

Atlas of INSPIRE - Survey results

JC, JS, IvbB, WdV
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INTERNATIONAL INSTITUTE FOR GEO-INFORMATION SCIENCE AND EARTH OBSERVATION



Survey statistics

Respondents:

April 2009	December 2009
Belgium	Croatia (2x)
Bulgaria	Cyprus
Germany	France
Netherlands	Germany (GDI-DE)
Slovakia	Poland
Sweden	Sweden
	Switzerland
	UK
6	8(9)
Total of 12 countries	




Country	Most active organizations in complying to INSPIRE	Sectors
Belgium	AGIV, NGI, Kadastral administration, Wallon Geomatics department, Brussels Env. Institute	GI sector
Bulgaria	State agency for ICT, Agency for sustainable development and eurointegration	Informatics, IT
Croatia	State Geodetic administration; Ministries; private sector; geodetic institute; Univ. of Zagreb	Geodesy & (geo) ICT
Cyprus	Department of lands, surveys Environment service	Not yet involved
France	IGN; Geological survey; local authorities	
Germany	Administration of Environment; Surveys	Public sector
Netherlands	Kadaster, KNMI, PBL, provinces	VROM, Geonovum, IdSW
Poland	HQ Geodesy & Cartography	Geodesy, cartogr., cadastre
Slovakia	Min. of Environment; Env. Agency; Geodesy, Cartography and Cadastre Authority	GIS community in env. Agency
Sweden	Landmateriet - geodata advisory board; SMHI; SGU	Public sector
Switzerland	Federal Offices of Topography, of the Environment and Statistics	Geomatics
UK	Dep. of Environment, Food & Rural Affairs (Defra), Highways Agency (HA), Land Registry (LR), Ordnance Survey (OS)	GI; recently much wider info. User

Country	Which initiatives are Completed?	On hold - awaiting progress?
Belgium	GDI working group established; Transposition in national legislation ; Metadata already compatible	All other initiatives
Bulgaria	Spatial data access law approved by government	Metadata
Croatia	Legally mandated NSDI body; Public awareness campaign Transposition of legal framework	Full legal framework has to be worked out
Cyprus	New law has been drafted - submitted to government legal service	
France		Transposition still to be issue; there will be several decrees
Germany	Federal SDI steering committee established; National working groups	
Netherlands	Full adoption in legislation; cooperation agreement between public parties	
Poland	All activities / initiatives are ongoing and in different stage of completion	
Slovakia		Establishing GI as Basic E-gov register
Sweden	National coordination structure established; Version 1.0 of geodata portal completed	Identification of data providers awaiting adaption of env. Law; Financing and price models
Switzerland	none (only national law)	no dedicated initiatives but several specific investigations in institutions with European connections
UK	Location Strategy and Location Programme :	Nothing really on hold, but some things

Country	Headache articles / issues	Reasons for headaches
Belgium	Data sharing , interoperability, network services	
Bulgaria	Article 10, article 11 Article 18	Requires too big investments Requires additional resources (human & finances) to implement
Croatia	Data distribution not yet possible - Metadata	Will require significant investment to complete
Cyprus	Article 9	Implementation time and due date - difficult to meet.
France	Coordination & role of different decentral public authorities; Article 17 - requires data sharing among public authorities without any restrictions at the point of use	Unclear: what authority for which type of spatial data ; Seems difficult as we look at the numbers of actors involved.
Germany	Providing thematic datasets Arrangements of data sharing	To which & by which administrative level? Too many parties involved
Netherlands	Data specifications	
Poland	Articles 7, 11 and 12	Seem the first articles to tackle after transposition
Slovakia	The wide extent of themes and associated authorities of themes	Problem of coordination
Sweden	Article 17 Security and secrecy	Implications of this article are unclear
Switzerland	none	since it is not legally binding for Switzerland
UK	Within Network Services, the transformation	are still very unclear.

