

# NSDI in the Republic of Slovenia

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REPUBLIKA SLOVENIJA  
MINISTRSTVO ZA OKOLJE IN PROSTOR  
GEODETSKA UPRAVA REPUBLIKE SLOVENIJE

**Kyiv, 22. 2. 2018**

**International Conference:  
"NSDI: TOWARDS DATA SOCIETY"**

# AIM OF PRESENTATION

- INSPIRE TRANSPOSITION
- COORDINATION
- DATA SETS
- INTEROPERABILITY
- METADATA
- SPATIAL DATA SERVICES
- DATA SHARING
- FUTURE ACTIVITIES
- CONCLUSIONS



# ELEMENTS

## of Slovenian infrastructure for spatial information



...for the effective compilation, management, access, delivery and use of the spatial information (Delgado, 2007).



# TRANSPOSITION

- Before INSPIRE - no official SDI in Slovenia
- Infrastructure for Spatial Information Act - ISI (*Official Gazette of RS, No. 08/2010*), transposed Directive INSPIRE in Slovenian national legislation;



*17/01/2013 file for EU Pilot 4472/13/ENVI was submitted and after entire procedure 27.10.2015 it was succesful closed with adoprion of smal changes of ISI act.*

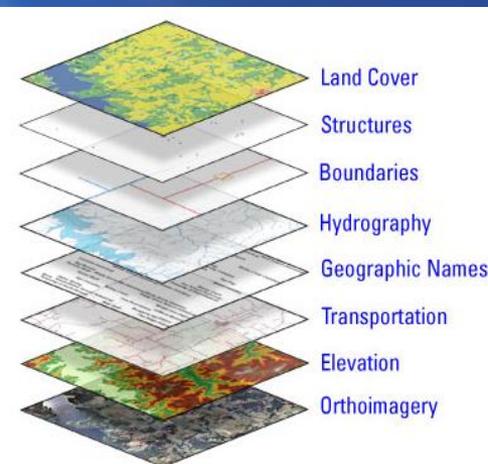
- Other legal acts and strategic documents:
  - Act on the Access to Information of Public Character,
  - Electronic Commerce and Electronic Signature Act,
  - Copyright and Related Rights Act,
  - Spatial Planning Act,
  - Real estate registration legislations
  - Slovenia's Development Strategy,
  - 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,  
Environmental Agency of the Republic of  
Slovenia,  
Inspectorate for construction and environment  
Ministry of Justice  
Ministry of Public Administration,  
Ministry of Agriculture, Forestry and Food,  
Slovenia Forest Service,  
Ministry of Defence,  
Administration of the Republic of Slovenia for  
Civil Protection and Disaster Relief,  
Ministry of Culture,  
Ministry of the Economy,  
Ministry of Health,  
Ministry of the Interior,  
Statistical Office of Slovenia  
Geological Survey of Slovenia,  
Geodetic Institute of Slovenia,  
Biotechnical Faculty,  
Fisheries Research Institute of Slovenia,**





# STRATEGICAL DOCUMENTS



## 2. KAKO IZPOLNITI OBVEZOSTI IZ DIREKTIVE INSPIRE

Zaradi obsežnosti vsebin na katero vpliva direktiva INSPIRE je bilo doslej pripravljenih mnogo dokumentov - od uredb, tehničnih navodil do priporočil in drugih spremenljivih publikacij, z namenom uporabljenim oblikam razumevanja obveznosti in njihovo izvajanje. Za lažje razumevanje z direktivo smo zato pripravili tudi priročnik v slovenskem jeziku pod skupnim imenom vrhunske implementacije INSPIRE.

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

Glavna priporočila za upravljalce dleč

Glavne aktivnosti, ki jih morajo upravljalci prostorskih podatkov narediti v zvezi z izvajanjem direktive, so povezane z izgradnjo ustrezne podatkovne infrastrukture in pripravo sistema prostorskih podatkov na način, ki omogoča medopravilnost. Prva medopravilnost prostorskih podatkov glavnih ciljev in prednosti, ki bo močno povečala učinkovitost organov javne uprave glede vzpostavitve in vzdrževanja prostorskih podatkov. Medopravilnost pa vključuje tudi uporabo podatkov kot osnova za novih, inovativnih rešitev in aplikacij. Glavna delovna področja INSPIRE direktive so prikazana na spodnjem diagramu.



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

**BOLJŠE  
MOŽNOSTI  
ZA VSE  
/ INSPIRE**



POSODOBITEV  
PROSTORSKE  
PODATKOVNE  
INFRASTRUKTURE  
ZA ZMANJŠANJE  
TVEGANJ IN  
POSLEDIC POPLAV



# STRATEGIC GOALS OF SLOVENIAN ISI

<b>Strategic goals IPI</b>	<b>Description of strategic goal</b>
Coordination of activities IPI	Establishment of coordinating body and functioning of organizational structure, where roles, its tasks and relationships between them are thoroughly determined. This is the key to effective execution of tasks, related to INSPIRE Directive.
Activities of Slovenian geo-portal	Establishment of unified entry point for spatial information and spatial services.
Management and maintenance of metadata system	Creation and maintenance of metadata descriptions for spatial data, described in Annex I, II and III. Creation and maintenance of metadata descriptions for services, related to this data.
Network of spatial data services	Establishment and functioning of network services, based on spatial data.
Exchange and joint use of data	It is necessary to maintain the flow of data between bodies of civil services in Slovenian, European bodies and member states. Therefore we need clear policies on data sharing in Slovenia.
Monitoring and reporting	Providing regular monitoring and reporting in accordance with INSPIRE Directive.

# TRANSLATED TECHNICAL GUIDELINES

Osnovna priporočila za upravljeve zbirke

PRIPOROČILA ZA IZVAJANJE



INSPIRE

Izvedbena pravila za metapodatke

PRIPOROČILA ZA IZVAJANJE

Verzija 1.2 / junij 2010



Tehnično navodilo za vzpostavitev storitev vpogleda INSPIRE

PRIPOROČILA ZA IZVAJANJE

Verzija 3.11 / 4. april 2013



Uredba o zagotavljanju dostopa za institucije in organe EU pod ujednotjenimi pogoji

PRIPOROČILA ZA IZVAJANJE

Verzija 5.0 / januar 2013



Vzpostavitev

INSPIRE storitev preoblikovanja koordinat

PRIPOROČILA ZA IZVAJANJE

Verzija 2.1 / marec 2010



Strokovne smernice za omrežno storitev preoblikovanja v okviru sheme INSPIRE

PRIPOROČILA ZA IZVAJANJE

Verzija 3.0 / julij 2010



Tehnično navodilo za vzpostavitev storitev iskanja INSPIRE

PRIPOROČILA ZA IZVAJANJE

Verzija 3.1 / november 2011



Tehnično navodilo za vzpostavitev storitev prenosa INSPIRE

PRIPOROČILA ZA IZVAJANJE

Verzija 3.0 / junij 2012



## Tehnično navodilo za vzpostavitev storitev iskanja INSPIRE

Verzija 3.1  
November 2011

Naci

Nacion

Nacionalna točka za

Stru  
sto

## Tehnično navodilo za vzpostavitev storitev prenosa INSPIRE

Verzija 3.0  
Junij 2012

Naci točka za

Naciona

Nacionalna točka

# Capacity building program for INSPIRE implementation in Slovenia

## • Curriculum & Training program

Kurikulum [Združljivostni način] - Microsoft Word

Datoteka Osnovno Vstavljanje Postavitev strani Sklici Pošiljanje Pregled Ogled

2 | 1 | 1 | 2 | 1 | 4 | 1 | 6 | 1 | 8 | 1 | 10 | 1 | 12 | 1 | 14 | 1 | 18 |

Vzpostavitev sistema usposabljanja in podpore uporabnikom

Cilj vzpostavitve tovrstnega sistema je zagotavljanje trajnega načina informiranja in usposabljanja zainteresiranih skupin uporabnikov. Organizacija in izvedba usposabljanja s področja infrastrukture za prostorske informacije v Sloveniji in v Evropi je ključnega pomena za razumevanje prednosti in koristi, ki jih tovrstna infrastruktura prinaša uporabnikom. In hkrati nujen predpogoj, za delovanje infrastrukture in zagotavljanje učinkovitega, timskega dela in sodelovanja vseh deležnikov.

Dabi zagotovili nemoteno in kontinuirano strokovno informiranje in usposabljanje uporabnikov, je smiselno v izvajanje te naloge vključiti zunanjega izvajalca. Izvajalca se delo odda po postopkih javnega naročanja, med merili za izbiro izvajalca pa naj bo tudi kakovost ponujenega prispega ponudnika. Ponudnik mora izvesti aktivnosti v zvezi z organizacijo in izvedbo usposabljanja, ki mora temeljiti na načelih aktivnega sodelovanja. Delavnice naj bodo oblikovane za manjše skupine udeležencev, med 20 in 30, kar omogoča bolj učinkovit prenos informacij in znanja.

Oveznosti izvajalca informiranja in usposabljanja naj vključujejo naslednje naloge:

1. izvedba otvornenega sestanka s predstavitvijo tem usposabljanja;
2. izvedba zaključnega sestanka s povzetki usposabljanja in doseženimi rezultati;
3. izvedba usposabljanja s konceptualnih, metodoloških in deloma tudi tehnioloških področij, ki se mora nanašati na načela delovanja javne državnne uprave in mora zadostiti posebnostim in potrebam delovanja infrastrukture za prostorske informacije;
4. vsebina in trajanje izvedbe tovrstnega usposabljanja je opisano v predlogu programa seminarjev in delavnic;
5. dopolnitev programa usposabljanja, ki ga potrdi naročnik;
6. izvedba usposabljanja mora vsebovati posebnosti dela v javni državnih upravah in metodologije za povečanje učinkovitosti in uspešnosti dela tako posameznika kot tudi tima v celoti;
7. priprava ustreznega gradiva in primerov za udeležence usposabljanja;
8. zagotovitev ustreznih prostorov s primerno razporeditvijo miz in stolov za nadaljnja po metodi delavnice;
9. zagotovitev ustreznih tehnične opreme, ki je odvisna od uporabljene metode izvedbe usposabljanja (npr. ustrazen računalnik, projektor/grafoskop, flip chart, tabla za pisanje...);
10. pomoč pri izvedbi usposabljanja (možnost uporabe fava, telefona, kopiranja...);
11. zagotovitev prenočitve;
12. zagotovitev postrabe v času usposabljanja (kava, sok, voda, ...).

