

# Registar geografskih imena tri godine od prve implementacije INSPIRE-a u Hrvatskoj

Dragan Divjak



8. NIPP i INSPIRE dan - 25. studenj 2016.



OCN - Requests with which meet you						
Sign	Registration		Registration status		Actions	
	Date	Time	Status	Reason	Details	Print
<b>Grouped by status</b>						
<input checked="" type="checkbox"/> <b>Open</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Completed</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Completed	Completed	Completed	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Closed</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Closed	Closed	Closed	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Out</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Out	Out	Out	<a href="#">View details</a>
<b>Grouped by date</b>						
<input checked="" type="checkbox"/> <b>Day</b>	2023-08-22	2023-08-22	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Month</b>	2023-08	2023-08	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Year</b>	2023	2023	Open	Initial request	Initial request	<a href="#">View details</a>
<b>Grouped by status</b>						
<input checked="" type="checkbox"/> <b>Open</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Completed</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Completed	Completed	Completed	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Closed</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Closed	Closed	Closed	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Out</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Out	Out	Out	<a href="#">View details</a>
<b>Grouped by date</b>						
<input checked="" type="checkbox"/> <b>Day</b>	2023-08-22	2023-08-22	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Month</b>	2023-08	2023-08	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Year</b>	2023	2023	Open	Initial request	Initial request	<a href="#">View details</a>
<b>Grouped by status</b>						
<input checked="" type="checkbox"/> <b>Open</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Open	Initial request	Initial request	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Completed</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Completed	Completed	Completed	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Closed</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Closed	Closed	Closed	<a href="#">View details</a>
<input checked="" type="checkbox"/> <b>Out</b>	2023-08-22 10:00:00	2023-08-22 10:00:00	Out	Out	Out	<a href="#">View details</a>

## Motivacija za pokretanje projekta

- S unapređenjem RGI htjelo se:
  - Modernizirati postojeće web stranice
  - Napraviti webGIS aplikaciju na kojoj će djelatnici DGU-a raditi na prikupljanju GI
  - Prilagoditi model podataka za INSPIRE aplikacijsku shemu geografskih imena
  - Implementirati INSPIRE servise
  - Otvoriti sustav prema javnosti omogućujući građanima da doprinesu svojim lokalnim poznavanjem geografskih imena
  - I još mnogo toga!!!



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### D2.8.I.3 INSPIRE Data Specification on Geographical Names – Guidelines

Title	D2.8.I.3 INSPIRE Data Specification on Geographical names – Guidelines
Creator	INSPIRE Thematic Working Group Geographical Names
Date	2009-09-07
Subject	INSPIRE Data Specification for the spatial data theme: Geographical names
Publisher	INSPIRE Thematic Working Group Geographical Names
Type	Text
Description	This document describes the INSPIRE Data Specification for the spatial data theme Geographical names
Contributor	Members of the INSPIRE Thematic Working Group Geographical Names
Format	Portable Document Format (pdf)
Source	
Rights	Public
Identifier	INSPIRE_DataSpecification_GN_v3.0.pdf
Language	En
Relation	Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)
Coverage	Project duration