Headaches - observations

- Very diverse; different per country; per administrative level
- Common headaches:
 - Sharing and interoperability
 - Coordination & authority
- Administrative hierarchies cause uncertainties in :
 - Organizational (coordination) responsibilities
 - Distribution of thematic responsibilities



Country	Which laws and/or regulations are adapted as direct result of INSPIRE?
Belgium	GDI-decree(t)
Bulgaria	New special law
Croatia	Law on state survey and real estate cadastre - gazette 16 / 2007
Cyprus	A new law has been drafted
France	Local coordinating structures will be organised by local authorities, the link between the national level and the local levels will be established (probably on a consensus basis)
Germany	At Federal level: Geodata access law - GEOZG; At state level comparable laws in preparation
Netherlands	Anchoring in Dutch legislation
Poland	Spatial data infrastructure law - currently in Parliament
Slovakia	Amendment of law on geodesy and cartography
Sweden	A law and an ordinance, replacing present law (2005:181) on environmental information
Switzerland	none
UK	Directive itself will be transposed into a Statutory Instrument for all parts of the UK except Scotland

Country	Which organizations have adapted internal structures / activities to cope with INSPIRE?
Belgium	All organizations that own INSPIRE datasets
Bulgaria	Some divisions in the Ministry of Environment
Croatia	State geodetic administration has changed organizational schema, and introduced NSDI sector.
Cyprus	No changes so far
France	No changes to report yet
Germany	Coordination office SDI Germany has been improved , e.g. additional personal resources and budget
Netherlands	Very little to none
Poland	Establishment of coordination structure; Creation of spatial information departments within public agencies
Slovakia	Awareness of INSPIRE is low, hence very little adaptation
Sweden	Landmäteriet in coordinating NGI; establishment of geodata advisory board
Switzerland	none, but some processes and data models (e.g. at the Federal Office for the Environment) may change in future
UK	Defra (re-organised existing programme for INSPIRE); SRO

Observations

- Type and sequence of changes (if any) are very contingent (= dependent on local development paths and priorities)
- Currently changes tend to focus on structures and/or responsibilities rather than on changing the behavior / attitude
- Direct (intra-)organizational (back office) effects are not immediately felt / visible, yet are required (in terms of different resources and different distribution of resource allocation)
- The back office changes are not always visible to external stakeholders (hence may not be appreciated sufficiently)


Country	Which changes in operational management have you enforced to cope with INSPIRE?
Belgium	Creation of partnership agreement between regions and federal authorities; creation of working groups
Bulgaria	Preliminary studies on partial or full re-organization of public authority databases
Croatia	Depends on re-organization of SGA as first step; Many working groups are defined to implement in different sectors.
Cyprus	Changes have not yet been implemented
France	No changes to report yet
Germany	The SDI coordination office has been assigned national point of contact
Netherlands	Emergence of projects within organizations to shape the implementation of INSPIRE
Poland	HOGC established a council for INSPIRE implementation
Slovakia	Once new NSDI law is in force, the intention is to change operational and maintenance management
Sweden	Strategy comprises rules and guidelines for operative management, and focus on 7 areas: financing, organization, internal processes, external cooperation, communication, INSPIRE and e-government
Switzerland	None, too early
UK	As part of governance for the Location Programme there is a Location Information Interoperability Board - gathering together experts to determine common policy, standards and guidance. There is increasingly a more horizontal way of working.

Observations operational management


(despite coercive character INSPIRE, and despite having to encapsulate a uniform INSPIRE within a heterogeneous environment)

only some innovation in ways of working and associated management - e.g.

- Horizontal working methods
- Different types of project based work;
- chain management;
- cross-boundary approaches;
- (inter-national) joined-up approaches
- cross-organizational management structures
- Shared-responsibility



Country	Which changes in maintenance management have you enforced / observed as a result of INSPIRE?
Belgium	-
Bulgaria	No changes in data maintenance. It will await legal changes.
Croatia	Geoportal and cooperation concepts are fostered
Cyprus	Changes have not yet been implemented
France	-
Germany	Geodatencatalog-DE, a central catalogue service
Netherlands	-
Poland	Modernization of data models, harmonization of DBs, use of ISO norms, exchange standards based on XML, GML and implementing rules
Slovakia	-
Sweden	Awareness of information overlap between different organizations has increased, and underlying causes to this have been better understood
Switzerland	None
UK	too soon to answer this question