Ponudba naj v cenovnem delu izraža specifikacijo posameznih elementov. Ponudba naj prav tako vsebuje predlog strukture in vsebine usposabljanja, ki naj temelji na izkušnjah ponudnika in izbranih predavateljev. Priporočljivo je, da seminarje izvede ista skupina predavateljev.

..... Prelom strani .....

Predlog programa informiranja in izobraževanja

**SPLOŠNA PREDSTAVITEV INFRASTRUKTURE ZA PROSTORSKE INFORMACIJE IN INSPIRE**

Izvajalec: ..... Trajanje: 3-4 ure

Namen:

Seminar je namenjen seznanitvi udeležencev z vsebino direktive INSPIRE, z osnovnimi elementi infrastrukture za prostorske informacije v Sloveniji in s splošnimi zahtevami, ki jih je ki jih je opredeli Zakon o infrastrukturi za prostorske informacije (ZIPI). Seminar bo postal celovit pregled nad obravnavano temo in predstavlja uvod v kasnejše podrobnejše seminarje in delavnice.

Cilji:

Udeleženci se seznanijo z splošnimi zahtevami direktive INSPIRE in z elementi infrastrukture za prostorske informacije, ki jih je opredeli Zakon o infrastrukturi za prostorske informacije (ZIPI). Po zaključku seminarja bodo imeli udeleženci pridobljena splošna znanja o pomenu INSPIRE in nalogah, ki jih prinaša državam članicam.

Vsebina:

Splošno o INSPIRE

- zakon INSPIRE
- metapodatki (podatki o podatkih)
- zbirke prostorskih podatkov (baze) — opis in definicije podatkov
- geo-portali prost. podatkov in storitev
- omrežne storitve in tehnologije
- dogovori o souporabi, dostopu in uporabi podatkov
- koordinacija in spremljanje izvedbe
- zakonski okvir in organizacija

Predstavitve ZIPI

- pravila za vzpostavitev in zagotavljanje infrastrukture za prostorske informacije v Republiki Sloveniji
- razstitev zbirke prostorskih podatkov in seznam zbirke
- geo-portali za prostorske informacije
- medopravljeni zbirke prostorskih podatkov in storitev v zvezi s prostorskimi podatki
- nacionalna točka za slike
- oveznosti in naloge iz zakonov

Vpliv INSPIRE in ZIPI na vodenje okoljskih in prostorske politike

Primeri vzpostavljanja NSCI v nekaterih državah

Udeležanci:

Udeleženci so vsotvorni kader organov javne uprave in isti javni uslužbenec, ki pri svojem delu izvajajo naloge vodenja in izobraževanja zbirke prostorskih podatkov. Prav tako pa je vsebina seminarja namenjena tistim organizacijam zasebnega sektorja, ki se ukvarjajo s področjem infrastrukture za prostorske informacije.

..... Prelom strani .....

**VOĐENJE IN VZDRŽEVANJE METAPODATKOV**

Izvajalec: ..... Trajanje: 3-4 ure

Namen:

Seminar je namenjen seznanitvi udeležencev z vsebino in načinom vodenja metapodatkovnih opisov za posamezno zbirko prostorskih podatkov. In posamezno storitev v zvezi s temi podatki. Prav tako pa je seminar namenjen seznanitvi z zahtevami in obveznostmi, ki jih je ki jih je opredeli metapodatkovni opredeli Zakon o infrastrukturi za prostorske informacije (ZIPI). Seminar bo postal celovit pregled nad obravnavano temo (metapodatkovni opisov).

Cilji:

Udeleženci se seznanijo z zahtevami in obveznostmi vodenja metapodatkovnih opisov, kot jih je opredela direktiva INSPIRE in Zakon o infrastrukturi za prostorske informacije (ZIPI). Po zaključku seminarja bodo imeli udeleženci pridobljena splošna znanja o metapodatkovnem sistemu in bodo praktično usposobljeni za izpolnitev metapodatkovnega opisa in za delo z metapodatkovnim orodjem.

Vsebina:

Vloga metapodatkov v SDI

Obveznosti vodenja in vzdrževanja metapodatkov

Vsebina metapodatkov

- ime in opis zbirke prostorskih podatkov in storitev v zvezi s prostorskimi podatki ter ključne besede za opis teh zbirke in storitev
- skladnost zbirke prostorskih podatkov z izvedbenimi pravili, ki določajo tehnične ureditve za medopravljeni zbirke prostorskih podatkov in storitev v zvezi s prostorskimi podatki
- pogoji za dostop do zbirke prostorskih podatkov. In storitev v zvezi s prostorskimi podatki in za njihovo uporabo ter morebitna nadomestila za njihovo uporabo
- kakovost in časovna veljavnost zbirke prostorskih podatkov, — o upravljavcih
- morebitne omejitve uporabe zbirke prostorskih podatkov in razlogi zanje, če omejitve ostajajo

Elementi metapodatkovnega opisa in metapodatkovni standardi

Primer izdelave metapodatkovnega opisa

Udeleženci:

Udeleženci so isti javni uslužbenec, ki pri svojem delu izvajajo naloge vodenja in vzdrževanja zbirke prostorskih podatkov. Prav tako pa je vsebina seminarja namenjena tistim organizacijam zasebnega sektorja, ki se ukvarjajo s področjem infrastrukture za prostorske informacije.

..... Prelom strani .....

Stran: 2 od 8 Besede: 5/1.978 slovenščina

SL 100% 50% 11:41 18.6.2014

# Slovenian INSPIRE Day



- invited papers domestic and international participants



# SLOVENIAN GEO-PORTAL

The screenshot displays the Slovenian Geo-Portal website. At the top, there is a navigation bar with links for 'REGULATIONS AND MATERIALS', 'Collection List', 'NETWORK SERVICES', 'IMPLEMENTATION OF THE DIRECTIVE', 'NEWS', and 'About'. Below this is a blue header with the 'slovenian geo-portal' logo and a search bar. The main content area features a large aerial photograph of a residential area. Below the photo is the title 'Public inspection of the property' and a short paragraph of text. A row of four blue buttons is visible: 'META Databases and Services', 'Viewer passwords INSPIRE', 'REGISTERS system registry INSPIRE', and 'TIMELINE INSPIRE Important dates'. At the bottom, there is a 'News' section and a 'Calendar of Events' for February 2018. The browser's address bar shows 'www.geoportal.gov.si/eng/' and the Windows taskbar is visible at the very bottom.

# INSPIRE GLOSSARY

- 400 terms and definitions

**Pregledovalnik gesel  
INSPIRE**

## Pregledovalnik gesel INSPIRE

Pregledovalnik gesel INSPIRE obsega seznam gesel s spletnega mesta INSPIRE (Feature Concept Dictionary in Glossary na dan 18.11.2010) s prevodi v slovenščino.

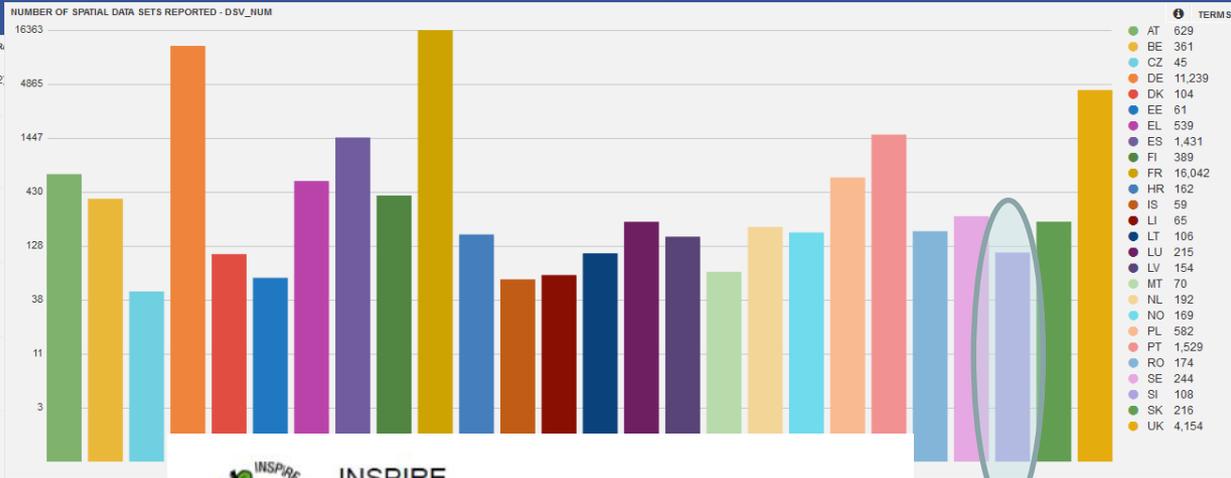
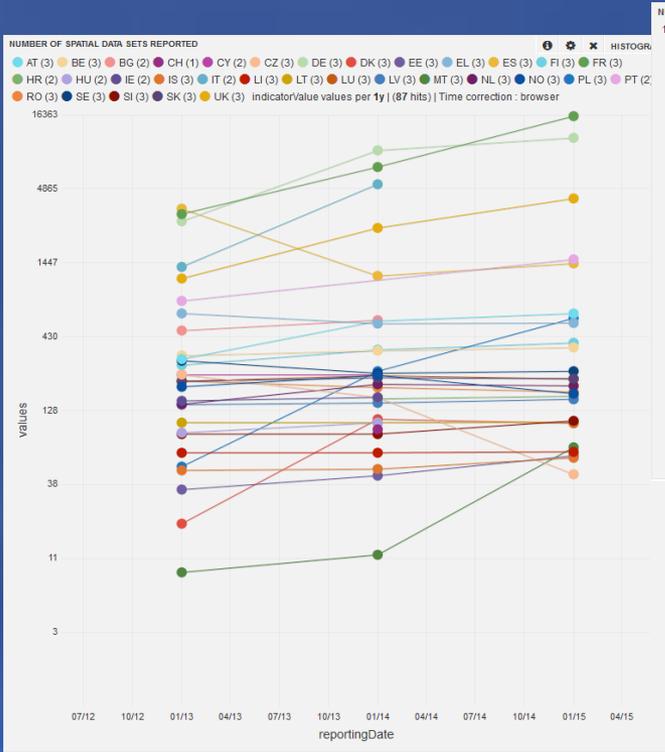
Datum zadnje posodobitve 1. 2. 2011.

