



The MELODIES project

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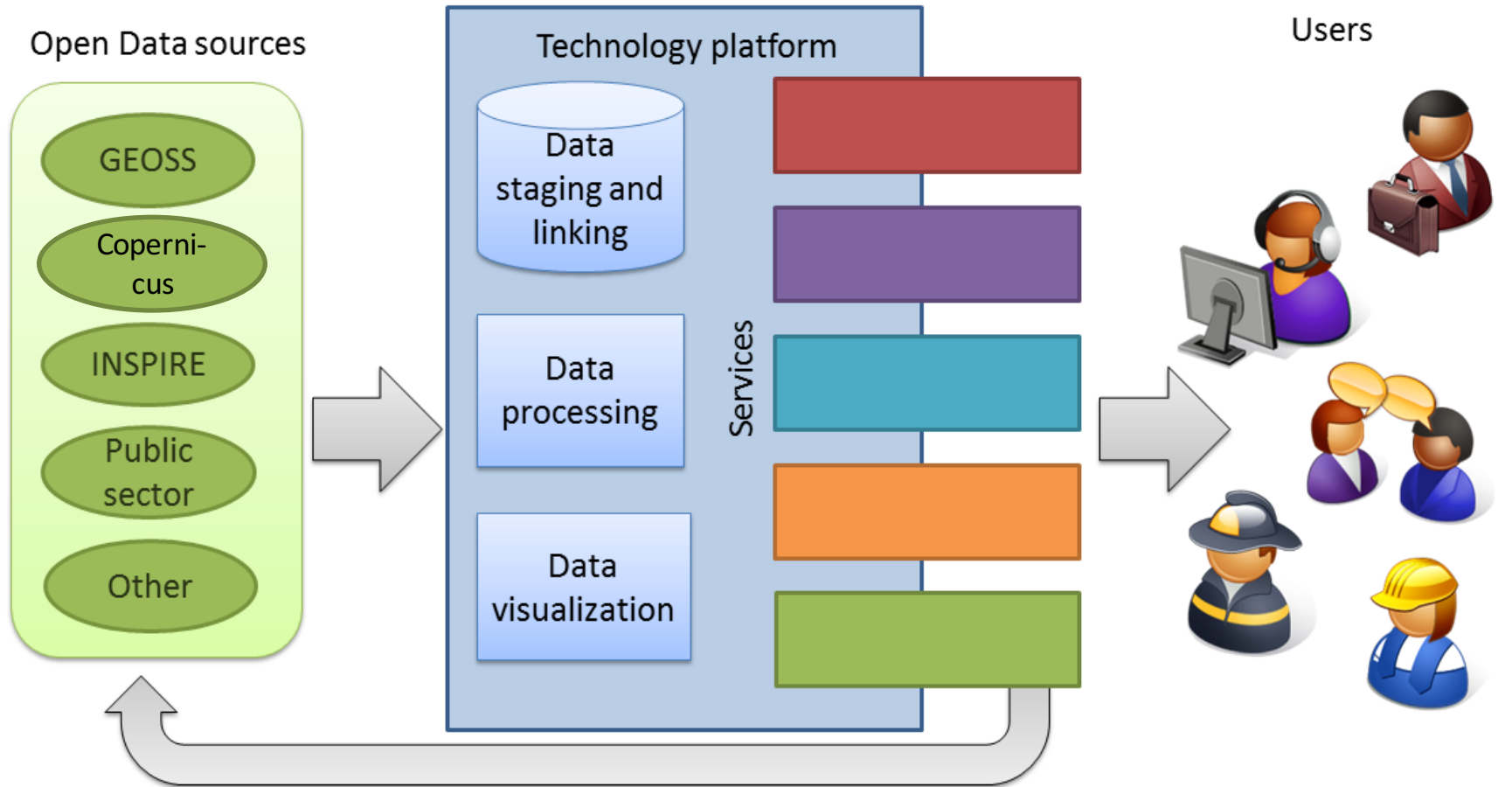
on behalf of MELODIES consortium



