The GeoKnow Project
Smart City Summit (Ispra)

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Collaborative Project 2012-2015
Information and Communication Technologies
Project No. 318159
Start Date 01/12/2012

GeoKnow

2014-02-06
The Spatial Data Web

Status

- Semantic technologies for exposing, sharing, and connecting pieces of data on web using RDF
- Large Spatial Databases (OpenStreetMaps, Google Maps etc.) and GIS systems required for many applications

Goal

- Enhance the Web as a global, distributed platform for data, information and knowledge integration by combining GIS and semantic technologies
Consortium

7 partners, 4.5 mio budget, December 2012 - December 2015
Project Overview

Use Case Specific Applications
access components via API

GeoKnow Generator Interface & API
provide interfaces and APIs

Quality Assurance Metrics
Faceted Browsing
Spatial Widgets
Adaptive Authoring

Spatial Linked Data Processing
Spatial Authoring/Browsing Tools

Open Data/LOD Cloud
Linked Data
protected
public

E-Commerce Data
Supply Chain Management Data
3rd Party Use Case Data

export/convert to RDF
re-use

publish/sync/load/stream

Triplces Stores
Spatial Data Clustering
Query Optimization

RDF Views
SPARQL->SQL rewriter
GIS Databases
Many SW tools support one or more life-cycle stages

Linked Data Stack (http://stack.linkeddata.org) provides a consolidated repository of such tools

Each tool is a Debian package

Lightweight integration between tools via common vocabularies and standards, e.g. (Geo)SPARQL

Developed by LOD2 and GeoKnow

Re-usable by other Linked Data Projects
Common interface and integration of geospatial Linked Data Stack tools
Datasets:

- LinkedGeoData - OpenStreetMap RDF Conversion
- DBpedia - Wikipedia RDF Conversion
- INSPIRE data will be converted to RDF (second project year), in particular Greece E-Government Data
- E-Commerce and Supply Chain Management Datasets
- (partially WikiMapia data)

Standards and Interoperability:

- RDF, OWL (W3C)
- GeoSPARQL (OGC)
- INSPIRE
- R2RML and SML

Sustainability: LinkedGeoData, DBpedia, geodata.gov.gr will be maintained after the project
DropYa and TruckYa

- Continental is publishing information about POIs “next to the road“ on mobile devices focusing on different user groups,
  - Motorway service areas (incl. fitness center, restaurant, toilet, hostel)
  - Sights: information about museums, playgrounds, famous people birthplaces

<table>
<thead>
<tr>
<th>Selection of (Geospatial) RDF-Graphs</th>
<th>Facetted Filtering, Extraction of related RDF-Ressources using Facete</th>
<th>Refinement, Transformation, Editorial Process</th>
<th>Visualization in DropYa</th>
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- DBpedia
- Freebase
- GeoNames
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Upcoming Event: European Data Forum 2014, Athens, March 19-21

Thanks for your attention!