Prikaži  zapisov

Išči:

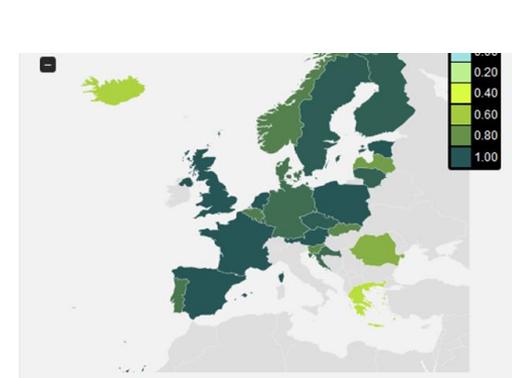
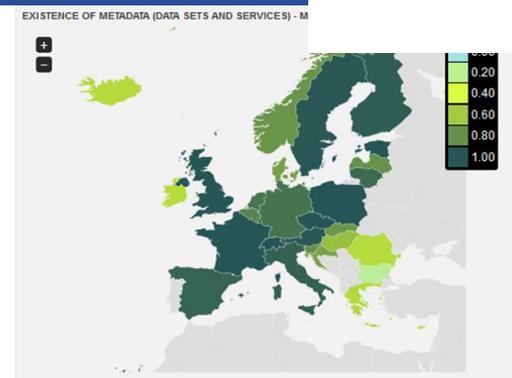
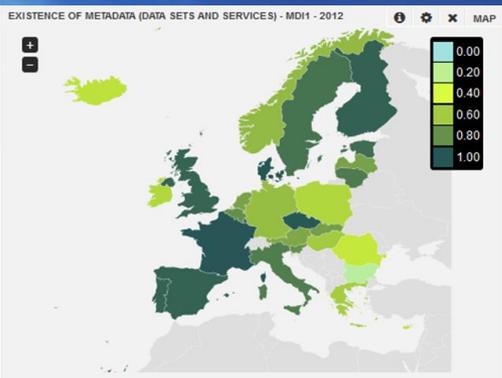
	Geslo v angleščini ▲	Geslo v slovenščini ◆	Definicija v slovenščini ◆	Datum veljavnosti ◆
+	Address Area Name	ime naslovnega območja	Komponenta naslova, ki ponazarja ime geografskega območja ali kraja, ki zaradi dodeljevanja naslova združuje več naslovljivih objektov in ni upravna enota.	20110301
+	Aerodrome Area	območje aerodroma	Določeno območje na kopnem ali vodi (vključno z zgradbami, napeljavami in opremo), ki je delno ali v celoti namenjeno za prihode in odhode zrakoplovov in/ali helikopterjev in za njihovo gibanje na tleh.	20110301
+	Airspace Area	območje zračnega prostora	Določen obseg zračnega prostora, ki je opisan kot horizontalna projekcija z vertikalnimi mejami.	20110301
+	Apron Area	območje ploščadi	Tocno določeno območje kopenskega aerodroma/heliporta, namenjeno vkrcavanju ali izkrcavanju potnikov, nakladanju ali razkladanju poste ali tovora, polnjenju z gorivom, parkiranju ali vzdrževanju.	20110301
+	Area management/restriction/regulation zones and reporting units	območja upravljanja/zaprta območja/regulirana območja in poročevalske enote	Območja, ki se upravljajo, urejajo ali uporabljajo za poročanje na mednarodni, evropski, nacionalni, regionalni in lokalni ravni. Vključujejo odlagališča odpadkov, zaprta območja okrog virov pitne vode, cone, občutljive na nitrato, urejene plovne poti po morju ali velikih celinskih vodah, območja za odlaganje odpadkov, cone z omejitvijo hrupa, območja, kjer je potrebno dovoljenje za iskanje rud in rudarjenje, predele povodij, ustrezne poročevalske enote in območja upravljanja obalnih con.	20110301

# MONITORING AND REPORTING



INSPIRE  
Infrastructure for Spatial Information in Europe

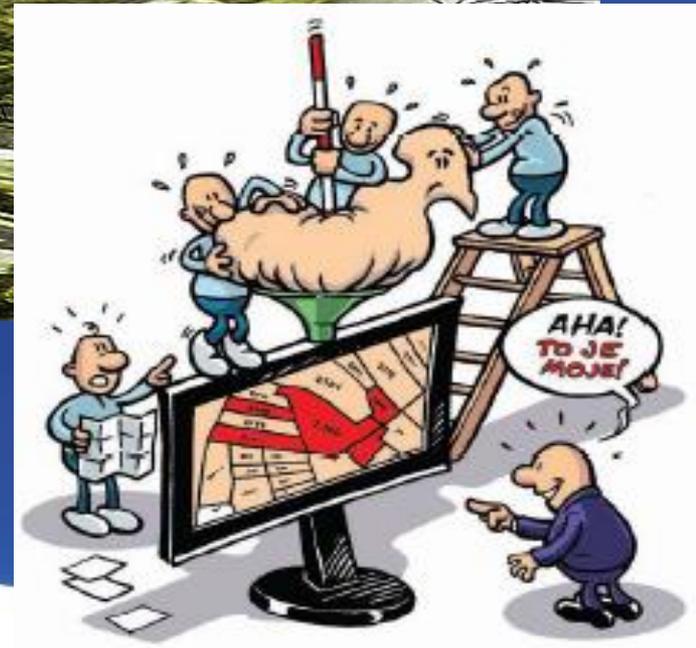
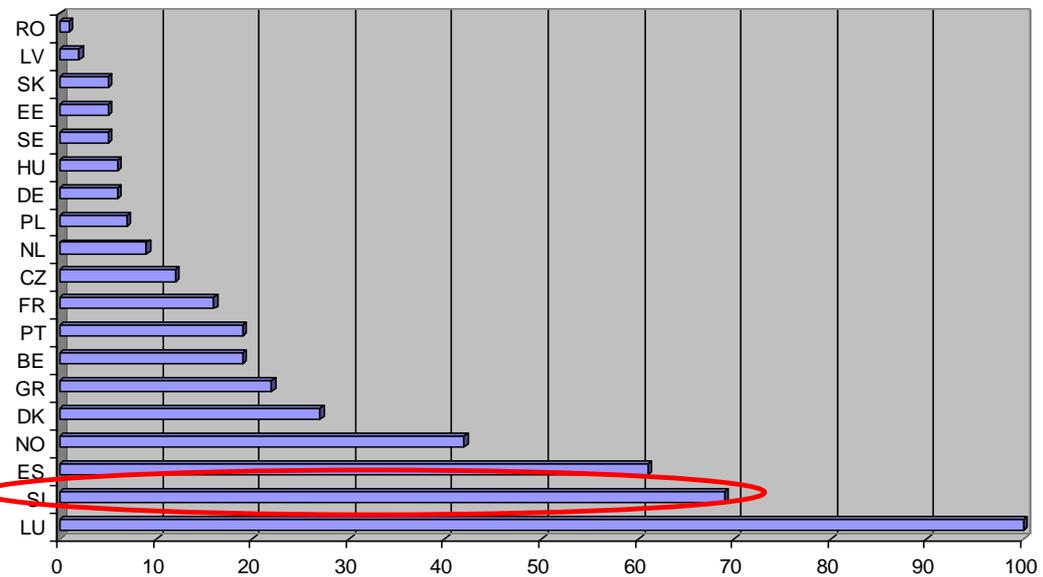
## Member State Report: SLOVENIA



# DATA SETS



Accessibility data sets through view & download services (NSI2)



# GEOPORTALS

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

The screenshot displays the 'ATLAS OKOLJA' (Environmental Atlas) web application. The interface includes a top navigation bar with the logo of the 'AGENCIJA RS ZA OKOLJE' (Environmental Agency of the Republic of Slovenia) and the title 'ATLAS OKOLJA'. Below this, there is a search bar and a set of navigation icons. The main content area features a 3D map view of a city area, overlaid with various data layers. A legend on the right side of the map lists several layers, including:

- Prispevne površine občutljivih območij zaradi e...
- Občutljiva obm. kopalne vode (linije)
- Občutljiva obm. kopalne vode (poligoni)
- Prispevne površine občutljivih območij kopalnih...
- Aglomeracije
- KAKOVOST ZRAKA
- PODNEBJE
- INFRASTRUKTURA
  - Viri EMS
  - Mreža državnih cest
  - POVPREČNI LETNI DNEVNI PROMET (PLDP)
    - PDP (2008)
    - PDP (2007)
    - PDP (2005)
- VODE
- MARVA

The map interface also includes a toolbar with navigation controls (pan, zoom, home, etc.) and a scale bar. The bottom of the screen shows a Windows taskbar with various application icons and a system tray displaying the date and time (20:36, 14.9.2015).

