

Operational SDIs: The Sub-national Dimension in the European Context

**INSPIRE Conference 2010, Krakow, Poland
- Regional Experiences -**

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SDI Developments towards INSPIRE in the last 10 years

First Step of SDI development:

accelerated diffusion throughout the world

- Most countries in Europe have taken steps to implement components of a national SDI
- The INSPIRE initiative played an important role in promoting this diffusion process in Europe
- Similar developments have taken place throughout the whole world

SDI diffusion throughout the world

- Establishment of the Global Spatial Data Infrastructures Association (1996)
 - promotion of best practices sharing of experiences
 - capacity building in the Americas, Africa, Asia, Pacific, Europe
- Establishment of INSPIRE, Infrastructure for Spatial Information in Europe (2007) built on the SDIs of 27 Member States
 - answers to many environmental challenges
 - common policy and standards
- GMES, Global Monitoring for Environment and Security
 - European Earth Observation Programme



United Nations Geographic Information WG (2000)
 → United Nations SDI

Second step of SDIs

shift from national SDIs to sub-national SDIs

- From **strategic** SDIs to **operational** SDIs or

From **“talking about SDIs to doing SDIs”** (Ian Masser)

- 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.



eSDI-Net+

Network for promotion of cross border dialogue and exchange of best practices on Spatial Data Infrastructures (SDIs) throughout Europe



Establishment of a Thematic Network funded within the eContentplus programme of the European Commission

ECP-2006-GEO-320005

Objectives of eSDI-Net+

- To establish a Thematic Network as **platform for communication** and exchange among stakeholders involved in the creation and use of SDI's
- To **bring together potential SDI stakeholders** in order to increase awareness and to facilitate the creation of
 - **guidelines**
 - **standards**
 - **best practices**
- To establish **communication mechanisms between European and local levels** to maximize benefits of INSPIRE, GMES, GALILEO and e-government programmes
- To develop solutions for **multicultural and multilingual** access, exploitation, use, and reuse of digital GI content in Europe

Thematic Network – Initial Partners

Geographic coverage

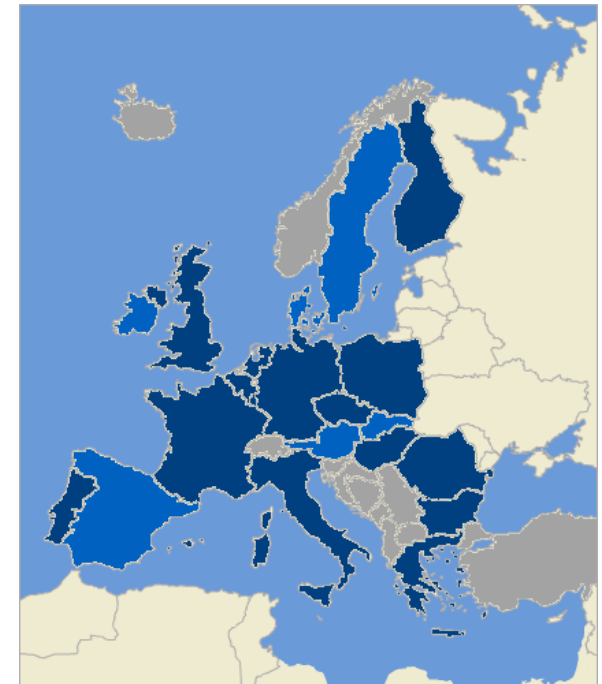
Organisations from 15 European countries from the different regions in Europe

Involvement of Stakeholders

- Providers of digital geographical data (local, national and regional public authorities, private organisations and institutions)
- Users of digital geographical data (research institutes, universities, software manufacturers)
- National and international GI umbrella Associations
- Consultancy and Network Management

