

ESDI-NET+: EXCHANGE OF EXPERIENCES AND BEST PRACTICES - A EUROPEAN INITIATIVE -

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Abstract:

Technological development and increasing awareness of geodata and its use has caused an explosion of digital content. However, this was not accompanied by dissemination and accessibility measures. Spatial Data Infrastructures (SDIs), allowing extensive reuse of geoinformation, may offer a solution. SDIs face organisational, technological, legal, cultural and linguistic challenges. The enrichment of geodata by semantically well-defined metadata and widespread implementation of SDIs, as foreseen by INSPIRE, could help to overcome these difficulties. The European thematic network eSDI-Net+, co-funded by the EC, aims at bringing together existing SDI key players and target users to facilitate exchange of experiences and best practices at sub-national level. Therefore the project developed a SDI assessment methodology and framework. It identified about 200 working, accessible and intelligible SDI solutions and selected 12 best practices. The next step is to transfer these experiences back to local communities and to disseminate them among the global GI community worldwide.

Keywords: *Digital Earth, Spatial Data Infrastructures (SDIs), sustainable development at local and regional levels, SDI Best Practices in Europe, SDI assessment, cross-border dialogue, transfer and exchange of experiences*

1. KEY DEVELOPMENTS TOWARDS DIGITAL EARTH IN THE SDI FIELD

In the last 20 years many of initiatives aimed at increasing the availability and accessibility of geographic information. Development of spatial data infrastructures (SDIs) was one of the major steps in organising geographic information towards the vision of Digital Earth.

By the mid 1990s, Masser (1999) identified about 11 SDIs at varying stages of development spanning large countries like the USA, Canada, and Australia, small ones like the Netherlands and Portugal, and developing nations like Malaysia, Indonesia, and Qatar. This first generation of SDIs was mainly led by national mapping agencies and oriented towards the completion of national spatial databases addressing topography and further key layers of general use. The documentation of existing resources via metadata, and access mechanisms through catalogues and clearinghouses were additional key features of these early developments.

Since then the SDI field has been transformed by two significant developments. The first of these is the accelerated diffusion of SDIs throughout the world during the last ten years. As a result, most countries in Europe have now taken steps to implement at least one component of a national SDI. This development was facilitated by the establishment of the Global Spatial Data Infrastructures Association in 1996, which has helped the promotion of best practice and sharing of experiences, and capacity building in the Americas, Africa, Asia and the Pacific and Europe. In Europe, in the year 2007, an important development was the adoption of a legal framework to establish a distributed Infrastructure for Spatial Information in Europe (INSPIRE) built on the SDIs of the 27 Member States of the European Union.

INSPIRE was one of the answers to the many challenges identified in the 6th European Environmental Programme like clean air, soil protection, waste prevention and other (Brepoels 2009). Developing a common policy to face these challenges required the availability of reliable and high-quality spatial information. Before INSPIRE, this was a difficult task due to a very restrictive data policy of the EU Member States which hindered the exchange of data and information. Furthermore, there was a lack of common standards, which made the data not comparable. Since the INSPIRE initiative entered into force in May 2007, a lot has been accomplished. Regarding the SDI field, the INSPIRE initiative has played an important role in promoting the SDI diffusion process in Europe. Similar developments have taken place throughout the whole world.

At the international level, the United Nations Geographical Information Working Group (UNGIWG), being a network of professionals working in the fields of cartography and geographic information science, made a major contribution to build the UN Spatial Data Infrastructure needed to achieve sustainable development. It was formed in 2000 to address common geospatial issues - maps, boundaries, data exchange, standards - that affect the work of UN Organisations and Member States. In 2006 the UNGIWG developed the vision, strategy and the institutional governance framework for a United Nations SDI initiative, allowing involvement of non-UN partners.

