

„Spatial data infrastructure and data dissemination policy in Slovenia“

“Infrastruktura za prostorne informacije i politika razmjene podataka u Sloveniji”



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SURVEYING AND MAPPING AUTHORITY OF THE REPUBLIC OF SLOVENIA

Dani NIIP-a, Zagreb, 25. November 2016

AGENDA

- **State of play regarding data / infrastructure;**
- **Founding approaches for data and infrastructures;**
- **The experience of actors in Slovenia**
- **Conclusions.**



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INSPIRE DIRECTIVE (2007)



TRANSPOSITION



INSPIRE Directive

URADNI LIST

Infrastructure for spatial information Act

ISI Act

(Official Gazette of RS, No. 08/2010)

EU Pilot
4472/113/ENVI

submitted	conclusion
17.1.2013	27.1.2015

Small changes to the

ISI Act

Before INSPIRE there was no official SDI in Slovenia

Other legal acts and strategic documents:

- Act on the Access to Information of Public Character,
- Electronic Commerce and Electronic Signature Act,
- Copyright and Related Rights Act,
- Spatial Planning Act,
- Real estate registration legislations
- Slovenia's Development Strategy,
- e-commerce strategy in the public administration bodies and the action plan for e-commerce in the public administration,
- e-Government Strategy of the Republic of Slovenia.

INSPIRE STAKEHOLDERS



Ministry of Environment and Spatial Planning
 Surveying and Mapping Authority,
 Slovenian Environment Agency,
 Slovenian Water Agency

Ministry of Infrastructure
 Slovenian Infrastructure Agency

Ministry of Agriculture, Forestry and Food,
 Ministry of Defence,
 Administration of the Republic of Slovenia for Civil
 Protection and Disaster Relief,

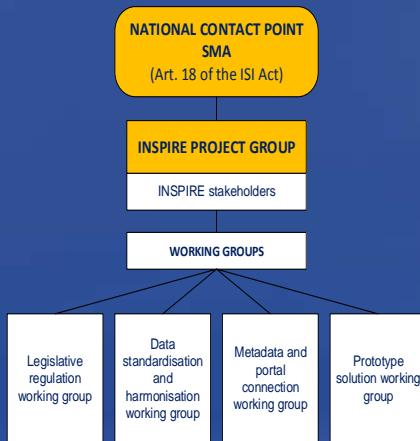
Ministry of Culture,
 Ministry of Economic Development and Technology ,
 Ministry of Health,
 Ministry of Public Administration,
 Ministry of the Interior,
 Statistical Office of Slovenia
 Geological Survey of Slovenia,
 Geodetic Institute of Slovenia,
 Institute of the Republic of Slovenia for Nature
 Conservation
 Biotechnical Faculty,
 Slovenia Forest Service
 Fisheries Research Institute of Slovenia,



COORDINATION



- **National contact point**
 - Slovenian member of European INSPIRE Committee and MIG member (MESP, SMA)
- **Inter-sectorial coordination group**
 - strategic body of stakeholders
 - **Data & Metadata managers**



STRATEGICAL DOCUMENTS

2. KAKO IZPOLNITI OBVEZNOSTI IZ DIREKTIVE INSPIRE

Ta deli obsega vsebino za letno vsilna direktiva INSPIRE, ki bo dovolj pripravljeni vna dokumenti – od avtorji, tehnični navodila in priročniki in drugi uporabniški priročniki. L namo uporabniki digitalni komunikacijske tehnologije in njihovo izvajanje. Za leto avtorstev z delovni urezi zanje pripravili tudi predstavitelji v slovenskem jeziku pod skupnim imenom vifaka implementacija INSPIRE.

Ti priročniki so namenjeni tako uporabnikom kot tudi uporabnikom prostorskih podatkov.