Consortium Members

1. **Technische Universität Darmstadt**, Germany (TUD)
2. **AGH University**, Poland (AGH)
3. **AM/FM GIS Italia**, Italy (AMFM)
4. **Association for Geospatial Information in South-East Europe**, Bulgaria (AGISEE)
5. **Association of Geographic Information Laboratories for Europe**, Netherlands (AGILE)
6. **Association USIG** (Users of Geographic Information), Portugal (USIG)
7. **CNR-IMATI**, Italy
8. **EUROGI**, Netherlands
9. **Fraunhofer Gesellschaft**, Germany (FHG-IGD und FOKUS)
10. **GISIG**, Italy
11. **Hungarian Association for Geo-information** (HUNAGI)
12. **Research Institute for Artificial Intelligence**, Romania (ICIA)
13. **Intergraph**, Czech Republic (INGR)
14. **Kuovola Region Federation of Municipalities**, Finland (KRF)
15. **Linköpings Universitet**, Department of Computer and Information Science, Sweden (LIU-IDA)
16. **Regione Piemonte**, Italy (PIEMONTE)
17. **Katholieke Universiteit Leuven**, Belgium (K.U.Leuven R&D)
18. **The South East European Research Centre**, Greece (SEERC)
19. **The University "Jaume I" (King James I)**, Spain (UJI)
20. **University of Rome "La Sapienza"**, Italy (URS)



Aspects relating to standards, dissemination of information and exploitation of the results

1. INSPIRE

- JRC + EuroGeographics at the **Advisory Board**
- Partners are represented in **INSPIRE committees**
- **Related projects** in the INSPIRE context
- **Workshops and presentations** at the INSPIRE Conferences

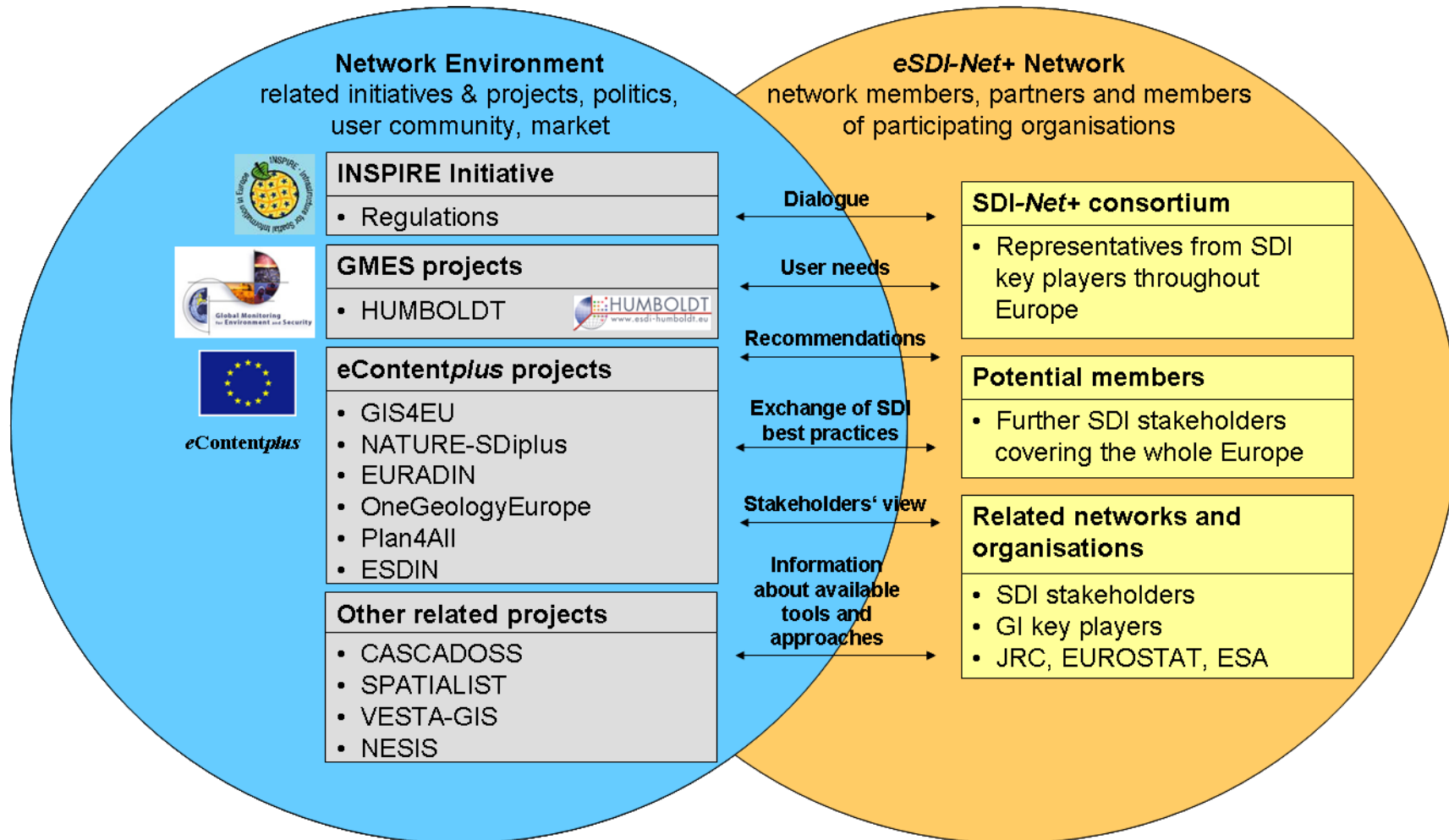
2. **OGC**: bilateral meetings and membership of partners