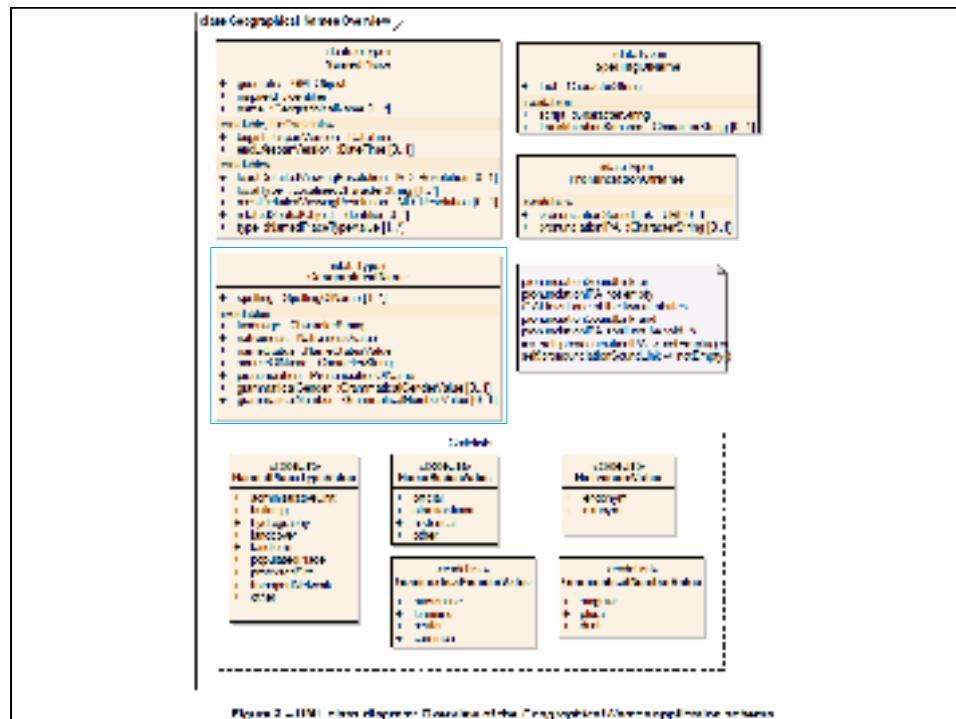


Figure 2 – UML class diagram: core of the Geographical Names application schema

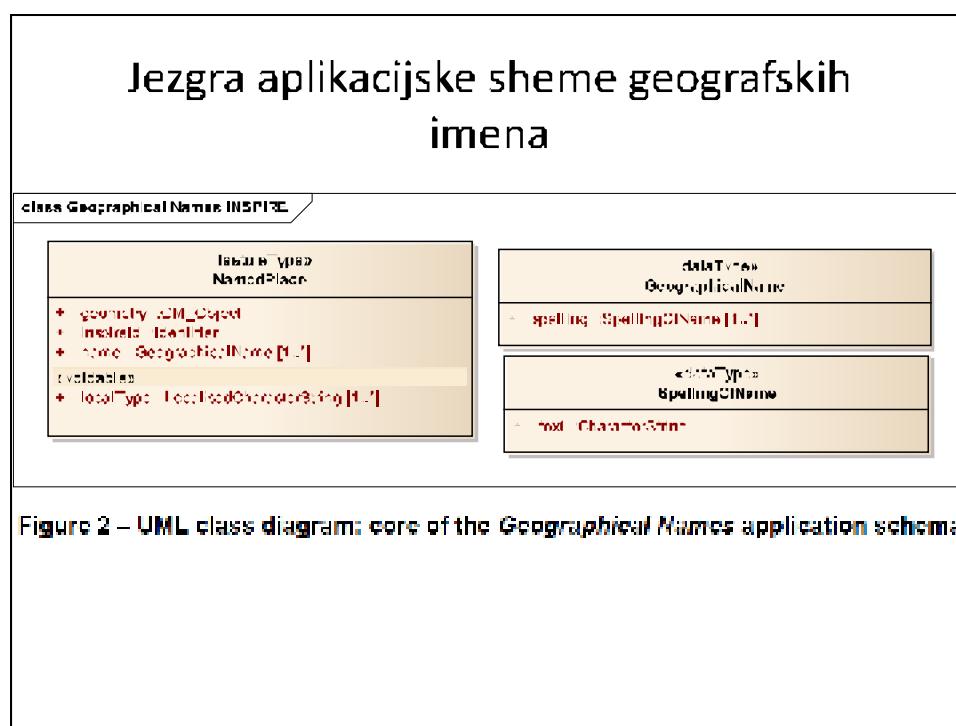
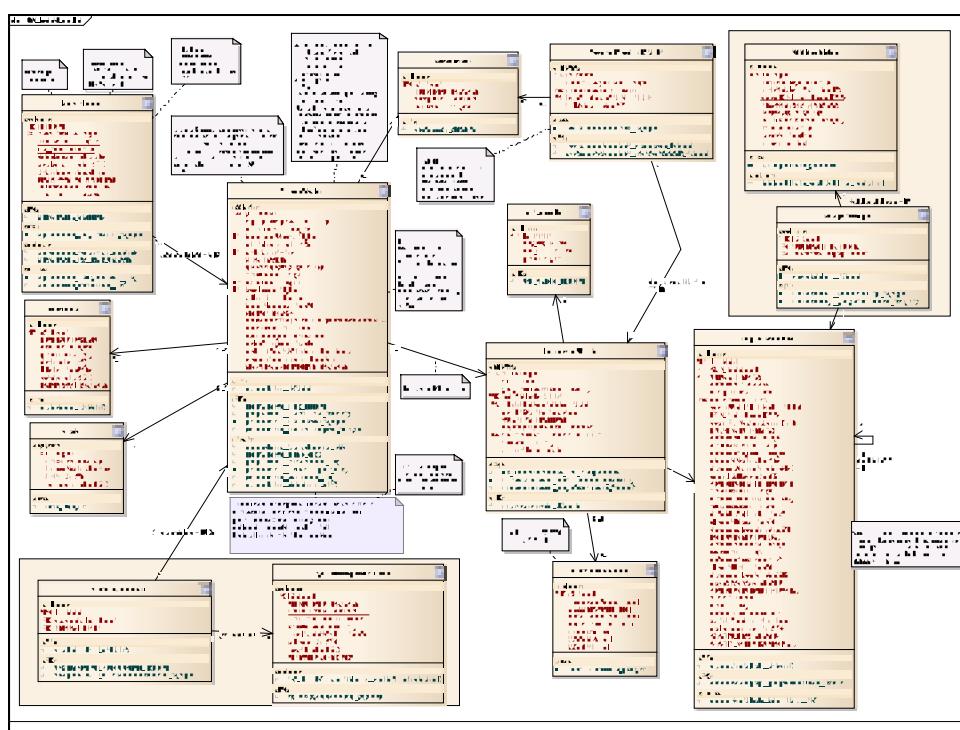
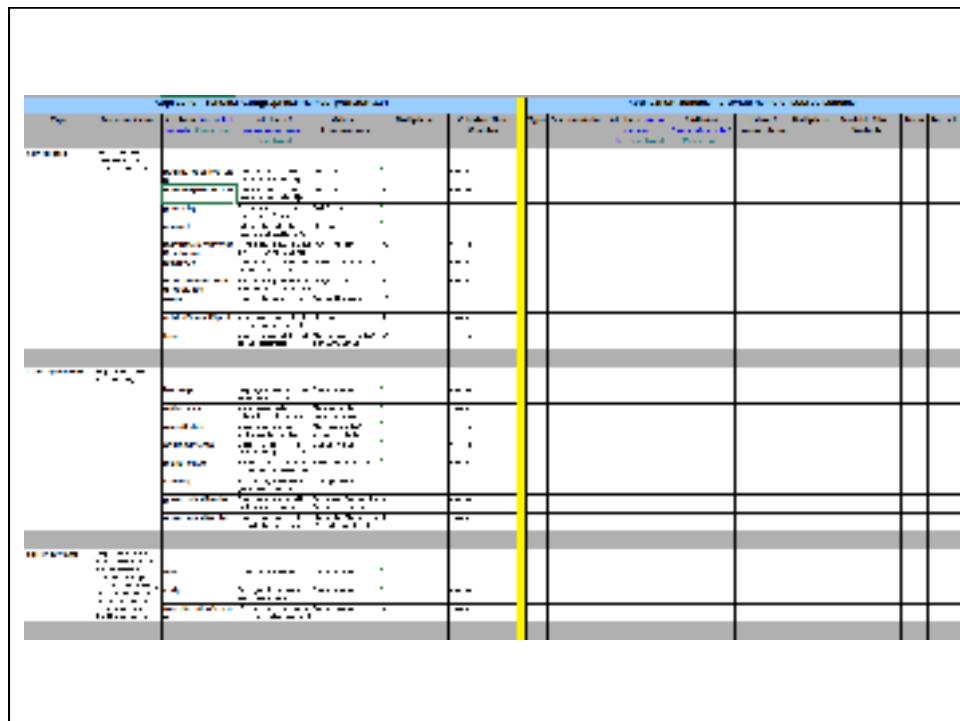