Informacijska priročnika za uporabnike INSPIRE **Rezultati**

Glavni aktivnosti, ki jih vsebuje uporabniški prostorskih podatkovni navodila v zvezi z izvajanje direktive, so povezane z vzpostavitvijo prostorskih podatkovne infrastrukture in pripravo sistema prostorskih podatkovnih storitev, ki omogoča meduporabniki. Vse uporabniški prostorskih podatkovni glavni cilji in predmeti, ki bo močno povečati učinkovitosti organizacij, ki uporabljajo prostorskih podatkovni in različnega prostorskih podatkovni tehnologijami pa digitalni tudi uporabniški podatkovni vsebine v novih, raznovrstnih rešitvah in aplikacijah. Glavni delovna področja INSPIRE direktive so prikazana na spodnjem diagramu.

INSPIRE DIREKTIVE

PRIROČNIK ZA OBLIKOVANJE PODATKOVNE POLITIKE ZA DOSTOP DO PODATKOV IN STORITEV ZA ORGANE SKUPNOSTI

BOLJŠE MOŽNOSTI ZA VSE / INSPIRE

TRANSLATED TECHNICAL GUIDELINES

Informacijska priročnika za uporabnike INSPIRE

Uredni in

Str: sto

Tehnično navodilo za vzpostavitev storitev iskanja INSPIRE

Tehnično navodilo za vzpostavitev storitev prenosa INSPIRE

Slovenian INSPIRE Day



SPATIAL DATA = PUBLIC SECTOR INFORMATION The scope of PSI that is available for re-use

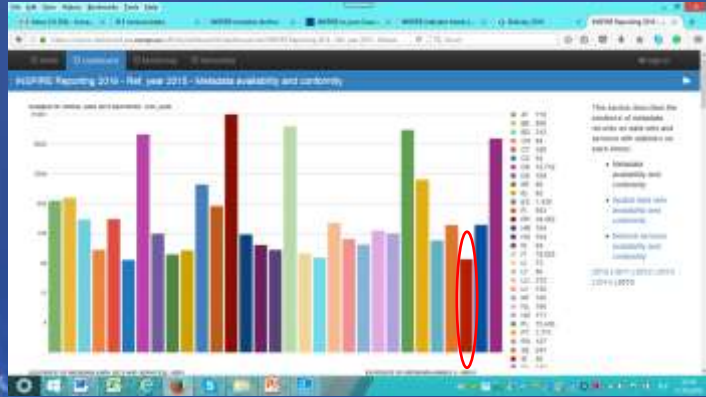
- **The scope of information is broadly defined**; in principle all the information held by the public sector bodies to which access is allowed may also be re-used
- **Archive material held by the competent Archive**, within the frame of public archive service in accordance with the Act governing archives, **is not public information**. However, archive material is widely accessible (also for re-use) according to the Protection of documents and archives and archival institutions act (Official Gazette of the Republic of Slovenia, No. 30/06).