# GEOPORTALS

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

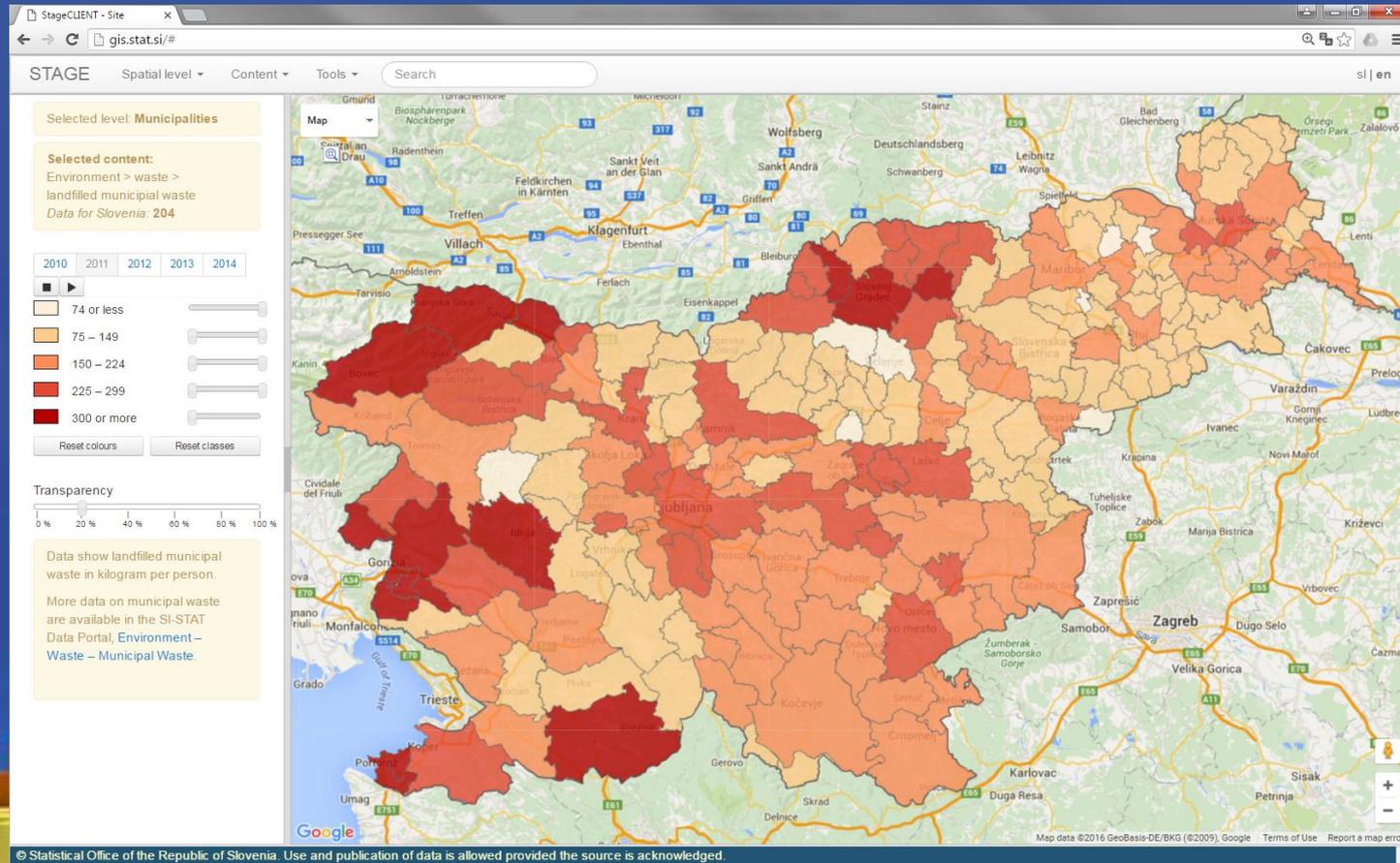
The image displays a screenshot of the PROSTOR real estate geoportal. The interface is divided into several sections:

- Search and Filter Panel (Left):** Includes a search bar, a "napredno iskanje" (advanced search) section with filters for "Sihla katastrska občina" (set to 2036) and "Parcela" (set to 2036). Below this are sections for "Stavbe" (Buildings), "Parcela" (Parcels), "Gospod" (Land), and "Nastovi" (Structures).
- Map (Center):** An aerial view of a city block with numerous parcels outlined in orange and green. Each parcel is labeled with a unique identification number. A scale bar at the bottom left of the map indicates "Merilo = 1 : 1500".
- Taskbar (Bottom):** Shows a Windows taskbar with icons for Internet Explorer, Word, and other applications. The system tray on the right indicates the date and time: "SLV 20:39 14.9.2015".

The browser window title is "Javni vpogled v podat..." and the URL is "prostor3.gov.si/javni/javni/vpogled.jsp?rand=0.5684829889113164".

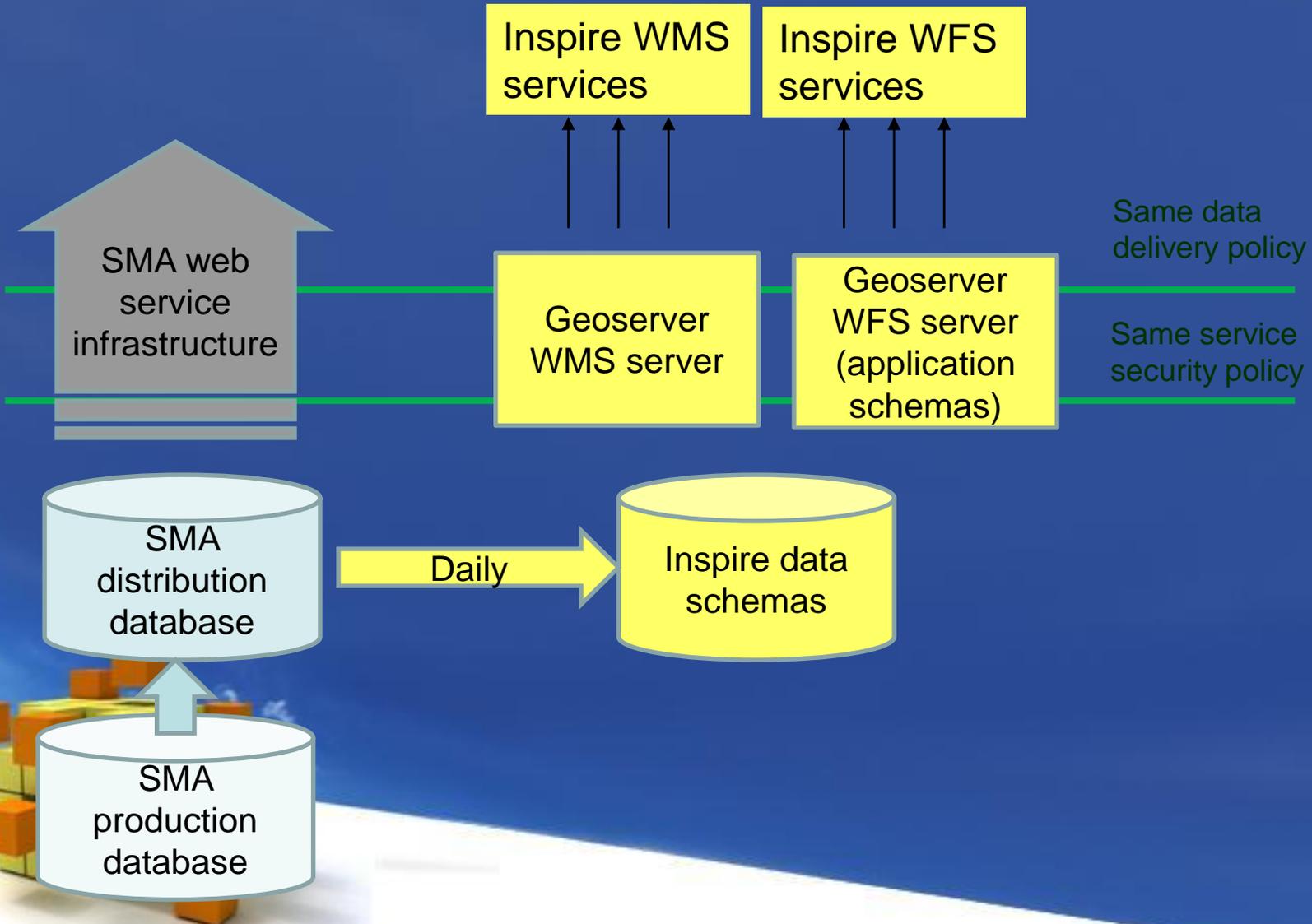
# GEOPORTALS

STAGE, geo-referenced statistical data application, <http://gis.stat.si/>





# Basic approach at SMA



http://www.geoportal.gov.si

# METADATA

GeoNetwork - Portal prostorskih podatkov in informacij - IBM Lotus Notes

Datoteka Urejanje Pogled Ustvari Dejanja Programček Pomoč

Naslov http://prostor3.gov.si/mps-test/srv/sl/main.ho

Delovni prostor Tomaž Petek - Prejeto Fw: Povabilo: predstavitev... ppt za ministra Fw: Namestitev IMPS DISTRIBU... GeoNetwork - Portal prostorskih...

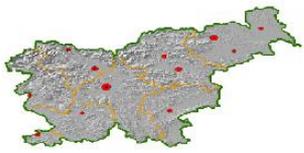
## METAPODATKOVNI SISTEM

Domov | Pomoč | Slovenščina

Uporabniško ime \_\_\_\_\_ Geslo \_\_\_\_\_ Prijava

KAJ? \_\_\_\_\_

KJE? \_\_\_\_\_



- Vse -

Iskanje

Ponastavi Napredno Možnosti

- PODATKI O STAVBAH - STAVBE
- REGISTER PROSTORSKIH ENOT - RPE
- GEODETSKE TOČKE - GT
- TOPOGRAFSKI PODATKI merila 5000 - DTK 5
- DIGITALNI MODEL VIŠIN - DMV0125 - DMV0250 - DMV1000
- DIGITALNI ORTOFOTO - DOF050
- DIGITALNI ORTOFOTO - DOF025
- ZBIRNI KATASTER GOSPODARSKE JAVNE INFRASTRUKTURE - ZK GJI
- ZEMLJIŠKI KATASTER - zemljiško katastrski prikaz
- REGISTER ZEMLJEPISNIH IMEN - REZI

IŠČITE PO SLOVENSkih PROSTORSKIH METAPODATKIH USKLAJENIH Z DIREKTIVO INSPIRE



1. OPREDELITEV

Naslov vira: PODATKI O STAVBAH - STAVBE

Povzetek vira: Podatkovni niz prikazuje grafične in atributne podatke o stavbah in delih stavb, ki jih uporabnik podatkov prejme v izmenjevalnih datotekah.