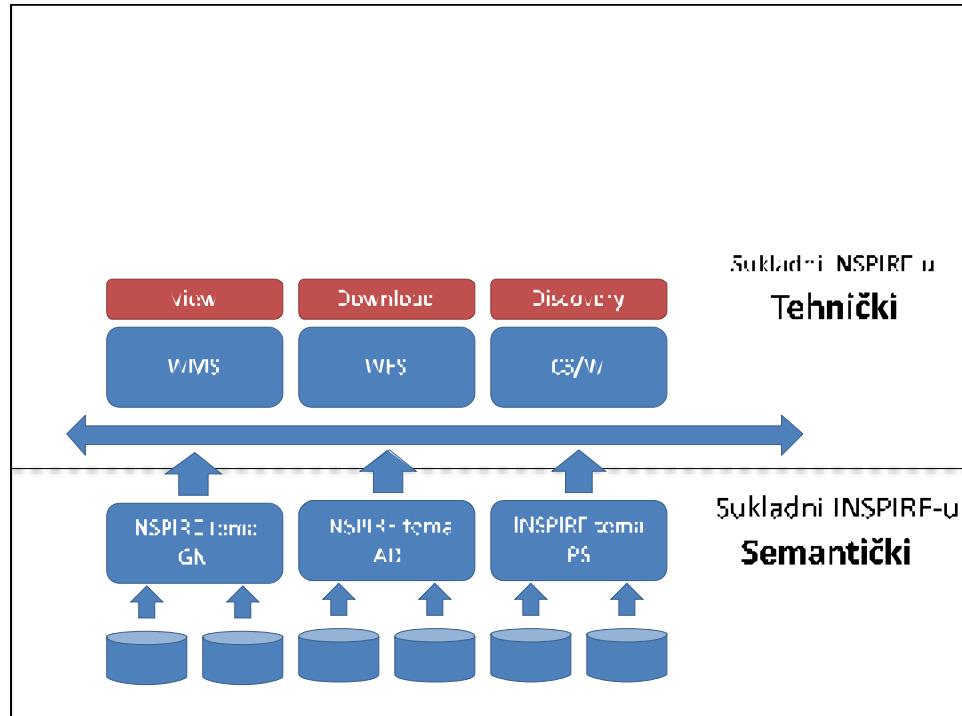
Figure 2 – UML class diagram: core of the Geographical Names application schema

## Tablica sheme mapiranja postojećih podataka geografskih imena u INSPIRE aplikacijsku shemu

feature type Named Place	data type Geographic Name	data type Existing Name	alias	source	voca	source
Attribute: CV: Object			INSPIRENAME			
Attribute: ISO 3166-1 Country			INSPIRENAME, iso:geographicName			
Attribute: locality			INSPIRENAME, iso:locality	1.1 GeonamesDataset		
				7	1.1.1	
Attribute: name	CV: GeographicName					
	Attribute: spelling	1.1.1.ope: Ingolstadt			1.1	
	Attribute: name	Geoname			INSPIRENAME, Geoname	

The screenshot shows the INSPIRE Data Model interface. The top navigation bar includes the INSPIRE logo and links for 'Data Models', 'Data Specifications', 'Usage Models', and 'Search'. The main content area has a sidebar with categories like 'Geographical Names', 'Countries', 'Regions', 'Provinces', 'Districts', 'Municipalities', 'Localities', 'PostalCodes', 'SSN-PLZ', 'Regions', 'Districts', 'Municipalities', 'PostalCodes', 'SSN-PLZ', and 'Localities'. The main panel is titled 'data specifications to usage models' and contains a diagram illustrating data structures. A blue box highlights the URL: <http://inspire.ec.europa.eu/Data-Models/Data-Specifications/2892>. At the bottom right, there are links for 'Data Model', 'Data Specification', 'Usage Model', and 'Search'.