PSi Public Sector
Information



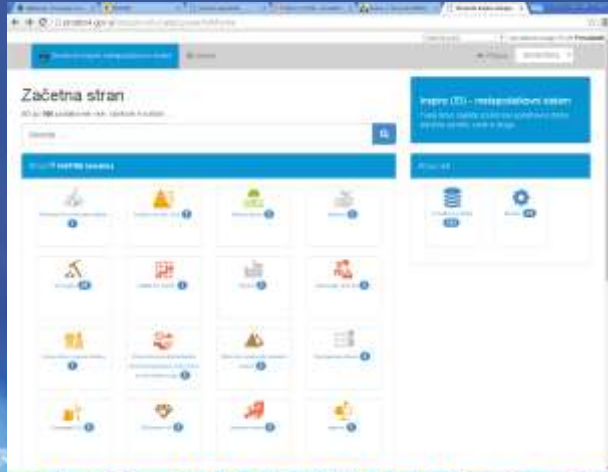
METADATA



<https://inspire-dashboard.eea.europa.eu/>



METADATA SYSTEM



www.geoportal.gov.si
108 datasets
32 services



DATA





<https://inspire-dashboard.eea.europa.eu/>




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GEOPORTALS

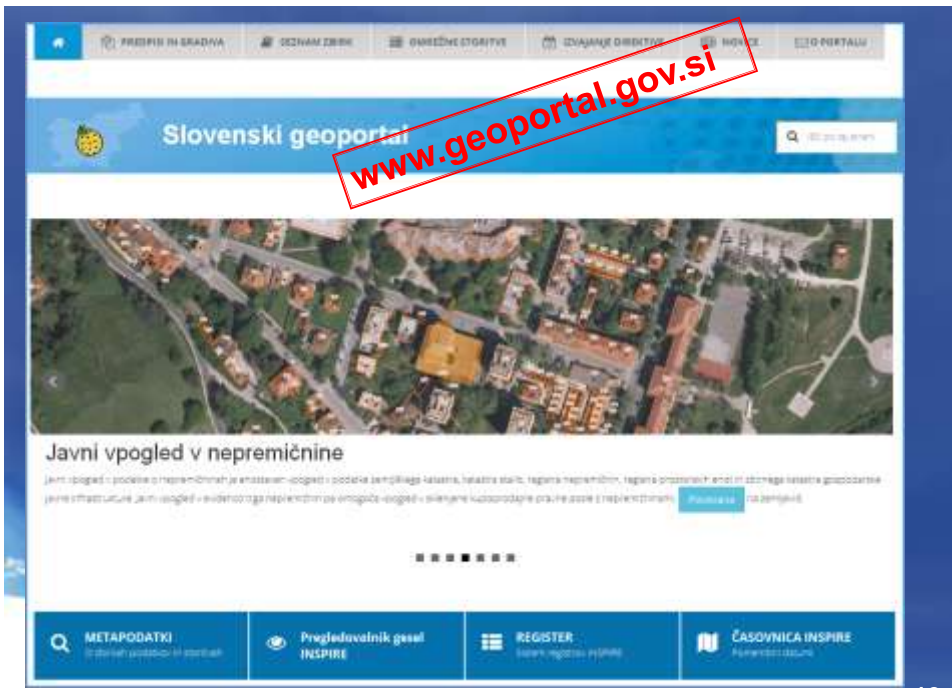
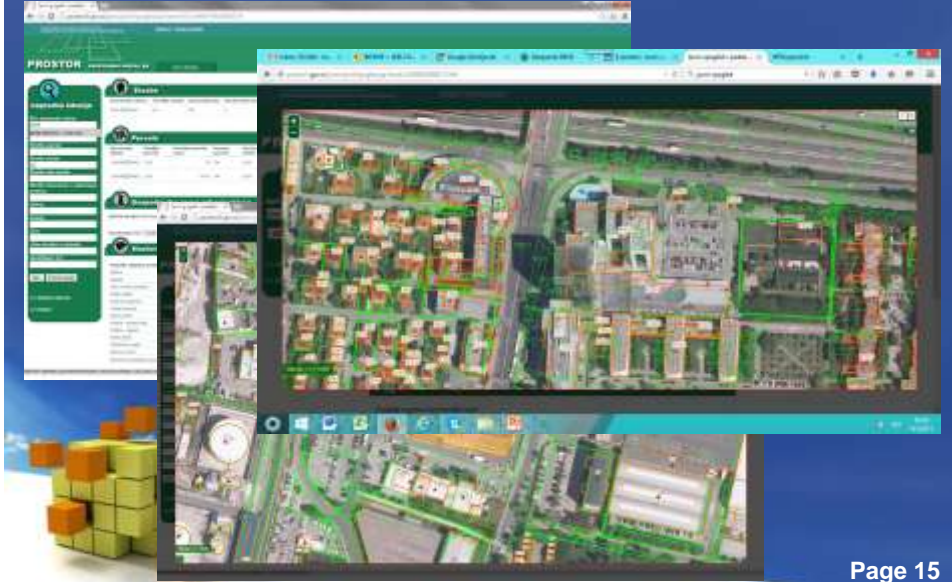
ENVIRONMENTAL GEOPORTAL, [www. http://ojs.arso.gov.si/atlasokolja](http://ojs.arso.gov.si/atlasokolja)




