Spatially enabling e-government through geo-services

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About the presentation

- Few information about Eurogi ;

- Some essential information about INSPIRE;

- Brief presentation of e-SDINET+ network

- Brief discussion about geo-services ;

- Conclusions and recommendations .

About EUROGI: Profile

- Celebrating 15 years of activities in 2009 (establ. 1994)
- Established as a <u>Foundation</u> ('Stichting') under Dutch law and the <u>patronage of European Commission</u>
- Core membership by national representation
- 23 members – Network of networks –
- Collectively representing more than 6500 organisations All sectors: Public, Private, Academy, …
- Inclusive – Open to the participation of all stakeholders
- Broad European coverage through members and projects
- Member centric organisation focused on GI usage
- Long time committed to INSPIRE directive
- Continuously collaborating with EU/EC and other Associations
- Policy oriented, Awareness raiser and Capacity builder

Subject: GLOBAL SPATIAL DATA INFRASTRUCTURE: A EUROPEAN CONTRIBUTION TO COPENHAGEN CLIMATE CHANGE CONFERENCE

In light of the above, <u>EUROGI would like to suggest that as part of the European Union's contribution to the negotiation process it recommend that a commitment to establish a GSDI be included into the Copenhagen agreement. EUROGI also suggests that the Union representatives put forward INSPIRE as a good/best practice example of how a multi-national SDI may be created.</u> Developing a GSDI would need to involve other GI related organisations which have a global remit, including the Open Geospatial Consortium (OGC), the Group on Earth Observations (GEO) and the Global Spatial Data Infrastructure Association (GSDI), all of which would need to play an important role in moving a GSDI forward.

INSPIRE foundations

INSPIRE is needed….

Needs
- **Better information** needed to support policies
- Improvement of existing **information flows**
- **Differentiation across regions** to be considered
- Revision of approach to reporting and monitoring, moving to concept of **sharing of information**

EU has islands of data of different standards and quality...

Situation in Europe
- **Data policy restrictions**
  - pricing, copyright, access rights, licensing policy
- **Lack of co-ordination**
  - across boarders and between levels of government
- **Lack of standards**
  - incompatible information and information systems
- **Existing data not re-usable**
  - fragmentation of information, redundancy, inability to integrate
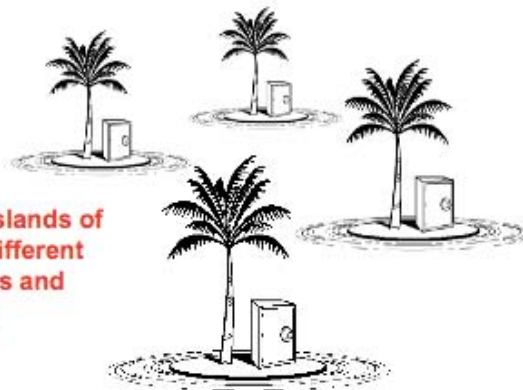
July 2004 - EC Proposal COM(2004) 516 for a Directive establishing an infrastructure for spatial information in the Community – INSPIRE
Political Agreement 21 November 2006
Entry into Force 15 May 2007

INSPIRE Governance - 13th EC GIS Workshop, Porto 4-6/07/07 – slide 11

Spatial data = focus of '90ies

INSPIRE PRINCIPLES

1. Spatial data have to be stored, made available and maintained at the most appropriate level.
2. It should be possible to combine spatial data from different sources across the community in a consistent way and share them among several users and applications.
3. It should be possible for spatial data collected at one level of public authority to be shared among other public authorities.
4. Spatial data are made available under conditions which do not unduly restrict their extensive use.
5. It should be easy to discover available spatial data, to evaluate their suitability for a given purpose and to know the conditions which apply to their use.

INSPIRE

INSPIRE Directive
General Provisions

- INSPIRE lays down general rules to establish an infrastructure for spatial information in Europe for the purposes of Community environmental policies and policies or activities which may have an impact on the environment.

    - This infrastructure shall build upon infrastructures for spatial information established and operated by the Member States.