The nature of the second SDI generation has shifted with an increased number of stakeholder organisations involved in the process, focusing on distributed data and processes, and the interoperability of services to discover, view, access, and integrate spatial information. The interoperability of systems through services was addressed by the Open Geospatial Consortium established in 1994 as an international partnership between government agencies, industry, and academia. The OGC client-server interface specifications and the standards adopted by the International Standards Organization (ISO) have become the cornerstone of most existing SDIs. Despite this emphasis on interoperability through services, the underlying basic approach to a SDI architecture has not evolved much during the last 10 years.

The second momentous event is the shift in emphasis that has taken place in the second generation of SDIs from national (strategic) SDIs to sub-national (operational) SDIs (Masser 2009). Whereas a great deal of the discussion in earlier years revolved around *talking* about SDIs much more time is currently being spent of discussing different ways of *doing* SDIs. The focus of the discussion turned from national to sub-national SDIs and success at the sub-national level has become a crucial point of the overall success.

These two developments have been recognised in a number of recent European initiatives. These include a workshop on Advanced Regional SDIs that was held at the Joint Research Centre in Ispra in May 2008 (Craglia et al 2009) and the series of workshops organised throughout Europe as part of the eSDI-Net+ project (<http://www.esdinetplus.eu/>), a thematic network co-funded by the eContentplus Programme of the European Commission. The activities and achievements of the eSDI-Net+ project towards international SDI networking and exchange of best practices have been presented at 6th International Symposium on Digital Earth in Beijing in September 2009 (Remetey-Füllöpp and Rix, 2009).

2. ESDI-NET+: EUROPEAN NETWORK FOR CROSS BORDER DIALOGUE AND EXCHANGE OF SDI BEST PRACTICES

Technological development and increasing awareness about the use of geographical data have compelled the fast growing of digital content. In parallel to increased availability and access to information, our collective awareness of the need to understand interdependencies of environmental and social phenomena on a global scale has also increased. This growth has not been accompanied by dissemination and accessibility measures, becoming a grand challenge towards the achievement of the vision of Digital Earth. Geographical data are typically clustered by application segments, and re-use of data is often not foreseen. This impacts very negatively on the costs and on the real accessibility of geographic information. The enrichment of geographical data by semantically well-defined metadata and the widespread implementation of SDIs, as foreseen, for example, in the context of the INSPIRE initiative, allowing extensive GI reuse, may solve these problems.

Leveraging the accessibility and reusability of geographic information has led to numerous activities throughout Europe to create SDIs. These SDI projects take place from the very local level to the pan-European level. Some projects are only intended to solve data access problems within specific application areas and by far not all of these SDI projects have got a cross-border dimension. These activities and initiatives implemented to foster and promote the establishment of SDIs face a lot of challenges – organisational, technological and legal obstacles as well as cultural and linguistic barriers.

The analysis of the existing barriers for Europe-wide use of digital GI content led to the conclusion, that an effective community debate must bring into force the available local and regional best practices' experiences in interoperable solutions and transfer them into coordinated dissemination actions to be transferred and spread across Europe and worldwide. The increasing quality standards of geographic information must be largely demonstrated by available best practices on how to enrich geographic information with semantically well-defined metadata in order to allow their widespread reuse.

To learn from each other how to face these challenges and to exchange experiences made by the SDIs at the sub-national level, is the aim of the eSDI-Net+ initiative, a thematic network co-funded by the eContentplus Programme of the European Commission.

eSDI-Net+ At a Glance

- Bring together SDI key players and target users in the Thematic Network established as platform for communication and exchange between stakeholders involved in creation and use of SDIs;
 - Promotion of high-level decisions and bottom-up technical discussion, and information exchange;
 - Help GI stakeholders realise full potential of digital GI for content providers and users and increase awareness concerning importance of GI enrichment and SDIs for GI reuse;
 - Allow integrated view of experts and foster creation of integrated guide lines, standards, and implementation of best practices;
 - Establish communication mechanisms between European and local levels to maximize benefits of INSPIRE, GMES and GALILEO and e-government programmes in order to establish more sustainable e-communities;
 - Develop solutions for multicultural and multilingual access, exploitation, use, and reuse of digital GI content in Europe;
 - Stimulate aggregation of existing national data sets of core GI into cross-border data sets.
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3. IDENTIFICATION AND ANALYSIS OF SDI BEST PRACTICES – NATIONAL PERSPECTIVE