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GEOPORTALS

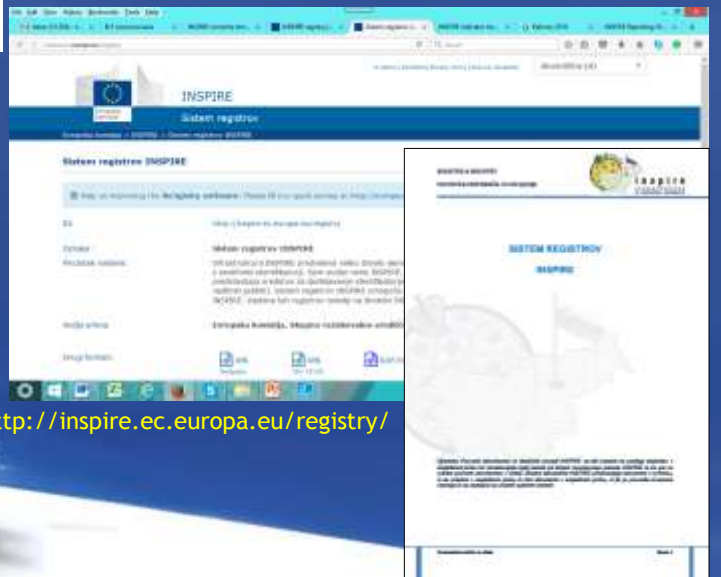
REALESTATE GEOPORTAL, <http://www.e-prostor.gov.si/si>



DATA SPECIFICATIONS



REGISTRY



<http://inspire.ec.europa.eu/registry/>



INSPIRE GLOSSARY

- 400 terms and definitions

Pregledovalnik gesel
INSPIRE

Pregledovalnik gesel INSPIRE

Pregledovalnik gesel INSPIRE vsebuje seznam gesel s spletnega mesta INSPIRE (D'aaKata Concept Dictionary in Glossary na dan 18.11.2016) s prevodi v slovensščini.
Datum zadnje posodobitve: 1. 2. 2017.

