner, eNewsletter, eReleases.
- Events, Papers & Articles – as part of its trends and developments monitoring, **Plan4all** will identify and participate in all conferences and workshops that are relevant to SDI.
- Networking – **Plan4all** will identify and work with the EU SDI projects. In addition, mainly through the regions SDI' mappings (in WP2) and the cases studies and workshops **Plan4all** will identify and work with relevant users in the regions both for dissemination to them and to gather their feedback.

T.9.3 Plan4all workshops (UWB)

The planned workshops will be driven by the need to discuss case study findings and the issues and themes. The themes will not be known until the results of earlier WPs are available. However it is expected that many of the workshops could be dovetailed with local administrations and stakeholders. These will require significant on-the-ground organisation in each of the chosen regions, to ensure very real interaction, dissemination and (most importantly) feedback to enable the final **Plan4all** recommendations to be based on actual real experience. These will be the key "reality check" of the project.

It is planned that the final workshop will be broader in its reach and dissemination, being a highly visible showcase conference/forum (probably in Brussels) to generate widespread publicity and "tee-up" follow on activity after the current project ends.

T.9.4 Dissemination materials (UWB)

The **Plan4all** Web-site and interactive publishing facility will be setup by month 3, and operated continuously to the end of the project and beyond, so that the site becomes a clearing house and acts as an electronic forum for developments in this area. However the website will not be officially launched until month 1 when the Plan4all dissemination strategy and initial communication/dissemination plan is defined and adopted, to enable the website design, content and targeting to be completed and made live.

To provide a focus to the **Plan4all** web service, and ensure ongoing interest, dissemination and feedback, regular electronic Newsletters will be produced. To ensure on-going dissemination of trends and developments, in this very dynamic area, the newsletters will be produced every 3 months to distribute this intelligence. These will also be produced as more traditional print products, and will be available for distribution to and at relevant rural local events/workshops. Results and case studies will be periodically fed through the newsletter and help generate a permanent "buzz" about the project.

The standard dissemination materials will be produced like leaflets, brochures and white papers.

T.9.5 External publishing (AMFM)

This sub-task concerns the participation and presentation of the project's results in conferences/journals of spatial planning and SDI field (such as EC GIS, ISOCARP conferences, national conferences.

T.9.6 Exploitation strategy (HSRS)

Exploitation strategy will be based on common consensus from clustering activities and will define strategy for future exploitation after end of the project.

(Inter-) Dependencies, milestones and expected result
This WP will depend on the results of all WPs The main results per project milestone are the following: **Milestone 1 (M6)** when has to be finalised Web pages, Dissemination Strategy and first workshop (D9.1), (D9.1) and (D9.7.1). Other workshop related to metadata will be connected with **Milestone 2** (M9) (D9.7.2), data models workshop with **Milestone 4 (M16)** (D9.7.3) Last workshop will be related to **Milestone 6** (Month 24). Last Plan4all conference and all reports from all dissemination activities will be closed with **Milestone 7 (M30)** (D9.6), (D9.7.5), (D9.8), (D9.9), (D9.10) and (D9.11).

Deliverables					
No	***Title***	***Leader & contributors***	***Nature***	***Dissemination Level***	***Delivery date***
D9.1	Web Site	**UWB**	O	PU	M3
D9.2	Plan4all Spatial Data Interest Communities registration	**UWB**	O	PU	M0
D9.3	Internal Communication Tools	**UWB**	O	CO	M0
D9.4	First Communication/ Dissemination Plan	**ISOCARP** & all partners	R	CO	M3
D9.5	Multimedia Project Presentation	**UWB**	O	PU	M3
D9.6	Report from Clustering	**ISOCARP** & all partners	R	PU	M30
D9.7.1 -5	Workshops and Conferences	**EUROGI** & all partners	O	PU	M6, M9, M16, M24 M30
D9.8	Dissemination Materials	**UWB** & all partners	O	PU	From M3 – M30
D9.9	External Publishing	**DIPSU** & all partners	O	PU	From M3 – M30
D9.10	Exploitation Strategy	**EUROGI** & all partners	R	CO	M30
D9.11	Multimedia Project Presentation final	**UWB**	O	PU	M30

8.6 Deliverables List

Deliverables List

No	*Title*	*Delivery date*	*Nature*	*Dissemination Level*
D9.2	Plan4all Spatial Data Interest Communities registration	M0	O	PU
D9.3	Internal Communication Tools	M0	O	CO
D1.1	Project Management Structure, and Processes	M3	R	CO
D9.1	Web Site	M3	O	PU
D9.4	First Communication/Dissemination Plan	M3	R	CO
D9.5	Multimedia Project Presentation	M3	O	PU
D9.8	Dissemination Materials	From M3 – M30	O	PU
D9.9	External Publishing	From M3 – M30	O	PU
D1.1.1	Progress Report	M6	R	CO
D2.1	Cluster of Leading Organisation in SDI for Spatial Planning	M6	O	PU
D2.2	Analysis of Innovative Challenges	M6	R	PU
D2.3	INSPIRE Requirements Analysis and Capacity Building.	M6	R	PU
D2.4.	User Analysis Report	M6	R	PU
D9.7.1	Workshops and Conferences	M6	O	PU
D8.1	Assessment Methodology	M6	R	PU
D3.1	Analysis of National Requirements on Spatial Planning Metadata	M7	R	PU
D3.2	European Spatial Planning Metadata Profile	M9	R	PU
D5.1	Analysis of Demand on European Spatial Planning Data Sharing	M9	R	PU
D9.7.2	Workshops and Conferences	M9	O	PU
D4.1	Analysis of Conceptual Data Models for Selected Schemes Used in Single Countries	M10	R	PU
D1.1.2	Progress Report	M12	R	CO
D1.2.1	Annual Report	M12	R	PU
D1.3	Financial Statement	M12	R	CO
D1.4	Pre-financing Request	M12	R	CO
D4.2	Conceptual Data Model for Selected Themes	M16	R	PU
D5.2	Plan4all Networking Architecture	M16	R	PU
D9.7.3	Workshops and Conferences	M16	O	PU
D1.1.3	Progress Report	M18	R	CO
D8.2	Assessment of Project Solutions	M18	R	PU

D6.1	Deployment of Platforms on Local, Regional and National Levels	M20	P	PU
D1.1.4	Progress Report	M24	R	CO
D1.2.2	Annual Report	M24	R	PU
D1.5	Financial Statement	M24	R	CO
D1.6	Pre-financing Request	M24	R	CO
D6.2	Pan European Plan4all Platform	M24	P	PU
D7.1	Metadata Deployment Stage 1	M24	P	PU
D7.2	Data Deployment Stage 1	M24	P	PU
D9.7.4	Workshops and Conferences	M24	O	PU
D1.1.5	Progress Report	M30	R	CO
D1.7	Financial Statement	M30	R	CO
D1.6	Final Report	M30	R	PU
D7.3	Metadata Deployment Stage 2	M30	P	PU
D7.4	Data Deployment Stage 2	M30	P	PU
D8.3	Assessment of Platform	M30	R	PU
D9.6	Report from Clustering	M30	R	PU
D9.7.5	Workshops and Conferences	M30	O	PU
D9.10	Exploitation Strategy	M30	R	CO
D9.11	Multimedia Project Presentation final	M30	O	PU

9 Project management

9.1 Project Management Structure and Responsibilities

Project management aims at the smooth execution of the proposed work plan in terms of timely delivery of outputs, interim, and final results, in terms of quality, and in terms of dependencies among WPs. The project management structure implies both central (project-level) and local (WP-level or topic-level) control.

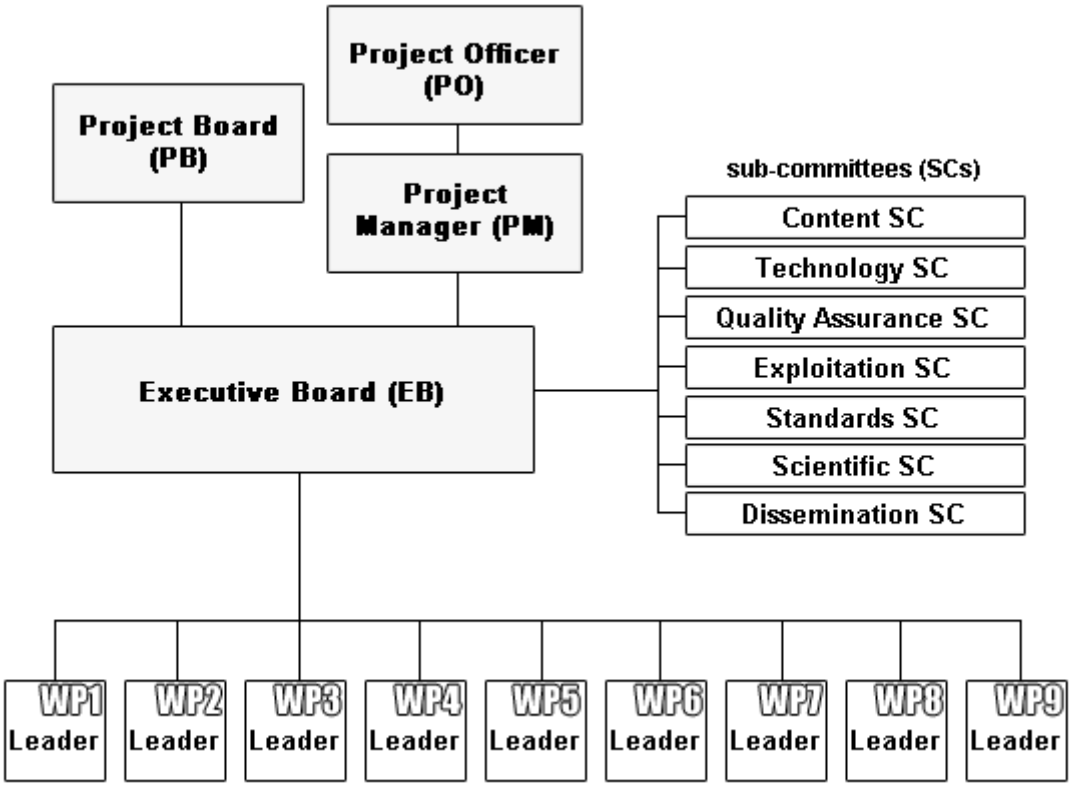

Fig. 3 Project management structure.

The *Project Board (PB)* or Steering Committee is the ultimate decision-making body of the Consortium. The representatives to the Project Board are of senior management level with the authority to commit their organisation to the decisions of the Project Board. The PB meets frequently (every 6 months). It is chaired by the PM, for whom the assistant Project Manager (aPM) will fill in as necessary. All conflicts are resolved within the PB. The tasks of the PB are to decide on scientific issues (redefinition of tasks, quality control, etc.), review the project results internally with regard to deliverables and milestones, decide on changes in partner participation etc., and, finally, appoint the WP leaders, who are selected based on the specific task to be executed in the WP and related required experience.

The *Executive Board (EB)* is responsible for the day-to-day management of the project and will report and be accountable to the Project Board. This involves assuming overall responsibility for liaison between the Parties in relation to the Project, for analysing and approving the results, for proper administration of the project and for implementation of the provisions contained in the Contract. The EB consists of the PM, the aPM, and the WP Leaders. The EB meets frequently (every 6 months). To save costs as well as time, certain in-between meetings may take place through alternative communication means. It is chaired by the PM. The tasks of the EB include monitoring the progress within each WP, to assess the quality of deliverables and milestones, to propose decisions for the Project Board, to prepare project reviews, to analyse the comments of the Commission's reviewers and take the necessary actions, etc. In their tasks,

the members of the EB are being assisted by a number of specialised Sub-Committees (SCs). These are: the Content SC, the Technology SC, the Quality Assurance SC, the Valorisation SC, the Standards SC, and the Scientific SC.

The *Content SC* provides recommendations to the EB about any issues regarding the scope, relevance, coverage and overall quality of the content to be populated in the learning repositories of the project. The *Technology SC* advises the EB on technological standards and architectural constraints for the software to be developed/deployed in the project. The *Quality Assurance SC* monitors the WP activities, guides the implementation and assessment of milestones and deliverables according to the defined quality procedures, and reports its recommendations to the EB. The *Dissemination SC* monitors and assesses the planning, execution and impact of the dissemination/awareness and the sustainability activities of the project, advising the EB for supplementary or corrective actions. The Exploitation SC is responsible foe exploitation of results, The *Standards SC* particularly focuses on the adoption and implementation of the INSPIRE Directive, OGC standards and related technologies specifications/standards, creating the liaisons with standardization bodies/groups, and coordinating the reporting of project results to clustering activities of *e*Content*plus* and standardization bodies/groups. Finally, the *Scientific SC* advises the EB on the scientific criteria for project activities and outcomes.