The activities towards the identification and analysis of existing SDI solutions at the sub-national level and promotion of the best practice and knowledge exchange between stakeholders involved in the creation and use of SDIs encompassed mainly the development of a common assessment methodology, organisation of national workshops, selection of the best practices to be demonstrated at the SDI Best Practice Award and organisation of the Award event.

All SDIs throughout Europe were invited to submit their best practice and be part of a fast growing network of SDIs. After an initial evaluation of more than 200 applications, a number of promising SDIs has been selected for detailed interviews to provide further information. Each interviewed SDI was evaluated by the national representatives of the eSDI-Net+ project, focusing on the key aspects such as:

1. Technological, innovative level and originality of the SDI
2. Implementation and/or readiness for INSPIRE principles
3. Level of fostering cooperation between different users (proof of visibility and/or user feedback)
4. Possibility of extension or transfer to other countries and regions

The identification and analysis of good practices was based on the common methodology for the evaluation of SDI solutions developed at the beginning of the project and the recommendations for running the national workshops. A detailed report on experiences made towards the SDI selection process is available at the eSDI-Net+ website. (Rix 2009)

In 2008 and 2009, twelve national and regional SDI Best Practice workshops were organised throughout Europe. The workshops focussed on common issues, usability and socio-economic impact of SDI's and addressed the integration between SDI's and e-government policies. They brought together stakeholders, and showed use cases and addressed open questions. A complete set of data obtained during the identification and analysis of promising SDI solutions throughout Europe has been collected and documented in a database of good practices.

Significant results were achieved towards characterisation of the existing SDI implementations throughout Europe. The table below illustrates the timeline and status of the activities towards the selection of SDIs good practices for the European SDI Best Practice Awards event in Turin, in November 2009.