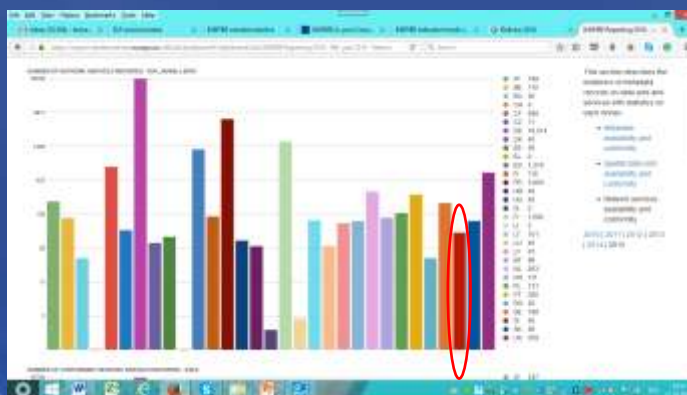
Pišabi: izstavit

Id	Geslo v angleščini	Geslo v slovensščini	Definicija v slovensščini	Datum uveljavitve
1	Address Area Name	ime hišnega območja	Elementa naziva, ki poroča ime geografskega območja ali knjiž. ki zaradi dodajanja naziva priznava več različnih objektov in to sprema znaka.	20110301
2	Area	območje	Določeni območje na kopnem ali vodi (vključno z zgradbami, napetjama in opremo), ki je delo ali v celoti narejeno za pritočo in dobavo strategično suva telefonizacij in za njihove gibanje na tleh.	20110301
3	Area	območje zračnega prostora	Določeni območje zračnega prostora, ki je opremljen s funkcionalno preložitvijo z vertikalno mejami.	20110301
4	Area	območje plovil	Totno določeno območje koprskega aerodroma/heliporta, namenevo sicerarajo ali izravnava pristajanje, naladnje ali razkladanje potni ali tovora, potničenja z gostino, parkiranja ali vzdrževanja.	20110301
5	Area	območje upravljanja/oprave območja/regulatorna območje in poročevalna območje	Območje, ki se spremlja, upravlja ali uporabljajo za zmanjšanje na mednarodno, evropsko, nacionalno, regionalno in lokalno ravni. vključujejo obdelovalna območja, zaprta območja obzvožja vseh otrov vode, voda, območja na tleh, vključna s ploščami pristajanja ali drugih cestnih vozil, območje, kjer je potrebna določitev za skrajša na in razlaganje, predelne plovil, ustrezno poročevalno območje in območje upravljanja območja.	20110301

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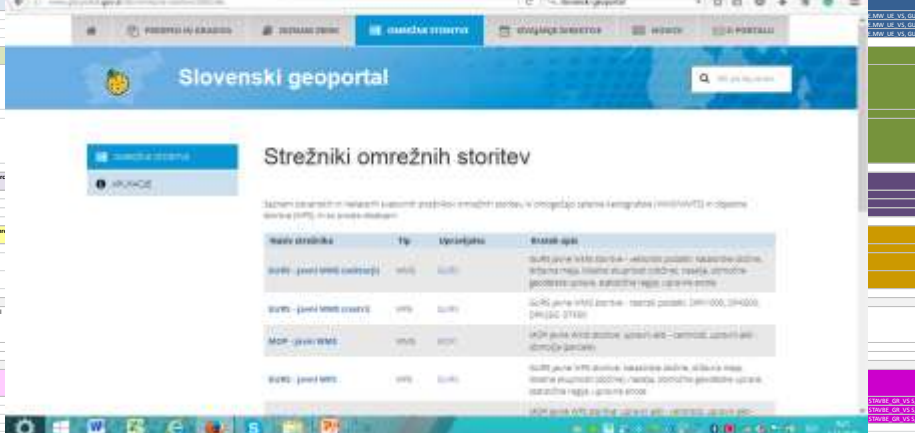
NETWORK SERVICES



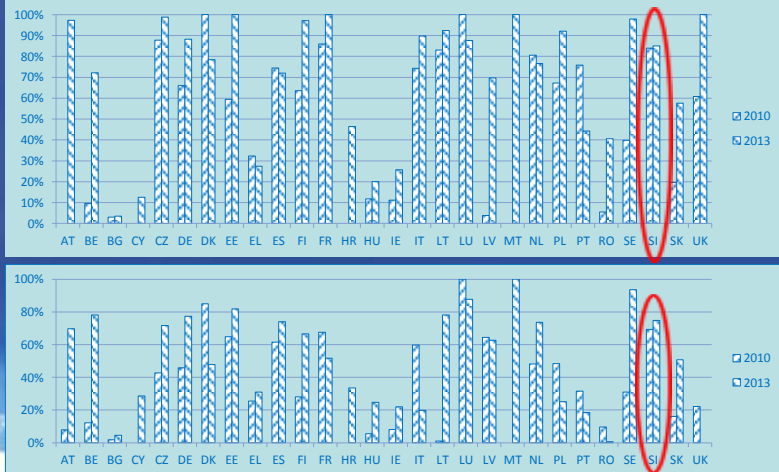
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NETWORK SERVICES

