

# INSPIRE State of Play: Generic approach to assess the status of NSDIs



SADL

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# Outline

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- Context
- Objectives, approach and methodology
- Results
- Strengths and weaknesses
- Conclusions



# Context

- Start of the INSPIRE process, 2001
  - Recognition of the importance of the geographic information sector at European level
  - MoU signed by 3 Commissioners at the level of the EC, 2002
  - Proposal for an INSPIRE Directive, 2004
  - Recognition to build the European Infrastructure on existing NSDI, RSDI, LSDI, ...
  - At European level, only a partial view existed on the status of the European NSDI, 2002
- ☞ INSPIRE - SoP
  - State of Play of the (N)SDI in Europe – where are we?



# Objectives

- State of Play of NSDI and their development 2002-2005
- Description, monitoring and assessment of the NSDI of 32 countries
  - EU-25, 3 candidate countries, 4 EFTA countries
- Collection and structuring information on 5 components of the NSDI (GSDI Cookbook) + environment
  - Legal framework and funding; organisational aspects
  - Reference and core thematic data
  - Metadata
  - Access to data and services
  - Standards



# Approach and methodology

- Study between 2002-2005
  - **Analysis** of websites, documents, input from national experts ... for the 32 countries >> 32 reports
  - **Visit** to 9 countries for a more detailed assessment (BE, NL, IT, HU, DE, FR, UK, FI, CH) >> 9 reports
  - **30 indicators** to describe 6 components >> interpretation of the information from the reports (agree, do not agree, partialy agree)
  - **Summary Report** with an assessment of the state of play: 'distance to target' as compared to the GSDI Cookbook + recommendations
  - **Typology** of the 32 countries based on the type of organisation and the maturity of the NSDI



# Approach and methodology

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- Organisational aspects: 7
- Legal framework, funding: 9
- Reference and core thematic data: 6
- Metadata: 3
- Access to data and services: 3
- Standards: 1
- Environment: 1



# Approach and methodology

- Examples of indicators
  - *“The approach and territorial coverage of the SDI is truly national” (I.1)*
  - *“One or more components of the SDI have reached a significant level of operationality” (I.2)*
  - *“The officially recognised or de facto coordinating body for the SDI is an organisation controlled by data users” (I.4)*
  - *“There is a legal instrument or framework determining the SDI-strategy or –development” (I.8)*
  - *“The long-term financial security of the SDI-initiative is secured” (I.15)*



# Approach and methodology

- Examples of indicators
  - *“Geodatasets exist which provide a basis for contributing to the coverage of pan-Europe for the INSPIRE-selected data themes and components” (I.17)*
  - *“Concern for interoperability goes beyond conversion between different data formats” (I.20)*
  - *“One or more standardised metadata catalogues are available covering more than one data producing agency” (I.24)*
  - *“There are one or more on-line access services for metadata on reference data and core thematic data” (I.26)*
  - *“The SDI-initiative is devoting significant attention to standardisation issues” (I.29)*





# Approach and methodology

- Indicators based on input from reporting
  - In agreement, partial agreement, no agreement
  - Not enough information
  - ☞ Overall assessment of 32 countries
- Classification of countries
  - Led by NMA or similar organisation (y/n)
  - User involvement
  - Degree of operationality
  - ☞ Typology of the 32 countries



# Assessment matrix of NSDI in 2006

Country	Organisational issues (I)							Legal issues and funding (II)									Data for the themes of the INSPIRE annexes (III)						Metadata (IV)			Network services (V)					Standards (VI)	Environmental data (VII)	Country			
	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				31	32	
AT	4																																		AT	
BE	3																																		BE	
BE-V	5																																		BE-V	
BE-W	4																																		BE-W	
DE	5																																		DE	
DK	5																																		DK	
ES	6																																		ES	
FI	5																																		FI	
FR	4																																		FR	
GR	2																																		GR	
IE	4																																		IE	
IT	4																																		IT	
LU	3																																		LU	
NL	5																																			NL
PT	5																																			PT
SE	5																																			SE
UK	5																																			UK
CY	3																																			CY
CZ	5																																			CZ
EE	3																																			EE
HU	3																																			HU
LT	4																																			LT
LV	3																																			LV
MT	2																																			MT
PL	3																																			PL
SI	4																																			SI
SK	4																																			SK
BG	2																																			BG
RO	2																																			RO
TR	1																																			TR
CH	5																																			CH
IS	4																																			IS
LI	3																																			LI
NO	5																																			NO

