

Sextant: Browsing and Mapping the Ocean of Linked Geospatial Data



Charalampos Nikolaou, Kallirroi Dogani, Kostis Kyriakos, and Manolis Koubarakis
{charnik,kallirroi,kkyzir,koubarak}@di.uoa.gr



HELLENIC REPUBLIC
National and Kapodistrian
University of Athens

TELEIOS is a European project that addresses the need for scalable access to petabytes of Earth Observation data and the discovery and exploitation of knowledge that is hidden in them using **Scientific Database**, **Semantic Web** and **Linked Data** technologies.

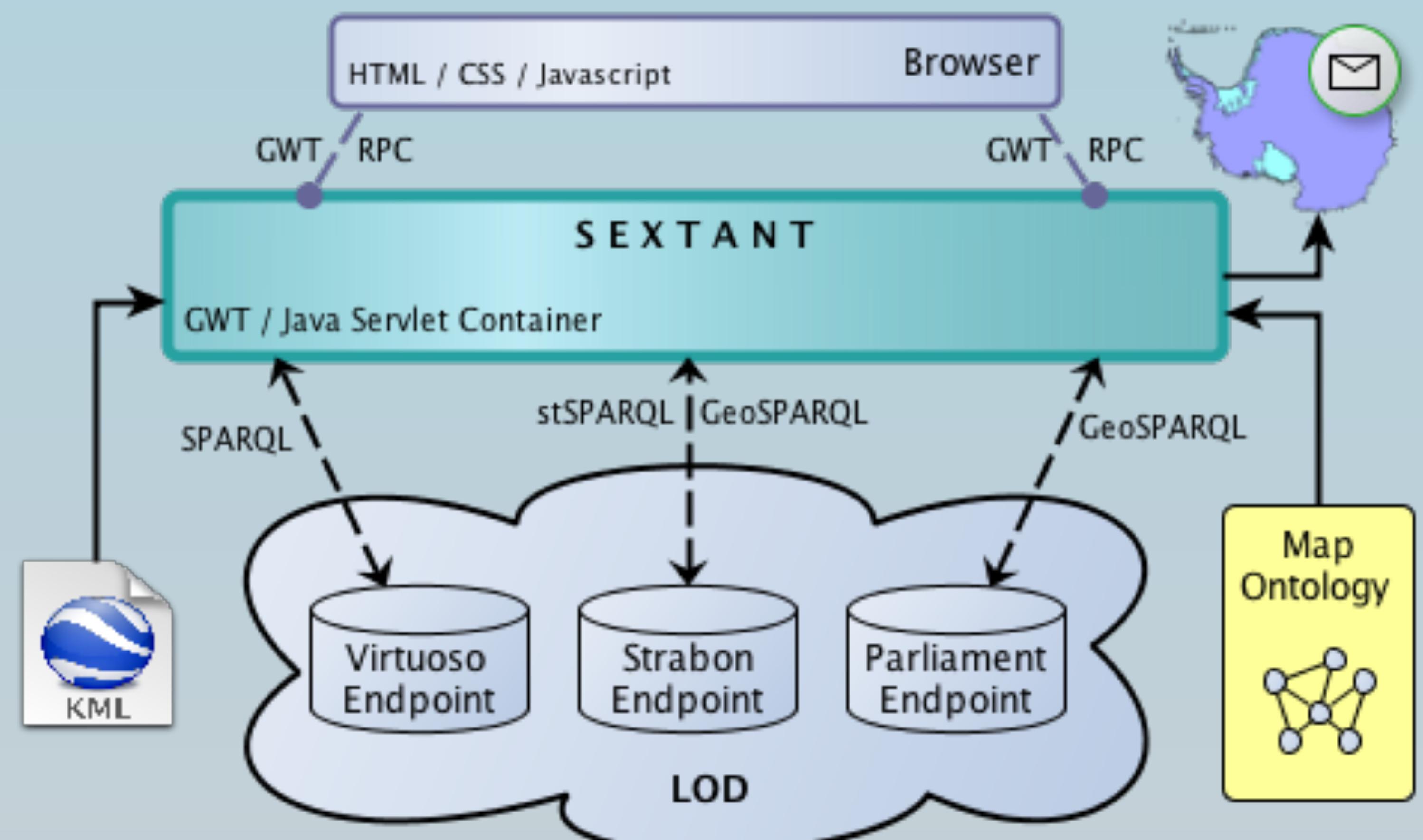
SWeFS is a Greek project that develops a novel Sensor Web platform for protecting wildland-urban interface zones against the serious threat of forest fires. To achieve its goal SWeFS integrates techniques from **sensor networks**, **distributed vision systems**, **remote sensing**, **data stream fusion**, space-time predictive modeling, and control systems.