Ime	Zvrsta	Upravitelj	Identifikator države	Imeni prostor	locatID	Metapodatki o državi	Metapodatki o storitvi	Osnovna storitev	Inspire podatkovna shema	Imena podatkovne sheme
ANRS I										
3.Zemljepisna imena	Registrirani zemljepisni imeni	Gura	SI	SI.GURS.RZD	SI_MD	http://www.gis.gov.si/eng/	http://www.gis.gov.si/eng/	http://gn.GN.GeographicalNames	INSPIRE GN	GN_REPUBLIC_MM_RZD00_VS
			SI	SI.GURS.RZD00	SI_MD	http://www.gis.gov.si/eng/	http://www.gis.gov.si/eng/	http://gn.NamedPlace	INSPIRE GN	GN_REPUBLIC_MM_RZD00_VS
			SI	SI.GURS.RZD00	SI_MD	http://www.gis.gov.si/eng/	http://www.gis.gov.si/eng/	http://gn.GN.GeographicalNames	INSPIRE GN	GN_REPUBLIC_MM_RZD00_VS
ANRS II										
6.Komunalne in javne storitve	Zbirni kataložni geodetski javne infrastrukture	GURS	SI	SI.GURS.GI	SI_ID	http://www.gis.gov.si/eng/	http://www.gis.gov.si/eng/	inspire_wms:US.ElectricityNetworks	INSPIRE US	US_NETWORK_111_1
			SI	SI.GURS.GI	SI_ID	http://www.gis.gov.si/eng/	http://www.gis.gov.si/eng/	inspire_wms:US.ElectricityNetworks	INSPIRE US	US_NETWORK_111_1



FROM EC REPORT



<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0478R%2801%29>

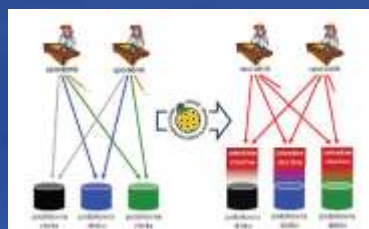


INTEROPERABILITY

- Harmonisation efforts in Slovenia was started within eSpatial program of projects
- Realisation is planned within in period 2016 – 2020 so we will realised interoperability deadlines.



EUROPEAN STRUCTURAL FUNDS

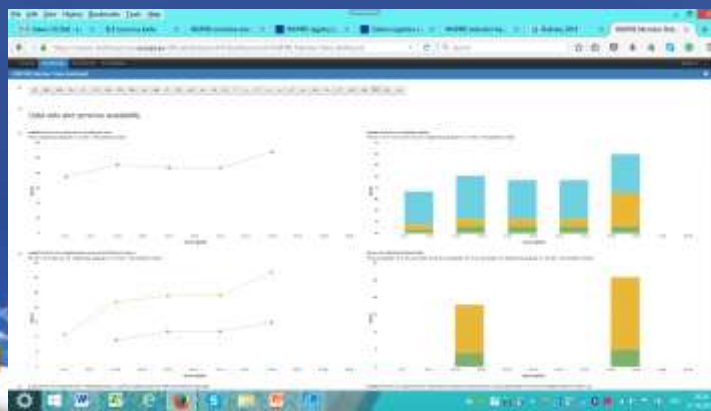


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MONITORING AND REPORTING

<https://inspire-dashboard.eea.europa.eu/official/dashboard/#/dashboard/solr/INSPIRE%20Member%20State%20dashboard>



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REPORTING

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(27.5.2010) (27.6.2013) (15.5.2016)