- INSPIRE does not require collection of new spatial data – electronic format

- INSPIRE does not affect Intellectual Property Rights

INSPIRE Governance - 13th EC GIS Workshop, Porto 4-6/07/07 – slide 12

INSPIRE Directive Components

I. Metadata

II. Interoperability of spatial data sets and services

III. Network services (discovery, view, download, transform, invoke)

IV. Data and Service sharing (policy)

V. Coordination and measures for Monitoring & Reporting

INSPIRE is a Framework Directive
Detailed technical provisions in Implementing Rules (IR)

INSPIRE Spatial Data and Thematic Scope

ANNEX I - SPATIAL DATA THEMES REFERRED TO IN ARTICLES 6(A), 8(1) AND 9(A) : 1. Coordinate reference systems ; 2. Geographical grid systems ; 3. Geographical names ; 4. Administrative units ; 5. Addresses ; 6. Cadastral parcels ;7. Transport networks ; 8. Hydrography ; 9. Protected sites .

ANNEX II - SPATIAL DATA THEMES REFERRED TO IN ARTICLES 6(A), 8(1) AND 9(B) :

1. Elevation ; 2. Land cover ; 3. Orthoimagery ; 4. Geology

ANNEX III - SPATIAL DATA THEMES REFERRED TO IN ARTICLES 6(B) AND 9(B) :

1. Statistical units ; 2. Buildings ; 3. Soil ;4. Land use ;5. Human health and safety ; 6. Utility and governmental services ; 7. Environmental monitoring facilities ; 8. Production and industrial facilities ; 9. Agricultural and aquaculture facilities ; 10. Population distribution — demography ; 11. Area management/restriction/regulation zones and reporting units ;12. Natural risk zones ;13. Atmospheric conditions ; 14. Meteorological geographical features ; 15. Oceanographic geographical features ;16. Sea regions ;17. Bio-geographical regions 18. Habitats and biotopes ;19. Species distribution ; 20. Energy resources ;21. Mineral resources

Context Conclusions

- Spatial Data Infrastructures are a GLOBAL concern
- A conceptual shift in policy development
  - Towards integrated (spatial) assessments
  - Towards risk based environmental management
- Risk based environmental management requires:
  - For Risk Assessment (local to global)
    - Comprehensive, co-ordinated/common Monitoring programmes
    - Long-term Archiving and Access-to-data organised at the point of use
    - Consensus on models and mapping/portrayal of risks
- Recent Community Environmental policy developments are both a challenge and an opportunity for INSPIRE

The Community needs INSPIRE

Is INSPIRE directive innovative ?

The Directive does not deal with the realization of infrastructures but with their <u>efficiency and sustainability</u>.

The Directive legal framework is aiming to let compose all data and services. The model is an <u>equal opportunity model for all the data and providers (public and private) and is based on member state subsidiarity </u>.
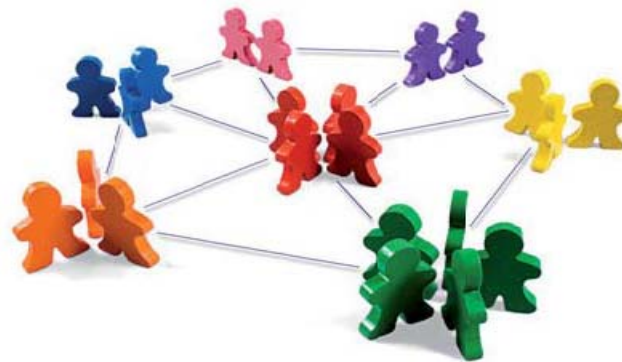
eSDI-Net+ a project within INSPIRE context

Network for promotion of cross border dialogue

and exchange of best practices on Spatial Data Infrastructures(SDI's) throughout Europe

Establishment of a Thematic Network funded within
the eContentplus programme of the European Commission
ECP-2006-GEO-320005

Why eSDI-Net+?