The *WP leaders* ensure the successful completion of the WPs. Each WP leader is responsible for the achievement of specific goals and performs thereby a quality control of the tasks, milestones and deliverables of the WP of responsibility. The WP leader and partners responsible for each task constitute the WP-internal management mechanisms. For each WP internal milestones will be defined and followed, and a set of deliverables' acceptance criteria will be defined.

On a project level, the Project Coordinator - which is represented by the PM and other appointed personnel - carries out the administrative project management, e.g. updating of records of costs, resources and time, and ensuring that administrative procedures in relation to the Commission (such as management reports, progress reports, cost statements) are handled properly and smoothly. The PM has the overall responsibility in relation to the European Commission (EC). On a partner level, project activities are managed by a main contact person who supervises all project activities within his organisation, collects requested information etc. Each partner is obliged to name a main contact person and to report this to the PB. The project management structure, responsibilities as well as appointed personnel for each partner, will be reported in **D1.1** "*Project Management Structure and Processes*".

9.2 Project communication mechanisms

In **Plan4all**, project communication will take place through the following mechanisms:

- *Bi-annual project meetings*: in these project meetings, representative members of all partners will physically participate. This are scheduled project meetings that will also allow for the regular meeting of all SCs.
- *Sub-Committee (SC) meetings*: in case it is judged important by the EB, SC meetings may be arranged between two scheduled project meetings. Organisation of such meetings is expected to take place only for the SCs directly related to main project implementation tasks (e.g. the Content SC, the Technology SC, and the Quality Assurance SC). Physical attendance of representatives from the Project Coordinator and the SC members will be asked.
- *E-mail communication*: day-to-day project communication needs will be covered (mainly) through e-mail communication. To facilitate communication between project partners as well as WP members, the Project Coordinator will set up a project mailing list that will be distribute emails to all project members, as well as separate WP mailing lists for each WP.
- *Telephone & VoIP communication*: further communication between the project members, the WP members, and/or the SCs's members may take place through telephone or VoIP applications (such as Skype).
- *Virtual videoconference meetings*: in case it is judged important by the EB, the PB, the EB, and/or the SCs may arrange virtual meetings through videoconferencing facilities. The Project Coordinator will support this by making available its videoconference facilities.

- *Collaborative workload management and distribution*: apart from the e-mail distribution, project documents' management and exchange coordination will be facilitated by a collaborative workspace (such as Moodle or Microsoft's SharePoint Server).
- *Formal communication/distribution of documents*: formal communication of important matters (e.g. concerning contract, cost reports, deliverable submission) will take place using courier services or registered postal mail. The project's secretariat (appointed by the Project Coordinator) will coordinate this type of communication.

9.3 Risk Analysis and Risk Management

Conflict Resolution in **Plan4all** will take place at three levels:

1. At the *strategic level*: concentrates on the relation between the project and the consortium with its environment. Risk management at this level is the responsibility of the PB.
2. At the *tactical level*: concentrates on the WPs' contribution to the project objective. Risk management at this level is the responsibility of the responsibility of the EB.
3. At the *operational level*: concentrates on the activities within the WP, which is the responsibility of each WP leader.

The initial risk factors that can be identified, which may apply to all three levels, are the following:

- *Complexity*: the activities may be too complex to realise.
- *Scope*: the total set of activities may be too large for the partners to realise and/or manage.
- *Capacity*: one or more of the partners may not be able to honour its commitments without the others having the capacity to fill the gap.
- *Reliability*: the project methods and strategies applied could be inappropriate to realise the intended outcomes.
- *Validity*: the outcomes may not reflect the real needs and priorities of the stakeholders
- *Sustainability*: the project outcomes may not lead to a sustainable outcome.

Combining these levels with the identified risks leads will be further elaborated in **D1.1** "*Project Management Structure and Processes, and Quality Assurance*". In **D1.1**, each of the risk factors will be analysed at each of the three levels, and will be detailed in terms of: identified and quantified risks; contingency action per identified risk; monitoring mechanism; quantified threshold level; and the line of action when threshold is exceeded.

9.4 Quality Assurance

In **Plan4all**, project outputs will be qualified and quantified according to a quality assurance mechanism that will be detailed in **D1.1** "*Project Management Structure and Processes*". In general, quality assurance in the project will be carried out in two levels: the progress monitoring level and the project output assessment level:

- *Progress monitoring level*: related to monitoring both the formal milestones of the project as well as a set of WP-internal milestones of smaller granularity. A set of acceptance criteria for the deliverables of each internal milestone will be defined in **D1.1**. Assessment of the internal milestones will be the responsibility of each WP leader, which will report its results to the EB and the Quality Assurance Sub-Committee of the project. Assessment of the formal milestones of the project will be the responsibility of the EB, but the Quality Assurance SC will report its recommendations to the EB. An internal deliverable acceptance procedure will be defined, to ensure that the project deliverables at each milestone meet the set acceptance criteria before they are submitted to the EB.
- *Project output assessment*: related to the assessment of the different output types of the project (e.g. content output, technical/software output, evaluation/validation output, dissemination/valorisation output, scientific output). In **D1.1**, a number of success indicators (e.g. content quantity & quality

indicators, software quality indicators, valorisation impact indicators, etc.) and a scoring system per indicator will be defined. The overall success of the project output will be measured upon the defined success indicators. The Quality Assurance SC will monitor the assessment of the project outputs and report its recommendations to the EB. A quality control system, defining the way the final output of the project is ensured, will be described in **D1.1**.

10 Dissemination and awareness

The dissemination and awareness activities of **Plan4all** will be undertaken in T9.1 of WP9 "**Dissemination, clustering, consensus building and sustainability planning**". They aim to ensure that project results will be communicated to all interested actors, through a variety of communication channels and using a number of dissemination mediums. They also aim to demonstrate the initiatives to be performed in order for the project to become a best practice in the agricultural education field. More specifically, the activities related to the dissemination/publicity of the project are expected to be the following, measured in terms of chronological order and in a quantified manner:

- The first result will be the project's web site. It will be periodically revised with new content, and it will remain operational even after the completion of the project. The project web site is expected to be deployed online three months after the project starts (M3). The web site will include a multimedia PowerPoint presentation of the project that can be automatically run, describing consortium, project objectives, challenges and benefits (initial version: M3; final version: M30).
- At the same time, another activity will be the creation of a database of related contacts, which will serve as the medium for communicating with actors interested in the project news and achievements. A person will be included in the contact database only if he/she has provided his/her consent for it. This contact database will be created in three ways, which will both respect the personal data and privacy of registered people. First of all, the project web site will be used as a medium of collecting contact information from people who express their interest in the project. Second, the members in the contact lists of each partner (e.g. the faculty and students of participating agricultural universities) will be sent an invitation e-mail that will describe the project and ask them to register for receiving more information about it. Third, the contact database will include addresses of major mailing lists (such as the ISOCARP, EUROGI mailing lists) or other projects and initiatives who are active in a related area (e.g. EC GIS), and who publish newsletters open to external contributions such as the ones to be disseminated by the project. Considering the language barriers which are even more relevant when going down to sub national levels the winning strategy is to anchor the flow of information on national nodes capable of dealing with the constraint instead of creating large lists e-mail addresses. The members of EUROGI will play an active role on such strategy but this approach can be tuned when dealing with the dissemination plan.
- FORUM - As part of the networking actions a SDI Forum on spatial planning will be created aiming at openly discuss the most relevant topics underlying the goals of the Plan4all and as an embryo for supporting for the sustainability of the network beyond the project co-funded timeline.
- The dissemination/publicity events will start with the series of regional workshops that will be organized in the context of WP9. As described in the respective WP, these workshops will be organized in the user countries (in order to initiate the user requirements identification activities. In parallel, these workshops will serve as the initial base for creating liaisons with other spatial planning institutions, as well as with representatives of professional and policy making organizations (e.g. professional associations, ministries, and other representatives of the state). These workshops are expected to be organized in the first twelve months of the project, so that they provide results for the user requirements analysis.
- The interested members of EUROGI will be actively engaged in the Plan4all for facilitating connections with relevant national or sub national stakeholders, disseminate results through the organisation of targeted events, build capacity among potential users of the project outcomes and network entities. All the national members of EUROGI (National GI Representatives) will be invited to promote at least one event dedicated to the Plan4all project and, by doing so, leverage its coverage across Europe.

- In addition, during the implementation of the project four international Calls for Papers in selected International Journals will be launched, on topics related to the application of learning technology standards & specifications in areas related to the topics of the project
- An important element in the valorisation strategy of the project is going to be the liaisons with thematic and special interest groups. Since interoperability of the INSPIRE repositories is an important goal of the project, project members will closely monitor the INSPIRE and OGC Workshop activities, establish cooperation's with teams already working on planning content federation topics
- Two regular publicity activities are planned. The first one is the preparation of short electronic newsletters that will include a summary of the project news and achievements, and which will be sent to the members of the contact database using e-mail. The electronic newsletters are expected to be published in English, and sent to the e-mail addresses of the contacts database every six months. The second is a series of press releases that will be sent to a focused audience and selected publication outlets that are of interested for the target user groups (e.g. the local newspapers in each region). Each partner will be responsible to select interesting news from the electronic newsletter, translate them in their language, and publish them as press releases promoted to their local channels. The guidelines and practices of the eContent eEBO project (http://www.content-village.org/press/) will be taken into consideration.
- As part of the valorisation strategy of the project, it is expected that a series of regional validation events of the project results will be organised. These are expected to be in the form of Open Days, in which interested organisations from the networks of stakeholders to be created during WP9 will be invited to access, use and assess the **Plan4all** Web portal and repositories. These Open Days will be regionally organised, in order to serve the network needs around particular areas.
- To particularly focus on the operation of **Plan4all** as a best practice network, promote its results to interested/potential implementers and users, as well as to attract more members to its affiliation programs, the project aims to organise a series of awareness raising and planning events for interested stakeholders of SDI (e.g. data holders, researchers, content experts, system administrators, and end users). More specifically, the first of them (EC GIS) will be focused content and technical expert workshops covering practical issues related to the implementation of spatial planning technologies specifications and standards in applications of agricultural education. The second of them (Spatial Planning Summer Schools will be focused on more research oriented summer schools where spatial planning technologies experts will be invited to teach to young researchers working on data integration and harmonisation topics related to research and implementation of specifications and standards. In total, six awareness & training events (three expert workshops and three PhD summer schools) are planned to be organized, two every year.
- The project members plan to close the project with a special Workshop/Conference on "SDI" that will be organized during the last six months of the project (M30). A special session of this event will be devoted on the presentation of the **Plan4all** practices and recommendations, but another session will be focused on the presentation of results from other related initiatives, as well as, from planers associations. Representatives from all types of interested actors (academics, users, planning organizations, professional associations, and related projects) will be invited to participate in this dissemination event.
- Since one of the most important dimensions of the dissemination activities is the communication of project results to the decision-makers planning professionals, a White Paper will be produced by the completion of the project. It is expected to briefly present the project, its implementation, and its main outcomes, as well as discuss benefits and recommendations for the further application, improvement and integration of the project results in planning policies and practices. This White Paper will be made available from the project web site, will be communicated to all members of the contact database, and will be distributed to discussion forums policy makers and professional organizations (M30).
- Finally, the project members will follow up the clustering activities as well as any other actions/activities which will be related to the eContentplus programme and will be requested by

the EC: they will provide links/information about activities related to eContentplus on the project web-site; provide articles, fact-sheets, project descriptions, specific PowerPoint presentations at the request of the EC to be used for the dissemination of project activities/results; monitor and update the project information published on the eContentplus website; participate in events (e.g. conferences, meetings, workshops, trade fairs, exhibitions) at the request of the Commission; collaborate with related Thematic Networks funded by eContentplus, providing input to and taking into account relevant outcomes; provide information to enable the establishment of links to the project results (e.g. short description of the underlying digital content and its characteristics and hyperlink to the website where this is accessible), etc.

10.1 Events and Meetings

List of Events & Meetings

Meeting	Date (Project month)	Participants	Location
Kick-off	M1	all participants	Prague or another location depending on the start of the project. Kick off will be organised as a join event with some European Conference
Technical review and workshop on user requirements	M6	all participants	TBD
Metadata Workshop	M9	Context providers, Scientific and Technological partners	TBD
Clustering meeting and Project board	M12	all participants	TBD
Annual project peer review	M12	Coordinator, WP leaders (TBD)	Luxembourg
Data model and Networking architecture workshop	M16	all participants	TBD
Deployment workshop and Project Board	M24	all participants	Place of meeting will be clarified during project
Annual project peer review	M24	Coordinator, WP leaders (TBD)	Luxembourg
Final conference and Project board	M30	all participants	Brussels
Final project peer review	M30	Coordinator, WP leaders (TBD)	Luxembourg

11 Other Contractual Conditions

11.1 Subcontracting

The Lazio Region and the Province of Rome need to subcontract some activities.