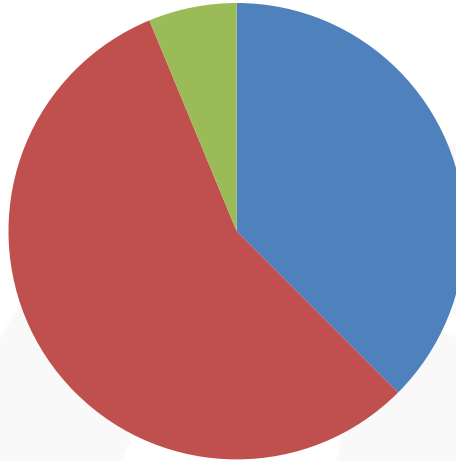
MELODIES Project Overview

- Maximizing the Exploitation of Linked Open Data In Enterprise and Science
- 3 years, November 2013 – October 2016
- 16 partners in 8 EU countries
- €6.7M budget

Project concept



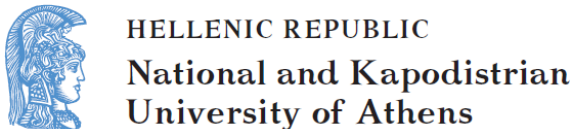
Project consortium



■ 6 Research organizations

■ 9 SMEs

■ 1 Large company



The MELODIES Services



Improving Emission Inventories	Site-specific information for land management
Urban Ecosystem Accounting	Assessment of Good Environmental Status for oceans
Desertification indicators	Marine transport
Customised crisis, disaster and risk mapping	Groundwater modelling