Vrsta vira: Operates O - NI PODATKA

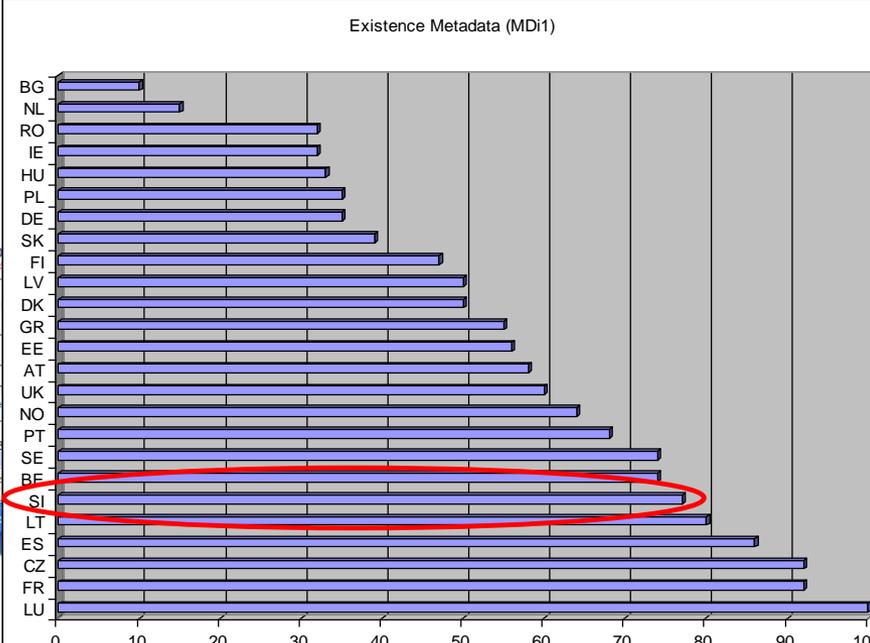
Internetni Spletni vir

Jezik vira

2. RAZVRSTI Kategorija teme

3. KLJUČNA B

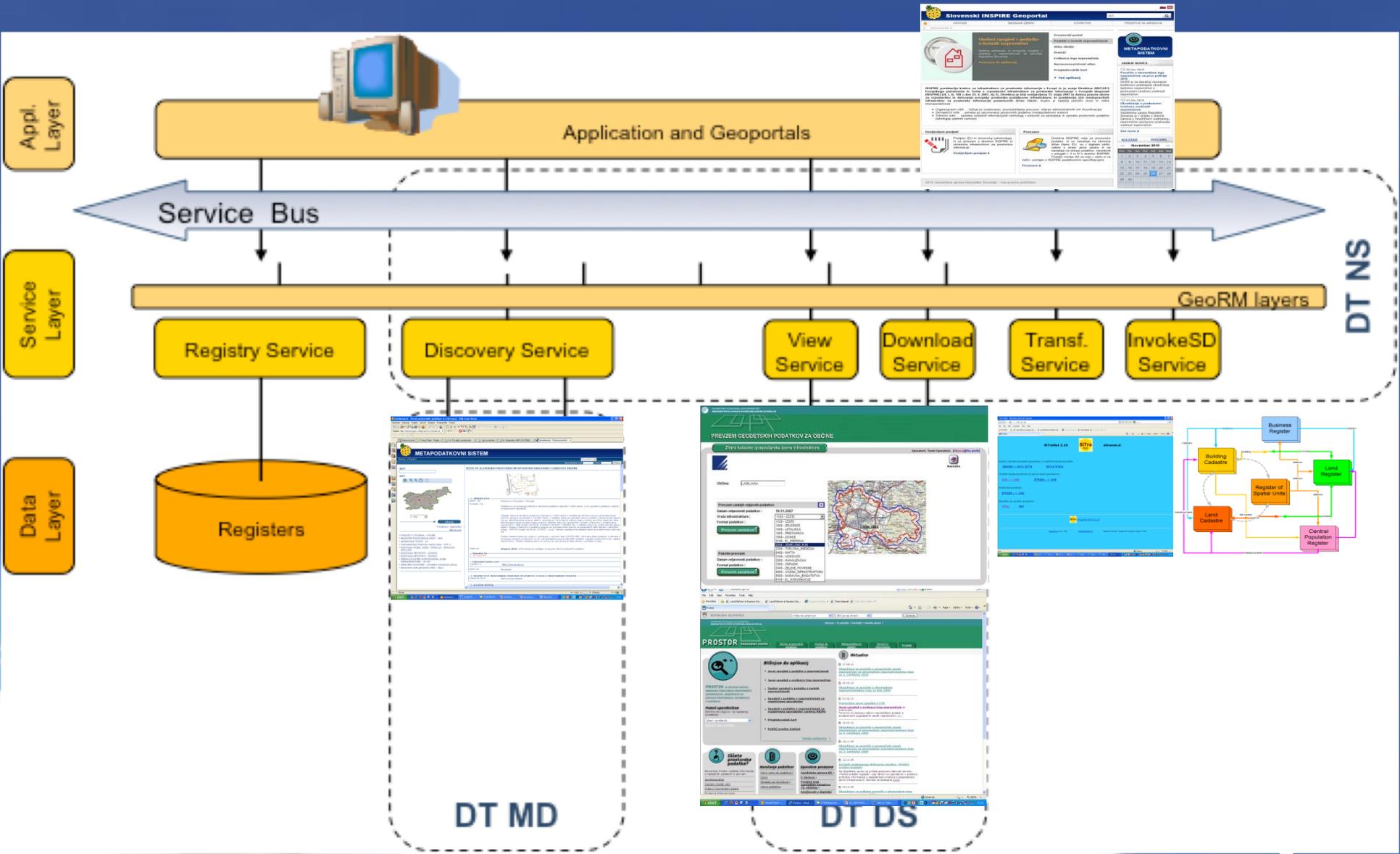
Done



Country	MDI1 Value
BG	10
NL	15
RO	32
IE	33
HU	34
PL	35
DE	36
SK	38
FI	48
LV	50
DK	51
GR	55
EE	56
AT	58
UK	60
NO	65
PT	68
SE	72
BE	75
SI	78
LT	80
ES	85
CZ	90
FR	92
LU	95