3. **Industry**: INGR partner; ESRI in Advisory Board; participate in project events and workshops

4. Dissemination & **Awareness** building

→ **Network Sustainability**

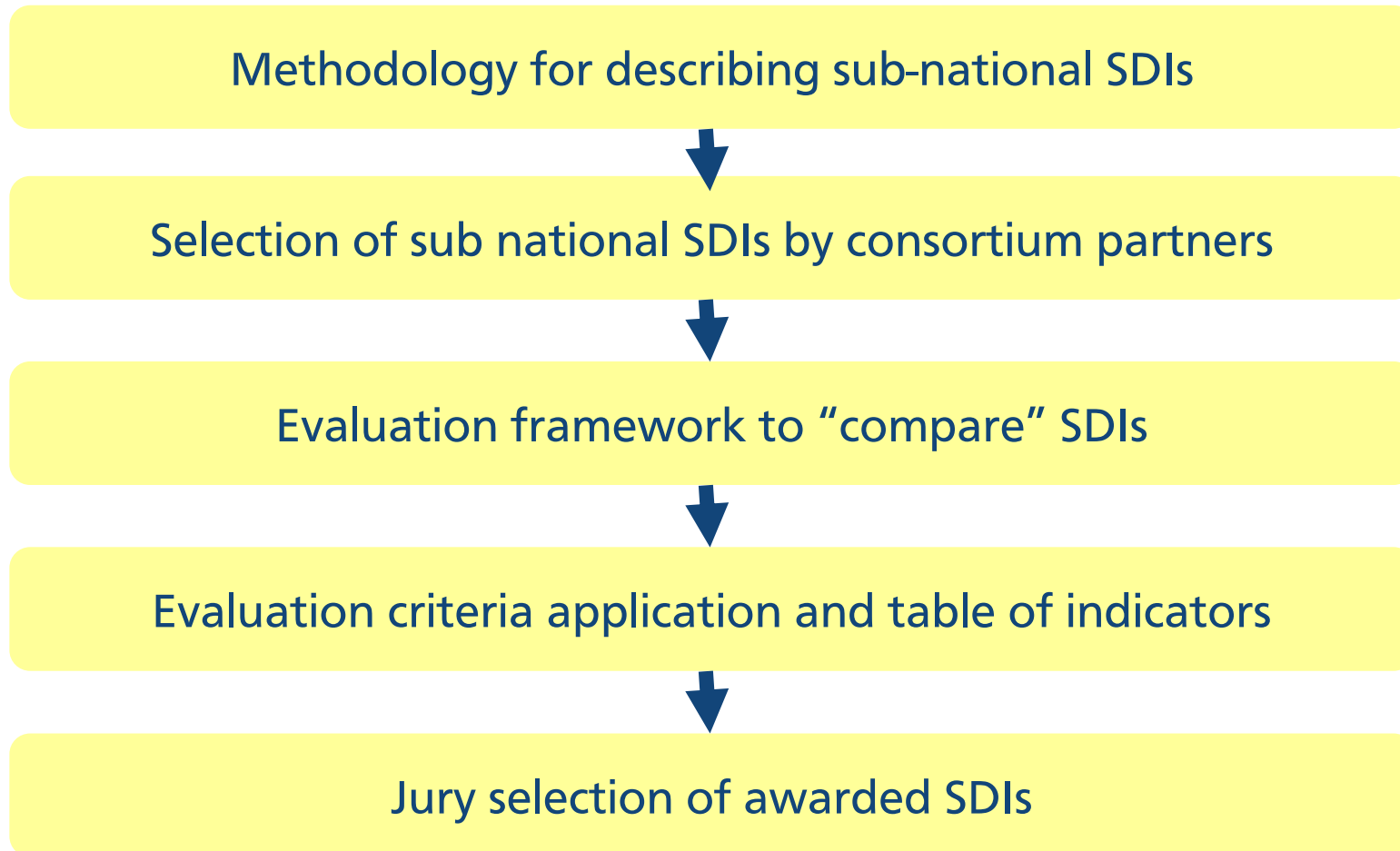
Collaboration with related initiatives



eSDI-Net+: from local to global and back

- **Start with the bottom-up approach:**
 - Identify and document intelligible SDI solutions at local, national and regional levels having INSPIRE principles in mind
 - Determine common issues
- Evaluate possible integration of good practices
- Identify best practice solutions on existing SDIs
- Feedback to the INSPIRE community and the stakeholders
- **Followed by the top-down approach:**
Transfer of experiences back to sub-national level
to learn from each other

How did we select Best Practices?



Assessment methodology

Key aspects of the SDI selection:

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
-

106 questions are used to describe an SDI

Regional and national SDI workshops

SDI Selection Timeline	2008								2009						
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Southeast Europe						■	■	■	■	■	■	■	■	■	
UK/Ireland						■	■	■	■	■	■	■	■		
Portugal/Spain					■	■	■	■	■	■	■	■	■		
Hungary	■	■	■	■	■	■	■	■	■	■	■	■	■		
CZ/Slovakia	■	■	■	■	■	■	■	■	■	■	■	■	■		
Italy	■	■	■	■	■	■	■	■	■	■	■	■	■		
Germany	■	■	■	■	■	■	■	■	■	■	■	■	■		
Netherlands/Belgium						■	■	■	■	■	■	■	■	■	■
France	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Scandinavia					■	■	■	■	■	■	■	■	■	■	■
Poland					■	■	■	■	■	■	■	■	■	■	■

- Identification and Preparation
- Questionnaires and Interviews
- Assessment and Selection
- Workshop
- Report
- Recommendation of Best Practices for the Award

In Summary:

>200 solutions identified in 32 Countries
12 Workshops
135 SDIs evaluated
→ 12 SDI Best Practices

Assessment methodology

Evaluation criteria and indicators

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

→ Led to the Best Practice Award 2009 in 4 Categories

Outstanding European SDIs (1/4)

