Evaluation framework for describing sub-national SDIs

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1 Introduction

1.1 Purpose of this document

This document derives from WP2, Identification and analysis of best practices, 2008, *Methodology for describing sub-national SDI*[1]*:* its purpose is to be an operative guideline for interviews of sub-national SDI officials.

This document is not a questionnaire to be blindly sent out and filled. The role of interviewers is substantial with regard to the aim of assessing sub-national Italian SDIs.

Sub-national SDI means at locale level (Regions, Municipalities, Provinces, Comunità Montane [Consortia of small Municipalities in the mountain areas] Basin Authorities…) or thematic.

The interviewer activity consists of five steps:

1. Identifying the sub national officials i.e. the person that chairs the "executive" committee of the SDI and the person that is responsible for the day to day running of the SDI
2. Undertaking a direct interview of the identified officials (and invite them to participate in the national workshop). If possible interviewing also some politician in charge of or interested to SDI
3. Compiling any written materials from the SDI officials that relate to the assessment
4. Performing control using the Internet and analysing SDI geoportal
5. Minuting the interview and elaborating a synthetic report written in a homogeneous and comparable way, producing an assessment sheet.

1.2 Main references

- WP2, Identification and analysis of best practices*,* 2008, *Methodology for describing sub-national SDI,* document that was finalized as: eSDI-Net+, 2008, *List of common parameters to assess SDI initiatives,* Deliverable number D2.1;
- INSPIRE, 2008, *Monitoring and Reporting Implementing Rules.Draft v2.1*[2];
- Almiral P., et al., 2008, *The Socio-Economic Impact of the Spatial Data Infrastructure of Catalonia*[3].

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[1] See: eSDI-Net+, 2008*, List of common parameters to assess SDI initiatives*, Deliverable number 2.1
[2] http://inspire.jrc.it/reports/ImplementingRules/monitoring/INSPIRE_DT_MR_DraftImplementingRules_140308.pdf
[3] http://www.ec-gis.org/inspire/reports/Study_reports/catalonia_impact_study_report.pdf

2 Sub-national SDI identity card

The following card is the ID of the sub-national SDI to be analysed.

Country name:	
NUTS level/s [4]:	
Sub-national name:	
Sub-national SDI name	
Mission statement:	
Objective:	
Legal status:	
Funding mechanisms:	
Human resources of the permanent team (if any):	
Legitimacy:	
Year of creation:	
Partners in the SDI (who pays, who benefits from):	
Binding mechanisms for the partners:	
Development status (inception, in development, in operation):	
URL:	

3 SDI data and services

3.1 Qualitative Analysis

3.1.1 Data
- Which data the SDI is servicing (reference geographical data, thematic geographical data)?
- Has the SDI a special focus on precision and quality issues?
- Has the SDI provided data legal and official status?
- Have you checked if and what served data are included in INSPIRE Spatial Data Themes List of Annex I, II and III[5]?

3.1.2 Metadata
- Are SDI served data documented by metadata?
- Are metadata referred only to data or also to services?
- Is there a metadata search engine? Is there a graphically accurate metadata presentation?
- Are metadata compliant to a standard? What?
- Have you verified the compatibility of metadata with INSPIRE Metadata Implementing Rules[6]?

3.1.3 Services
- Which services the SDI does provide? (Catalogue services. e.g. CSW; web services, e.g. WMS-WFS; download services)
Likely the interviewer has to clarify this question: reference is web services (that use SOA concepts), not for example webGIS[7]
- Does the SDI only supply data or does it enable value-adding services? (spatial analysis, cartography, indicator computation, etc.)