S
E
X
T
A
N
T
ANT
i
Exploration of linked geospatial data that span across **multiple** SPARQL endpoints

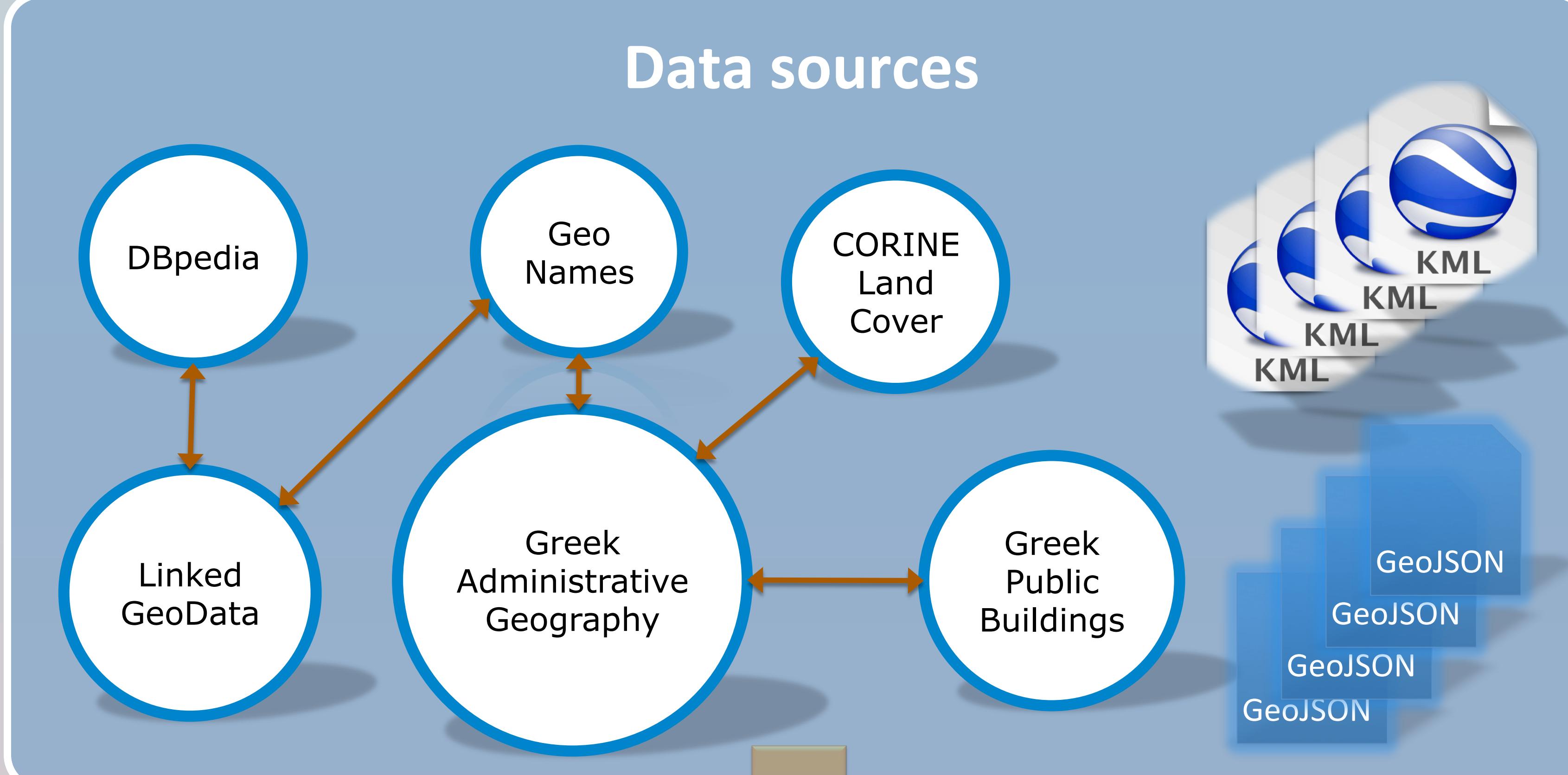
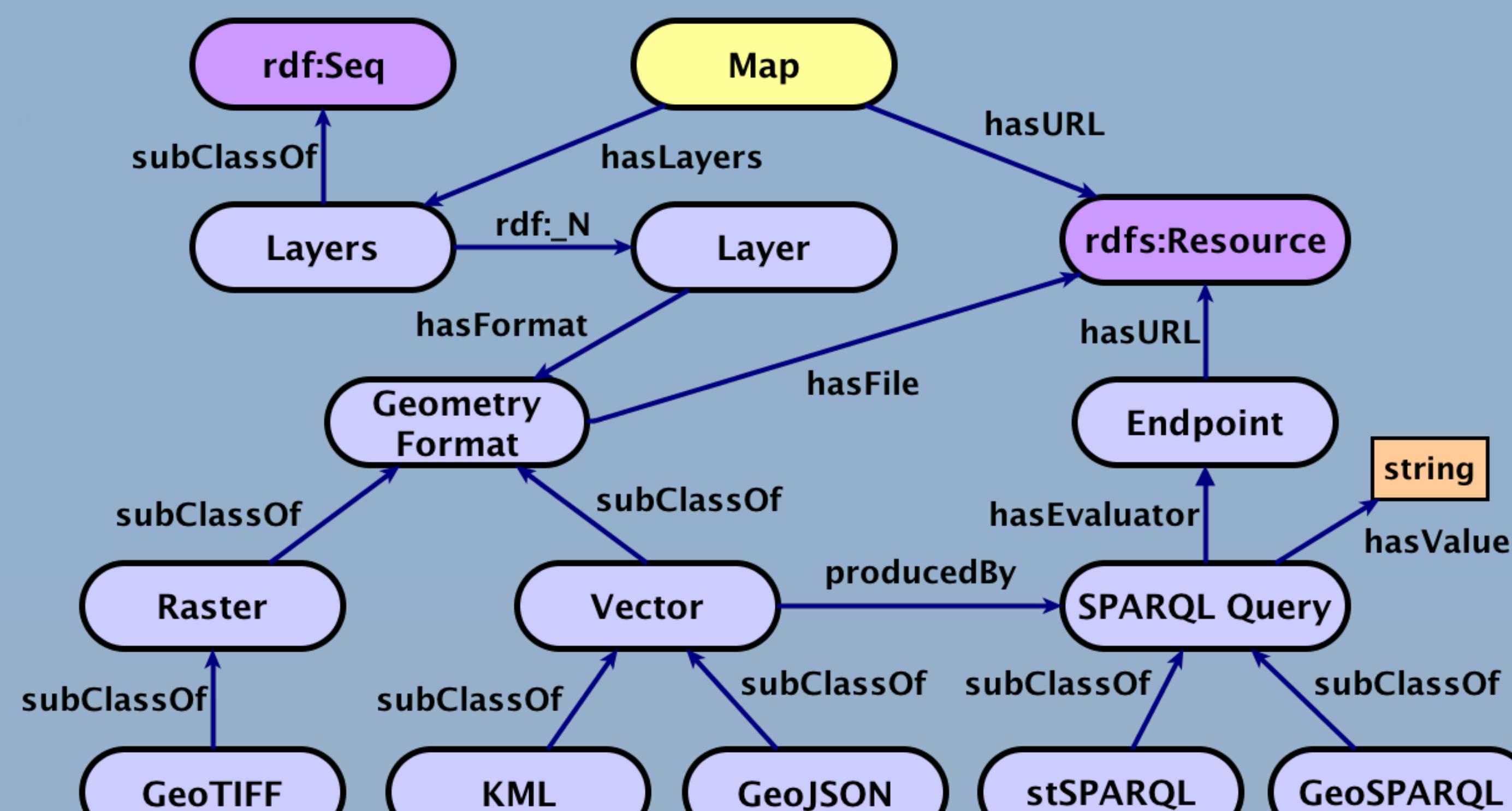
Creation of thematic maps produced by **querying the linked geospatial data cloud** and other **geospatial data sources** in OGC standard file formats (e.g., KML, GeoJSON)