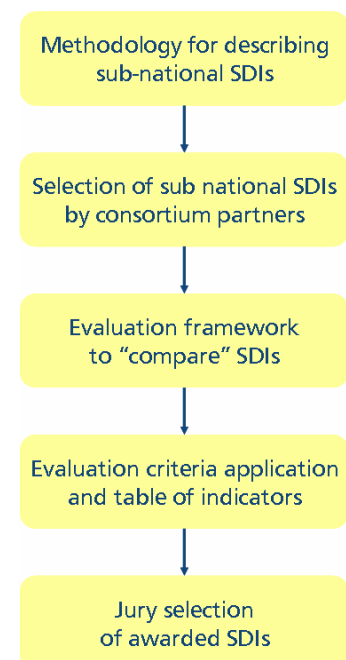


Figure 1: SDI analysis, evaluation and selection process

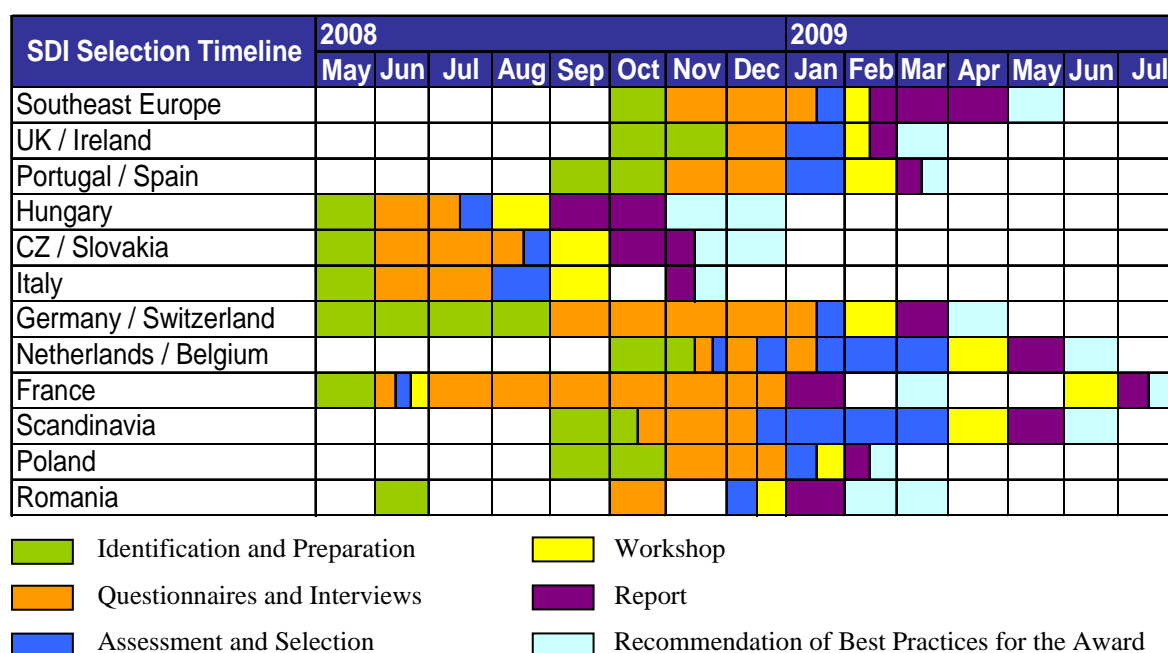


Figure 2: SDI Selection Timeline

The 12 national and regional SDI Best Practice workshops organised by the eSDI-Net+ network were the most important communication mechanism between the European and local levels, implemented to maximise the benefits of INSPIRE, GMES and GALILEO, regarding digital GI content.

Albania	Germany	Portugal
Belgium	Hungary	Republic of Macedonia
Bulgaria	Iceland	Slovakia
Croatia	Ireland	Slovenia
Czech Republic	Italy	Spain
Denmark	Netherlands	Sweden
France	Norway	Turkey
Finland	Poland	United Kingdom

Figure 3: 135 SDIs from 24 countries were analysed

Following the SDI analysis and first selection process, the assessment criteria list has been revised in order to create a strong evaluation basis for the SDI Best Practice Award 2009. For the assessment of the SDIs, the eSDI-Net+ consortium and the Jury gathered information regarding five main criteria.

Five main criteria	32 weighted indicators
SDI « size » (quantity)	6
SDI « quality » (meeting user requirements)	7
Co-operation and subsidiarity	7
Sustainability	4
Users usability	8

Figure 4: Evaluation criteria and indicators

In the framework of these five major criteria groups, indicators have been defined to obtain detailed information about the SDIs. Each SDI provided answers on altogether 106 questions illustrated in the figure below.

Sub-national SDI identity card	15 questions
SDI usage assessment	14 questions
Networking people assessment	10 questions
Socio-economic impact analysis	9 questions
Organisational assessment	12 questions
Coping with legal aspects	6 questions
Technical functionalities-facilities-components	28 questions
Geoportal assessment	12 questions

Figure 5: Information to describe an SDI

All collected and categorised information about the SDIs was documented in a common SDI Best Practice Database containing the data from all national and regional sub-databases gathered within the SDI analysis process. The public version of the database will soon be available at the project website www.esdinetplus.eu. The database allows data interpretation in various ways.

In general, the SDI assessment methodology and process applied have been considered as suitable to be introduced in the governmental work during the implementation of INSPIRE. The methodology considers the cultural, technical and legal differences in different European countries and provides a common evaluation framework applicable for SDIs at least in Europe.