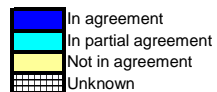


Table 3: Assessment of the building blocks of NSDI, autumn 2006

# Change matrix NSDI 2003-2006

Country	Organisational issues (I)							Legal issues and funding (II)									Reference data & core thematic data (III)						Metadata (IV)			Access services (V)				Standards (VI)	Environmental data (VII)	Country				
	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	31	32	
AT	■	■										■	■																						AT	
BE	■																																		BE	
BE-V	■																																		BE-V	
BE-W	■																																		BE-W	
DE	■																																		DE	
DK	■																																		DK	
ES	■																																		ES	
FI	■																																		FI	
FR	■	■																																	FR	
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SK																																			SK	
BG																																			BG	
RO																																			RO	
TR																																				TR
CH																																			CH	
IS																																			IS	
LI																																			LI	
NO																																			NO	

Table 5: Changes between status of NSDI building blocks between spring 2003 and spring 2006

- In better agreement than in 2003
- In less agreement than in 2003
- Change due to removal of 'unknown', error correction or second opinion
- Twice changed due to removal of 'unknown', error correction or second opinion
- No change compared to 2003

# Typology (2006)

Level I	Level II	Level III	EU-15	EU+10	CC-3	EFTA-4	Class
NDP-led	users involved	operational	DK, FI, SE, PT	HU		IS, NO	1,1,1
		partially operational	AT, GR, LU	PL			1,1,2
		not operational	<b>BE</b>				1,1,3
	users not involved	operational		SI, SK, LT			1,2,1
		partially operational		<b>EE, LV, CY</b>		LI	1,2,2
		not operational		MT	RO, BG, TR		1,2,3
not NDP-led	formal mandate	operational	BE-VL, DE	<b>CZ</b>		CH	2,1,1
		partially operational	<b>IT, IE</b>				2,1,2
		not operational					2,1,3
	no formal mandate	operational	NL, UK, BE-WA, <b>ES</b>				2,2,1
		partially operational	FR				2,2,2
		not operational					2,2,3



# The results for ... the NL (2005)

- Organisation
  - National coverage, at least one component well developed, users involved in coordination, public sector
- Legal, financial
  - No strategy, PPPs, privacy laws taken into account, no secure funding in the long term, ..., a lot not so clear
- Data and metadata
  - No documented QC at level of SDI, metadata OK
- Services
  - Catalogue services, rest not or unclear



# Strength and weaknesses

- Strengths
  - Overall view on the status
  - Comparability
  - Changes over time
  - Specific or focused?
  - Quantify the comparison?
  - Evolutive approach?
- Weaknesses
  - Interpretation
  - No quantification (not at indicator level, not in the assessment)
  - Tresholds rather law (e.g. a mapping service exists)
  - How is this solved in other approaches?
  - Quantify the indicators
- And ... where are the users?
  - How to capture this?



# Strength and weaknesses

- *“One or more components of the SDI have reached a significant level of operationality” (1.2)*
  - Agreement if ONE component is in place ... so a lot of blue
- *“There is a legal instrument or framework determining the SDI-strategy or – development” (1.8)*
  - Key is the strategy ... does a document exist?



# Strength and weaknesses

- *“Geodatasets exist which provide a basis for contributing to the coverage of pan-Europe for the INSPIRE-selected data themes and components” (I.17)*
  - To be quantified, take into account territorial coverage
- *“Metadata are produced for a significant fraction of geodatasets of reference data and core thematic data” (I.23)*
  - Significant fraction ...?





# Approach et methodology: revision

- Revision of the indicators in 2006
  - Link with INSPIRE (annexes I, II, III) – terminology, ...
  - Quantification of certain indicators
  - Clarify the method of interpretation
  - Two more indicators for services (5 types of services)
- Link with the work of the INSPIRE DT on M&R
  - SoP continues until the indicators defined by the DT are put in place
  - System to map the indicators of the SoP/DT



# Approach et methodology: not revised

- Assessment and typology based on indicators
- Based on reports
  - There are the interesting things
  - Details, use of SDI (components), applications
- What is not in the reports ! Field visits
  - See the persons and practices
  - In most cases, reality is not what they tell you
    - e.g. – metadata, services in Catalunya (< 20% use them)
    - ICCs definition of SDI = Jordi Guimet
  - “Don’t put this in the report ....”



# Conclusions

- INSPIRE SoP - Assessment framework to support a political process
- Useful framework for a general assessment
  - To get the overall picture
  - To detect different approaches in the way of working
  - To see evolvement over time
- Major drawbacks
  - No quantification (indicators and assessment)
  - Interpretation
  - Nothing on the use of the SDI
- Use it together with the reporting



Thank you ...



Questions ...

<http://www.ec-gis.org/INSPIRE>

INSPIRE SoP, Assessment FW SDIs, Wageningen, 2007

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