The Italian public bodies encounter some difficulties in recruiting staff due to recent legislative reforms. Before law n. 133/2008, amending art. 36 of the general law on public employment was adopted, public administrations were able to make use of flexible contracts (e.g. short-term contracts) for activities financed by EU funds. After this reform (law n.133/ 6 august 2008), this possibility has been excluded and a general prohibition of making use of flexible work force is in place. The use of consultants has also been limited and it is subject to programming and time consuming control procedures.

The regulatory framework also makes it very difficult for public bodies to participate in EU projects as their staff has seldom the specific required skills and necessary time to spend on the projects.

Therefore, it is necessary to exceed the 20% threshold of the budget for subcontracting for these entities in order to support their staff in carrying out the project activities. Public bodies will be able to keep participating in EU projects in a profitable way and to fulfil their aims only by using external or in-house resources.

TDF taking over the responsibility of SLS (a Latvian organisation that had to leave the consortium due to budget constraints) will need to subcontract external experts (including SLS staff) and for this needs 35,000 Euro:

WP2 State of the art analysis - 2 PM

WP4 Plan4all data model definition - 2 PM

WP5 Networking architecture - 1 PM

WP6 Large scale testbed - 2 PM

WP7 Content deployment 2 PM

WP8 Validation 2 PM

PROVROMA's subcontracting will be 66,230 Euro (35% of the budget). . The subcontract is due to the abovementioned Italian law. Subcontracting will cover:

WP1 External expertise on management - 1 PM

WP2 State of the art analysis - 5 PM

WP3 Design of Plan4all metadata profile - 2 PM

WP4 Plan4all data model definition - 1 PM

WP5 Networking architecture - 1 PM

WP6 Large scale testbed - 1 PM

WP7 Content Deployment - 1 PM

WP8 Validation of platform - 1 PM

WP9 Dissemination, clustering, consensus building and sustainability planning - 2 PM

DIPSU intends to use 20.000 € for external assistance. Three tasks will be assigned as consulting subcontracts:

T.4.2 – definition of the conceptual model for a total amount of 7,500 Euro, 3 PM;

T.5.1 / T.5.2. – analysis of needs of data sharing and design of Plan4all networking architecture, 12,500 Euro, 5 PM;

T.7.2 – deployment of data for a total amount of 5,000 Euro. 2 PM;

Lazio needs 60,000 Euro to subcontract the following activities:

T.2.4 - report on case studies of relevant interest in the Region of Latium. 4 case studies for a total amount of 20,000 Euro and 5 PM

T.6.1 - deployment of regional metadata and transformation services. 20,000 Euro and 4 PM

T.9.4, T.9.5 - graphic editing and publication. 20,000 Euro and 4 PM

GEORAMA

Greek law does not allow public organisations to employ temporal staff/experts. Hence **GEORAMA** will subcontract experts to give specialized input on Geomatics applications and interoperability for a total amount of 25,000 Euro. This amount will cover 5 Person-months of relevant expertise:

WP2 State of the art analysis - External Expertise 2 PM

WP6 Large scale testbed - External Expertise 1 PM

WP7 Context deployment - External Expertise 1 PM

WP8 Validation - External Expertise 1 PM

MEEDAT plans for subcontracting for a total amount of 22,020 Euro

The purpose of subcontracting is to get the external expertise from

- AFIGéO, Association française pour l'information géographique (the French association for GI),
- FNAU, Federation nationale des agences d'urbanisme (the federation of land and regional planning agencies),
- AITF, association des ingénieurs territoriaux de France (the association of engineers from local governments).

Their resources will be committed to provide external expertise:

- WP2 State of the art analysis – External expertise - 2 PM
- WP4 Plan4all data model definition – External expertise - 0,5 PM
- WP6 Large scale testbed – External expertise - 2,5 PM

Concerning WP2 subcontractors will assist MEEDDAT in identifying the local and regional leaders in area of SDI spatial planning in France both from local governments and industry and in analysing the INSPIRE requirements and user requirements on planning systems.

Concerning WP4 subcontractors will assist in identifying the conceptual models used in France for the Themes selected by the project.

Concerning WP6 subcontractors will contribute to the regional implementation of Plan4all results with the help of relevant local governments.

NASURSA

NASURSA will need external expertise for implementation of ICT tools. Nasursa will subcontract TRACASA (19,853 Euro), an institute specialized in geo-ICT, for the following tasks:

WP2 (State of the art analysis): Assessment of technical characteristics of available data, assessment of daily use of these data - 3 PM

WP8 (Validation): Technical validation of Plan4All products - 2 PM

OLOMOUC, due to lacking technical expertise, plans to subcontract the following organisation for a total amount of 10,000 Euro for the following activities:

WIRELESSINFO

- WP 6 T6.1, WP7 T7.1, T7.2- technical support for testing, deployment and publishing of metadata and transformed data, 2 PM

SmartGIS s.r.o.

- WP2, T2.4 - technical support for case studies, 1PM

- WP7 T7.1 - technical support with transferring existing non ISO 19115 metadata to ISO 19115 standard, 1PM

FTZ will subcontract 23,000 EUR for part of the services related to:

(1) State of the art analysis exercise for WP2 to acquire technical assistance concerning specific raw data sources on land use and the local spatial data content provision. The subcontracted party will at the same time assist FTZ to identify potential applications of the spatial planning data and analyze the needs for sharing of this data at the local and regional level (WP5). Contributing is estimated 2PM.

(2) The organization of high visibility events as part of its promotional campaign aimed at the local stakeholders, municipalities, planners, real estate companies, etc., and to assist with the exploitation strategy for Malta. Contributing is estimated 2PM.

Bauska will subcontract 20,000 Euro to BOSC. The subcontract is necessary due to current financial crises in Latvia limiting the employment of staff to public organisations. Bauska will subcontract 5 PM for deployment of regional platform for publishing of data and metadata in WP6.

HSRS will subcontract 10,000 Euro to CCSS. HSRS and CCSS have common development of tools and HSRS will require CCSS expertise. 2 PM in task 6.2 to guarantee interoperability of platform for Pan European portal.

11.2 Other specific costs

UWB

UWB will organize workshops and will take responsibility for project Web and dissemination material. Estimated costs 10,000 Euro.

UWB will buy server - estimated costs 5,000 Euro.

Software licenses for Web GIS platform and catalogue platform, 15,000 Euro.

ISOCARP will take main responsibility for organizing of one workshop 10,000 Euro

Plan4all conference 20,000 Euro

And cluster meetings 10,000 Euro

OLOMOUC will buy

Web GIS Software and - Metadata System (upgrade) 18,000 Euro

- Web GIS Software for tests in WP6; Olomouc does not have web GIS Software and current public map services presented on Olomouc www site are hosted on third party servers.

- Current metadata system used in Olomouc (Lemon tree) is not compatible with ISO 19115 requirements, but it should be upgraded to fulfil the conditions of ISO 19115.

TDF will buy

Web GIS Software and software for maintain their metadata on the base of ISO 19115/19119 for deployment of platform, 13,916 Euro.

HSRS will buy

case tools and tools supporting building UML models, which will be necessary for WP3 and software licenses 15,000 Euro

LGV Hamburg will buy

- Organisation of workshops and conferences 10,000 Euro.

- Printing and translation 5,000 Euro.

EUROGI

The Other Specific Costs (OSC) are intended to be allocated for the members of EUROGI to perform activities/actions, such as organizing an event/workshop in their country targeting regional and national stakeholders. The profile for the event is to be defined during the Dissemination Plan and subsequent actions. It is intended to send out a EUROGI internal call to the members in order to identify those interested in pursuit such action and directly engage with Plan4all. The concrete budget assignment to each member will depend on splitting the available budget (80,000 Euro) among the interested members possibly balanced according to coverage and potential synergies between them. The remaining OSC (1,000 Euro) are foreseen for the auditing obligations.

Bauska DC will buy

Web GIS Software - for maintaining their metadata on the base of ISO 19115/19119 and for deployment of platform 20,000 Euro.

PROVROMA

- The organisation of workshops and conferences: 4,000 Euro

- Printing and translation: 6,000 Euro

FTZ

- Organization of workshops and conferences: 12,000 Euro

- Web GIS Software – software for maintaining their metadata on the base of ISO 19115/19119 for deployment of platform: 20,000 Euro

- Printing and design costs: 5,000 Euro

GEORAMA

- Server: 5,000 Euro.

- Organisation of workshops: 5,000 Euro.

- Printing and translation: 5,000 Euro.

Current GEORAMA ICT infrastructure does not guarantee quality of services for large testbed inside of the Plan4all. For this reason GEORAMA needs to update its infrastructure.

NASURSA

- Printing: 2,000 Euro
- Certification of financial statements: 1,000 Euro
- Translation: 2,000 Euro

Hyperborea

- The organization of workshops and conferences: 15,000 Euro

GIJON

-Web GIS Software: 13,000 Euro

- Printing documents: 2,000 Euro

MAC

- GIS and related applications licenses (to be able to record, analyse, check and validate their information, and its possible marking-up/metadata for the Plan4all format): 9,100 Euro.

CEIT ALANOVA

- Organization of workshops and conferences: 15,000 Euro.

AVINET

Avinet plans to purchase a server for regional deployment and Web GIS software (stated within the other costs element) dedicated for Plan4All testing purposes: 15,000 Euro.

The Plan4all project is dealing with a comprehensive communication and information infrastructure related to geographical data. This infrastructure relies heavily on machine-to-machine communication in order to transport and access geo-information and related metadata from source repositories and servers to target repositories and application services which translate remotely held data into integrated services.

For the purpose of testing and verifying the correct behaviour of the proposed communication protocols and web services resulting from the Plan4all project, it is advisable to have several servers dedicated for this purpose within the project consortium.

EPF will buy

Web GIS Software and - Metadata System: The EPF will buy a license for ArcGIS Server 9.3. Workgroup Edition- 12,400 Euro, and metadata editor (with designed customized interface) for Bulgarian planning spatial data (2,600 Euro)

ADR Nord-Vest will buy

Web GIS Software and - software for maintaining their metadata on the base of ISO 19115/19119 for deployment of platform13,916 Euro

LAZIO

The Region of Latium will use 15,000 Euro to organize a conference/workshop in Rome (catering and translation costs).

HF will use

10,000 Euro for organizing meeting and workshops;

5,000 Euro will use for buying software licenses.

AMFM

- Organization of workshops and conferences.10,000 Euro
- Translations. 2,000 Euro
- Web site design. 2,000 Euro
- Printing. 1,000 Euro

MEEDAT

- Organization of workshops and conferences. 12,000 Euro
- Translation 3,000 Euro

11.3 Indicative budget distribution & pre-financing schedule

The following table provides the indicative costs and maximum financial Community contribution for the project. The maximum financial Community contribution might be reduced in accordance with the provisions set out in Article 8 and Article II.17 of this grant agreement.

Part. No.	Participant Short Name	Total Costs	Community Contribution	Community pre_ financing		
				First instalment	Second instalment	Third instalment
1	UWB	205 900	164 720	52 710	52 710	26 355
2	ISOCARP	252 300	201 840	64 588	64 588	32 294
3	OLOMOUC	95 500	76 400	24 448	24 448	12 224
4	TDF	143 795	115 036	36 811	36 811	18 405
5	HSRS	162 230	129 784	41 530	41 530	20 765
6	LGV Hamburg	194 800	155 840	49 868	49 868	24 934
7	EUROGI	190 800	152 640	48 844	48 844	24 422
8	Bauska DC	178 585	142 868	45 717	45 717	22 858
9	PROVROMA	186 470	149 176	47 736	47 736	23 868
10	FTZ	202 984	162 387	51 963	51 963	25 981
11	GEORAMA	129 880	103 904	33 249	33 249	16 624
12	NASURSA	99 265	79 412	25 411	25 411	12 705
13	HYPER	139 500	111 600	35 712	35 712	17 856
14	GIJON	188 300	150 640	48 204	48 204	24 102
15	MAC	132 100	105 680	33 817	33 817	16 908
16	CEIT ALANOVA	299 000	239 200	76 544	76 544	38 272
17	AVINET	305 000	244 000	78 080	78 080	39 040
18	DIPSU	148 897	119 117	38 117	38 117	19 058
19	EPF	97 400	77 920	24 934	24 934	12 467
20	ADR Nord-Vest	88 133	70 506	22 561	22 561	11 280
21	Lazio	187 470	149 976	47 992	47 992	23 996
22	HF	157 700	126 160	40 371	40 371	20 185
23	AMFM	193 893	155 114	49 636	49 636	24 818
24	MEEDDAT	145 100	116 080	37 145	37 145	18 572
	Maximum Community contribution		3 300 000	1 055 988	1 055 988	527 989

The coordinator may request the payment of the pre-financing instalments subsequent to the first according to the following schedule:
- Second instalment as of month 12.
- Third instalment as of month 24.