The screenshot shows the deegree workspace interface. On the left, there's a sidebar with a tree view of project components:

- geometries**: includes `multigeometry`, `geometry`, `feature`, `rule`, `process`, `parameter`, `variable`, `model`, `info`, `condition`, `constraint`, and `script`.
- web services**: includes `services`, `datasources`, `transformations`, `feature`, `metadata`, and `file`.
- map layers**: includes `Layers`, `styling`, `styles`, and `themes`.
- remote connections**: includes `JDBC`, `remote and processes`, and `provider`.

The main content area has tabs: `Name` (selected), `Memory`, and `Overview`. The `Name` tab displays a table of features:

Name	Description	Type	Access	Add	Delete	Info	Actions
WFS-GetFeatureByName	Provides access to the WFS-GetFeatureByName operation.	Service	All users	Add	Delete	Info	Actions
WFS-GetFeature	Provides access to the WFS-GetFeature operation.	Service	All users	Add	Delete	Info	Actions
WFS-GetFeatureByFilter	Provides access to the WFS-GetFeatureByFilter operation.	Service	All users	Add	Delete	Info	Actions
WFS-GetFeatureByIdent	Provides access to the WFS-GetFeatureByIdent operation.	Service	All users	Add	Delete	Info	Actions

Below this is a large orange-bordered box labeled "deegree workspace" containing four sub-boxes:

- Web Services**: `jaxws, jboss, wsdl, jax-ws`
- Data Stores**: `File, Database, JBoss Seam, JBoss EJB3`
- Map Layers**: `Java, GeoServer`
- Server Connections**: `JDBC, RasterIOSS`
- Processes**: `Java, BPMN`

Usluga  
pregledavanja



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### 4.2.3.3 CutGuardPlus responses

#### 4.2.3.3.7 View service metadata

Two scenarios have been identified for proceeding. View Scenario includes conforming to the Regulation on INRS-III, Network Services [IN5 NS] and on Member [IN5 MD]. It is up to the Member State to choose which scenario best fits its needs. As these scenarios are not mutually exclusive, a Member State may choose to implement both.

**Scenario 1:** INSPIRE network service metadata in a Discovery Service is referenced through an extended extensibility.

This scenario involves coding a reference to an online IHE RRE metadata resource in the extended IHE profile.

**Implementation Requirement 8:** The `<ImplementationRequirement>` element within the extended INSPIRE capabilities of an ISO 19128 – WMS 1.3.0 class shall be mapped to an element which can be used to reference the INSPIRE service metadata available through an INSPIRE Discovery Service. Mandatory [ISO 19128] – WMS 1.3.0 metadata elements shall be mapped to INSPIRE metadata elements to implement a consistent interface.

**Scenario 2:** Use extended capabilities to map all INSPIRE metadata elements to the ISO 19115-3 elements.

This scenario involves mapping all INSPIRE metadata elements to [ISO 19115] WMS 1.3.0 elements.

**Implementation Requirement 7** INSPIRE metadata are mapped to WMS capabilities elements to its full extent. It is mandatory to use the mapping provided in the Technical Guidance document in Section 4.2.3.1.1 in 4.2.3.1 in INFRARI metadata elements that cannot be mapped in accordance [ISO 19128]. WMS 1.3.0 elements are implemented as Extended Capabilities. Metadata are published through a service's capabilities document and can be harvested by an INSPIRE Discovery service.

#### 11.1 Layers to be provided by INSPIRE view services

Layer Name	Layer Title	Spatial object type(s)	Keywords
GN.GeographicalName	Geographical Names	NamePlace	geographical name, place name, location name, territory name, political entity, entity, toponym, toponymy, name, naming

**NOTE:** The table above contains several layers for the specific typed typed format base, which can be further classified using a code bit value attribute. Such sets of layers are specified as described in Article 10.6 of the file.