Obstacles SDI's have to face:

1. Technological Barriers
   (Lack of Reusability and Clustered Data)

2. Organisational Barriers
   (Fragmentation and Lack of Harmonisation and Interoperability)

3. Legal Barriers

4. Cultural and Linguistic Barriers

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

Desk studies, workshops, best practices analysis & evaluation , award , network establishment
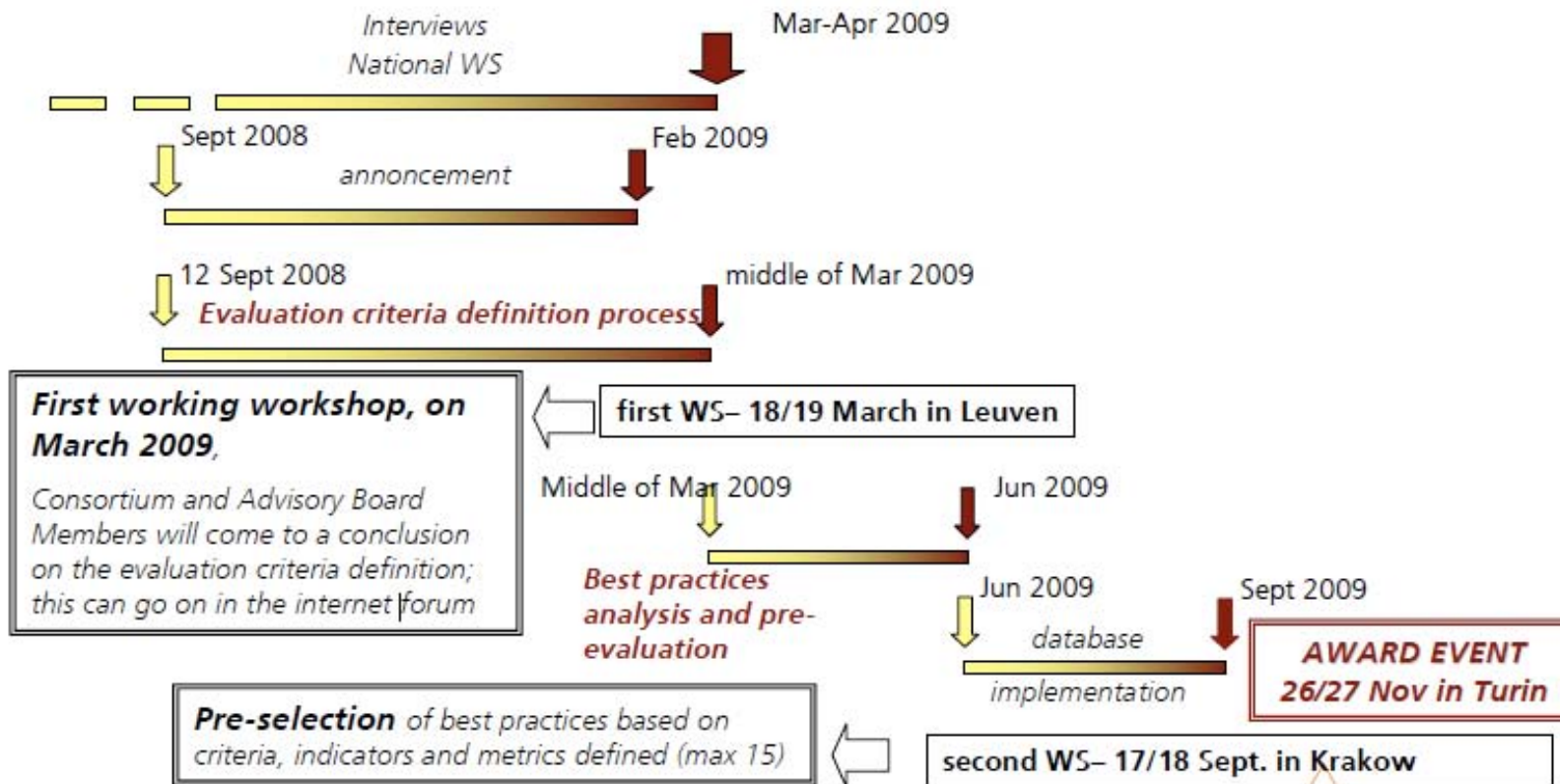
Key Aspects of SDIs being Assessed

- Usage
- Networking
- Socio-economic impact
- Organisational assessment
- Coping with legal aspects
- Technical functionalities and facilities
- INSPIRE compatibility
- eGovernment relations

A model to be used ?