The coordinator will receive and manage the pre-financing for partners HF and AMFM. Prefinancing will be paid to HF and AMFM in 5 equal instalments every 6 months, upon acceptance by the Coordinator and the Commission of a progress report and work delivered.

12 Appendices

12.1 Consortium description

Applicant number :	**1**
Organisation legal name :	**University of West Bohemia**
Organisation short name :	**UWB**

Department of Mathematics, Faculty of Applied Sciences, University of West Bohemia (UWB) is a research institute comprising of two parts: Mathematics section and Geomatics section. Both sections have deep research knowledge in various projects. Department has more then 90 scientists that have rich experiences not only from educational point of view but also from practical based on many years cooperation with authorities on local, regional, national and European level, cadastral offices, mapping agencies and other companies. Department of Mathematics obtained Research Plan MSM 4977751301 from 2005 till 2011. The aim of this Research Plan is to contribute to the development of knowledge of discrete mathematical structures, finding new mathematical methods and development of effective algorithms using these methods.

Geomatics section is focused on geodesy and GIS, cadastre and civil law and cartography. Research activities and coordination of the project **Plan4all** will be supported by experiences from projects successfully fulfilled or still running (e.g. EU project Humboldt that contributes to the implementation of a European Spatial Data Infrastructure (ESDI), GPS station - network of permanent GPS stations within Czech Republic, Precise models of geoid and quazigeoid in central Europe, Georeferencing and cartographic analyse of historical mapping of Bohemia, Moravia and Silesia, Land data models, Progressive collection of geospatial data and its processing).

Tomáš Mildorf -MSc. (2004) Geomatics - specialization in cartography - University of West Bohemia, Pilsen. Research activities: Infrastructure for spatial information, model generalisation, metadata for geographic information. Participation in several EU projects (e.g. Humboldt, INSPIRE, COSIN). Traineeship in Joint Research Centre of the European Commission in Ispra (Italy) – Institute for Environment and Sustainability, Spatial Data Infrastructure Unit. At present Ph.D. student at University of West Bohemia.

Václav Čada - MSc. (1981), PhD. (1990), Ass. Prof. (2004) - Czech Technical University, Prague. Research activities: surveying, computer cartography and GIS. Successful leader of many national projects and member of Czech Union for Surveyors and Cartographers, Committee for FIG and member of Czech Association for Geoinformation (CAGI).

Otakar Čerba - MSc. (1999) Geomatics - specialization in GIS – University of West Bohemia, Pilsen. Research activities: Computer and thematic cartography, specialist on markup languages and their usage in digital cartography. Experience with European projects (e.g. Humboldt).

Jan Ježek – MSc. (2004) - Czech Technical University, Prague. Research activities: Open source GIS, Java programming language. Experience with European projects (e.g. Humboldt). At present PhD. student, Faculty of Civil Engineering, Department of Mapping and Cartography, Czech Technical University, Prague.

Radek Fiala – MSc. (1997) Cybernetics, BSc. (2001) Economics – University of West Bohemia, Pilsen. Research activities: DTM checking, orthophoto accuracy evaluation.

Karel Jedlička - MSc. (2000) Geomatics - specialization in GIS – University of West Bohemia, Pilsen. Research activities: Global Positioning Systems (GPS), GIS, spatial analysis and modelling, spatial databases, geomorphology. ESRI Redlands, CA (2003).

Applicant number :	**2**
Organisation legal name :	**International Society of City and Regional Planners**
Organisation short name :	**ISOCARP**

ISOCARP is a global association of experienced, professional planners, and was founded in 1965 with a vision of bringing together recognised and highly qualified planners as well as other stakeholders involved in the development and maintenance of the built environment in an international network. ISOCARP has members from over 70 countries and is a non-governmental organisation, recognised by the United Nations and the Council of Europe and with a consultative status with UNESCO.

The aims of ISOCARP are to improve cities and territories through planning practice, training, education and research. ISOCARP promotes the planning profession in all its aspects. ISOCARP keeps its focus on being a politically and commercially independent network of professional planners. It has grown into a worldwide organisation but has also kept a strong European emphasis. The Society aims at becoming a more global organisation and is particularly looking for a stronger base in Asia, Latin America and Africa., but also strengthening the traditional European base. The main tools of ISOCARP are the yearly congresses, symposia, workshops and publications. One of the last publications of ISOCARP is the International Manual of Planning Practice (IMPP), published in November 2008: the IMPP brings the expertise of some 150 authors, experienced practising planners, to the key stakeholders of the built environment. It provides a comparative reference compendium for academics and students in the field of spatial development, as well as an initial guide for planners, developers and investors with an international outlook.

The Objectives of ISOCARP: improvement of planning practice through the creation of a platform for the exchange between planners from different countries, promotion of the planning profession in all its aspects, notably from the point of view of its identity, the services it can render and the conditions required for it to function, promotion of planning research, improvement (in theory and practice) of planning education and training, provision of information and advice on major planning issues.

ISOCARP has worldwide Project and Liaison Office; the ISOCARP Brussels Liaison Office (BLO), situated near the EU-Commission in Brussels, is representing ISOCARP in Europe and working on EU-Projects; the BLO is using the excellent information database, which has been developed in the past by the members. ISOCARP BLO will be responsible in **Plan4All** for the Dissemination and Networking of the project, will work in the identification of leading administration and on the validation of the methodology.

Didier Vancutsem – Programme Manager, Head of the ISOCARP Brussels Liaison Office. International Consultant in Urban and Regional Planning, Landscape Planning, Infrastructure and Environmental Management, based in Brussels and Munich. Lead Expert in the EU-Program URBACTII, responsible for the URBACT Project LUMASEC (Land Use Management for Sustainable European Cities).

Past-Vice-President and Treasurer of ISOCARP, Professor of Rural and Urban Landscape Planning, Urban Planning at the Higher Institute of Town Planning Brussels (from 1998), Lecturer at the University of Applied Sciences Munich-Weihenstephan (from 2003) and Lecturer at the University of Lille – Master Eurostudies (from 2007).

Applicant number :	**3**
Organisation legal name :	**Statutární město Olomouc**
Organisation short name :	**OLOMOUC**

The City of Olomouc is a local authority creating a land-use plan on the level of municipality as well as settlement plans, namely the settlement plan for the Municipal Monument Preserve. Within the scope of its activity in the area of land-use planning it also drafts land-use documents – analytical land-use documents and land-use studies.

Within the framework of the **Plan4all** program, the City will participate in designing the standards for conducting digital data as part of the land-use planning, on the level of both land-use documentation and land-use source materials, publishing the land-use documentation to make it available by means of remote access, standardize the outputs and test the application allowing the public to make use of remote access to the data published for the entire Olomouc Municipality with Extended Authority.

Further the City will provide land-use planning data, an up-to-date land-use plan, a settlement plan, and selected land-use source materials describing land status, testing the proposed data models and pilot applications, cooperation upon formulating the standardization requirements. The City will formulate its requirements for the expected data structure of metadata adhering to the requirements stipulated by the Building Act and related regulations. It will comment on the proposed structure and/or data models based on testing.

Miloslav Dvořák, Mgr. (1999) - Environmental sciences - Charles University Prague, faculty of Natural Sciences. Works in Statutarní město Olomouc since 1999 - Conception and Development Division, Department of urban planning and architecture.

Lea Maňáková, Mgr. (1991) – Geography - Math - Palacky University Olomouc, faculty of Natural Sciences. Works in Statutarní město Olomouc since 1991 - Conception and Development Division, Department of urban planning and architecture.

Josef Maleňák, Ing. (1987), Cybernetics, Czech Technical University in Prague, Faculty of electrical engeneering. Works in Statutarní město Olomouc since 1993, IT Division, Head of GIS Department

Applicant number :	**4**
Organisation legal name :	**Technology Development Forum**
Organisation short name :	**TDF**

The society "Technology Development Forum" initially has been registered within Public organization register of Latvian Register of Enterprises as “Technology Development Foundation” on 10th March 2004. After deregistration in Association and foundation register on 17th February 2005 its current status and title – Technology Development Forum (TDF) - has been confirmed.

TDF founders are: Jelgava City Council, Latvian Academy of Science (LAS), Ventspils University, LAS Institute of Physical Energetic, University of Latvia Institute of Mathematics and Informatics (LUMII) and several scientists and innovation development specialists.

TDF’s members has also a broad experience in different fields, e.g. development of SDI metadata, use of wireless sensors systems and processing of satellite data and satellite images for GIS applications., on-line learning software tools for dissemination of knowledge,

TDF’s partners have long experience with GIS developments towards SDI in the areas of tourism, rural development and environment protection working for different projects in variety of organisations in Latvia.

TDF is implementing the following tasks:

State of the art analysis

Metadata, Data model and networking

Deployment and validation

Sarmite Barvika – Expert, Deputy Head, Strategic and Development Department, Strategic Planning Division of The State Land Service of Latvia.

Education: Diploma of Architect, Faculty of Architecture and Building Construction, Riga Technical University. MBA in European Union Law and Business, Riga Stradins University.

Professional experience: Architectural design , and territorial planning.

Works experience in SLS - since 1998. Main responsibilities (real estate valuation, project development and management, foreign cooperation).

Project experience: Land valuation project – 1998 – 2000, EULIS project – 2006-2007, Researches of Centre for European Union Studies – 2006-2008.

Development of commercial, residential objects, detail planning in Riga region (2004-2008).

Kaspars Skalbergs – Project Manager; Member of the Board, TDF.

Education: Diploma in Economics, University of Latvia; Masters degree in Business Administration, University of Latvia.

Project experience: Phare 2002 Baltic Sea Region Programme Project “Galileo – a Constellation to Beacon the Way in the Baltics", 2005; Interreg IIIC projects “Geomatic Regional Information Society Initiative” – GRISI, 2005-2008 and “Development of European Business Advisor Training and Exchange” – DEBATE, 2005-2007; EEA grants seed fund project „Establishment of collaborative network for promotion and implementation of innovative & efficient renewable energy technologies”, 2008.

Peteris Bruins expert

Education: Vidzeme University College – bachelor in information technologies and active studies in Latvia University Faculty of Geography and Earth Sciences in Environmental Science Master's degree programme.

Participant in project Naturnet Redime as technical consultant.

Activities: Popularize and inform about OpenSource GIS solutions usage possibilities in Latvia GIS users society (www.gisnet.lv).

Applicant number :	**5**
Organisation legal name :	**Help service remote sensing s.r.o.**
Organisation short name :	**HSRS**

HSRS is a SME company that works for more then 12 years in the Czech market and offers wide variety of services dealing with the creation of geoinformation systems. HSRS is one of two Czech members of Open Geospatial Consortium (OGC).

HSRS has large experiences with SDI for Urban Planning, it is responsible for management of system and in some cases also for Web hosting for 20 municipalities HSRS is responsible for Czech national metadata and catalogue system, it cooperate on definition of Czech national INSPIRE profile and also on profile for Urban Planning, It is now responsible also for Urban Planning scenario in Humboldt project. As organization working on Czech CLC (2000, 2006), it has also large expertise in this area.

Realised projects: Map server for the Forest Management Institute Brandys nad Labem , I&CLC2000 – Update of database Corine Land Cover for the Ministry of the Environment of the Czech Republic , Project of European Commission IST-2000-28177 Premathmod (as a partner of this project) , Project of European Commission IST-2000-28177 Wirelessinfo (as a partner of this project), Project of European Commission Davinci Mobile services for veterinarian, Project of European Commission Humbold (GMES and INSPIRE), Realisation of map server for Liberec region, Realisation of map server for Vysocina region, Map server for Znojmo, Kutna Hora, Telc, Koprivnice, Kolin, Trest, Map server for micro-region Hrotovicko, municipalities Kosetice, Senozaty, . SPRAVADAT - Management of geographic information and knowledge, System of transmission document data for actualisation of information system of public administration of surveying and cadastre (GEOPLAN).