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[4] http://ec.europa.eu/eurostat/ramon/nuts/home_regions_en.html

[5] http://eur-lex.europa.eu/JOHtml.do?uri=OJ%3AL%3A2007%3A108%3ASOM%3AIT%3AHTML

[6] http://www.ec-gis.org/inspire/reports/ImplementingRules/INSPIRE_Metadata_ImplementingRule_v3_20071026.pdf

[7] http://www.ec-gis.org/inspire/reports/ImplementingRules/network/D3.7_Draft_IR_Discovery_and_View_Services_v2.0.pdf

- Do you experience an evolution from providing data (data services) to providing service (servicing data)?
- Does the   SDI have geoportal facilities, i.e. is there functions that let merge information from various portals or platforms in order to support data sharing?
- Regarding search engine have you developed mechanism enabling to escape from the syndrome known as "zero hits" versus "too many hits"?
- Have you mechanisms to quote the relevance ratio of each answer to a given question (semantic aspect)?

3.2   Quantitative Analysis

Interviewer can take these information during the direct interview but has to verify them analysing the Geoportal.

3.2.1   Data
- Number of information layers SDI is servicing:
- Number of information layers SDI is servicing that could be included in INSPIRE Spatial Data Themes List of Annex I, II and III:
- Number of information layers that are provided with a visualization service (WMS)
- Number of information layers that are provided with a download service (WFS or different)

3.2.2   Metadata
- Number of information layers SDI is servicing provided with metadata
- Number of services SDI is servicing provided with metadata
- Percentage of information layers provided with metadata compliant with INSPIRE Metadata IR
- Percentage of services provided with metadata compliant with INSPIRE Metadata IR

3.2.3   Services
- Is there a discovery service (CSW, cfr. INSPIRE *IR for Discovery and View Services*)?
- Is there a view service (WMS, cfr. INSPIRE *IR for Discovery and View Services*)
- Is there download services? Of what sort (WFS or files)?

4   SDI Usage assessment

This set of questions intends to analyze SDI usage based on user requirements and satisfaction. The basic information to acquire is if the SDI development has been based on clear and well defined user requirements. The definition of the users in his specific context (and their classification) has to be let to the interviewed persons. Then it has to be investigated the existence of actions to verify user satisfaction. No direct interviews to the users are foreseen.

4.1   SDI usage
- Is the SDI based on a users requirements analysis? If yes, which has been the process of users and users requirements identification?
- What is the level of openness of the SDI (open to all, limited to a user community, partially open and partially limited)?
- Which are or expected to be the users types (GI technologists, decision makers, elected people, general public)?
- What new usages are enabled by the SDI existence?

4.2   Usage and users satisfaction assessment
- Are there procedures to assess SDI usage, its effective use and the user satisfaction? If yes what is the methodology for assessing?
- If the SDI has a usage cost for the users, how do you justify this expense?
- What is your experience in addressing the users requirements?
- Have you developed service performance measurements (i.e. number of accesses to services)?

4.3   Social impact
- As far as you know, how far has the SDI modified workflows, the way of working?
- As far as you know, have new processes been introduced after the SDI implementation by its users?

- How far has the SDI modified/facilitated the relationships between citizens and Public Administration?
- Is the SDI producing an impact different from the GIS impact?
- Is it possible to differentiate SDI impact and GIS impact?

5 Networking and consensus building

This set of questions intends to understand the networking issue the sub-national SDI has to face in order to create a climate of opinion, to identify common interest, shared interest, and to build consensus. It relates to the humanware and tries to identify what exists beyond the digital façade (the emerged part of the iceberg visible on the net).

5.1 Networking
- Have you structured the network of those that are involved or have been already in place?
- In the process of networking people have you defined so called "community of interest", "community of practice"…?
- If it exist, how is organized the network?
- Which are the most important barriers (awareness of SDI concept, refusing the networking?
- How does the SDI networking facilities interaction with professional networks?

5.2 Awareness raising
- Have you defined competences and skill requirements for using SDI?
- Have you capacity building mechanisms?
- Do you organize and/or offer training for users?
- Do you think education of users is important in structuring the network and in using the SDI?
- Are you networking the SDI experts?