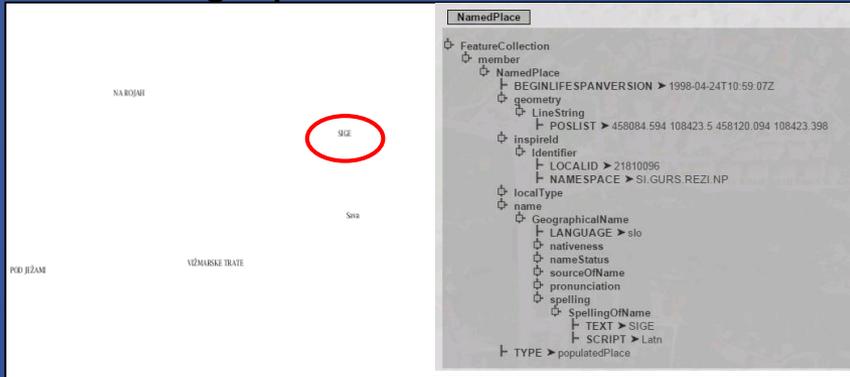


# NETWORK SERVICES

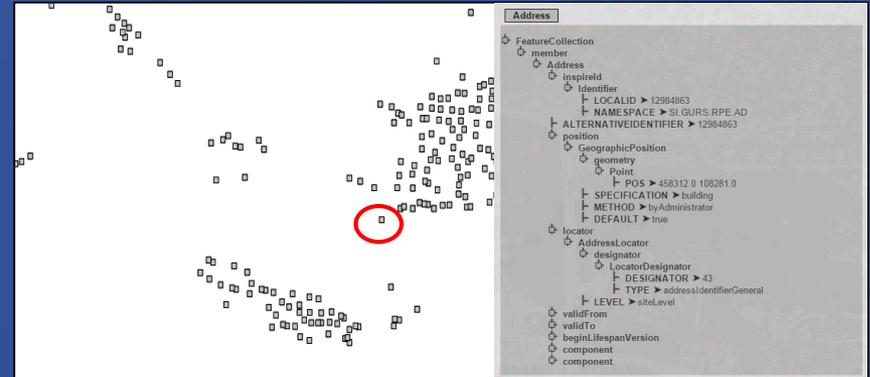


# NETWORK SERVICES OF SMA

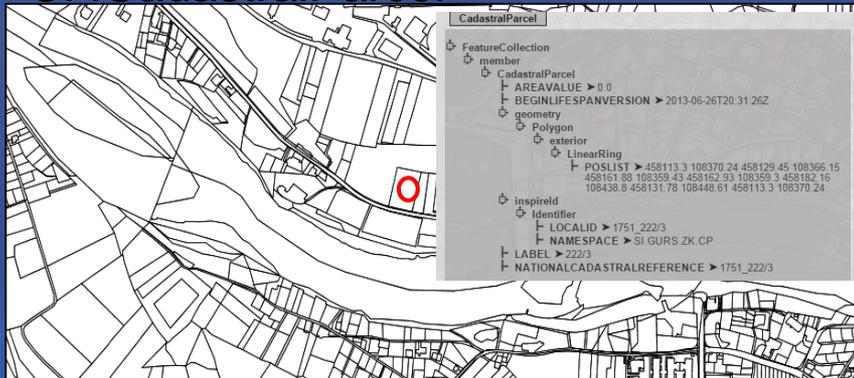
## GN.GeographicalNames



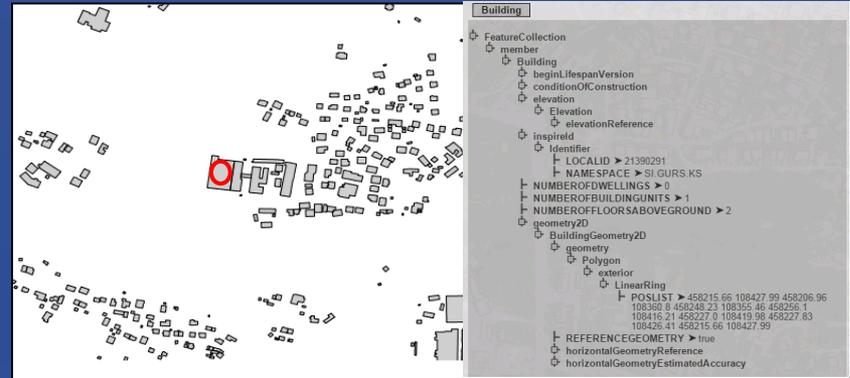
## AD.Address



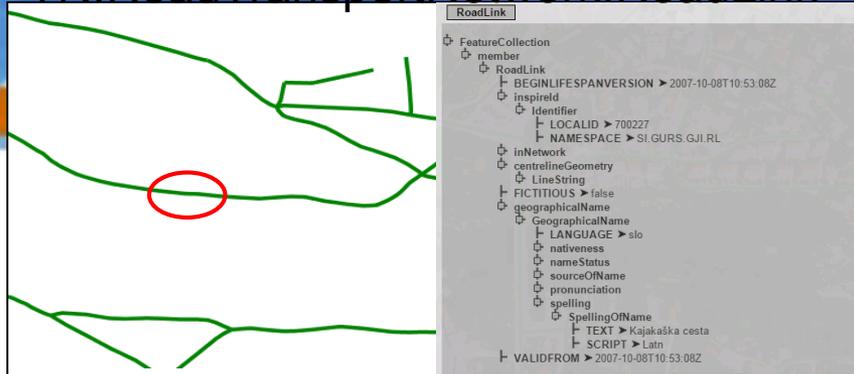
## CP.CadastralParcel



## BU.Building



## TN.RoadTransportNetwork.RoadLink



## AU.AdministrativeUnit



# NETWORK SERVICES OF ENVIRONMENTAL AGENCY

The screenshot shows the 'WFSLayersList' page of the Environmental Agency's GIS portal. The header identifies the organization as the Ministry of Environment and Spatial Planning of the Republic of Slovenia. The main content area is titled 'Spatial data distribution for INSPIRE directive' and features a 'Layers list' section. A dropdown menu for 'Thematic group' is set to 'Vsi'. The list contains several layers, with 'Pokrovnost tal v Sloveniji po CORINE 2012' expanded to show an abstract and purpose of data set. At the bottom, there is a 'WFS server parameters' section.

This screenshot displays the 'WFSLayerExportAttSingle' page, which is used for exporting spatial data. It shows the 'Current layer' as 'http://gis.arso.gov.si/geoserver/ows?SERVICE=WFS&REQUEST=GetFeature&VERSION=1.1.0&TYPENAME=arso:HIDGRFORM&PROPERTYNAME=&OUTPUTFORMAT=SHAPE-ZIP&format\_options=charset:WINDOWS-1250'. Below this, there is a 'Selection of the spatial data attributes' section with a table for selecting attributes. To the right, a map of Slovenia is shown. The 'Export layer' section is active, showing options for 'Coordinate system' (GAUSS-KRUEGER), 'Export format' (GML2, SHP - zip), and 'Character set (SHP/DBF only)' (WINDOWS-1250, UTF-8, ISO-8859-2 (Latin 2)). A 'Perform Export' button is visible at the bottom.

- [http://gis.arso.gov.si/wfs\\_web/faces/WFSLayerExportAttSingle.jspx](http://gis.arso.gov.si/wfs_web/faces/WFSLayerExportAttSingle.jspx)



# Practical examples

There are several ongoing projects and activities that will prepare datasets and services in line with INSPIRE data specifications.

- Examples:

- new water network database, (eWater)
- new topographic database, (EEA Grant)
- cloud platform for pan european services (ELF project)
- new IKT for land cadastre system (eSpatial)

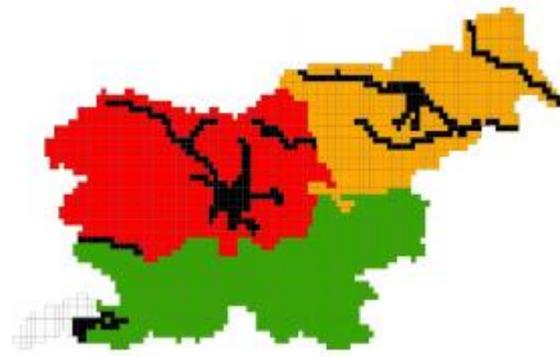
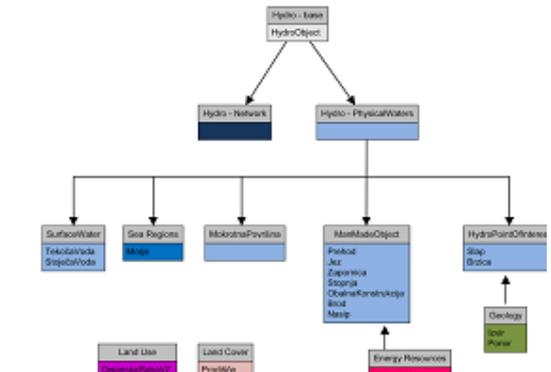


# New HYDRO database

Zajemajo se naslednji objektni tipi z geometrijo, kot je navedeno v tabeli:

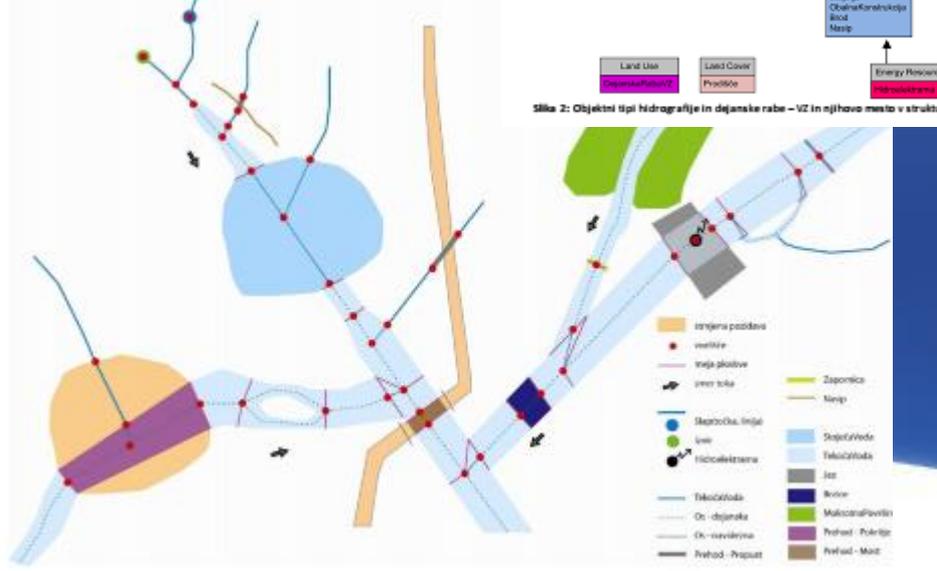
Hidrografija				Dejanska raba
TekočaVoda	StoječaVoda	GrajeniObjekti	OstaliObjekti	Dejanska raba - VZ
Struga vodnega toka (L, p)	Jezero (p)	Prehod - Akvadukt (L, p)	Slap (L, I)	Vodotok (p)
Kanal (L, p)	Sajer, kal, mlaka, toka (p)	Prehod - Most (L, p)	Izvir (I)	Nasip (p)
Akumulacijsko jezero (L, p)	Rekreacijski bazen (p)	Prehod - Prepust (L, p)	Ponor (I)	Jezero ali vodni zbiralnik (p)
Obcestni jarek (I)	Industrijski bazen (p)	Prehod - Sifon (L, p)	Brzica (p)	Moja (p)
Melioracijski jarek (L, p)	Vodni zbiralnik (p)	Prehod - Pokrižje (L, p)	Mokrotna Površina (p)	Ostalo (p)
	Soline (p)	Jez (L, I, p)	Morje (p)	
	Mrtvi rečni rokav (p)	Zapornica (L, I, p)	Prodišče (p)	
		Stopnja (L, I)		
		Hidroelektrarna (I)		
		ObalnaKonstrukcija (p)		
		Brod (L, p)		
		Nasip (I)		

Nekaj primerov zajema:



oštevničena:

Slika 2: Objektni tipi hidrografije in dejanske rabe - VZ in njihovo mesto v strukturi hidrografije po INSPIRE



- 1 Porečje Save
- 2 Porečje Kolpe
- 3 Porečje Drave
- 4 Porečje Mure
- 5 Porečje Obale
- 6 Porečje Soče



# INSPIRE sub project within EEA founded project "Modernization of Spatial Data Infrastructure to Reduce Risks and Impacts of Floods"

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



The screenshot shows a web browser window displaying the website [www.gurs-egp.si/eng](http://www.gurs-egp.si/eng). The website has a blue header with navigation links: HOME, PROJECT, SUBPROJECTS, NEWS, MATERIALS, LINKS, and CONTACT. A red banner at the top right says "steinstein norway". The main content area features a large image of a building with a sign that reads "GEODETSKA UPRAVA REPUBLIKE SLOVENIJE". Below the image is a red banner with the text "SHARING COMMON VALUES". To the right of the image is a yellow box with the text "INSPIRE SUBPROJECT" and a list of bullet points: "common IT infrastructure, metadata and network services for spatial information". Below the image is a red banner with the text "PROJECT" and a logo of a four-lobed flower with a globe in the center. To the right of the logo is a red banner with the text "LAUNCHING CONFERENCE" and a red banner with the text "PROJECT WAS SUCCESSFULLY OPENED". Below the red banner is a paragraph of text: "Tuesday, 4 February 2014, we successfully launching conference of the project 'Modernization of spatial data infrastructure to reduce risks and impacts of floods'. Attendance at the conference was despite the bad weather conditions - attended by over 100 participants from Slovenia and abroad." To the right of the paragraph is a red banner with the text "NEWS" and a red banner with the text "Sat, 22 Feb 2014 NEWS ABOUT OUR PROJECT PUBLISHED IN 'SVMIRSKI ŽURNAL'". Below the red banner is a paragraph of text: "Department of satellite geodesy, surveying faculty". The browser window shows the address bar with the URL <http://www.gurs-egp.si/eng>. The taskbar at the bottom shows the Windows logo, Internet Explorer, and other icons. The system tray shows the date and time: 10:54 18.6.2014.

steinstein norway

HOME | PROJECT | SUBPROJECTS | NEWS | MATERIALS | LINKS | CONTACT

SHARING COMMON VALUES

INSPIRE SUBPROJECT

- common IT infrastructure,
- metadata and
- network services for spatial information

PROJECT

LAUNCHING CONFERENCE

PROJECT WAS SUCCESSFULLY OPENED

Tuesday, 4 February 2014, we successfully launching conference of the project "Modernization of spatial data infrastructure to reduce risks and impacts of floods". Attendance at the conference was despite the bad weather conditions - attended by over 100 participants from Slovenia and abroad.