Charvát Karel - education: Charles University in Prague - Doctor in theoretical cybernetics. Member of CAGI and CSITA, Past President of European Federation for Information Technology in Agriculture Food and Environment (EFITA), Chairman of Czech Centrum for Science and Society. Expertise in project management of research project, Evaluator of EC projects. Key qualification: strategic studies and management of projects in ICT and SDI. Coordinator of projects: Development of land use databases for the Praha area (CZ), EC 5th FP WirelessInfo IST 1999-21056, EC 5th FP Premathmod IST-2000-28177, ESA project. AMI4for, EC 6th FP NATURNET-REDIME - New Education and Decision Support Model for Active Behaviour in Sustainable Development Based on Innovative Web Services and Qualitative Reasoning. Participation in projects as project manager and senior researcher: EMIRES, REGEO, Rural Wins, Armonia, a Bard, EPRI Start, Ami@netfood, AMI4For, Voice, Naturnet Redime, Mobildat, SpravaDat, Navlog, c@r, Humboldt, WINSOC, Study for DG AGRI Broadband in Rural Development, FutureFarm.

Štěpán Kafka – education – Charles University Prague, faculty of Natural Sciences, Degree(s) or Diploma(s) obtained – Doctor of Natural Sciences. Employed at VŠB – Technical University Ostrava, Faculty of Mining and Geology, Institute of Economics and Control Systems. Membership of Czech Association for Geoinformation (CAGI), expert drafting team for INSPIRE, Representative of company in OGC.

Jáchym Čepický – education – Czech University of Live Science in Praha – Faculty of forestry and environment. 2002/2003 —Sokrates/Erasmus on Georg-August-Universität Göttingen Fakultät für Forstwissenschaften und Waldökologie. 2004 – 2007 — PhD study on Medel University. 4.-9.2006 - GDF-Hannover. 1.-4.2007 — developer of GRASS GIS) for Fondazione Bruno Kessler-irst, Italy. Since 05/2007 – Help Service – Remote Sensing spol. s r.o., Benešov. Member of FFII.cz – GRASS Anwender-Vereinigung e.V. grass-verein.de

Applicant number :	**6**
Organisation legal name :	**Landesbetrieb Geoinformation und Vermessung**
Organisation short name :	**LGV Hamburg**

The Landesbetrieb Geoinformation und Vermessung (LGV Hamburg) - Agency for Geo-Information and Surveying -has the task of collecting, storing and developing data relating to location on the surface of the earth. It is responsible for the production and publication of the official maps and for keeping the official land register of the Free and Hanseatic City of Hamburg. The geo data and services are a prerequisite for all cadastre, planning and building purposes.

LGV Hamburg, an agency under the supervision of the Ministry of Urban Development and Environment, provides these services. With about four hundred employees working in four divisions (administration, geo information, surveying and geo data services) LGV Hamburg has annual expenses of e26M and is financed by e11M income and e15M state subsidies. The subsidies finance a substantial portion of LGV Hamburg tasks representing part of Hamburg's infrastructure (not income-oriented), such as provision of a Spatial Data Infrastructure (SDI) and the Metropolitan Region (SDI-MRH), and maintenance of cadastral data. LGV Hamburg has the leadership in the field of Spatial Data Infrastructure (SDI) including INSPIRE in Hamburg.

LGV Hamburg is the coordination centre for all these SDI activities like consulting, data collection and digitization, operation and maintenance of the geo portal. Under the direction of LGV Hamburg a special working group works on the topic of 'protected sites' and 'land use'. The goal is to define, store and present the geo data 'protected sites' (topic of INSPIRE, annex I) or 'land use' ('XPlanung', topic of INSPIRE, annex III) in a standardized and uniform way.

Winfried Hawerk, Dr. is CEO of Geoinformation and Surveying in Hamburg (LGV). He works for the administration in Hamburg since 1979 in different positions and is CEO since 2007.

Thomas, Eichhorn is head of the Department Geo Data Application and head of the SDI-MRH coordination site. He works for the Agency for Geo-Information and Surveying since 1998 in different positions.

Krause, Kai-Uwe, Dr. works as scientific assistant in the Department Geo Data Application since 2007. He worked between 2000 and 2007 as Lecturer for 'CAD/GIS in spatial planning' at the HarbourCity University of Hamburg - Department of City, Regional and Environmental Planning.

Applicant number :	**7**
Organisation legal name :	**Stichting EUROGI**
Organisation short name :	**EUROGI**

The European Umbrella Organisation for Geographic Information (EUROGI) was established in 1994 as a foundation under Dutch law, after a recommendation from the European Commission, who felt the need to have a single entity to deal with geographic information matters.

EUROGI an independent, non-governmental and not for profit organization which represents the European Geographic Information (GI) community, focusing principally on its usage and the user's perspective.

The mission of EUROGI is to maximize the effective use of geographic information for the benefit of the citizen, good governance and commerce in Europe and to represent the views of the geographic information community. EUROGI achieves this by promoting, stimulating, encouraging and supporting the development and use of geographic information and related technologies.

The membership structure has been based on unique national representatives assured by the National Geographic Information Associations (NGIA) and their networks, comprising currently several countries of which mostly are European Union (EU) Member States, through whom EUROGI reaches more than 6 500 organizations across Europe.

EUROGI is able to perform networking and dissemination activities within the **Plan4all** Best Practice Network. Part of those activities may include specialized meetings, dissemination of materials, capacity building workshops and broader awareness raising events.

For the purpose, it is crucial to allow a suitable participation from the members of EUROGI and related partners in the activities foreseen for networking and dissemination.

EUROGI members, most of them not for profit non governmental organisations, network more than 6 500 entities across Europe, either from the Public and Private Sector, being in the position of effectively involve the main planning stakeholders in the countries they represent.

The budget allocation should enable the participation of the EUROGI members on the activities of networking and dissemination, namely in what concerns to:

1) NETWORK: Establish contacts with planning national stakeholders and network them within the objectives of **Plan4all**, such as a Forum and the active participation towards the integration as a component of INSPIRE.
2) WORKSHOPS: Organise national workshops or meetings to foster the further involvement of relevant stakeholders, raise awareness about the planning aspects as a component of the national SDI, create capacity for their knowledgeable participation and, by doing so, increase the potential for integration within an European framework.
3) INFORMATION: Disseminate specialised information about **Plan4all** and its developments, such as standards, targeted to the main national stakeholders and related communities, as well as general communication directed to the relevant entities of the country and professional media, written in the local language when required.
4) FRAMEWORK: Contribute for the evaluation and monitoring of the national framework influencing planning, regarding its constraints, opportunities, specifications, organisational issues and the linkage with the implementation of INSPIRE.
5) FORUM: Participate in a Planning Forum and stimulate the active involvement of those national entities having an interest on the subject, thus contributing to enlarge the base of actively engaged stakeholders.

The direct involvement of the EUROGI members will contribute to enrich the **Plan4all** BPN and help the creation of a sustainable European framework on Planning within the INSPIRE Framework Directive.

João Geirinhas - Secretary General of EUROGI. He is an Environmental Engineer certified in Urban and Regional Planning and holds a post graduation degree in Geographic Information Systems (GIS). He offers a record of GI related activities, namely with Non Governmental Organizations, comprising management experience and expertise on cooperative processes, international relationships and organisational issues. He has worked on a variety of projects in urban planning and natural resources management, which gave him

knowledge in demography, statistics, spatial databases, information processes, comprehensive management and technology assessment. In 1992 he joined the National Statistical Institute of Portugal (INE) and was elected to the Board of the Portuguese GIS Users Association (USIG), becoming its President from 1995-1999 and again since 2003. He has strong links with the New University of Lisbon (UNL), the Portuguese - American Development Foundation (FLAD) and was a key player in the launching of GIS PLANET.

François Salgé - an Executive Committee member of EUROGI and the Convener of its Working & Advisory Group (WAG) on Datasets. He is a well-known figure in Geographic Information Systems (GIS). During his years at the Institut Géographique National (IGN), the French national mapping agency, he led the development of the French GI reference data. He also contributed to shifting IGN from a map maker to an information provider. He was MEGRIN's first Executive Director and President of the European standards organisation, CEN's GI Technical Committee. He is at present Secretary General of CNIG, France's National Council for Geographic Information and an active member of AFIGéO. Mr. Salgé is a key player in INSPIRE.

Applicant number :	**8**
Organisation legal name :	**Bauska District Council**
Organisation short name :	**Bauska DC**

Bauska District Council (Bauska DC) is a territorial local government which ensures the performance of the functions prescribed by law, voluntary initiatives, observing the interests of the State and the residents of the administrative territory (sustainable development and planning).

The Government competence is the territorial and regional administrative and socio-economic, as well as facilitation of culture and education functions, social care and social help in order to provide the methodological support for these organisations. Bauska DC coordinates work in 17 local municipalities and 6 social care institutions, finances 2 special boarding schools.

Bauska DC has experience in successful management of the projects financed by different EU funds: INTERREG III B, Nord Est SUD Oust Interreg IIIC, ERDF, ESF, Life Long Learning (Leonardo da Vinci and Grundtvig).

BDC will contribute in the project activities by user requirement analysis, designing of Plan4all metadata profile, model definition, networking architecture, testing, context development and also the assessment and exploitation of platform as well as management of WP8 – Validation.

Inga Berzina - project manager, Head of Development and Planning Department of Bauska District Council. Project coordinator has excellent skills in management, administration, prioritising, delegation, good planning, logical thinking, motivation and leadership. Technical skills are used to work with computers (Word, Excel, Power Point and Outlook, ArcGIS) for data processing and communication.
Experience in development and management of spatial planning documents of the district and regional territory, development and management of international and national projects, management of the department and participation in the working groups in order to develop regional spatial plan and projects. Development and management of the adult education projects and programmes, coordination of activities performed by local municipality adult education and spatial planning specialists, development of strategy for further education in the district, participation in the development of the Employment strategy, Innovation Strategy, Spatial Plan and Development Strategy of Zemgale region.

Jana Patmalniece – project assistant, Main Expert of Development and Planning Department of Bauska District Council. Effective, versatile and highly motivated project and planning specialist. Perspective decision maker with exceptional organizational skills. Capable of implementing projects and plans and leading people in an efficient and focused way, delivering results within budget and on schedule. Experienced in development and management of spatial planning documents, international and national projects. Computer skills: Microsoft Word, Excel, Power Point and Outlook, ArcGIS.

Maris Udris – project technician, Main Expert of ICT Competence Centre, Bauska District Council.

Very good experience in ICT services for clients, web server administration, maintenance, SQL databases architecture's planning and administration, Unix (BSDi / FreeBSD) and Linux (SuSe) servers' administration, Microsoft Windows Server based network maintenance and development, as well as experience in the implementation of the projects.

Ilona Spurke - financial manager, Head of Department of Economics and Finances of Bauska District Council. She has excellent skills in administrative management, accounting, good planning and logical thinking. She has experience in organisation, management and monitoring of Bauska District Council accounting accordingly to laws and regulations of accountancy, preparation of financial reports for international and national projects.

Applicant number :	**9**
Organisation legal name :	**Provincia di Roma**
Organisation short name :	**PROVROMA**

The Province of Rome is the second tier local authority in the Italian decentralized government (NUTS III). It is an intermediate authority between municipalities and regions. The Province of Rome has taken over many functions as concern the environment, cultural heritage, transport, education, hunting, fishing, technical and administrative assistance to local authorities, professional training. Its functions are detailed by Constitution, National law (D. Lgs. 267/2009, Statute of the Province of Rome).

The Province of Rome has about 3.285 employees. The Province of Rome was involved in several European projects about several subjects like training (Leonardo da Vinci), industry (INTERREG III MEDOCC), immigrants (AENEAS). The Province of Rome has submitted some projects under several programme like Life+, Lifelong Learning, INTERREG IV C, European found for the integration of third-country, DAPHNE III, MED.

Corrado Ingravallo, manager of Department of Geographical Information System.

Mario Gianfelice, official in charge of the technical office of S.I.G. with territorial data base, server, workstation, cartographic production management experience.

Arnaldo Arceri, technical official. He is responsible of aerial, satellite and digital photograph elaboration. He was involved in several projects on cartography elaboration. In particular, he worked together on realization of environmental and urban development plan. He worked together on many publications about cartography, planning and GIS system.

Anna Maria Eremitaggio, Ing, responsible of the quality ISO 9000 (2000), manages the WEB/GIS site (metadata consultation, privacy regulation…).

Tommaso Maggi, technical official. He has aerial, satellite and digital photograph elaboration experience. Involved in several projects on cartography elaboration. In particular, he worked together on realization of environmental and urban development plan. He worked together on many publications about cartography, planning and GIS system.

Carlo Moretti, official in charge of the administrative office. Responsible of all the administrative and account acts of the Department of Geographical Information System.