6 Socio-economic impact

This set of questions intends to evaluate whether the sub-national SDI has undertaken socio-economic impact analysis. To assess this aspect different methods can be used such as cost benefit analysis, cost avoidance. The objective here is to collect results, if any, and identify innovative methods.

6.1 Direct analysis
- Have you done socio economic impact analysis? Are you willing to share information on that topic and contribute to it?
- What methods have been used and what results obtained if any?

6.2 Indirect analysis
- Have you evaluated the number of organizations having created and/or enhanced GIS applications due to the existence of the SDI?
- Has the SDI implementation fostered new business opportunities for SMEs?
- Has value-adding services been created based on SDI?
- Is the nature of the GI market be influenced by the SDI?
- Have you assessed the impact on citizens and how have you done it? How?

7 Organisational aspects

This set of questions intends to assess the place and role of the sub-national SDI in the overall organisation of the territory.

7.1 Administrative area governance
- How local governments having their own responsibilities do interrelate within the SDI?
- Are local governments supported (financially, indirectly, etc.) in participating to the SDI?
- What is the policy and administrative context of the SDI, are activities going beyond the SDI?
- Which are the policies that stimulate the SDI?
- How far SDI enables better coordination of administrations having responsibilities over a given territory?

-   How far the public sector actors are ready to invest in data sharing, including the training of appropriate staff to use the services offered by the SDI?
-   How the SDI is affecting local governments and how far the interest effectively is raising in the control branch of local governments?

7.2 Funding and responsibility aspects
-   Who pays for the investment costs and the running costs of the   SDI?
-   Who takes the responsibilities for the SDI to happen: how is it done?
-   Is there a necessity for a new body to look after SDI?

7.3 Other organizational aspects
-   What are the messages you would like to channel to the EC regarding the European statements that the Regions should undertake regarding   SDI (e.g. in the modernisation and IT area, not only produce data but also enable data sharing)?
-   Are sub- SDI in the area covered by the   SDI that has a remarkable aspect that could be reported on?

8 Legal aspects

Legal aspects of sub-national SDI are two fold. On the one hand it copes with the laws and regulations that the SDI has to comply with and on the other hand what is the legal status that the SDI should have to reach sustainability.

8.1.1 Legal compliance
-   How to cope with the legal aspects (intellectual property rights – IPR, public sector information – PSI, data base protection – DBP, legal framework status, INSPIRE)?
-   Who drives the IPR issues, including valuing the results of the SDI?
-   What is your position regarding IPR restriction and PSI facilitation?
-   Do users know what they are allowed to do?

8.1.2 Legal status
-   Has the organisation driving the SDI a legal status?
-   Who bears the responsibility in case of misuse the   SDI?

9 General remarks

-   How do you see the future of the SDI in the   context?
-   How do you see the future of the SDI in the context of emerging technologies such as Goggle Earth & Microsoft development?
-   How do you see the sustainability principles applying to interoperability of   SDI with neighbouring SDI and the national SDI as well as with thematic SDIs?

10 *Evaluation* del geoportal

This section is not part of the interview. It has to be filled by the interviewer in back-office after appropriate checkings on the web.

10.1 Visibility
-   Existence of a direct link from the sub-national entity website homepage
-   Existence of a link from the national SDI website
-   Does a link exist when using search facilities of the sub-national entity website?
-   Does a link exist when using search facilities of the national SDI website?
-   Number of links necessary to reach the sub-national SDI knowing the name but not the URL and using a search engine such as Google

10.2 Multilingualism
-   How many are languages (and dialects) offered by   SDI geoportal in the user interface?

-   How many are languages (and dialects) really available?

10.3   Consistency in nomenclature

-   Use of mixed terms (i.e. Italian and English) in the user interface
-   Name (and language) used for the view service and for its tools (tools tool tips)

10.4   Effectiveness on the view service
-   Compliance of the view service functionalities against functionalities required by art. 11.1.b of the INSPIRE Directive