IR Requirement

Article 14

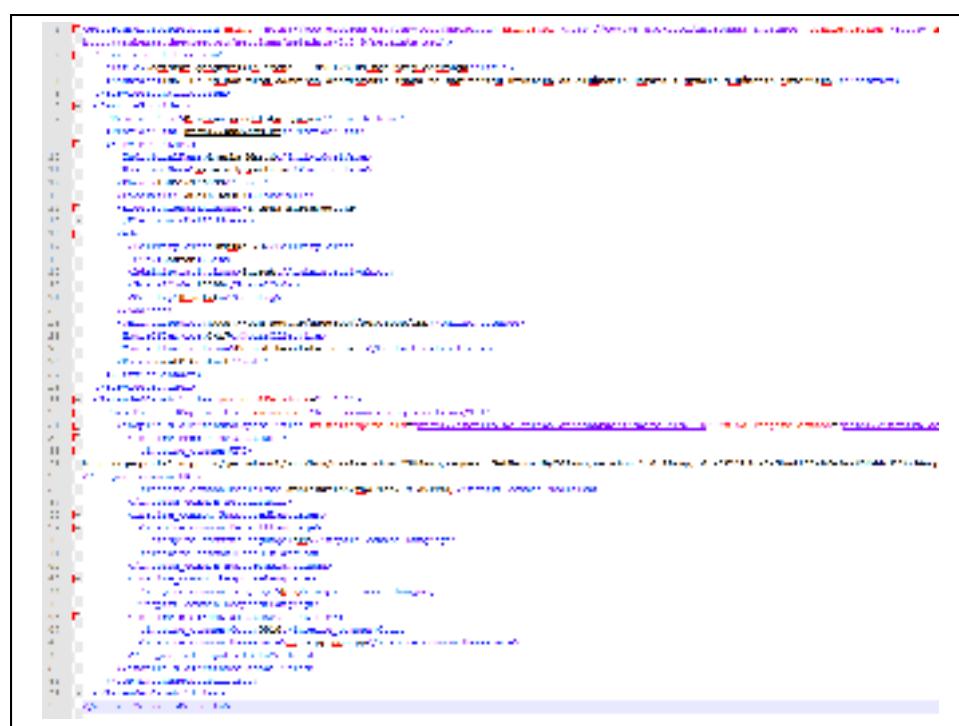
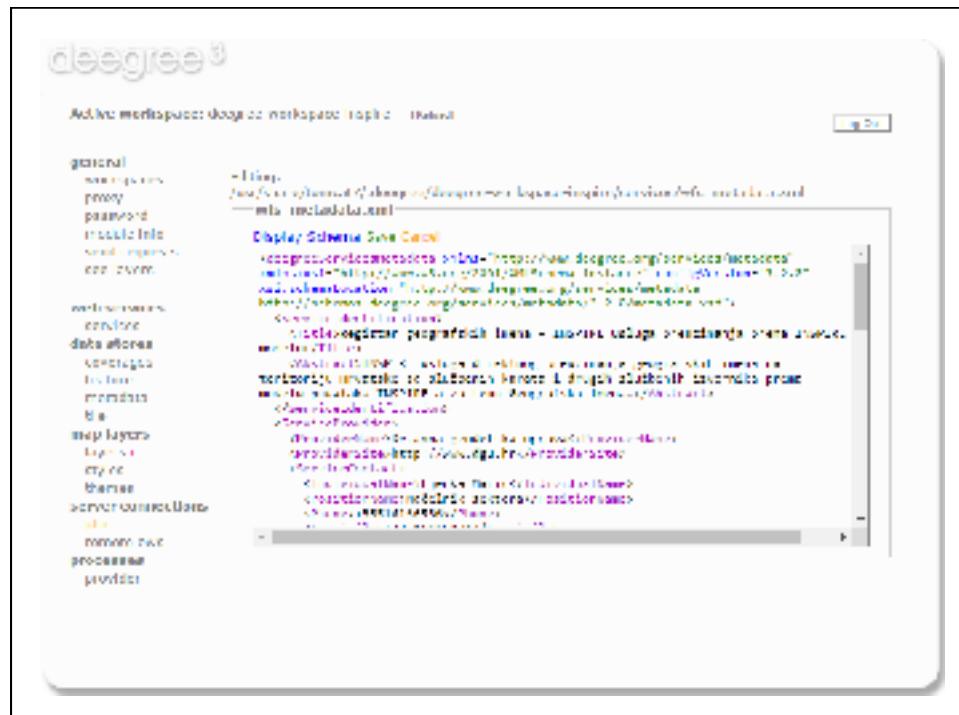
## Portrayal

3. For spatial object types whose objects can be further classified using a code list-valued attribute, several types may be defined. A set of base types and unique spatial object types corresponding to one specific code list value. In the definition of such sets of types in Annex 1, the following shall be observed:

## 11.2 Styles required to be supported by INSPIRE view services

### 11.2.1 Styles for the Layer GN-GeographicalNames

Style Name	GN.GeographicalNames.Default
Default Style	gn
Style Title	Geographical Name Default Style
Style Abstract	All names (i.e., all spellings of all names of the named place) are displayed in black, with font size 10pt, and located in order to touch the geometry of the named place (see also <a href="#">GeographicalName</a> ).
	The named place is referred by different names or different spellings of the same name, all these are displayed as the name has.
	The order of displayed names does not indicate any preference order, as this is not possible to define precisely such an order set out more information, e.g., language, audience, administrative area.
Symbology	Displaying the full list of spellings associated to the same name (see <a href="#">GeographicalName</a> ) is not an issue in the standard style (see <a href="#">place</a> ). No explicit description will be provided.
Minimum & maximum feature	Names should only be displayed at the viewing scale range defined by the attributes representing the least/most detailed viewing scale of the associated named place. If these attributes are not filled, then the names should be displayed at the lowest precision.
<hr/>	
Recommendation 82. The typeface and font size used for the portrayal of geographical names should fully and correctly represent all the letters and diacritics present in the script(s) of geographical names in question.	