NEWS

Sat, 22 Feb 2014  
NEWS ABOUT OUR PROJECT PUBLISHED IN "SVMIRSKI ŽURNAL"

Department of satellite geodesy, surveying faculty

7b2\_O\_projektu\_...m....pdf | participants-NSDI Sk....jpg

Pokaži vse prenose ...

10:54 18.6.2014

# Subproject TOPO

New database according to INSPIRE

- Model for transformation of existing data into INSPIRE
- Preparation of a new INSPIRE topographic data model, logical and physical (DTM)
- Development of basic application for data maintenance

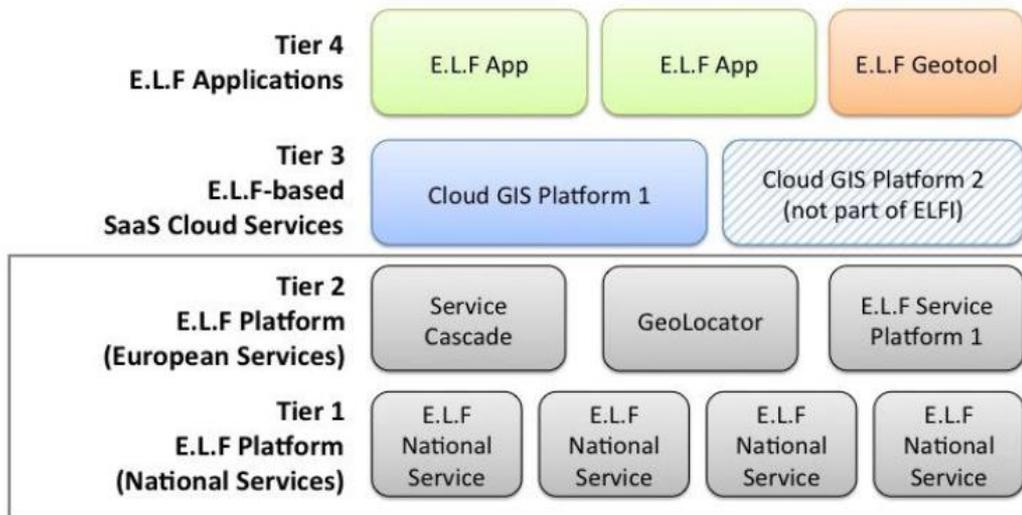
Objektni tip	Atribut/Datatype/association	Obvezen	Stanje	Pojasnilo atributa	Vir - zbirka	Vir - atribut	Opomba	Upravitelj	del TOPO5
		DA							DA
	elevation	NE	imamo	elevation value	DTK5			GURS	DA
	elevationReference	NE	imamo	Elevation reference	DTK5			GURS	DA
	heightReference	NE	imamo	Height reference	DTK5		ZSLEM	GURS	DA
	lowReference	NE	imamo	Low reference	DTK5		ZTEM	GURS	DA
	heightAboveGround	NE	lahko določimo	Value Value of	DTK5	ZSLEM-ZTEM		GURS	DA
	status	NE	lahko določimo	Status The way	DTK5			GURS	DA
	conditionOfConstruction	NE	lahko določimo delno	Condition of	DTK5		ruševine označene ločeno v	GURS	DA
	dateOfConstruction	NE	imamo		KS/REN	Leto izgradnje		GURS	DA
	dateOfRenovation	NE	lahko določimo		KS/REN	Leto obnove strehe, Leto	odločitev kateri datum od	GURS	DA
	informationSystem	NE	imamo	Information system	KS/REN			GURS	DA
	informationSystemName	NE	imamo	Information system	KS/REN			GURS	DA
	reference	NE	imamo	Reference	KS/REN	SID		GURS	DA

A	B	C	D	E
1	<b>101 Stavba</b>		<b>INSPIRE</b>	
	geometrija		DT BuildingGeometry2D P::shape	
	• identifikator DTK 5 (DTK5_ID)	NE		
	• številka stavbe (SID)		DT ExternalReference	
	• Y koordinata centroida (CENY)		DT BuildingGeometry2D P::centroidY	
	• X koordinata centroida (CENX)		DT BuildingGeometry2D P::centroidX	
	• višina kapi (Z_KAP)		DT Elevation	CL ElevationReference
	• višina slemena (Z_SLEM)		DT Elevation	CL ElevationReference
	• višina temelja (Z_TEM)		DT Elevation	CL ElevationReference
	• stanje (STANJE)		DT BuildingGeometry2D P::centroidX	
	• opis stavbe (OPIS)		bui AbstractBuilding::buildingNature	
	• datum vira (DVIR)		sporočim	
	• metoda zajema (MET_ZAJ)		DT BuildingGeometry2D P::metodaZajema	
2	<b>102 Os elektrovoda</b>			
	geometrija		ugs Link L::shape	
	• identifikator DTK 5 (DTK5_ID)	NE		
	• napetost (NAPETOST)		ugs ElectricityCable::nominalVoltage_value	
	• datum vira (DVIR)		ugs ElectricityCable::nominalVoltage_uom	relacija REL ugsLnkSet ugsGenLk
			ne	

# SMA IN ELF



WP Number <sup>53</sup>	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



# ELF - NETWORK SERVICES

Authority:	Service ready	Supporting schema	URL
ELF Basemap	29.feb.16		<a href="http://prostor4.gov.si/ows2-elf-m/elf_bu_basemap/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_bu_basemap/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_gn/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_gn/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_hy/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_hy/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_tn/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_tn/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_lc/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_lc/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a>
Cadastral Index Map	31.jan.16		<a href="http://prostor4.gov.si/ows2-elf-m/elf_cp/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_cp/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_ad/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_ad/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_au/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_au/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a> <a href="http://prostor4.gov.si/ows2-elf-m/elf_bu/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities">http://prostor4.gov.si/ows2-elf-m/elf_bu/wms?service=wms&amp;version=1.3.0&amp;request=GetCapabilities</a>
GeoLocator	-		
Download AU	31.jan.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/elf_au/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/elf_au/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download GN	31.jan.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/elf_gn/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/elf_gn/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_HY-PW	-		-
Download_HY-NW	-		-
Download_LC	-		-
Download_TN-Air	29.feb.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/elf_tn-a/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/elf_tn-a/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_TN-Road	29.feb.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/elf_tn-ro/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/elf_tn-ro/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_TN-Rail	29.feb.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/elf_tn-ra/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/elf_tn-ra/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_TN-Cable	-		-
Download_TN-Water	-		-
Download_EL	-		-
Download_EL Grid	-		-
Download_BU_2D	31.jan.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/bu-core2d/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/bu-core2d/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_BU_Ex			
Download_AD	31.jan.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/ad/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/ad/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_CP	31.jan.16	ELF 1.0	<a href="https://prostor4.gov.si/ows2-elf/cp/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities">https://prostor4.gov.si/ows2-elf/cp/wfs?service=wfs&amp;version=2.0.0&amp;request=GetCapabilities</a>
Download_PS			
Download_SR			

# COUNTRY FICHE AND EC REPORT ABOUT INSPIRE IMPLEMENTATION

## Status of implementation of the INSPIRE Directive – 2016 Country Fiches

### COUNTRY FICHE Slovenia

Introduction.....	1
1. State of Play.....	2
1.1 Coordination.....	2
1.2 Functioning and coordination of the infrastructure.....	3
1.3 Usage of the infrastructure for spatial information.....	3
1.4 Data Sharing Arrangements.....	4
1.5 Costs and Benefits.....	4
2 Key Facts and Figures.....	4
2.1. Identification of spatial data with relevance to the environment (step 1).....	5
2.2 Documentation of the data (metadata) (step 2).....	7
2.3. Accessibility of the data through digital services (step 3).....	9
2.4. Interoperability of spatial data sets (step 4).....	11
3. Outlook.....	12
4. Summary - How is Country doing?.....	14
Specific recommendations:.....	15

#### Introduction

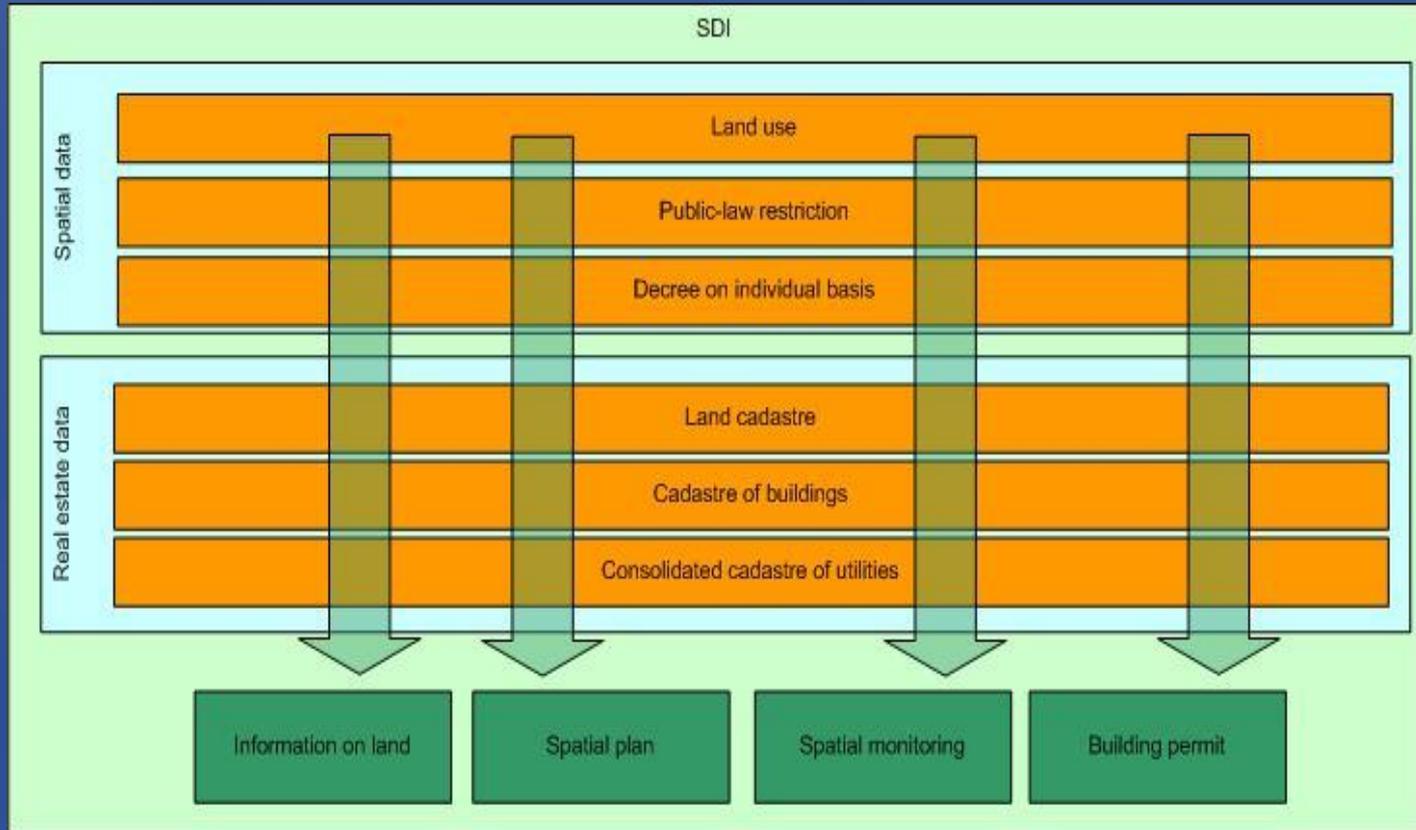
The INSPIRE Directive sets the minimum conditions for interoperable sharing and exchange of spatial data across Europe as part of a larger European Interoperability Framework and the e-Government Action Plan that contributes to the Digital Single Market Agenda. Article 21 of [INSPIRE Directive](#) defines the basic principles for monitoring and reporting. More detailed implementing rules regarding INSPIRE monitoring and reporting have been adopted as [COMMISSION DECISION regarding INSPIRE monitoring and reporting](#) on the 5th of June 2009.