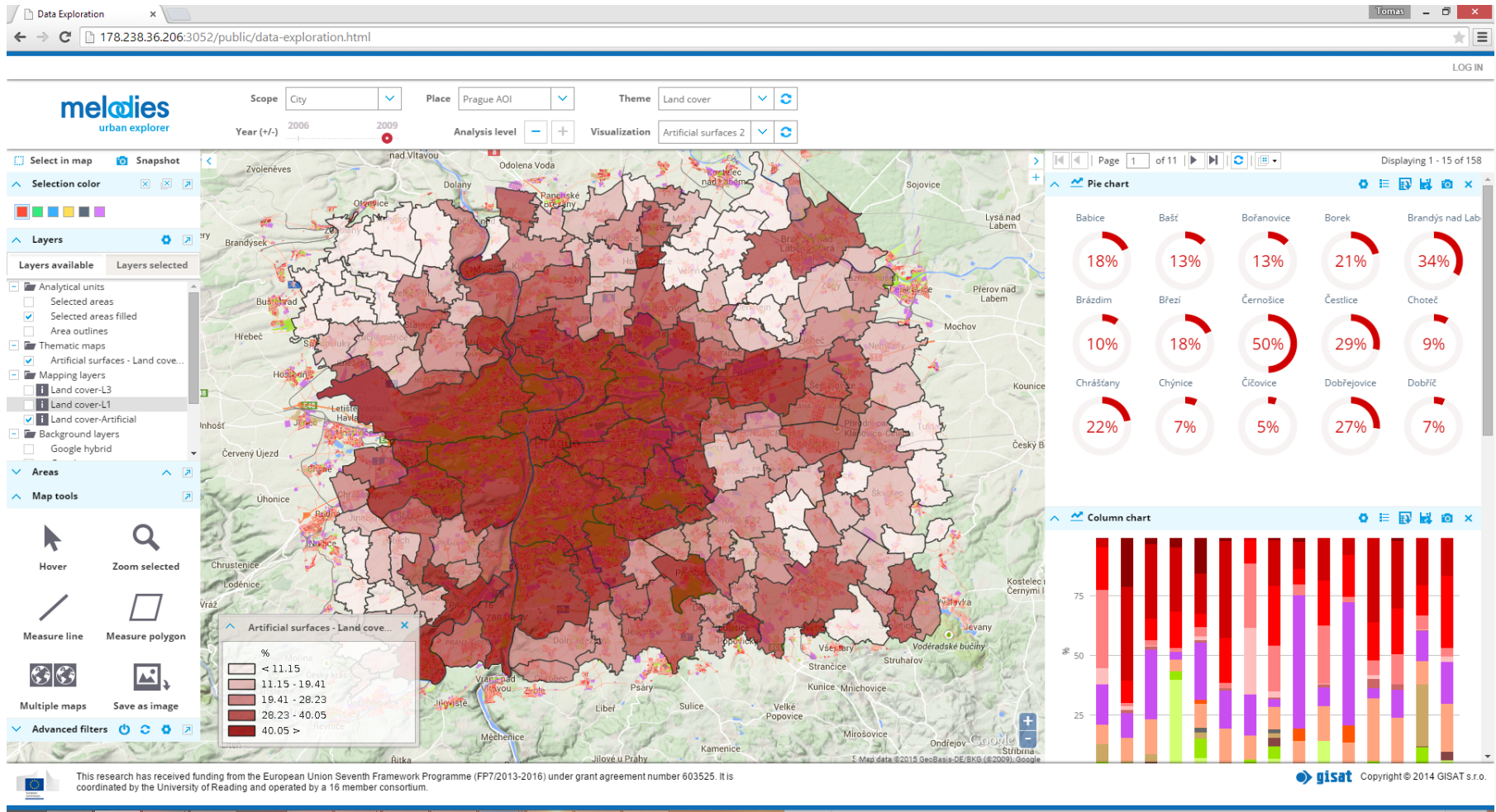


Key challenges

- Integration of data from multiple sources
- Cross-querying to generate new information



Example MELODIES service: Urban Explorer application



Urban Explorer Land Use / Land Cover theme
See <http://www.melodiesproject.eu/node/33>

Data Exploration x | 178.238.36.206:3052/public/data-exploration.html | LOGIN

melodies
urban explorer

Scope: City | Place: Prague AOI | Theme: Floodings | Visualization: Floodings

Year (+/-): 2006 | 2009 | Analysis level: - | +

Select in map | Snapshot

Selection color: [Color palette]

Layers

Layers available | Layers selected

- Land cover-Artificial
- Land cover-L3
- Land cover-L1
- Land cover-Artificial
- Floodings
- Background layers
 - Google hybrid
 - Google street
 - Google terrain
 - OpenStreetMap
 - Live data
 - Google traffic
- Areas
- Map tools
- Advanced filters

Map showing flood zones in Prague. The map is color-coded by district: Praha-Troja (orange), Praha 7 (blue), Praha 1 (yellow), and Praha 8 (purple). The flood zones are overlaid on a street map.

Bar chart showing the percentage of flood zones for each district:

District	Percentage (%)
Praha-Troja	~39.30
Praha 7	~52.99
Praha 1	~30.09
Praha 8	~15.01

Table

Name	Flooding area	Flooding are...
Praha-Troja	39.30	23.67
Praha 7	52.99	23.67
Praha 1	30.09	21.17
Praha 8	15.01	9.40

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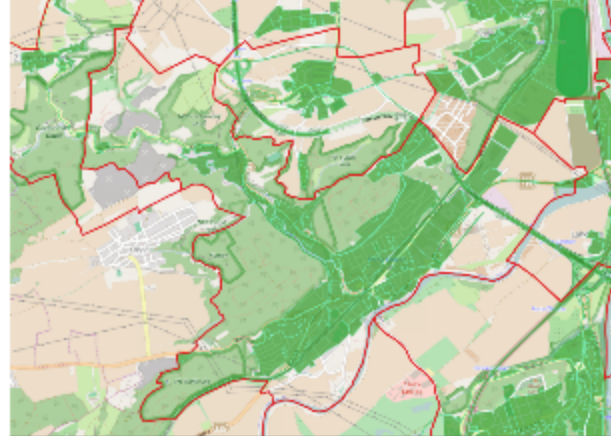
Flood zones theme

Open Data inputs to Urban Explorer

(Sources: OpenStreetMap, Prague authorities,
LinkedGeoData.org, more)



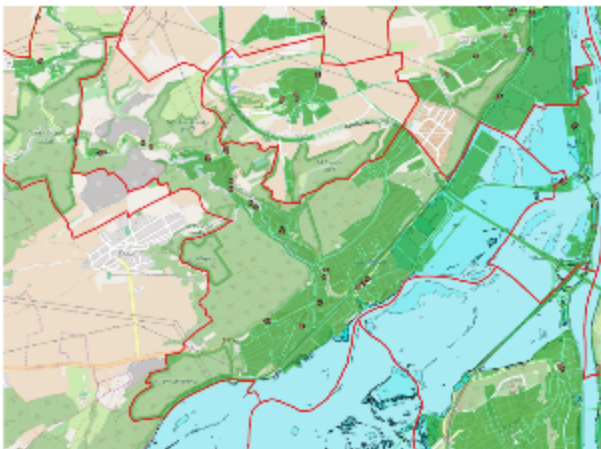
Open street maps, Global Administrative regions