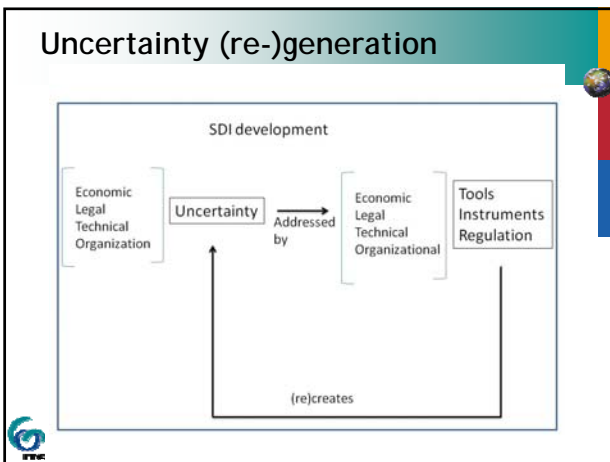


Country	Which policy is applied in investment management as an effect of INSPIRE?
Belgium	-
Bulgaria	Standard policy of public investment management apply
Croatia	INSPIRE is based on state budget funds supported with co-financing models, developed by some authorities involving local government and public enterprises
Cyprus	N/A
France	No decisions to report yet; each public authority is responsible for its own investment policy
Germany	No overall budget or investment management of INSPIRE
Netherlands	Limited investment through VROM ministry. INSPIRE considered important, yet not crucial for VROM
Poland	Policy consistent with national policy related to activities in SDI
Slovakia	No investment yet; yet, lots is anticipated - we intend to obtain finances from EU structural funds
Sweden	Geodataprojektet will analyse cost and benefits for society as a whole and for different stakeholders; Government invests 50Mkr (≈4.65 M€)/year for the coming 3 years; 30 Mkr is earmarked for coordination activities
Switzerland	none directly, investments concerning the NSDI are currently mainly provided by the Federal Office of Topography (swisstopo) and the cantons; internal measures in federal administrations are provided by the respective organisations
UK	The costs of complying with INSPIRE must come from BAU expenditure of each individual organisation.

Country	Where are still ineffective structures and/or operations when dealing with spatial data?
Belgium	-
Bulgaria	Still 'foggy' requirements for spatial data operations in the public administration before national law and set of regulations to be in force
Croatia	We are still building new structures, but already facing data sharing policy as major problem
Cyprus	A central management board is lacking with authoritative powers to all INSPIRE stakeholders
France	Coordination and cooperation should be improved; reference data sets for cadastral parcels
Germany	Finding thematic responsibilities; raising other stakeholders' awareness; integration of business processes; E-government could be more effectively integrated in decision support systems
Netherlands	-
Poland	Cooperation between public authorities, and access to spatial data sets
Slovakia	So far only few organizations in environmental sector are affected. No national standard beyond this.
Sweden	Interoperability; standardization methods; test environments of data and service conformity, including certification mechanisms
Switzerland	Everywhere. Despite many efficient and effective local structures nation-wide provision of data and services has to take into account the overall federal structure. This structure causes e.g. different data sharing policies in cantons and municipalities, which have to be provided on the national level in a way that is consistent and usable.
UK	Everywhere. Data still very silo-bound which leads to a lot of duplication and disconnections. The UK Government has now recognised this in wider field and announced plans to make public data public. At local government level there is little coordination on INSPIRE or real

Country	Which uncertainties are you still coping with?			
	Economic	Legal	Organizational	Technical
Belgium				Demarcation of reference datasets
Bulgaria		synchronization local texts with EU texts with many iterations.		
Croatia	Financial resources			quality of data
Cyprus		new law	Central authority	
France		Regulations cannot be too specific politically, as this will raise interoperability issues;		New products through INSPIRE are not compliant/adapted to GIS users
Germany		Heterogeneity of stakeholders backgrounds, leading to different interpretations of INSPIRE, implementing rules and guidelines; legal binding of technical specifications	thematic responsibility;	unexpected questions emerging during implementation

Country	Which uncertainties are you still coping with?			
	Economic	Legal	Organizational	Technical
Netherlands	Who pays? Currently, various organizations declaring funds to coordinating Ministry	Consequences of coercion of key data usage.		
Poland	Economic aspects;		Coordination with other programs, e.g. GMES; large amounts of implementing rules of different EU activities ; coping with people's mentality, and convincing them about INSPIRE benefits	
Slovakia			Coordination structures. Difference between national SDI and INSPIRE	
Sweden			Identification of key datasets, and related responsible organizations; need for awareness and co-understanding amongst stakeholders	
Switzerland		budgets other than federal are not yet available;	Availability of human resources; organizational and working cultures	
UK			Still a challenge to get organisations to work collaboratively. Organisations	No implementing rules yet. Much to