This country fiche highlights the progress of Slovenia in the various areas of INSPIRE implementation and presents an outlook of planned actions for further improvement of the INSPIRE implementation. The country fiche includes information until **May 2016** as a summary of the information acquired through:

- the 2016 [tri-annual INSPIRE implementation report](#),
- [monitoring report](#) in May 2016,

INSPIRE key obligation	Overall implementation status and trend	Outlook	<b>Dashboard Legend</b>
Ensure effective coordination			<b>Implementation Status:</b>  : implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily.  : implementation of this provision has started and made some progress but is still far from being complete. Outstanding issues are significant and need to be addressed to ensure that the objectives of the legislation can still be reached by 2020.  : implementation of this provision is falling significantly behind or has not even started. Serious efforts are necessary to close implementation gap.
Data sharing without obstacles			<b>Trend:</b>  : the trend of the implementation is positive.  : the trend of the implementation is neutral.  : the trend of the implementation is negative.
Step 1: Identify spatial datasets			<b>Outlook:</b>  : clear and targeted actions have been identified which allow reaching the objectives of the legislation in an effective way.  : No real progress has been made in the recent past or actions which have been identified are not clear and targeted enough to predict a more positive outlook.  : no actions have been identified to overcome identified implementation gaps.
Step 2: Document datasets (metadata)			
Step 3: Provide services for identified spatial datasets (discovery, view, download)			
Step 4: Make spatial datasets interoperable by aligning them with the common data models.			

# FUTURE ACTIVITIES

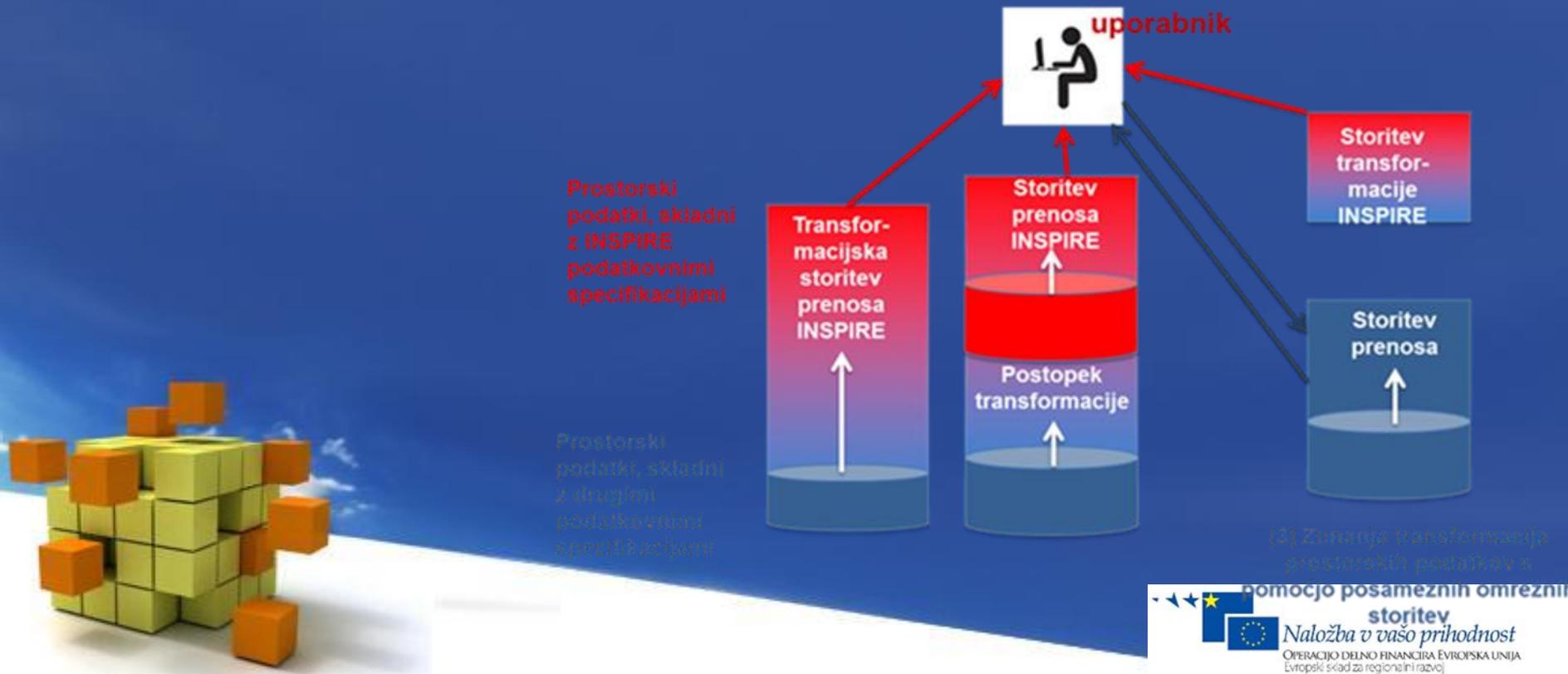


e-Spatial



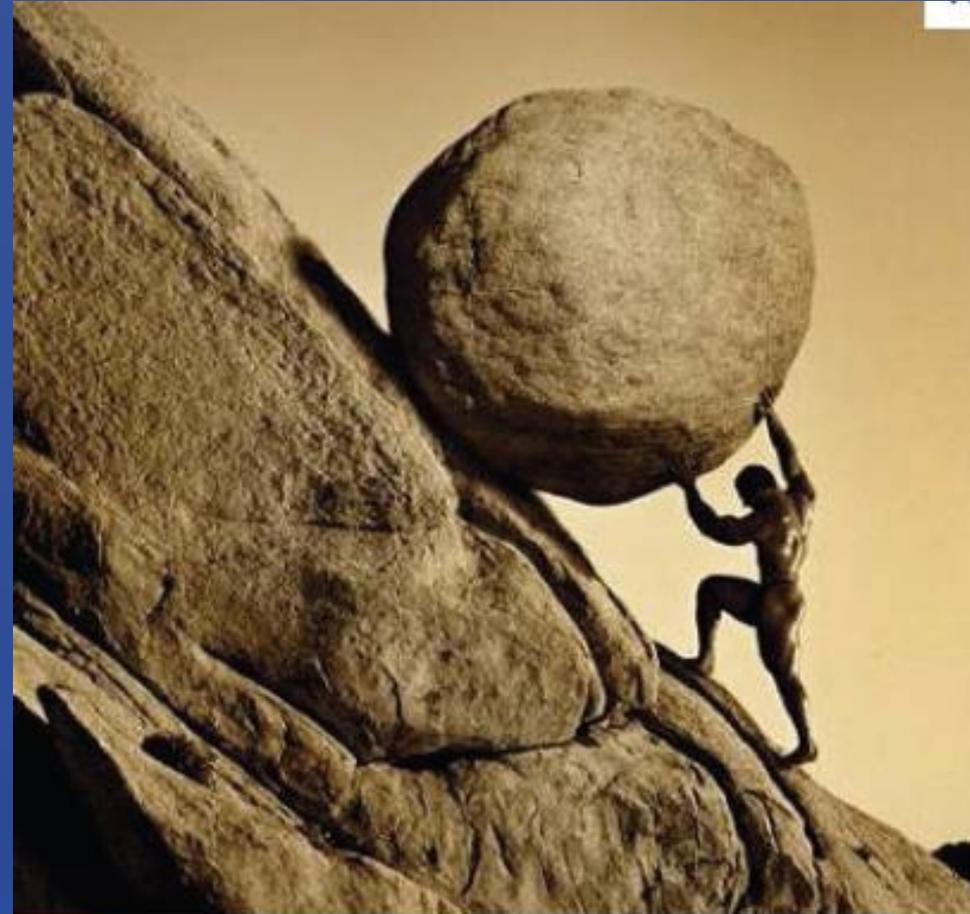
# Common data model

- Harmonisation efforts in Slovenia was started within eSpatial program of projects
- Realisation in period 2017 – 2021.



# CONCLUSIONS

- LEGAL BACKGROUND
- ORGANISATION
- INTEROPERABILITY OF SPATIAL DATA
- NETWORK SERVICES
- FUTURE IS “GEO” ENABLED
- NEED OF CAPACITY BUILDING



Source: <http://www.accaparlante.it/sisifo>

*THANK YOU !*



e-mail: [tomaz.petek@gov.si](mailto:tomaz.petek@gov.si)  
[www.geoportal.gov.si](http://www.geoportal.gov.si)