Applicant number :	**10**
Organisation legal name :	**Fondazzjoni Temi Zammit**
Organisation short name :	**FTZ**

Based at the University of Malta, the Fondazzjoni Temi Zammit (FTZ) is Malta's leading local development agency. Established in 2004, it teams up several key stakeholders together with the University itself to act as a collaborative network for the implementation of local and international projects of benefit. Initially set up to provide e-learning services and promote educational projects, the foundation soon extended its role to foster the formation of a strong research and innovation culture across all fields, undertaking various cultural and environmental initiatives and offering support to local players embarking on research activities.

The wide range of interests and complementary expertise of its member institutions allow FTZ to adopt a multidisciplinary, holistic approach and participate successfully in several European programmes. Being an umbrella organisation, the foundation seeks to maximize the experience gained by working in close association with the policy-makers, regional and local authorities, civil society organisations and SMEs concerned, thus multiplying the benefits derived from its participation across the whole spectrum of its membership. Its multi-sectoral networking arrangements and the extensive experience of its members place FTZ in a privileged position to carry out successfully demonstration and dissemination activities and fulfil the role of a multiplier of information. It also helps to provide the critical mass often required for participation in transnational projects, through its networking and capacity-building actions.

Jesmond Xuereb - Chief Executive Officer and Secretary General of the Fondazzjoni Temi Zammit (FTZ), a non-profit, public equivalent organisation implementing various transnational projects supported by the European Commission, UNESCO or the Commonwealth of Learning. He is a visiting lecturer in Political Science at the University of Malta and currently coordinates a European project to set up a national centre for the mobility of researchers (ERA-MORE network). Previously, he held the posts of Deputy CEO of the Malta Council for Science and Technology (MCST), where he served as Director of International Relations and Director of the Avicenna Knowledge Centre; Council Secretary, Valletta municipality; and Principal, Ministry of Foreign Affairs. Mr Xuereb has been involved in the EC's Framework Programmes for Research and Technological Development, on behalf of the Maltese Government, since 1995 (FP4). In 2000-01, as the MCST Acting CEO, Mr Xuereb was responsible for the Council's re-structuring and conversion into a project-based organisation and for the launching of Malta's participation in FP5 – setting up the National Contact Point organisation and advising Government on Malta's adoption of the research, science and technology acquis, leading up to its signing of the FP5 Association Agreement. Under his management, the MCST joined several FP5 projects and embarked on a series of capacity-building measures in RTD and innovation. He served on various FP5/6 Programme Committees, as delegate or expert, as well as the FP6 National Contact Point for Priority 7 (Citizens and Governance in the Knowledge-based Society). Mr Xuereb sits on the Commonwealth of Learning's Advisory Board of the Virtual University for Small States of the Commonwealth (VUSSC), the Avicenna Virtual Campus Management Board, the COST Committee of Senior Officials and the National Commission for UNESCO. He is a member of the European Commission's ERAWATCH Advisory Group, the Steering Group on Human Resources and Mobility and the High Level Group on Benchmarking, Mapping of Excellence and Networking of National Research Programmes. He is also the national delegate for COST (European Cooperation in the field of Scientific and Technical Research) and has in the past acted as the local project manager for a number of EC-funded projects.

Lawrence Attard - Project Manager at Fondazzjoni Temi Zammit. He studied chemistry and biology at the University of Malta, with special research interest in the ecology of the Mediterranean littoral. He has held posts in various local industries, with competences in performance and project management, and expertise in laboratory management. He obtained his MBA with a dissertation on the management of innovation and competitiveness.

Applicant number :	**11**
Organisation legal name :	**GEORAMA**
Organisation short name :	**GEORAMA**

Development Greek organization focused on EU integration and international development co-operation founded on 13.11.2006 with headquarters situated in Patras. GEORAMA is intending to play the role of a development pole in the coastal area of Western Greece and participate actively in bottom up European Integration, rooted into civilian mobilization and institution building as a result of interaction of Local/Regional Stakeholders and EU/International/ Global networks of excellence. Founding Members of GEORAMA initiated and implemented a number of Interregional Co-operation projects funded by the EU Territorial Co-operation programs (INTERREG IIIC).

The priorities of GEORAMA are promoting innovation and economic development to improve the competitiveness and employment of Med space, controlling the impact of human activity on the environment, enhancing territorial resources and prevent risks, improving mobility and sustainable territorial accessibility and promoting sustainable urban development

The strategy behind GEORAMA is that it will act as an active neutral coordination body that can facilitate the creation of local, regional, national and international platforms where public organizations, business communities and academic organisations can collaborate strategically in an effort to stimulate regional and national growth participating actively in bottom up European Integration.

GEORAMA is composed of various members from local authorities, enterprises, university professors, executives of public administration, EU integration advisors, scientists of special interest and media executives.

Basilios Tsikouras - Bachelor in Geology, University of Patras. Ph.D. in issues of Geological mapping, Mineralogy, Petrology and Geochemistry, University of Patras. He has worked in elaboration of hydro geological and environmental studies, in designing and development of quarries of aggregate materials and industrial minerals and in education and training projects. He is a Lecturer in Mineralogy-Petrology in the Department of Geology, University of Patras. He collaborates with the Departments of Geology of the Universities of Athens and Thessaloniki, the Department of Geology of the St. Mary's University, Halifax, Canada and the N.C.S.R. "DEMOKRITOS", on Petrology-Geochemistry, Management and Restoration of Environment, Study of Palaeoclimate and Isotopes. He has participated in European and Hellenic projects on Petrology-Geochemistry, Surveys of Aggregates and Industrial Minerals and on Archaeological-Archaeometric research. He has published over 60 scientific papers in International and Hellenic journals.

Loukas Georgiou - Degree in Physics and Master in electronics and radio electronics, from Physics Department of University of Athens. First Prize of the Greek Mathematical Association. Assistant professor for 10 years in University of Athens and professor for 25 years in Technological and Educational Institute (TEI) of Patras. Leader of the program NOW (educational material development: sensitization and training women for enterprising activities). Responsible of 10 training programs in different topics (regional development, cultural activities, support of the SME, modern agriculture, etc). Ex post evaluator of 200 training programs in the Region of Western Greece. Responsible of Graduate Reformation Programs in order to introduce the new technologies in educational process, TEI of Patras.

Katerina Sotiropoulou - Advanced T.A. services for European Integration.

Nikolas Pertropoulos – Project Management

Applicant number :	**12**
Organisation legal name :	**Navarra de Suelo Residencial S.A.**
Organisation short name :	**NASURSA**

Navarra de Suelo Residencial, S.A. was created in 1999 as a public enterprise attached to the Spatial Planning and Housing Department of the Regional Government of Navarre. Its main aim is to consolidate sustainable territorial development in Navarre. NASURSA has become a reference player in the field of territorial planning and urbanism. The main working areas are development of residential areas, spatial planning, and urban rehabilitation.

Since 2006, Navarra de Suelo Residencial, S.A. has assumed the management and coordination of the Territorial Observatory of Navarre. Its main tasks are to monitor regional territorial development, to evaluate the implementation of territorial policies, to maintain a documentation centre, to engage in regional development projects, and to disseminate knowledge on territorial management.

NASURSA assumed the technical management of the Territorial Strategy of Navarre (ETN) between 2001 and 2005. This strategy applies the principles of territorial development of the ESDP in the Navarre territory. The Observatory was the institution in charge to develop the evaluation two years after its approval. Currently, NASURSA is in charge of the elaboration of spatial plans of the five regions of Navarre.

NASURSA has participated in several INTERREG projects, like PRODESEC, looking for practical experiences of ESDP implementation, and GRISI, aiming at visualizing geographically European project results. Currently, NASURSA is involved in Pro.Motion, a project on efficient energy use of transport in residential areas in Europe. In 2009, an ESPON project will be started on spatial planning methodologies in cross-border areas (Ulysses).

The role of NASURSA in the **Plan4all** project is 1) to facilitate relevant information and databases on spatial planning in Navarre, 2) to assess the application of spatial data in spatial planning processes, 3) to identify needs for standardized data for spatial planning, and 4) to validate the products of Plan4all in spatial planning processes in Navarre. 1, 2, and 3 are part of WP2, 4 is part of WP8.

Aldert de Vries - MSc in Physical Geography, University of Utrecht, specialized in Geographical Information Systems. He has worked for seven years as technical advisor and project leader in several development projects on spatial planning and natural resource management in and The Philippines. From 2002, he was researcher at the Netherlands Institute for Spatial Research, covering issues like spatial monitoring, scenario studies, and spatial typologies. In 2007, he assumed the position of research coordinator for the Directorate General of Spatial Planning at the Ministry of Housing, Spatial Planning and the Environment of The Netherlands. Currently, he occupies the function of scientific coordinator of the Territorial Observatory of Navarra, Spain. He has been actively involved in the European Spatial Planning Observatory Network (ESPON), first forming part of the research team in the Scenario Project, and later representing The Netherlands in the ESPON Monitoring Committee.

Marian García - Bachelor in Geography, University of Basque Country. She has been working for two years in European projects within Nasursa, and she has experience in the application of GIS for spatial analysis.

Applicant number :	**13**
Organisation legal name :	**Hyperborea s.c.**
Organisation short name :	**HYPER**

Hyperborea, placed in Pisa within Navacchio Scientific and Technological Pole, has been established in 1995 by a group of IT people. The company is well situated in the public administration market sector with many public administrations customers (Local and Regional Authorities) supplying products and services including waste management procedures, CMS, automated procedures on Workflow management systems. Hyperborea is compliant with OGC standard and has duly taken in INSPIRE directive. In particular, technical expertise includes the development of complex software system, object-oriented middleware and databases, Internet GIS applications and standard metadata management (ISO 19115), software development in Java, Python, C++, Ruby, PHP, Perl, etc.

The company is also acting as a reference for any interworking and system integration problem may arise within administrations. Current customers include municipalities in Italy, regional governments (Tuscany, Sardinia, Veneto, etc.) and Regional Agencies for Environment Protection. Main projects developed for public administrations include:

1) Regional waste management cadastral system based on environmental statements filled in by companies, citizens, etc. for both regional decision support system and spatial planning.

2) Software system to manage data (e.g. registered office, productive installation, etc.) of companies operating on regional territory and integration with environmental cadastres managed by regional governments.

3) Software system to manage and elaborate industrial plants data for both regional decision support systems and spatial planning; integration with regional cartography for spatial representation of environmental both interest and impact information to be exploited for environmental protection.

4) Software system to dynamically create a set of environmental indicators (e.g. sewage, electromagnetic radiation, waste matter, etc.) customised according to national and regional guidelines.

5) Software system to gather, collect and manage files to be compiled by companies dealing with nitrogenous fertilizers; integration with regional monitoring system belonging to Regional Agencies for Environment Protection and interfacing with Regional Territory Information System for spatial representation of collected information.

Main role of Hyperborea in **Plan4all** will be: analysis of INSPIRE Requirements and definition of standards. Moreover, as technological partner, Hyperborea will mainly contribute to project platform deployment and related exploitation.

Norma Zanetti, MSc., graduated at Politecnico of Milan. She has been involved in EC Projects since 1995 as technical manager. She was also involved in the past in TAP projects including EN E-MAIL, a successful geo-based project which was included in the TAP list of successful stories. More recent activities include the technical coordination of IST and eContent Projects exploiting tools for geo-spatial semantic web along with Geographic Markup Language (GML) and OpenGIS web feature service (WFS).

Alfredo Iembo, Dr., graduated in Physics at the University of Pisa in 1992. Afterwards, he was researcher at INFM (University of Pisa). Since 1997, he is responsible and project manger for Hyperborea of environmental, spatial planning ad waste management projects designed and implemented with open source tools according to widely accepted common standards for Italian Public Administrations (at local and regional level).

Applicant number :	**14**
Organisation legal name :	**AYUNTAMIENTO DE GIJON**
Organisation short name :	**GIJON**

The municipality of Gijón is situated in Nothern Spain, in the Region of Asturias, region which has suffered from a deep industrial modernisation. Gijón covers a surface of 181.7 km^2 and is located in the central area of the long Asturian coastline. Its coast, craggy and irregular, contrast with the gentle landscape of the inner areas. The maximum height above sea level is 672 m.

Gijón, which a population close to 279.000 people, is both the most populated and the most industrial city of Asturias (1.000.000 people). The urban area of the city spreads over 27 km^2 and concentrates 93 % of the total population, obtaining as a result a very high density of population. Gijon is an expanding city.

The Cartography department started functioning in 1991 and is the municipal office responsible for the update of the cartographic information of the city. All the information is saved by GIS systems (*.dgn) linked with alphanumeric databases and completed with orthophotos. The cartographic information is updated every day and the orthophotos every four years. The information about the 181 km^2 of the municipality is used as a base for all the municipal services and companies, police and fire brigade, etc.