Country	What is the main success that introducing INSPIRE has achieved so far?
Belgium	Rise of awareness of importance of GI; creation of new initiatives for collaboration in Belgium
Bulgaria	Better structured information about how public administration is dealing with spatial and other types of data
Croatia	Necessity to harmonize and reduce multiple data collections has grown visibility. This has created good platform for action. NSDI concept has been legally adopted and accepted by stakeholders.
Cyprus	Adoption of common standards and rules. Storing and maintaining each category of spatial information once.
France	It is a good framework to incite GI stakeholders to strive for interoperability (even though not all interoperability is achieved)
Germany	Awareness of spatial issues has been improved; the legal requirements push existing SDI activities
Netherlands	Awareness has been created; now there is clarity about which data source holder is responsible for what feature
Poland	Better understanding of INSPIRE idea. Geoportal is already available.
Slovakia	INSPIRE forces us to innovate data provision and invent new web services
Sweden	It has infosized the need for standardization and information management; realization of national geodata portal with business models for data sharing; it has resulted in efficient coordination structure, incorporating all organizations.
Switzerland	In the last 6-8 years many projects to implement SDI for Switzerland. New law was a joint effort of many (public and private) institutions in Switzerland; is regarded as a major milestone.
UK	Because there is legislation to make it happen, it has forced the need for a governance framework for cross government working and more collaborative working

Observations

- INSPIRE not as end goal, but as vehicle to promote public sector back office integration and cooperation
- The effect of the formalizing processes through INSPIRE has raised awareness about spatial issues, and is pushing innovation in older (inert) institutions



Country	What key strategy do you recommend for the implementation of INSPIRE?
Belgium	
Bulgaria	Ensure significant new budgets for implementation. Seek co-funding with other projects (e.g. GMES)
Croatia	Legally mandated leadership to implement INSPIRE. Use weaknesses (i.e. not having national GI) as opportunities ; develop centralized data model structure; spend a few years in checking national data
Cyprus	Implementation through management board and director's team. Creation of working teams with experts from all organizations
France	Expand INSPIRE horizontally, e.g. link and be consistent to GMES for example
Germany	Establish a coordination structure involving broad participation - all levels of administration, research, business; accompany implementing phase by pilots and projects; cooperation between member states
Netherlands	Choose for a grow model; first do what is required and feasible, then expand.
Poland	Establish framework program for NSDI, including measures of coordination and organization.
Slovakia	No particular key strategy.
Sweden	Persistent communication and information about background and goals is essential. Showing good examples; a step-by-step implementation is recommended
Switzerland	Our main approach is to keep things simple (organisational and technical aspects).
UK	INSPIRE is a means to an end, not an end in itself so it must be play into the bigger context of business benefit. Wider vision and benefit is the aim, not just standardized data etc

Observations

- Evident leadership while using more flatter inter-organizational working relations
- Cultivation approach (not single /static design or coercive)
- A grow , step-by-step, model is common (scaling up approach) with global to local implementation plans
- Information infrastructure theory from social sciences



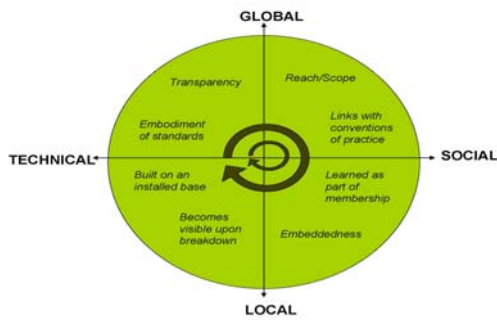
Understanding information infrastructures (Bowker, 2007; Hanseth & Monteiro, 1998)

- Installed base and lock-in effects
- Standardization processes - as processes of institutionalization
- Cultivation approach for information infrastructure constellation
- Bootstrapping & Scaling up approaches

<http://heim.ifi.uio.no/~oleha/Publications/bok.html>



Information infrastructure (Bowker et al, 2007) scaling up approaches



Cyberinfrastructure as distributions along technical/social & global/local axes



General observations

- Link overlap of INSPIRE to multiplicity of directives & programmes?

INSPIRE

ESDIN - European Spatial Data Infrastructure with a Best Practice Network

PSI (re-use of public sector information) Directive

Water Framework Directive

NESIS - Network to enhance a European Environmental Shared and Interoperable Information System

SEIS - Shared Environmental Information System -

SISE - Single Information Space in for the Environment

GIGAS - GEOS, INSPIRE, and GMES, an Action in Support

i2010 - European Information Society

ICTPSP - The ICT Policy Support Programme

GEOS - global earth observation system of systems -

GMES - Global Monitoring for Environment and Security

SDI.net