Sharing and **collaborative editing** of thematic maps

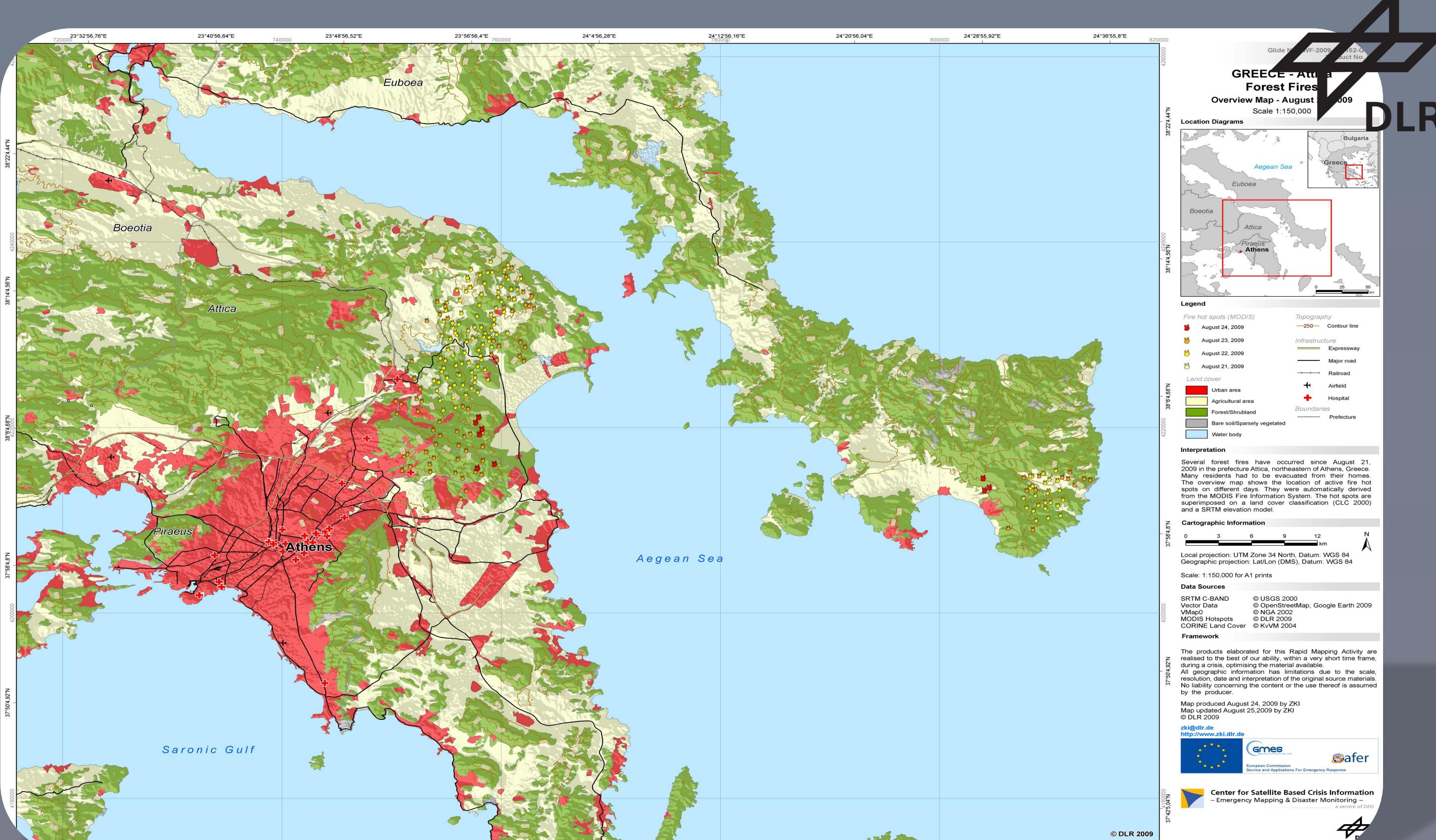
Interoperability with well-known GIS tools (e.g., ArcGIS, QGIS)