Summarising the results of the workshops, promising solutions from different European regions have been recommended for further assessment with the final goal to present their developments at the European SDI Best Practice Award. The overall competition based on the SDI evaluation criteria and indicators which were defined during the process of SDI analysis. These events were a significant step towards the promotion and dissemination of SDI best practices at the European level.

4. SDI BEST PRACTICE AWARDS 2009 – SUB-NATIONAL SDIS IN EUROPEAN CONTEXT



Figure 7: Chairman of the Jury Ian Masser and SDI representatives at the Award Ceremony

A six person jury was set up during the eSDI-Net+ project to evaluate the 135 submissions of sub-national (i.e. regional and local) level SDIs that were collected as a result of the workshops that were held throughout Europe during 2008 and 2009. (Masser 2009b) The six person jury consisted of three members selected from the project partners and three from the project's Advisory Board. The jury carried out a rigorous evaluation and selected 12 SDIs from total number of 135 submissions for the best practice awards ceremony that was held in Turin in November 2009.

The jury recognised that such an event would have been hard to imagine twenty years ago when only four or five NSDIs were in being. Even ten years ago there were probably as many as twenty throughout the whole world. The eSDI-Net+ award ceremony was the outcome of the developments that have taken place in recent years in the SDI field.

The presentations at the eSDI-Net+ conference highlighted the diversity of current practice at the regional and local level in Europe and raised some important questions about the nature of SDIs. While some presentations dealt with the classic case of a SDI that has been translated from national level of the administrative hierarchy to the regional level most of the others did not easily fit this model.

This was particularly the case with respect to the thematic SDIs that are often limited to key aspects of national SDIs. For this reason the jury found that comparing sub-national SDI submissions was like trying to compare apples and pears. Therefore the jury decided to select 12 best practices, each of them as a special case, giving a good example to learn from.

4.1 Organisational and institutional aspects

The best way of illustrating this diversity is to consider some of the main features of each of the SDIs presented during the Awards ceremony. The first session consisted of three presentations of SDIs that were primarily selected as best practices with respect to their treatment of organisational and institutional aspects in terms of cooperation and subsidiarity as well as sustainability.

The presentation by staff of the Centre Régional de Information Géographique for the Provence-Alpes-Côte d'Azur (CRIGE-PACA) described the development of a SDI for the public sector in a large region extending over six departments in south east France where one job in every five is in the tourism industry. The strong thematic dimension to this SDI is evident from the twelve different applications that have been established and the staff sees one of its main objectives as coordinating communities of practice within the region.

The second presentation about the development of the SDI for the state of North Rhine-Westphalia in Germany also covered a large area. Its population of about 18 million is more than that of many European Union member countries.

An important feature of this SDI was the strong links that exist between the state organisation and the municipalities in the region because the lower level authorities are responsible for the collection and maintenance of cadastral information. The information that is held in this SDI is made widely available to private as well as public sector bodies and more than a million maps are downloaded from the SDI by users every month.

The final presentation in this section was by staff from the Infrastruttura per l'Informazione Territoriale della Regione Lombardia in Italy. This SDI is strongly driven by spatial planning considerations and its main emphasis is on the creation and maintenance of a regional topographic database which acts as a platform for other applications. Information held in this database has also been made freely available to private sector users.

Award Winners	Region and country
Centre Régional de l'Information Géographique (CRIGE-PACA)	Provence-Alpes-Côte d'Azur, France
Forth Valley GIS	Scotland, UK
GDI Nordrhein-Westfalen	North Rhine-Westphalia, Germany
IDEC Infraestructura de Dades Espacials de Catalunya	Catalunya, Spain
IDERIOJA: Infraestructura de Datos Espaciales del Gobierno de La Rioja	La Rioja, Spain
Infrastruttura per l'Informazione Territoriale (IIT) della Lombardia	Regione Lombardia, Italy
National Land & Property Gazetteer and National Street Gaze	English Regions & Wales, UK
Norway Digital-ND	Norway
Plansystem.dk	Denmark
SIG Pyrénées	Aquitaine, Midi-Pyrénées et Languedoc-Roussillon, France
SNIG - Sistema Nacional de Informação Geográfica	Portugal
X BORDER GDI (Cross border Geo-data infrastructure XGDI)	Province of Limburg, Netherlands

