



European  
Commission



**Joint Research Centre**

the European Commission's  
in-house science service

# **ARe3NA** **A Reusable INSPIRE** **Reference Platform**

**Andrea Perego**

SharePSI WS, Berlin

**26 November 2015**



# The underlying platform

- INSPIRE is implemented with geospatial standards, used **world-wide** and **across communities** (public administrations, private sector, research institutions)
- These technologies are well-consolidated
  - Based on a **service-oriented architecture** supporting data discovery, visualisation, download, and transformation
  - Supported by widely adopted tools
- These standards and technologies are integral part of the data management workflow of all the organisations dealing with geospatial data



# INSPIRE & the EU ISA Programme



*Objective:* Re-using INSPIRE for cross-sector interoperability

- Involvement in activities of ISA Action 1.1 (SEMIC)



- Two INSPIRE-related ISA Actions:  
EULF & ARe3NA



- *Some of the activities concern the use of  
Linked Data in INSPIRE*

# ARe<sup>3</sup>NA

A Reusable INSPIRE Reference Platform



**Interoperability**



**Openness**



**Reuse**



**Collaboration**

... sharing reusable components for INSPIRE implementation and interoperability in cross-border/cross-sector contexts.

# Why Linked Data for INSPIRE?

- Agree on a common RDF representation of INSPIRE meta/data
- Enable a better integration of the INSPIRE with government data infrastructures, typically based on main-stream technologies
- Promote cross-sector re-use of INSPIRE data and related specifications
- *Investigate how Linked Data can be implemented limiting as much as possible its impact on the existing infrastructures and data management workflows*



# ISA Core Location vocabulary (LOCN)

## CORE LOCATION VOCABULARY

- Meant to support the interoperable specification of location information across sectors
- Partially based on INSPIRE data models (geographical names, addresses)

- Final specification contributed to **W3C**



Under the responsibility of the  
**W3C Locations and Addresses  
Community Group**

- **LOCN** is one of the "spatial ontologies" considered by the joint **W3C/OGC Spatial Data on the Web WG**



INSPIRE registry x

inspire.ec.europa.eu/registry/

About | Contact | Legal notice

English (en)

# INSPIRE REGISTRY

Enhancing access to European spatial data

European Commission > INSPIRE > INSPIRE registry

## INSPIRE registry

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

Label: **INSPIRE registry**

Content Summary: The INSPIRE infrastructure involves a number of items, which require clear descriptions and the possibility to be referenced through unique identifiers. Examples for such items include INSPIRE themes, code lists, application schemas or discovery services. Registers provide a means to assign identifiers to items and their labels, definitions and descriptions (in different languages). The INSPIRE registry provides a central access point to a number of centrally managed INSPIRE registers. The content of these registers are based on the INSPIRE Directive, Implementing Rules and Technical Guidelines.

Registry manager: **European Commission, Joint Research Centre**

Other formats:  XML (Re3gistry)  XML beta (ISO 19135)  RDF/XML beta  JSON  Atom  CSV beta

### Registers

Items per page: 50 Filter



# GeoDCAT-AP

- Geospatial extension to DCAT-AP (DCAT application profile for data portals in Europe)
  - DCAT-AP is a metadata profile meant to provide an interchange format for data portals operated by EU Member States
- Developed in the framework of Action 1.1 (SEMIC) of the ISA Programme
- Reference implementations developed in the framework of ARe3NA
- GeoDCAT-AP is meant to provide a DCAT-AP compliant representation for the set of metadata elements included in
  - INSPIRE metadata
  - The core profile of ISO 19115





ARE3NA is Action 1.17 of the EU ISA Programme. ARE3NA supports the implementation of the INSPIRE Directive and building bridges between INSPIRE AND other interoperability activities in Europe.

**13.03.2014**

## **RDF AND PIDs FOR LOCATION: STATE-OF-PLAY**

### ARE3NA Study on RDF and PIDs

ARE3NA is currently looking for:

- agreed rules or guidelines on how to create RDF vocabularies from INSPIRE's UML models and
- best practices, processes and guidelines for the governance of global persistent identifiers (PIDs)

# "INSPIRE in RDF" @ SharePSI WS

## Objectives:

- Identifying practical pilots for the creation and use of RDF vocabularies for INSPIRE data, meant to test the design methodology and the vocabularies developed in ARe3NA
- This includes outlining concrete applications that would benefit from linking between INSPIRE and data from other sectors / domains – e.g., statistics

## Target audience:

- eGov application developers and users
- Experts in Linked Data – including people involved in projects dealing with geospatial data

**When & where?** *Today, at 11:15, in Room 0.019*



European  
Commission



## Joint Research Centre

the European Commission's  
in-house science service

**Thanks for your  
attention, and  
looking forward to  
meeting you at the  
"INSPIRE in RDF"  
session!**

[andrea.perego@jrc.ec.europa.eu](mailto:andrea.perego@jrc.ec.europa.eu)