Within the framework of the **Plan4all** project, the City will participate publishing the land-use documentation to make it available by means of remote access, standardize the outputs and test the application allowing the public to make use of remote access to the data published for the entire Gijón Municipality. Further the City will provide the source materials describing land status, testing the proposed data models and pilot applications.

Pedro Lopez - graduated in computing from the University of Oviedo (1991- 1994), Engineer in computer science at University of Oviedo (1994-1995). Now, he is studying the forth year of Telecommunications at the University of Oviedo, Top Technical officer in computing in a company focus on the development and implementation of computing projects on advanced technologies (1996-1998). Mr Lopez joined City Council of Gijón like Systems Analyst in the Computers Department in 1998 work in the "Systems Plan" (rebuild internal processes in municipal offices). In 2003 works as Project Manager in the Computers Department, to be technical responsible for some projects like Citicen Card, Municipal Content Management System besides European projects all of them link to the information society.

Applicant number :	**15**
Organisation legal name :	**The National Microelectronics Applications Centre Ltd**
Organisation short name :	**MAC**

The National Microelectronics Applications Centre (MAC) was established in 1981, by the Irish Government, to provide consultancy and complete innovative electronic, software and e-business/e-government technological solutions. MAC has a 28 year track record of delivering to tight schedules with industry, SMEs and public agencies to assess and assist entrepreneurial and innovative technical solutions. To date, MAC has delivered 230 leading edge product developments, 41 Web/online services, 175 process applications, 480 consultancy projects, 31 pan-European technology development consortia and 3,000 new idea evaluations. These have enabled the growth of several multi-million Euro companies. We have completed numerous evaluations, studies and outsourced R&D projects for European companies where we act as the innovator and designer of their future services and product set.

The parallel activity of the company in working with entrepreneurs, SMEs, and Administrations to deliver operational solutions, grounds this work in the real commercial world ensuring that MAC's staff is a focused team of highly flexible, motivated, responsive, pragmatic and experienced technical, research and project management experts, who can both manage distributed outsourced development teams and its own in-house technical staff. MAC partners with the some of the World's best organisations in a number of European and National ICT studies and development projects. MAC is particularly strong in managing distributed teams across organisation for on-time and on-budget delivery of such projects. Building on its strong project management, experience of productising technology applications and distributed systems development expertise.

In the **Plan4all** Network will coordinate the Irish Regional Authorities, County Councils and other local government agencies, with whom MAC has been collaborating for many years to encourage sharing of their regional planning best-practice, particularly in their spatial planning documentation and use of ICT and geospatial web services.

John J. O'Flaherty, Dr., Technical Director of MAC, will be responsible for all MAC's work in the **Plan4all** project. John has 30 years experience of technical project management and development. John has initiated, assembled consortia, project managed and successfully completed 18 multi-national EU technology projects, with leading organisations across Europe. He has provided extensive technical consultancy, and undertaken many project reviews and evaluations for the European Commission.

Applicant number :	**16**
Organisation legal name :	**CEIT ALANOVA gemeinnützige GmbH**
Organisation short name :	**CEIT ALANOVA**

CEIT ALANOVA is an applied research institute which acts complementarily with existing organizations and in close cooperation with scientific and research institutions, enterprises and public administrations to ensure the flow of knowledge between research and practical application.

The team consists of planners, geographers & technicians. All of them have worked in international teams, have published in international journals and magazines and are committed to the vision of ALANOVA to advance the City of Schwechat (the "traffic hub") to become a "Knowledge Hub" in the near future. CEIT ALANOVA's efforts are advancing multimodal traffic hubs including motorways, rail shunting yards, harbours and Austria's largest International Airport, developing an innovative approach to using renewable energy by both integrating multiple energy sources and working in the extraordinary location of Schwechat with Austria's major energy providers such as the OMV refinery, supporting a sustainable community that enables people to stay at their homes throughout different periods of life, integration multiple challenges of a sustainable city development in a knowledge-driven society to develop Schwechat as a knowledge hub in the ever growing Central European region.

Manfred Schrenk, DI, Managing director of CEIT ALANOVA. Studies in Spatial Planning and Regional Science, Master of Technical Science. Owner & Managing Director of MULTIMEDIAPLAN.AT. Vice President of the ISoCaRP - International Society of City and Regional Planners. Board Member since 2002 of the ÖGR – Austrian Spatial Planning Society. Board member since 2004 and Vice President since 2007 of the AGEO – Austrian Umbrella Organisation for Geo-Information. Founder and Director of the CORP – Competence Centre for Urban and Regional Planning.

Clemens Beyer, DI, Scientific Assistant, Studies in Spatial Planning and Land Use Regulation. Research Associate and Technical Assistant in Internet, GIS, Spatial Planning and Transportation Planning.

Christian Eizinger, DI, Scientific Assistant. Studies in Spatial Planning and Land Use Regulation. Scientific Work and Project Support.

Andor Farkas, Mag., Senior Consultant. B.A. Economics and Sociology, M. Sc. in Environmental Planning. Senior Researcher, Initiation of cross-border and international research projects with public and private sector partners in Hungary and other Central and Eastern European countries.

Daniel Nitsch, Mag., Scientific Assistant. Studies in Geography with focus on regional and traffic planning. Scientific Work and Project Support.

Stephanie Rüsch, DI, Scientific Assistant. Studies in Spatial Planning and Land Use Regulation; Mediator. Scientific Work and Project Support.

Murisa Salihovic-Mulaomerovic, Mag, Scientific Assistant. Studies in Geography. GIS and Project Support.

Gregor Wiltschko, BSc, Trainee.Bachelor Studies in Spatial Planning and Land Use Regulation. Scientific Work and Project Support, Transportation/Infrastructure Planning, Place Branding.

Applicant number :	**17**
Organisation legal name :	**Asplan Viak Internet as**
Organisation short name :	**AVINET**

Avinet is a consultancy company specialized in Internet based map and database solutions. Avinet is active within in R&D projects and also offer a range of map based applications for public sector, tourism and e-learning. The company provides consultancy services such as specification, development, running and maintenance of Internet based map and database solutions, participation in national and international research and development projects and delivers academic lectures within GIS.

Avinet also offers a range of highly innovative map and database drive Internet applications addressing various thematic areas: Adaptive is a state-of-the-art map portal targeted at public sector information needs, VisitorMap is a simple, efficient and attractive solution for providing maps for tourism web sites and GeoAtlas enables cross-sector e-learning from primary school and upwards. The company activities within providing spatial data infrastructures for Norwegian government organisations on both local, regional and national level has resulted in major knowledge within areas key to the successful implementation of INSPIRE data and infrastructure on all levels throughout Norway.

Stein Runar Bergheim - managing director if Avinet. He is educated at Sogn og Fjordane University College in landscape management and planning, geographical information sciences and history. Bergheim has been giving lectures in geographical information systems courses at Sogn og Fjordane University College and at the University of Tromsø. Prior to starting up Avinet, Bergheim was working for Sogn og Fjordane County Municipality as a GIS consultant. His responsibilities included spatial planning, geographical analysis and international research and development projects. Bergheim is actively involved in project development, specification, modelling and prototyping in addition to project management.

Frode Wiseth Jørgensen - a senior GIS systems analyst and is educated within geographical information sciences at the University College of Ålseund and within nature and forestry at Mære Agricultural College. Jørgensen has been employed at the County Governors office in Møre og Romsdal which is a regional authority responsible for INSPIRE environmental data and a wide range of eGovernment tasks. Jørgensen is an expert within application development, spatial data infrastructures, Internet based GIS, specification and data-modelling.

Sture Kenneth Dingsøyr - co-founder of Asplan Viak Internet and is head of technology development. He is educated at Sogn og Fjordane University College within IT, Economy and Organisational and Administrative Sciences. Dingsøyr has previously been employed with the County Archive in Sogn og Fjordane, a unit responsible for the management and dissemination of large scale natural- and cultural heritage databases for usage within education, business and public sector planning. Dingsøyr is leading the development of Avinets leading web GIS software, Adaptive.

Applicant number :	**18**
Organisation legal name :	**Dipartimento di Studi Urbani - Università degli Studi di Roma Tre**
Organisation short name :	**DIPSU**

Department of Urban Studies of Rome III University - was born in 2003 out of the former Department of Planning and Architectural Studies. People directly involved in the department are three full professors, eight associated professors and six researchers. They are doing research on urban contemporary development and design, spatial organization and policies. Research activities regard 1 in particular new ways of governing European cities in a context of social and economic globalization. International exchange with universities and institutions active in the fields of urban studies became an important fact for the department on all levels (teachers, researchers, students). Teachers and researchers participate in international organizations and associations of planning, urban and sustainable development. Teaching activities are especially in the fields of master and PhD courses.

Research experience DIPSU is doing research in the following fields: transformation of the contemporary city, informal city and urban arts, participation and urban development, spatial policies, urban history and renewal, environmental planning and assessment. Specific attention is paid in all fields to the influence and connectivity with social transformation processes.

Starting form 1999, The Department has collaborated with the Region of Latium for the setting up of a Territorial Information System for the new Landscape Plan. Moreover, in the last years, it has provided assistance to many local public administrations for the setting up of geographic databases for territorial planning. The last researches concerning TISs have regarded the making of an open-source webGIS, for the publication of the database of the Gregorian Cadastral Map of Rome, and for the setting up of a web portal for the participatory process of the Strategic Environmental Assessment of a town council. This portal encompasses an on-line forum for the local Agenda21, a webGIS for the publication of geographic data, and a geoblog connected to the cadastral database.

Furthermore, the department is involved in various EU funded Interreg-projects as external consultant and collaborates with Italian municipalities, provinces and regions. DIPSU was involved in several European projects:

1) Research activity for the Creation of development strategies of the Mediterranean basin. Community undertaking INTERREG III B, Medisdec-Stratmed – Regione Lazio, territorial structure department.

2) External expertise for the Community undertaking projects INTERREG IIIC, progreSDEC. Sottoprogetto COLORE: Countryside and Landscape, Opportunities for Renewable Energies – Provincia di Rieti, Provincia di Ragusa.

3) External expertise for the Community undertaking projects INTERREG IIIC, progreSDEC. Sottoprogetto SSTILE: Scenarios and STrategies for Infrastructure Landscape and Environment – Provincia di Latina.

4) External expertise for the Community undertaking projects INTERREG IIIC, progreSDEC. Sottoprogetto LAMCODE: LAndscape Management for COuntryside DEvelopement – Parco di Bracciano.

Simone Ombuen - professor – scientific coordinator. Experience in the fields territorial planning, urban planning, strategic environmental assessment, urban restoration, geographical information systems.

Pietro Ranucci - professor – senior expert, Experience in the fields territorial planning, urban planning, strategic environmental assessment, urban restoration, geographical information systems.

Magaudda Stefano - Experience in the fields of European territorial cooperation projects, urban planning, strategic environmental assessment, urban restoration, urban design with the citizens' participation, geographical information systems. He is currently conducting research on the use of GIS tools for territorial planning and landscape assessment. He is experimenting the use of Web-GIS tools for urban planning and participatory processes.

Paolo Mirabelli Over twenty years of university research in geographical information systems, digital urban representation, interactive multimedia, Web design, information architecture and public participation systems for spatial planning applied in several European cities.

Giuseppe De Marco – consultant, computer science senior expert, Extensive knowledge and technical experience on OpenSource technology and products; extensive technical experience in design and implementation of n-tier architectures of system and software in a distributed internationalized environment;

Applicant number :	**19**
Organisation legal name :	**Euro Perspectives Foundation**
Organisation short name :	**EPF**

The Euro Perspectives Foundation was founded in 2008 in Sofia as a new institutional structure able to address public interest in an enlarged Europe and to bring endogenous capacities to cross fertilize through Territorial Cooperation with Regional stakeholders in EU and outside for added value Regional polices and EU Integration.

EPF is intending to play the role of a neutral development pole throughout Bulgaria and the Balkans and participate actively in European Integration processes mobilizing the civil society and building the capacity of the institutions at all levels in order to achieve an effective bottom-up approach linked to EU/International/Global networks of excellence.

The funding Members of the Euro Perspectives Foundation, who have initiated and implemented a number of Interregional Co-operation projects funded by the EU Territorial Co-operation programs (e.g. INTERREG IIIC) and participated actively in the elaboration of Structural Funds Operational programmes for Bulgaria, realized that there was a need for a new institutional set up to continue the thematic work of these networks after the expiration of their financing by EU. The EPF is fed by the concepts, results and ambitions of the interregional co-operation networks and is devoted to continue the work of these & other networks in different EU regions.