Figure 6: SDIs highly commended at the European SDI Best Practice Awards 2009 in Turin

4.2 User involvement

The second group of presentations at the award ceremony included two SDIs that were selected with respect to their strong user involvement. The first of these presentations of the Infraestructura de Dades Espaciales de Catalunya (IDEC) in Spain described itself as 'a network of labelled web services'. The main objectives of this SDI are to facilitate the use of geographic information and to motivate all kinds of users. As a result of IDEC's activities more than half the municipalities in the region are actively making use of geographic information in their work and private sector users account for forty per cent of all usage.

The second presentation by staff from the X Border GDI that is led by the province of Limburg in the Netherlands introduced another dimension into the discussions. As its name suggests this SDI is a collaborative venture which involves four Dutch provinces, three Belgian provinces and 12 districts from Germany. Its activities are very much problem oriented and user driven, with particular reference to emergency management and spatial planning in a densely populated border region.

4.3 Technological aspects

Technology, with particular reference to quantitative and qualitative aspects of data and service quality was the dominant theme in the third category of three SDIs that were presented at the awards ceremony. The first presentation

from the Forth Valley GIS in Scotland described the evolution of the present local authority public company from an informal collaborative agreement between three local authorities in 1993 to combine their GIS activities. This company has been driven by business needs to develop a wide range of applications in many different parts of Scotland as well as the components of a SDI for its three main shareholders. Its success in meeting these needs was recognised in a recent survey of local authority services in Scotland as a whole when it was described as the 'most frequently mentioned example of good practice'.

The second presentation of Portugal's Sistema Nacional de Informação Geográfica (SNIG) discussed the resurgence of one of the oldest SDIs. SNIG was set up by law in 1990 and played an important role during the nineties in modernising local government in Portugal. In recent years issues of affordability and sustainability together with education have been central to its latest phase of development.

The last presentation in this group considered the work of IDERioja, the SDI that has been developed for the autonomous region of La Rioja in Spain. With a population of only 300,000 Rioja is a relatively small region. Its SDI has evolved over the last ten years into a neat example of centralised GI management which has won awards in Spain with respect to both good practice and eGovernment.

4.4 Thematic SDIs

The last group of thematic SDIs raised important questions about the nature of SDIs. Some participants felt that they should have been disqualified on the grounds that they were not 'proper' SDIs at all but Bastiaan van Loenen pointed out that 43 out of the original 135 submissions fell into this category and that many of them contained good examples of best practices. The latter is evident from the four shortlisted examples.

The first presentation discussed the creation of the National Land and Property Gazetteer and the National Street Gazetteer in England and Wales. The initial stage of this project took ten years to complete and required the active participation of nearly 500 local authorities to create databases to a common set of standards. This highly decentralised initiative provides a consistent platform for local authorities to develop a wide range of thematic applications.

There was also a strong application emphasis in the second presentation from the French SIG Pyrenees staff. This SDI recognised the different needs of five main groups of users from agriculture, forestry, climate, economy and spatial planning respectively and created bespoke solutions for each of them using open source software and content management systems platforms such as Joomla! as well as conventional GIS software.

The main objective of the Danish Spatial Planning System, the third presentation in this group, is to eliminate duplication in the reporting of the 30,000 local plans that have been prepared by the 98 municipalities in Denmark. The basic philosophy of this system is summarised by the slogan 'data are available in one and only place.'