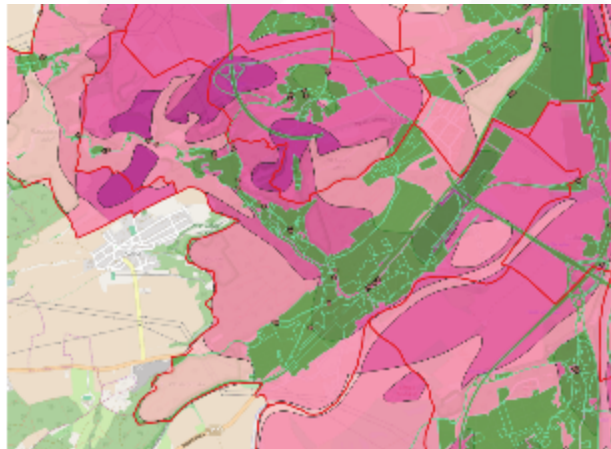
Prague Open Data: Developable areas



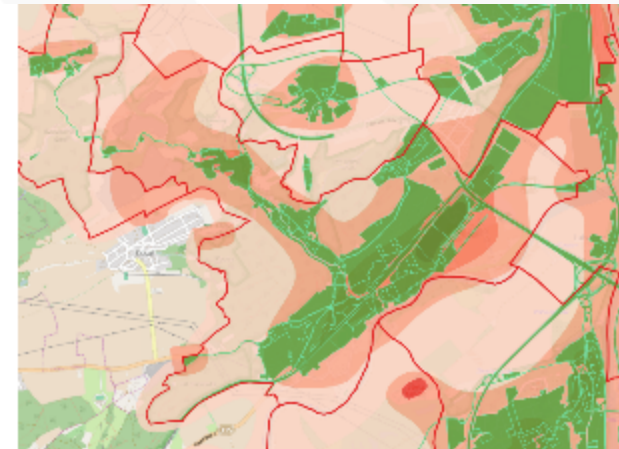
Prague Open Data: Buildings



Flooded areas Q5-Q100 and 2013, OSM: public transport



Prague Open Data: Air Quality class



Prague Open Data: Built-up class

European Historical Flood Database

Input:

Disaster events:

Processing:



EFAS, EMS, HRL Layers, Local Component, EU-DEM, CLC

EM-DAT, MunichRe Nathan, Darmouth Flood Observatory, National databases



Sentinel-1, EarthExplorer, Archives (Envisat, ERS, ...)