Map Ontology

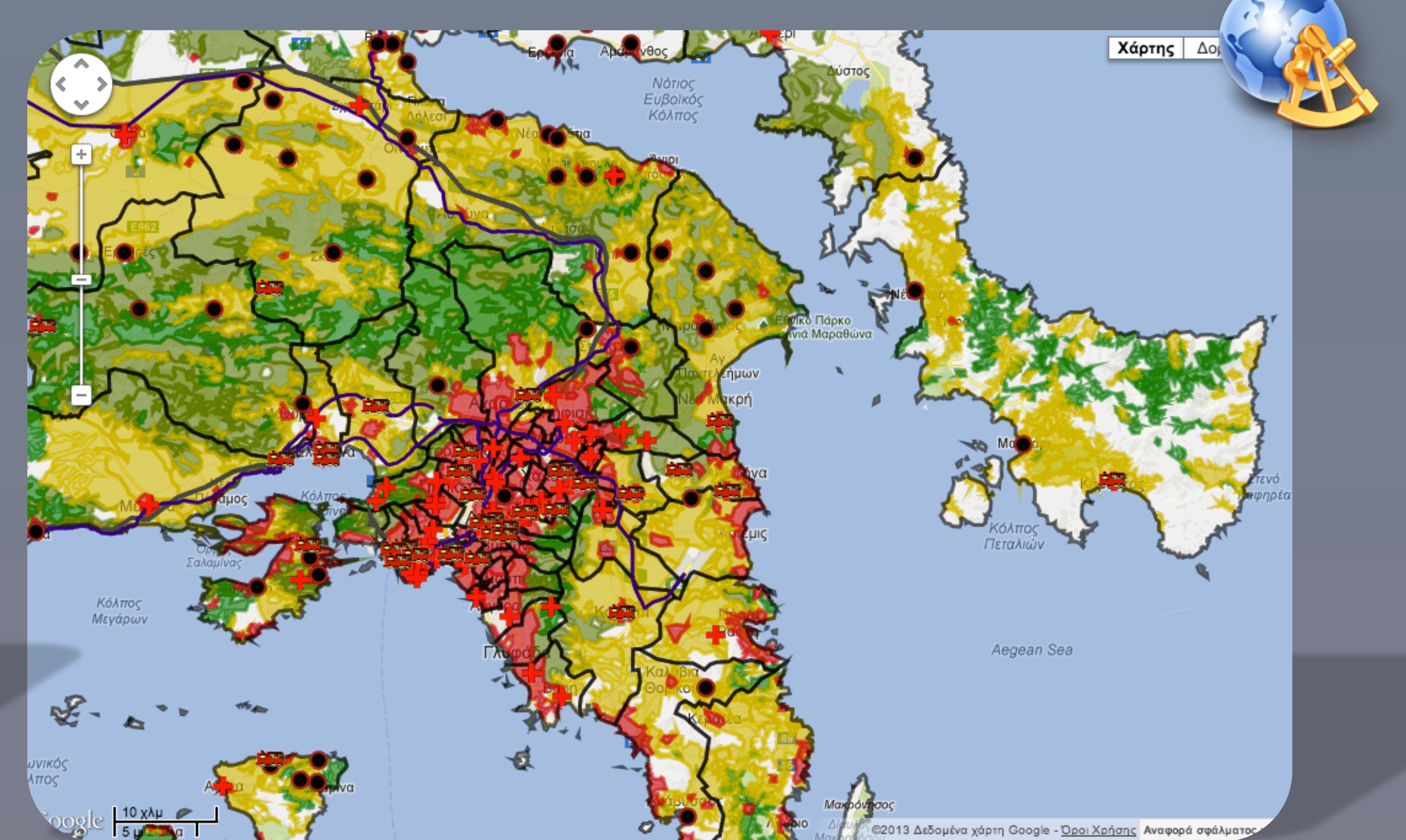


Center of Satellite Based Crisis Information



A map produced manually by the **Center of Satellite Based Crisis Information** (ZKI) in response to the **fires** of the period from August 21 to August 24, 2009 in Attica, Greece.

Sextant



A map produced on **Sextant** using:
◆ the query languages **stSPARQL/GeoSPARQL**,
◆ linked geospatial data stored in SPARQL endpoints, and
◆ KML files provided by geodata.gov.gr