**Provide response with:**

- Get Data
- Register Data
- Register Data and Get Data

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**SHARE-ZIP output format:**

- ZIP file (WMS layer definition files)

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**INSPIRE:**

- Create INSPIRE-compliant dataset record

**Tags:**

None

**Notes:**

None

**Geographic area:**

**Temporal area:** None

**Cross-Cutting Themes:**

**Spatial resolution:**

Date	Description	My Links (0)
2014	INSPIRE	<a href="#">My Links (0)</a>
Zurich		

[Add](#) [Cancel](#)

Google+ and Social Media Integration

- 1. Google+ is the social network from Google.
- 2. It has over 300 million users.
- 3. It is used by 90% of Fortune 500 companies.
- 4. It is a platform for sharing, connecting, and creating.
- 5. It allows users to connect with friends, family, and colleagues.
- 6. It provides a way to share photos, videos, and other content.
- 7. It offers a variety of features, such as hangouts, circles, and +1.
- 8. It integrates with other Google products, such as Google Drive and Google Analytics.
- 9. It is a powerful tool for marketing and advertising.
- 10. It is a valuable resource for staying connected and informed.

[http://geocat.hr/opendata/geonetwerk/srv/eng/csw?service=CSW&request=GetRecordById&version=2.0.2&elementSchema=http://www.isc.c211.org/2005/gml&elementSetName=ls\\_id=15d0e804-b5d0-4ed3-8276-31c917776172](http://geocat.hr/opendata/geonetwerk/srv/eng/csw?service=CSW&request=GetRecordById&version=2.0.2&elementSchema=http://www.isc.c211.org/2005/gml&elementSetName=ls_id=15d0e804-b5d0-4ed3-8276-31c917776172)

The screenshot shows a web page titled "Registar geografskih podataka - WFS INSPIRE". It includes a search bar, a map view, and a detailed registration form. The form fields include "Geodatični identifikator" (Geodetic identifier) with value "299806-0", "Kontaktne informacije" (Contact information), and "Zemljovid i karta" (Map and map). Below the form is a note about the registration of geospatial data in accordance with the INSPIRE Directive.

[http://geocat.hr/opendata/geonetwerk/srv/eng/csw?service=CSW&request=GetRecordById&version=2.0.2&elementSchema=http://www.isc.c211.org/2005/gml&elementSetName=ls\\_id=15d0e804-b5d0-4ed3-8276-31c917776172](http://geocat.hr/opendata/geonetwerk/srv/eng/csw?service=CSW&request=GetRecordById&version=2.0.2&elementSchema=http://www.isc.c211.org/2005/gml&elementSetName=ls_id=15d0e804-b5d0-4ed3-8276-31c917776172)

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**Usluga preuzimanja**



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**Technical Guidance for the Implementation of INSPIRE Download Services**

Name	Description
Service	INSPIRE Download Service
Format	Atom feed
File type	ZIP file
Metadata	INSPIRE metadata
Rules	Policy rules
URL prefix	http://inspire-europa.ec.europa.eu/inspire-ds/
Type	File
Acceptance	File download, direct download, download via URL
Format	ZIP
Service	INSPIRE Download Service
File type	ZIP file
Metadata	INSPIRE metadata
Rules	Policy rules
URL prefix	http://inspire-europa.ec.europa.eu/inspire-ds/
Type	File
Acceptance	File download, direct download, download via URL
Format	ZIP
Service	INSPIRE Download Service
File type	ZIP file
Metadata	INSPIRE metadata
Rules	Policy rules
URL prefix	http://inspire-europa.ec.europa.eu/inspire-ds/
Type	File

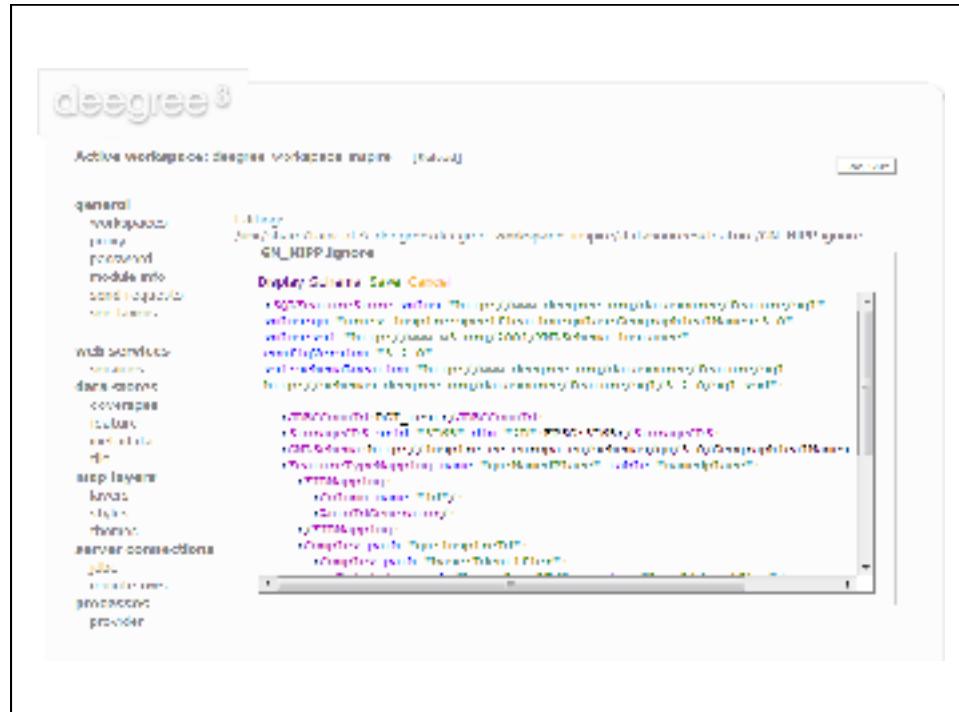
Ovisno o operacijama koje usluga preuzimanja podržava, razlikujemo dvije glavne kategorije pristupa podacima:

- Usluga preuzimanja predefiniranog skupa prostornih podataka (Pre-defined dataset download service)
- Usluga preuzimanja s direktnim pristupom (Direct access download service)

Praktična implementacija usluge preuzimanja predefiniranog skupa podataka moguća je korištenjem dvaju standarda:

- ATOM feed (The Atom Syndication Format | RSS feed)
- WFS Web Feature Service

### *Usluga preuzimanja s direktnim pristupom (Direct access download service)*



```

<EO> FeatureStore
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="http://www.eo.org/2001/XSL/Feature.xsl"?>
<featurestore:FeatureStore gm:arcGeographicNames="3.0.0"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:arc="http://www.eo.org/2001/XMLSchema-instance"
  version="3.2.0"
  xsi:schemaLocation="http://www.eo.org/2001/XMLSchema-instance
    http://schemas.eoagrc.org/featurestore.xsd">

  <..><?EOContent?> <..><?EOContent?>
  <StorageCRS>urn:iso:19111:crs:2D><?ISO19111CRS?><StorageCRS>

  <GM_Schema>http://inspire.ec.europa.eu/schemas/gr/3.0/GeographicNames.xsd</GM_Schema>

```

```

<FeatureTypeMapping name="gn:NameOfPlace" label="NameOfPlace">
    <Complex path="gml:LocalId">
        <Complex path="base:Identifier">
            <Primitive path="base:LocId" />
        </Complex>
    </Complex>
    <Complex path="gml:name">
        <Complex path="gn:GeographicalName">
            <Complex path="gn:SpecifiedName">
                <Primitive path="text" mapping="geographicalName" />
            </Complex>
        </Complex>
        <Primitive path="gn:ObjectType" mapping="av:placeON" />
    </Complex>
    <Geometry path="geometry" mapping="geometric" />
</FeatureTypeMapping>
/SOTFeatureStore

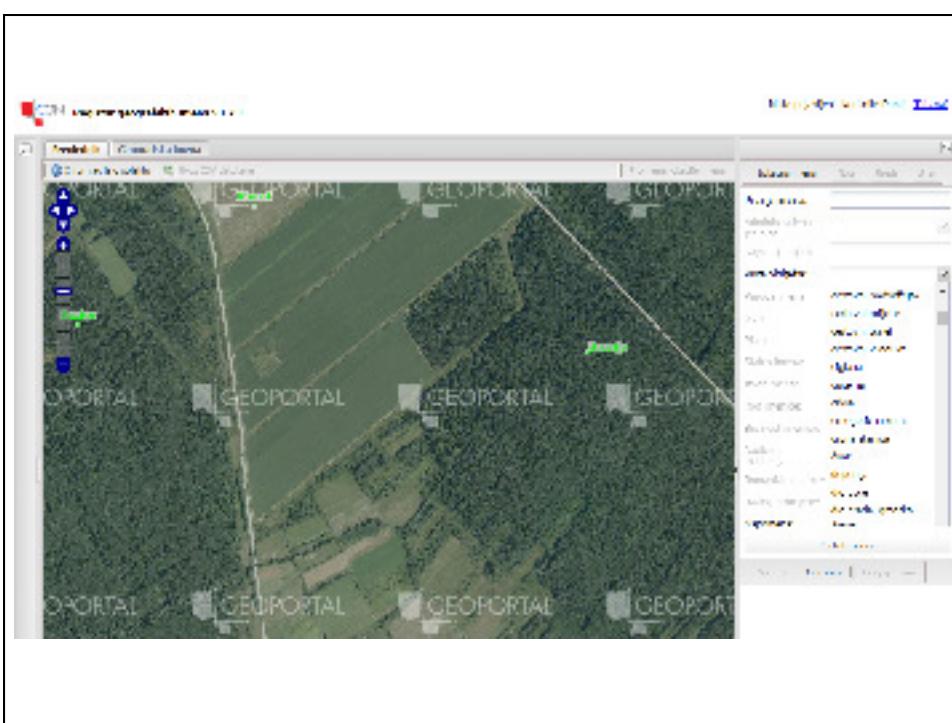
```

