Linked Open Data for Environment Protection in Smart Regions
The SmartOpenData Project Approach

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Habitats Changing Architecture
Habitats Reference Laboratory
Plan4business approach
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SmartOpenData

- SmartOpenData = Open Linked Data for environment protection in Smart Regions
- Project founded by European Commission (7FP, ENV.2013.6.5-3)
- Kick-off meeting: December 2013 in Madrid, Spain
- Duration: 24 months
- 16 European organizations (Spain, Ireland, Italy, Czech Republic, Slovakia, Norway, Latvia, Portugal, France)
Aim

Heterogeneous environmental data, including research data or VGI

Environmental data initiatives & projects (INSPIRE, GEOSS, GMES, Habitats...)

OPEN LINKED DATA

INTEGRATION
SmartOpenData Architecture

Scenario for researchers

Scenario for companies

Scenario for end-users

SmartOpenData System

Distributed Semantic Indexing

Administration and Notification

Distributed Data Access

Open Data Source Layer

Harmonisation of data Sources

External data Sources

Open Standards

KML; WMS; WMTS; WFS; WKT; Others

Non Standards

Postgis; PostgreSQL; ESRI Shapefiles; Documental Databases; Others.
Integration

- Environmental data and metadata fusion (exploitation, harmonization & integration)
- Application of Open Linked Data principles (data models and structures, shared vocabularies /NeoGeo, GEMET.../, unique links, RDF structures, SPARQL queries...)
- Visualization and publication methods of environmental data based on Open Linked Data
Key Innovations

- Distributed semantic indexing providing a service for searching and locating data based on semantic information
- Distributed data access
- Administration and notification, which provides administration facilities for managing users, workflows and data to data providers
Pilots

- Agroforestry management pilot (Tragsa, Spain)
- Environmental research, Biodiversity pilot (MAC, Ireland)
- Water monitoring pilot (ARPA, Italy)
- Forest sustainability pilot (FMI, Czech Republic)
- Environmental data reuse pilot (SAZP, Slovakia)
Work Plan
Results

- Sustainable Linked Open Data infrastructure to promote environmental protection data sharing among public bodies in the European Union
- Integration of semantic technologies and approaches
- Definition of business models focused on SMEs and based on innovative services
- Demonstration of the impact of the sharing and exploiting data and information from many varied resources – pilot applications
SmartOpenData = combination of

JRC  EEA  W3C  SMEs  Experts  Citizens

View on environmental data
Thank you for your attention