Digital Norway, a nation-wide program for co-operation with respect to the establishment, maintenance and distribution of digital geographic data has attracted a great deal of attention in international circles in recent years. Its main objective is to enhance the availability and use of quality geographic information among a broad range of users, primarily in the public sector.

Given the differences between the selected SDIs that have been highlighted above the jury decided that all the selected SDIs were winners in terms of their own best practices and that it would be invidious to select overall winners from such a diverse group. Consequently all SDIs were presented with a Best Practice Certificate at the end of the conference which stated that they had been highly commended by an international jury as one of twelve examples of best practice in the whole of Europe.

5. NEXT STEPS TOWARDS SUSTAINABILITY

5.1 Promote best practices

The next steps will aim at promotion of the good practices in existing, working, accessible and intelligible solutions and at communication of the purpose and aims of the INSPIRE directive back to the local and regional levels and to the international community. It should help to improve the overall knowledge about SDIs and to encourage local collaboration in setting up innovative solutions.

The eSDI-Net+ project will promote the awarded best practices as examples of successful SDI developments at the project website, publish and disseminate the lessons learnt. The project partners intend to provide those experiences made with the analysis, evaluation, and best practices in national and regional workshops, as a return of investment to those, who participated in the award selection process and to showcase those SDIs to the community to build up further awareness about needs and opportunities the development of Spatial Data Infrastructures will have in the future on the regional, national and global level following the INSPIRE initiative.

Given its geographical coverage and the diversity of the project partners and stakeholders, the network has the right potential to gather multiple views of experts, knowledge and potential and permits the sharing of standardised integrated approaches and implementation of best practices as well as the concept and design of more efficient operational procedures.

5.2 Generate impulses at the European and international level

An ongoing activity will be to strengthen the linkage to the related projects and initiatives for better outcome integration and dissemination. All projects with related goals and activities are welcome to contact the project coordinator to identify and to discuss the possible synergies and potential fields of collaboration.

The establishment of communication mechanisms between European and local levels is one of the main topics of the eSDI-Net+ project. To maximize benefits of INSPIRE and GMES, the consortium collaborates and exchanges information with Joint Research Centre (JRC) as the technical responsible for INSPIRE and EUROSTAT as the legal and organisational responsible for INSPIRE. Furthermore, eSDI-Net+ collaborates with more than 10 related international projects. This is a substantial support for the project to build an integrated view of experts and foster creation of integrated guidelines, standards, and to implement best practices.

There also is substantial added value in European collaboration within the Network as none of the possible players has the critical mass in human or financial terms to undertake the work alone. On the contrary thanks to a networking co-operation process, they complement one another: European collaboration increases access to pooled resources and technology transfer and emulates the 'global' marketplace. The Network offers the possibility to add a wider dimension to the work because of better perceived and real problems, within a collaboration and technology transfer between new and old EU countries. The final eSDI-Net+ results are of mutual benefit to old and new EU countries collaborators, trading in both directions.

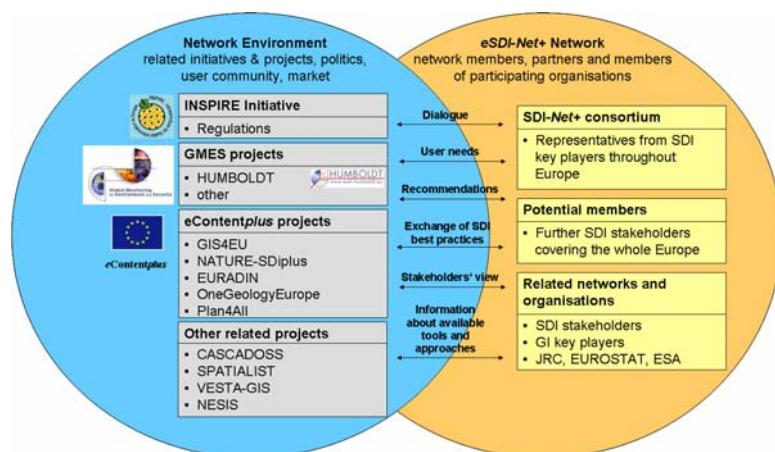


Figure 7: Related projects and initiatives

The existence of multi-cultural and multi-thematic interest groups within the Network allow consensus on standards, methods and best practices and enhance the possibility to face the language, knowledge and fragmentation barriers that presently affect the accessibility and usability of Geographical Information and the establishment of SDI's.