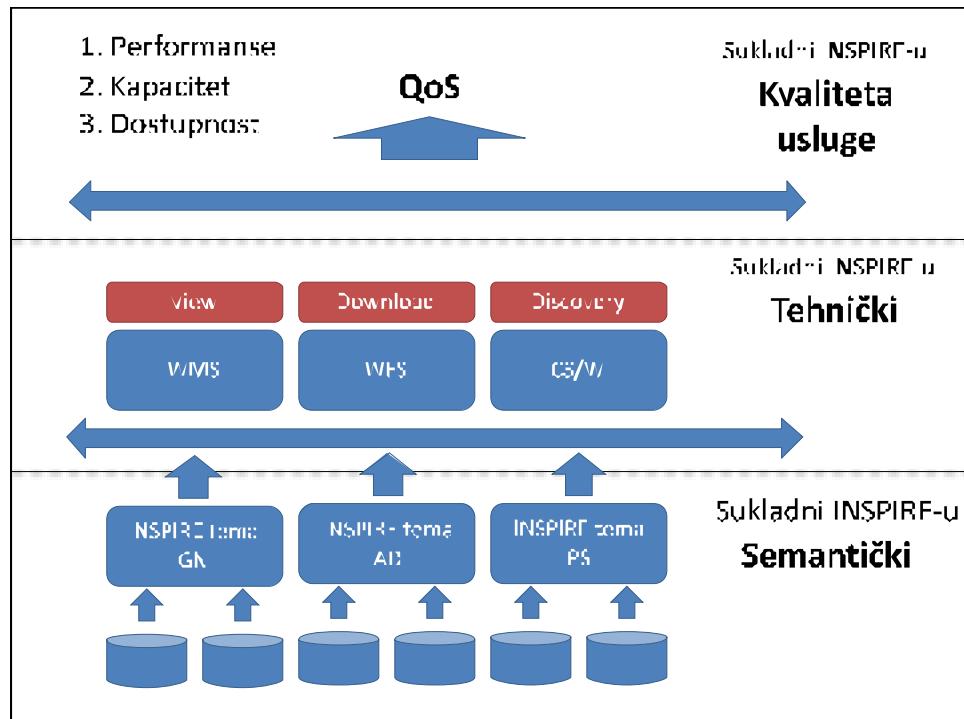
```

<FeatureTypeMapping name="gn:NameOfPlace" label="NameOfPlace">
    <Complex path="gml:LocalId">
        <Complex path="base:Identifier">
            <Primitive path="base:LocId" />
        </Complex>
    </Complex>
    <Complex path="gml:name">
        <Complex path="gn:GeographicalName">
            <Complex path="gn:SpecifiedName">
                <Primitive path="text" mapping="geographicalName" />
            </Complex>
        </Complex>
        <Primitive path="gn:ObjectType" mapping="av:placeON" />
    </Complex>
    <Geometry path="geometry" mapping="geometric" />
</FeatureTypeMapping>
/SOTFeatureStore

```

```
<?xml version='1.0' encoding='UTF-8'?>
<wfs:FeatureCollection xmlns:wfs="http://www.w3.org/2001/XMLSchema-instance" xmlns:schemaLocation="http://www.opengis.net/wfs/2.0 http://schemas.opengis.net/wfs/2.0/wfs.xsd http://www.opengis.net/gml/3.2 http://www.deegree.org/app http://vm1006.exovps.hr/deegree-wfs/service.wsdl?>
  SERVICE=WFS&version=2.0.0&request=DescribeFeatureType&outputFormat=application%2Fgml%2Bxml%2Btext&typename=app:Imenovanjejesta&namespaces=xmlns:app,http://www.deegree.org/app,http://www.opengis.net/wfs/2.0">timeStamp="2016-11-23T08:33:32Z" xmlns:gml="http://www.opengis.net/gml/3.2">
    numberMatched="unknown" numberReturned="0">
      <wfs:member>
        <app:Imenovanjejesta xmlns:app="https://www.deegree.org/app" gml:id="APP_IMENOVANJEJESTO_105666">
          <app:identifikator>MRGIDM0000000001 </app:identifikator>
          <app:vrstaobiteljeza>stotac</app:vrstaobiteljeza>
          <app:geografiskname>Aba Vela</app:geografiskname>
          <app:geom>
            <!--Inlined geometry 'APP_IMENOVANJEJESTO_105646_APP_GEOG'-->
            <gml:Point gml:id="APP_IMENOVANJEJESTO_105646_APP_GEOG" srsName="EPSG:3765">
              <gml:pos>396442.488 4859584.398</gml:pos>
            </gml:Point>
          </app:geom>
          <app:jezik>hrv</app:jezik>
          <app:status>slubljena</app:status>
        </app:Imenovanjejesta>
      </wfs:member>
      <wfs:member>
        <app:Imenovanjejesta xmlns:app="https://www.deegree.org/app" gml:id="APP_IMENOVANJEJESTO_105667">
          <app:identifikator>MRGIDM0000000002 </app:identifikator>
          <app:vrstaobiteljeza>stanica</app:vrstaobiteljeza>
          <app:geografiskname>Abdonovići</app:geografiskname>
          <app:geom>
            <!--Inlined geometry 'APP_IMENOVANJEJESTO_105647_APP_GEOG'-->
            <gml:Point gml:id="APP_IMENOVANJEJESTO_105647_APP_GEOG" srsName="EPSG:3765">
              <gml:pos>599768.878 5827374.298</gml:pos>
            </gml:Point>
          </app:geom>
        </app:Imenovanjejesta>
      </wfs:member>
    
```





## Što smo naučili?

- Tehnološka rješenja koja INSPIRE zahtjeva su (bila) ispred svog vremena
  - GIS aplikacijski serveri nisu bili spremni za implementaciju usluga preuzimanja
  - GIS klijenti nisu bili u stanju čitati INSPIRE servise WFS 2.0
  - Extended Capabilities
- Sigurni smo da nismo u ništa sigurni

Hvala na pažnji...