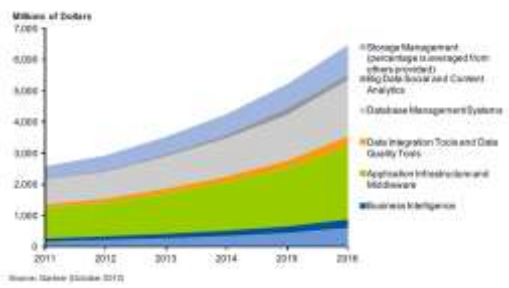
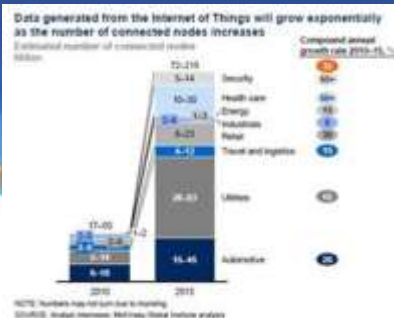
The image shows two overlapping documents. On the left is the 'Member State Report: SLOV' for the INSPIRE project. It features the INSPIRE logo and the text 'INSPIRE Infrastructure for Spatial Information in Europe'. Below the logo is a map of Europe with Slovenia highlighted. The text 'KOMISIJA' and 'ODLOŽBA KIMHEHE' is visible at the top. On the right is a document titled 'Monitoring and Reporting Drafting Team: Monitoring Indicators – Guidelines Document'. It contains technical details such as 'INSPIRE Infrastructure for Spatial Information in Europe', 'Monitoring and Reporting Drafting Team and Liaison Committee', and 'VARNOSTNI SKLADNIŠČNIK'. It also includes a table with columns for 'Status', 'Opis', 'Klasifikacija', 'Vrednotenje', 'Opomba', 'Vrednotenje', 'Opomba', 'Vrednotenje', 'Opomba' and rows for 'Vrednotenje', 'Opomba', 'Vrednotenje', 'Opomba'. The date '15. 6. 2013' is also present.

Challenges that can occur in terms of financing and investment

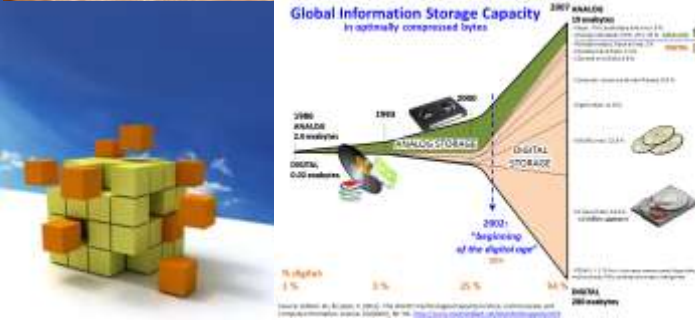
- Fast growing of data and IT
 - Expensive new technologies
- (source: forbes.com and gartner group)



Figure 1. IT Spending Driven by Big Data Issues, 2011 to 2016. Enterprise Software Specified S&M Markets (Projected to Annual \$1 Billion)



What level of infrastructure could national budget afford



Founding approaches for data and infrastructures in Slovenia



Co-funded by the European Union



State cloud computing platform

1. New hardware and software

(European Regional Development Fund)



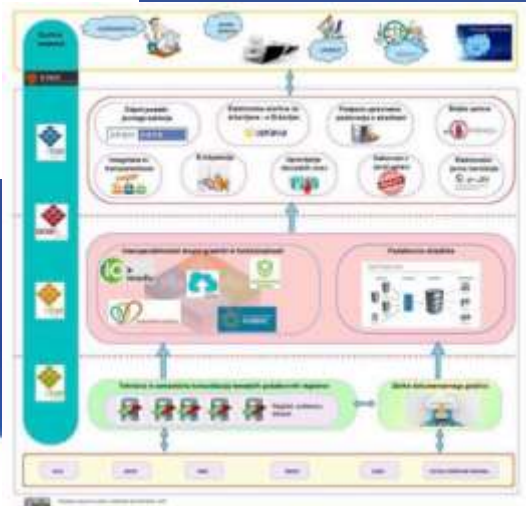
2. Reorganization & Centralization (by law)

3. Virtualization & Consolidation

4. Cloudification

5. Development of modern cloud services

6. Accreditation & Certification



Newly created or extensively restructured

- In past several years at MESP we have some ongoing project that will prepare topographical and hydrological data in line with INSPIRE data specifications,
- Example: new water network database, new topography database, new LIDAR data



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MODERNIZATION OF SPATIAL DATA INFRASTRUCTURE TO REDUCE RISKS AND IMPACTS OF FLOODS