The harmonisation of spatial data, as foreseen by the INSPIRE Directive, involves organising thematic data (such as administrative units, transport networks, buildings and land parcels, land cover...) in a coherent model. At the data level coherence ensures that different data sets can be used together. At the data set level metadata must be defined to allow discovery and searching using terms which can be understood in different languages and by different user communities. Improving the interoperability of data and services, hence optimising the data and information flows, is one of the main objectives of the INSPIRE Directive, on which also GMES Services rely. Only a wide European network can contribute to reach these goals, also at a trans-boundary level.

The eSDI-Net+ network is becoming a powerful tool to contribute to Europe's ability to face new challenges and threats through the open access to information which is of strategic importance for the prosperous development of nations and regions and to provide a strong impact that favours awareness, knowledge and usage of INSPIRE principles. Being

conceived as a “Network of Networks”, eSDI-Net+ progressively evolves to a fully integrated network where the benefits of sharing stand-alone data and information from heterogeneous sources, selecting, aggregating and translating them, could be widely understood and appreciated within stakeholders and user communities, together with the opportunity of adopting common standards and specifications. This influences also the capability of adopting the current environmental European and international policies having a strong territorial impact where good quality geographic information plays a fundamental role.

5.3 Influence development of potential markets

The network results mainly have knowledge and awareness impact, which guarantees that much of the project output is intensively reused and multiplied. The transferred project knowledge represents a high economic potential that is mainly represented by standard technical solutions transferable to other regional context, exploitable by commercial stakeholders or further developed by the network through other funded projects.

The eSDI-Net+ Project catalyses the collaboration of many GI market players and fosters the development of a Single Market and the achievement of economies of scale. eSDI-Net+ permits and moves forward the development of digital content in the GI area, one of the most important areas of public interest in Europe and beyond. This development would occur at a much slower pace, if left to market forces alone.

5.4 Strive for a sustainable network

The achievement of a long-term impact for the partners of the eSDI-Net+ project, for the users of its network and its stakeholders is one of the project’s objectives. This is also a reason for the strategic involvement of all groups of stakeholders, since it allows the establishment of strong synergistic partnerships, which will continue after the project end. The importance of this topic is represented by the fact that a special work package responsible for sustainability and assessment has been established.

The matter of mid-term and long-term sustainability became more fundamental and concrete in order to develop models of the network continuation after the end of the funding period. Several possibilities to continue the project activities, like the continuation of the methodology, the evaluation, the show casing, and some kind of competition are currently under discussion.

5.5 Dissemination of lessons learnt

In addition, the dissemination and awareness raising activities will be continued, in order to address not only the sub-national SDIs, but also other stakeholders and decision makers in this context. The establishment of strong links to e-Government projects, institutions and key players, IDABC, SDICs, Legally Mandated Organisations (LMOs) of INSPIRE responsible for implementation of a SDI and JRC will be fostered. The consortium envisages creating further synergies with international and European GI communities and decision makers.

Even the development of the project has a focus on Europe and the INSPIRE development process, the results with the methodology and the experiences made can be useful also as a model for an international discussion. Following the long term perspective of the project to establish a network and a platform for discussion and exchange of experiences, this can be of major interest not only for the SDI developers and users of sub-national, national or regional SDIs in Europe, but also for the dialogue in other regions of the world, working on similar developments, to strengthen the international dimension, following the eSDI-Net+ project results.

6. ACKNOWLEDGEMENT

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