Tecnological aspects

Forth Valley GIS	Scotland, UK	www.forthvalleygis.co.uk
SNIG - Sistema Nacional de Informação Geográfica	Portugal	http://snig.igeo.pt
IDERIOJA: Infraestructura de Datos Espaciales del Gobierno de La Rioja	La Rioja, Spain	www.iderioja.org



Outstanding European SDIs (2/4)

Organisational and institutional aspects

Centre Régional de l'Information Geographique (CRIGE-PACA)	Provence-Alpes-Côte d'Azur, France	www.crige-paca.org
GDI Nordrhein-Westfalen	North Rhine-Westphalia, Germany	www.geoportal.nrw.de
Infrastruttura per l'Informazione Territoriale (IIT) della Lombardia	Regione Lombardia, Italy	www.cartografia.regione.lombardia.it



Outstanding European SDIs (3/4)

User involvement

<p>IDEC Infraestructura de Dades Espacials de Catalunya</p>	<p>Catalunya, Spain</p>	<p>www.geoportal-idec.net</p>
<p>X BORDER GDI (Cross border Geo-data infrastructure XGDI)</p>	<p>Province of Limburg, Netherlands</p>	<p>www.x-border-gdi.org</p>



Outstanding European SDIs (4/4)

Thematic SDIs

National Land & Property Gazetteer and National Street Gaze	English Regions & Wales, UK	www.nplg.org.uk
SIG Pyrénées	Aquitaine, Midi-Pyrénées et Languedoc-Roussillon, France	www.sig-pyrenees.net
Plansystem.dk	Denmark	www.plansystem.dk
Norway Digital-ND	Norway	www.geonorge.no

http://www.esdinetplus.eu/best_practice/outstanding.html

European SDI Best Practice Awards 2009

Learning from Best Practices
International Conference in Turin, Italy, Nov. 26th-27th 2009



Load Form

ID: IT1

SDI Name: sdi di prova

ID Card

- A - Quantity
- B - Quality
- C - Co-operat.
- D - Sustain.
- E - Usability
- Save and Close**

ID Card

Country: [] NUTS Level: []

NUTS name: []

Develop. status: [] Year of Creation: [] Legitimacy: []

Thematic SDI:

State Services:

Local Authorities:

Mission: []

Objective: []

Legal Status: []

Funding mechanisms: []

Binding mechanisms: []

URL: []

Is the SDI recommended, after National WS, in its class best practice at the national level?