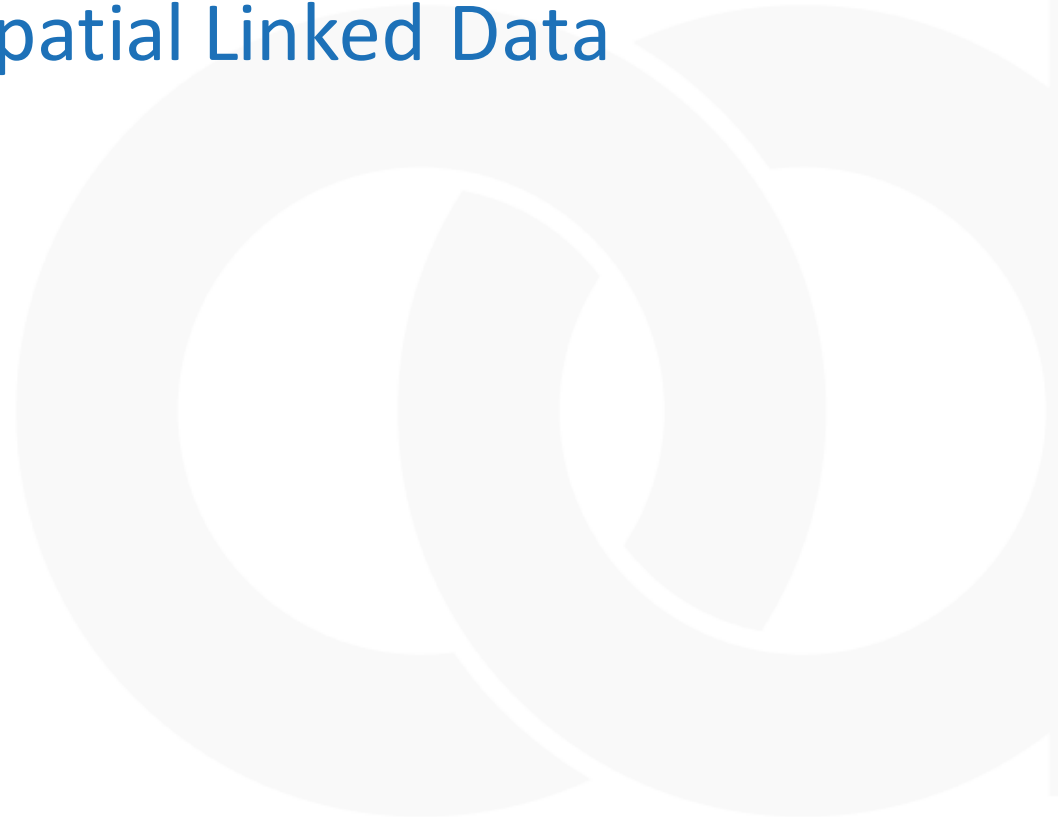


OpenStreetMap



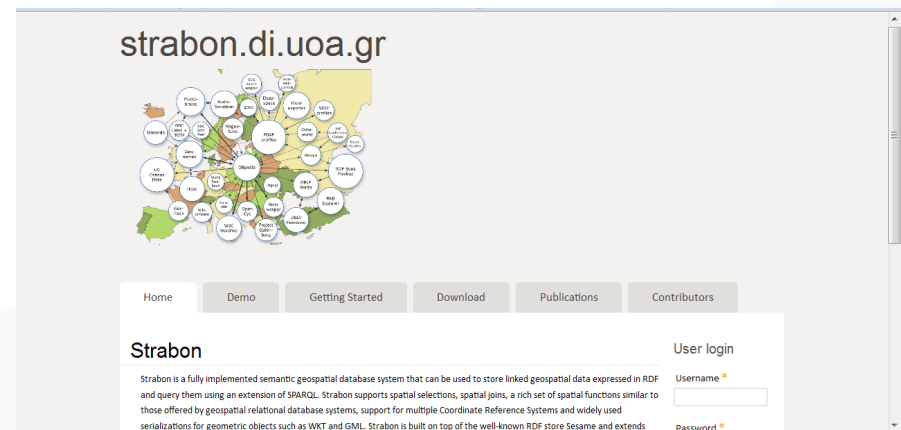
Key challenges

- Integration of data from multiple sources
- Cross-querying to generate new information
- **Handling geospatial Linked Data**



Geospatial Linked Data tools

- Strabon
 - spatiotemporal RDF store
 - GeoSPARQL / stSPARQL support
- GeoTriples
 - Convert geospatial data to RDF
- Ontop-spatial
 - “Wrap” existing geo-databases
- SILK
 - Discover links in datasets



HELLENIC REPUBLIC
National and Kapodistrian
University of Athens



melodies
exploiting open data

Sextant: visualizing and integrating time-evolving Linked Data

The screenshot displays the Sextant web application interface. The main map area shows an aerial view with a grid overlay where cells are colored based on a legend. The legend, titled 'Color panel', lists five color categories with their corresponding value ranges: blue for [0, 10), green for [10, 30), yellow for [30, 60), red for [60, 80), and purple for [80, 100]. The map also features a 'Layers' panel on the right with two active layers: 'userInfo' and 'query2'. Below the layers is the 'Map Information' section, which includes fields for Title, MapID, Endpoint, Number of layers (2), Number of charts (0), Date of creation, Date of modification, Creator, License, Theme, and Extent. The interface includes standard map controls like zoom in/out, location, and search, and is branded with the Google logo in the bottom left corner.