Nikolas Petropoulos, he has graduated from the University of Athens with a B.Sc. in Public administration, European Integration in 1986 and with B.Sc. in Psychology in 1988. Degree in Postgraduate in Business Administration from the Free Brussels University. He is a member of the European Evaluation Society, the Robert Schuman Association, and of the Centre for Policy Studies (CEPS). He has rich international experience in projects appraisal, programming, institutional building, public administration, an European integration issues. He has extensive knowledge of transition economies, EC procedures, evaluation theories and development of evaluation criteria, evaluation of major EC Initiatives (EU Integration, MEDA), project management, R&D Information systems, data bases and web content management, innovation strategies, portals & metadata, investment analysis & business promotion, private sector support, development & markets, Interreg, and Territorial Co-operation. He has worked for the European Commission as advisor in development projects, inter-regional networks and evaluation of Community Initiatives for more than 15 years. He acted as the EU advisor of the Secretary General of the Region of Western Greece for three years, having as a result the successful acquisition of numerous European projects, among which is the European Network of Mining Regions that constituted the starting point of Georama. Indicatively he ensured and/or participated in a number of programs for various institutions and deals with the implementation of several European projects as well as the guarantee of their added value, simultaneously with the preparation of new project proposals. At present, he is an Independent expert for Development projects and EU Integration networks.

Applicant number :	**20**
Organisation legal name :	**Agentia de Dezvoltare Regionala Nord-Vest**
Organisation short name :	**ADR Nord-Vest**

The North-West Regional Development Agency (NW RDA) is a non-government, non-profit organization of public utility that operates in the field of regional development, representing the executive body of the Regional Development Council of the North-West Development Region.

The Regional Development Council is formed by representatives of the 6 county councils, 6 municipalities, 6 town halls and 6 rural communes.

The domains of strategic activity of the NW RDA are services for regional development and management of operational programs. Through projects and the actions undertaken, the NWRDA greatly contributes to the promotion and development of the international dimension of the North-West Development Region, to increasing visibility and attraction of foreign investments. Various projects have been implemented in sectors such as: protection of environment and training of environment experts, internationalisation of SMEs and through promotion and match-making activities, analysis of SMEs needs, analysis of the research facilities and potential, elaboration of the regional innovation strategy and diffusion of innovation culture, training against fraud in using the EU funds, establishment of a programming cross-border network, dissemination of European information, 3 twinning Phare projects for training and assistance in using the EU funds. The partner regions in implementing those projects are from all over Europe.

Applicant number :	**21**
Organisation legal name :	**Regione Lazio - Direzione Regionale Territorio e Urbanistica**
Organisation short name :	**Lazio**

Lazio Region is a local autonomous authority with its own statute, power and functions in accordance with the principles established by the Constitution.

The most important functions of Regione Lazio are involve the health sector, social welfare, training, vocational education, town planning, public housing, economic development, tourism and cultural activities, agriculture, forestry, mining, regional public transport, public works, environment, and implementation of EU regulations and policies.

The Regional Urbanism Directorate is responsible for the production of the regional technical cartography. At the same time, it ensures the dissemination of geographical data, produced by the other regional directorates, by the means of the SITR (Regional Spatial Information System).

At this stage, the Directorate is involved, at institutional level, in:

6) Design of National Spatial metadata profile as extension of INSPIRE profile
7) Design of common national minimum data set for spatial planning
8) Design of networking infrastructure based on INSPIRE recommendation
9) Design an interoperability model both on vertical and horizontal level

This activity is developed in the context of an inter-institutional board, founded by the Ministry of Innovation.

Iacovone Daniele - Project manager - Planner/Architect, experience in the fields territorial planning, urban planning and european projects

Procaccini Patrizia – Project manager - Experience in the fields technical cartography, GIS, topographic data bases, metadata, communication standards.

Varcasia Sergio - Experience in the fields territorial planning, technical cartography and GIS.

Filosa Domenico - Administrative responsible, expert in legal and administrative procedures

Simone Patella – Software Engineer. Experience in software analysis and design (design patterns and frameworks), desktop and web application development (Java, C++, J2EE), database model design and administration, geographical information systems.

Paolo Nocchi – Planner/Architect, Experience in the fields territorial planning, urban planning, strategic environmental assessment and European projects.

Giuseppe Franco – Planner/Architect, Experience in the fields territorial planning, urban planning.

Applicant number :	**22**
Organisation legal name :	**Help forest s.r.o.**
Organisation short name :	**HF**

The firm was established in 1993. Help forest has been operating on market for nearly 15 years. The company focused its activities to agriculture, forestry, ecology and to municipality collaboration as well. Help forest provides data collection direct in terrain, support for forest management planning and geo-data management for agriculture.

Currently the most important activity is software and GIS development focused on wide spectrum of different users. The specialisation to GIS server solutions and mobile solutions become very interesting for customers in a few last years, especially with possibilities of geodata sharing via Internet. The municipality support consists in providing of complex solution geodata sharing on principle of web services. The information system Map Application Services for Web Servers (MAWES), which is developed by Help forest, is fully based on the geographical data sharing through web environment and it is implemented in several cities. Also for municipalities, the strong software tool for management of green vegetation in cities is developed. The new progressive technology is used for development tools for geographical data management (MapMan) and for mobile solution of geo-data mining (TerEdit system).

The independent part of Help forest work is providing of inventory of routes or green vegetation in the city, including data collection in the field, too. Since last two years Help forest experts have participated in research, development, testing and improvement of new information systems and technologies, which are solved in European research project. Help forest is an important partner of CCSS and WIRELESSINFO researches associations. In the framework of these associations, the Help forest people are involved in EU projects of The 6th Framework Programme as example NATURNET-REDIME, AMI4FOR, MILQ-QC-TOOL, Collaboration at Rural (C@R).

Petr Horak - Director of Help forest s.r.o. (Ltd), project manager in the associations WIRELESSINFO and Czech Centre for Science and Society (CCSS); Key expertise in GIS development, mobile GIS solutions, GIS implementation in forestry, agriculture and eGovernance; Extensive experience of EC projects: NATURNET-REDIME www.naturnet.org (assistant of project manager), Collaboration at Rural (C@R) www.c-rural.eu (leader of Czech Living Lab), AMI4FOR www.ami4for.org (technical coordinator), MILQ-QC-TOOL www.milq.org (technical coordinator), Co-ordinator of national project Earthlook CZ

Applicant number :	**23**
Organisation legal name :	**AMFM GIS ITALIA**
Organisation short name :	**AMFM**

The Automated Mapping Facilities Management Geographic Information Systems Italia is a non grant funded, non profit making association of GI institutions, companies and users (professionals and students) in Italy. It was established in March 1990 as the Italian chapter of AMFM International. AM/FM is based in Rome and has an elected council of 15 members, which elects a president, a secretary, and a scientific council.

The objectives of the association are to develop interest in GI within Italy, to diffuse information and knowledge of GI within Italy, to increase collaboration between public and private sectors in GI and to support coordination among different levels of government (central, local and sub-local). AM/FM Italia is founder member of EUROGI, the European Umbrella Organisation for Geographic Information. Furthermore,
AM/FM Italia is founder member of the Italian Federation ASITA, Italian scientific associations for geographic and environmental information. AM/FM Italia has 102 members made up of Sponsor members, Industrial members, Users members and Individual members, with a further 8 honorary members (Italian governmental institutions related to GI).

The Association holds one yearly national conference the ASITA conference, while specialised workshops and thematic conferences are held each year. AM/FM has been involved in the Italian project called 'Intesa Stato-Regioni-Enti Locali sui Sistemi Informativi Geografici' (Agreement of central, regional and local government on GIS). AM/FM has a strong liaison with CNIPA, which is the technical secretariat of the Italia National Committee for GI, and with the Committee itself: current activities span from the national ISO 19115 profile and related Catalogue Service, to the definition of technical specifications for orthophotos and topographic databases.

Applicant number :	**24**
Organisation legal name :	**Ministry of Ecology, Energy, Sustainable Development and Town and Country Planning**
Organisation short name :	**MEEDDAT**

The Ministry of Ecology, Energy, Sustainable Development and Town and Country Planning is in charge of the French policies related to its field of competence. The General Planning, Housing and nature general Directorate deals among others with matters related to planning and with the development of the usage of geographical information in the area of land and town planning.

The "General Planning, housing and nature Directorate" of the "Ministry of Ecology, Energy, Sustainable Development and Town and Country Planning" enters the consortium in order to serve as a liaison between the French local governments and the ministerial departments that are responsible for land and town planning. The project is about building a network of organisations dealing with planning issue and regional development including local, regional and national public bodies, with the aim of finding consensus about the harmonisation of Spatial Data Infrastructure for spatial planning. It has strong links with the INSPIRE directive. The "Ministry of Ecology, Energy, Sustainable Development and Town and Country Planning" has developped national standards for modelling the graphical part of town planning documents that have a legal and binding status and is studying the way GI is used in land planning and master-plan creation."

François Salgé is a well-known figure in Geographic Information Systems. During his years at the Institut Géographique National (IGN), the French national mapping agency, he led the development of the French GI reference data. He also contributed to shifting IGN from a map maker to an information provider. He was MEGRIN's first Executive Director and President of the European standards organisation, CEN's GI Technical Committee. He has been Secretary General of CNIG, France's National Council for Geographic Information and an active member of AFIGéO. Mr. Salgé is a key player in INSPIRE. He is now seconded to the General Planning, housing and nature Directorate as advisor to the director general for geographic information matters.

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Glossary of terms

ARMONIA	Applied multi Risk Mapping of Natural Hazards for Impact Assessment
c@r	Collaboration and Rural (C@R) is a project that aims to enable people in remote and rural Europe to fully participate in the knowledge society as citizens and as professionals.
CAD	Computer-aided design
CAGI	Czech Association for Geoinformation
CD	Compact Disk
CLC	Corine Land Cover
CORBA	Common Object Request Broker Architecture
COSIN	Community Spatial Information Network
CSW	Catalogue Service for Web
DBMS	Database Management System
DEM	Digital Elevation Model
DGN	File format for CAD
DRM	Digital Right Management
DTM	Digital Terrain Model
EB	Executive Board
EC	European Commission
EMAS	Eco-Management and Audit Scheme
ERISA	The European Regional Information Society Association
ESDI	European Spatial Data Infrastructure
eSDInet+	Thematic Network funded by the European Commission
ESPON	European observation network for territorial development and cohesion
EU	European Union
EURADIN	eContent*plus* Programme Project
EUROCITIES	Network of major European cities
EUROGI	European Umbrella Organisation for Geographic Information
FIG	Fedération Internationale des Geometres
FOSS	Free and open source software
FP7	Seventh Framework Programme
Geo RM	Geo Rights Management
geoTIFF	public domain metadata standard which allows georeferencing information to be embedded within a TIFF file
GI	Geographic information
GIS	Geographic Information System
GMES	Global Monitoring for Environment and Security
GML	Geography Markup Language

HTTP	Hypertext Transfer Protocol
HUMBOLDT	European project - http://www.esdi-humboldt.eu
ICT	Information and Communication Technologies
IFHP	International Federation for Housing and Planning
IIOP	Internet Inter-Orb Protocol
IMPP	International Manual of Planning Practice
INSPIRE	Infrastructure for Spatial Information in European Community
INTERREG	EU-funded programme
IP	Integrated Project
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
ISOCARP	International Society of City and Regional Planners
IT	Information Technology
Moodle	Course management system
Nature-GIS	Network bringing together the different stakeholders in protected areas: users and experts in IT and in nature conservation.
NaturNet Redime	6th FP project
NUTS	Nomenclature des Unites Territoriales Statistique
OGC	Open Geospatial Consortium
ORCHESTRA	One of the European Union's major research and innovation projects for risk management
PB	Project Board
PLANUM	An international periodical Journal registered with the Court of Rome on 4/12/2001 under the number 514/2001 and distributed through the Internet and its protocols
PM	Project Manager (or Person-Moth)
PSI	Public Sector Information
R&D	Research and Development
RISE	Reference Information Specifications for Europe
RM	Right Management
SC	Sub Committee
SDI	Spatial Data Infrastructure
SDIC	Spatial Data Interest Community
SHP	ESRI format for data
SLD	Styled Layer Descriptor
SME	Small and Medium Enterprise
SOA	Service Oriented Architecture
SWE	Sensor Web Enablement
UML	Unified Modeling Language
UNESCO	United Nations Educational, Scientific and Cultural Organization

URL	Uniform Resource Locator
VESTA-GIS	Vocational Educational and Sectoral Training network on GIS & GI Application domains
VoIP	Voice over Internet Protocol
W3C	World Wide Web Consortium
WCS	Web Coverage Service
WFS	Web Feature Service
WFS-T	Web Feature Service Transactions
WMC	Web Map Context
WMS	Web Map Service
WP	Work Package
WPS	Web Processing Service
WSSD	World Summit on Sustainable Development
XML	Extensible Markup Language