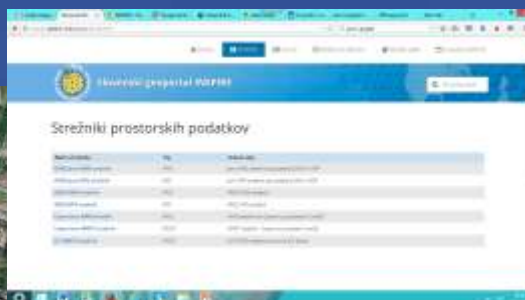
<http://www.gurs-egp.si/eng>



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SMA test application: „Inspire Service Viewer“

- <https://prostor3.gov.si/isv-test/inspire.html?lang=en>



New HYDRO database

gis.arso.gov.si/evode/profile.aspx?id=atlas_voda@Arso

The collage includes several key elements:

- Satellite Imagery:** Top left and right sections showing aerial views of river channels and floodplains.
- Metadata Table:** A table with columns for 'Name/ID', 'Description', and 'Responsibility', listing various data layers.
- Hierarchical Diagram:** A tree structure showing the organization of data into categories like 'Geography' and 'Hydrology'.
- Maps:** A central map of Slovenia with a legend, and a bottom-right map of the 'Parožje Soča' catchment area with numbered points.

SMA IN ELF

<http://www.elfproject.eu/>



WP Number ²¹	WP Title
WP 1	Management
WP 2	E.L.F. Specifications
WP 3	E.L.F. Services and Data Content
WP 4	Implementation of Geo-Tools
WP 5	Cloud Service Platform
WP 6	User and 3rd party data content
WP 7	Service Instances
WP 8	Engagement and Dissemination
WP 9	Sustainable access and use



Associated Work Packages: WP3, WP4, WP5, WP7



ELF - NETWORK SERVICES

Authority:	Service ready	Supporting schema	URL
			http://prostor4.gov.si/ows2-elf



Download_AD			https://prostor4.gov.si/ows2-elf/ows2-elf?request=GetCapabilities
Download_CP	31.jan.16	ELF 1.0	https://prostor4.gov.si/ows2-elf/ows2-elf?request=GetCapabilities
Download_PS			
Download_SR			

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Committed Partnerships

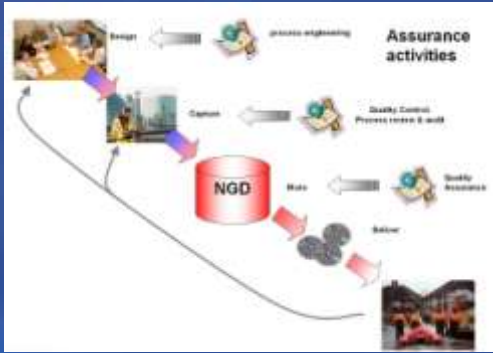


eENVplus



Committed Partnerships:
Fostering a highly collaborative community to share and adopt best practices

The future role of governments in geospatial data provision and management



Increase in the number of sources of geospatial information will challenge NMCAs, forcing a reconsideration of the traditional role played by government in collection of and provision of geospatial data.

Source: UN-GGIM Committee of Experts



The future role of governments in geospatial data provision and management



End-users should be able to consume government-assured spatial data with the **level of trust** in quality as they do when they get water from the tap – they are going to get what they expect.

Source: UN-GGIM Committee of Experts



CONCLUSIONS ?

- PUBLIC TASKS – PUBLIC MONEY
- PUBLIC INFRASTRUCTURE
- PUBLIC SECTOR INFORMATION
- CORE DATASETS AVAILABLE
- FUTURE ROLE OF PUBLIC BODIES AND PRIVATE SECTOR
- FUTURE IS “GEO” ENABLED
- NEED OF CAPACITY BUILDING



QUESTIONS



THANK YOU!



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www.geoportal.gov.si

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