Best Practice Award Planning

eContent — eSDI-NET plus

Interviews National WS — Mar-Apr 2009

Sept 2008 — Feb 2009

annoncement

12 Sept 2008 — middle of Mar 2009
Evaluation criteria definition process

First working workshop, on March 2009,

Consortium and Advisory Board Members will come to a conclusion on the evaluation criteria definition; this can go on in the internet forum

first WS– 18/19 March in Leuven

Middle of Mar 2009 — Jun 2009

Best practices analysis and pre-evaluation

Jun 2009 — Sept 2009

database

implementation

AWARD EVENT 26/27 Nov in Turin

Pre-selection of best practices based on criteria, indicators and metrics defined (max 15)

second WS– 17/18 Sept. in Krakow

Some lessons learnt

It has already been largely demonstrated that the success and the efficiency of SDI is strictly dependent on how it has been designed, organized, populated by data, how it satisfies the need of end users, how it is locally dependent and centrally related.

Therefore <u>the networking and the constructive dialogue among stakeholders, users, potential users, developers and institutions is highly needed</u>.

One proposal for discussion

Since the SDIs are globally pervading our earth it may seem reasonable to consider for evaluation the already discussed and experimented <u>model of a thematic network for creating a network of SDIs in other regions of the globe.</u>

INSPIRE Conference 2010

4th INSPIRE Conference

➤ The 4th INSPIRE conference will be held in Krakow, 22 -25 June 2010. Additional information will be available soon.

Past Conferences and EC GI & GIS workshops

➤ 2009 3rd INSPIRE Conference, GSDI/INSPIRE:Building SDI Bridges to Address Global Challenges

➤ 2008 2nd INSPIRE Conference, INSPIRE:Implementation and Beyond

➤ 2007 1st INSPIRE Conference, ESDI for the Environment

➤ 2006 ESDI:From Inspiration to Implementation

➤ 2005 ESDI: Setting the Framework

Good opportunity :

• for international addressing to EU GI community by the UNRCC and UNSD ;
• for seeing the state of play ;
• for discovering ongoing projects ;
• for building cohesion among world regions .

SDIs sustainability

- There is one SDI model which fits to all ?

- Is it right to say *per se* : no cartography = no development ?

- Does SDI need only technology and data ?

- SDIs may profit by other sustainers (e.g. e-government, settlements policy and management, agriculture, social issues, etc. ?) .

e-gov → geogov

E-gov services + geo information = geogov

The *geo*-government (*geo-gov*) is the ability of public authorities to use geo information for managing , controlling, planning human activities and the nature of the territory.

***Geo-gov* concretizes if the geo-information is bundled within the public administration initiatives in a way that the final user (inhabitant ,environment and wildlife) gets advantages which may not be achieved without using geo-information and SDI .**

e-gov → geogov but not only

- **geo-services offered and/or supported by SDI are used locally by end users that have their own identity reflected in the services requested and the *geo-gov* acts locally as already experienced by the *e-gov.***

- **geo-services useful services supported also by other technologies (e.g. telecommunication, RFID, ….)**

micro-knowledge of the territory. To deliver geo-services where and when they are needed to final users.

Final users demand results and services on time and where they need.

The approach of providing services where they are requested and for the direct users helps to reduce the digital divide and *de-facto* facilitates social and economic development.

Conclusions and recommendations

• GI is based on locally based knowledge of communities;

• SDI should insure the exchange of most of the data locally and centrally originated;

• GI based knowledge and activities should be fostered for the benefit of the local communities;

• GI should be used for mitigating the divide among areas and communities;

• Services may be built on GI, they may be delivered through different channels ;

• Initiatives such INSPIRE can benefit from considering efficiency and sustainability. As legal framework it is worth to compose data and services. The most sustainable model is an equal opportunity model for all stakeholders and is based on subsidiarity model.

•Collimation of agencies achieved through the GI and services is robust as based on user needs.