Detailed sheet:

Microsoft Access - [ESDI]

File Modifica Visualizza Inzeccidi Formato Record Strumenti Piqetra

eSDI-NET plus

Country	NUTS Level	NUTS name
Italia	2	R. Liguria

SDI Name: SITAR Sistema Informativo Territoriale Ambientale Regionale

Status	Year of Creation	Legitimacy
In operation	1998	Legge regionale

Thematic: State Services: Local Authorities: Workforce: 16

Mission
Implementazione, manutenzione e divulgazione della base dati geografica territoriale e ambientale

Objective
Raccogliere, integrare, certificare, gestire e diffondere i dati geografici e ambientali

Legal Status
Struttura interna all'ente

Funding mechanisms
Regionale

Binding mechanisms
convenzioni

URL
<http://www.cartografia.regione.liguria.it>

Detailed sheet: Evaluation framework per la descrizione delle IDT sub-n

Available soon at http://www.esdinetplus.eu/best_practice/database.html

Available Results - Summary

- **Sustainable network**
as a platform to exchange experiences in the field of SDI and GI
- **International contacts**
to SDIs, GI and SDI key players, GI associations and related networks and projects
- **12 regional and national SDI workshops**
to present SDI best practices at local, national and regional levels
- **More than 200 SDIs from 32 countries analysed**
in interviews and at workshops
- **12 European SDI Best Practices**
highly commended at the European SDI Best Practice Awards 2009 in Turin, Italy in November 2009
- **SDI Best Practice Database**
containing data of 135 sub-national SDIs (will be public soon)
- **SDI assessment methodology**
developed by the eSDI-Net+ project
- **SDI self-assessment framework** will be finalised soon

Lessons Learnt

- **Each SDI is a special case**
 - with its specific requirements and needs
 - with its individual solution
- **We can learn from each other**
 - Leadership and supportive structures are essential
 - Dialogue is not only helpful, but needed
 - Exchange experiences (do not re-invent the wheel)
(the information has not yet reached all the level to be involved)
 - Good practices as examples are motivating
 - well-known ones: e.g. Catalunya in Spain, North-Rhine Westfalia, Germany
 - less known ones: e.g. IDERijoa in Spain, X-Border-GDI (NL, BE, Ger)
- SDIs will not grow in a week
→ **get started and grow over time**

Next steps toward sustainability

- Promote Best Practices
 - workshops to bring these experiences back to sub national level
 - Dissemination of lessons learnt
 - Continue the SDI assessment process
 - Call for a next Best Practice Award
- Provide a SDI Self Assessment Framework
- Extend the network
- Generate impulses at the European and international level
 - JRC, EUROSTAT, ESA, ...
 - United Nations, Digital Earth, ...

➔ **Strive for a sustainable network: eSDI-Net+ under EUROGI flag**



eSDI-Net+: a network to continue!

- Long-term sustainability with support of EUROGI
- Continue updating the database of SDIs
- Continue the series of the showcase workshops
- Involvement of the SDIs and the network partners in the workshops of related projects
- Personnel allocated to support the development of the eSDI-Net+ network and PR measures
- Integration of the eSDI-Net+ website in EUROGI's website, maintained by EUROGI, showing the ongoing developments of the network and in the SDI field



EUROGI

is the umbrella organisation that represents the European Geographic Information (GI) community. It is an independent, non-governmental, and non-profit organisation.

EUROGI is convinced that good governance, economic and social development, and informed public participation depend upon the availability and widespread use of reliable and spatially-referenced information





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**eSDI-Net+ newsletter
06/2010 - SDI
assessment results and
upcoming events**

**eSDI-Net+ at the Digital
Earth Summit 2010 in
Nessebar, Bulgaria**

**SDIs in Dialogue -
eSDI-Net+ at the
INSPIRE Conference
2010 in Krakow**