Color panel

Layer: query2
Feature: hasCV

color	[0, 10)
color	[10, 30)
color	[30, 60)
color	[60, 80)
color	[80, 100]

Hide

Layers

- userInfo
- query2

Map Information

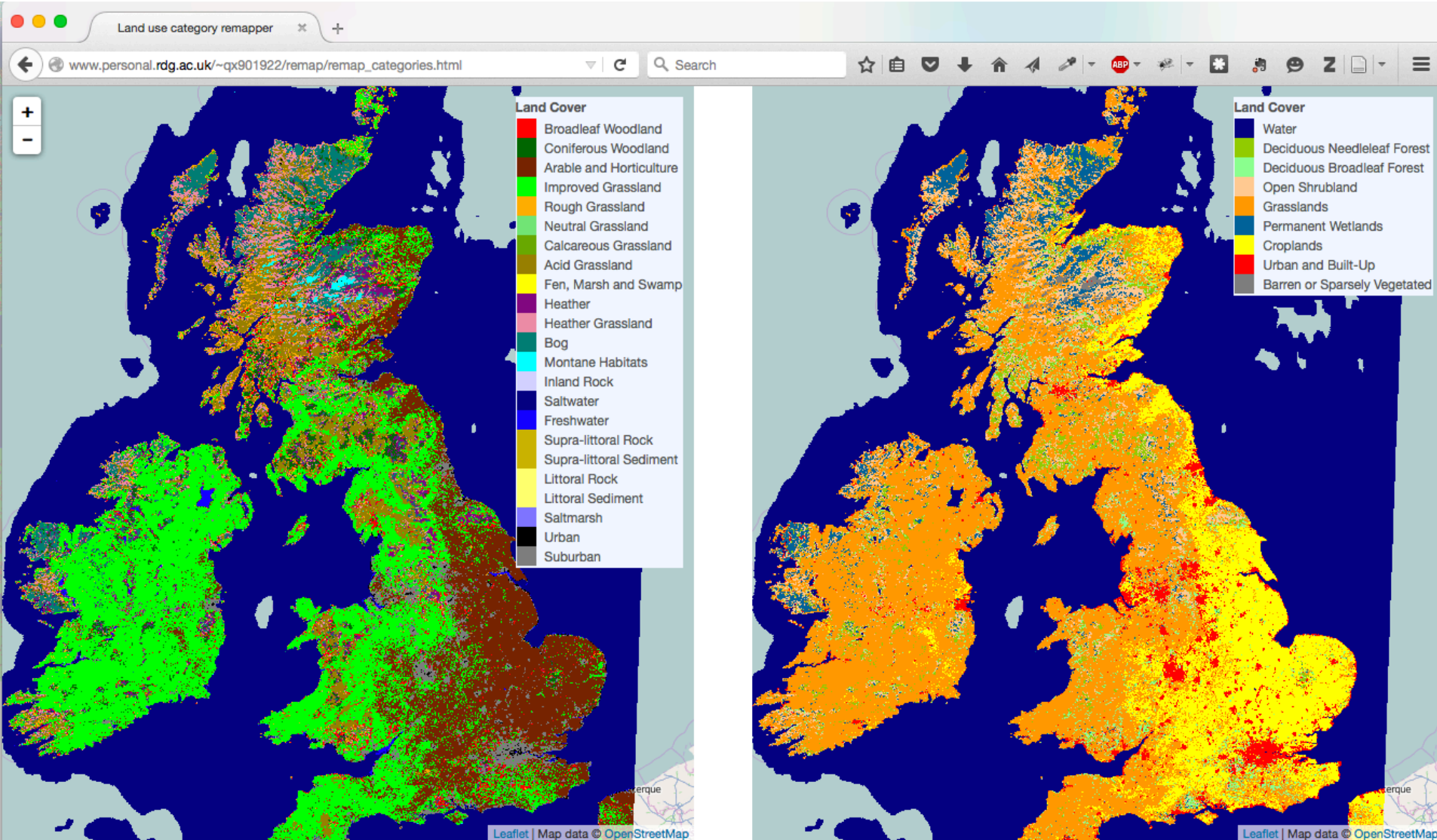
Title:
MapID:
Endpoint:
Number of layers: 2
Number of charts: 0
Date of creation:
Date of modification:
Creator:
License:
Theme:
Extent:

Key challenges

- Integration of data from multiple sources
- Cross-querying to generate new information
- Handling geospatial Linked Data
- **What about Big Data?**
 - Satellite images, weather forecasts, ...

Land cover remapping application

Combines Earth Observation data with Linked Data using JSON-LD



Key challenges

- Integration of data from multiple sources
- Cross-querying to generate new information
- Handling geospatial Linked Data
- What about Big Data?
 - Satellite images, weather forecasts, ...
- **Mixing open and closed data in applications**
 - Licence issues, including cross-border issues
- **How should we publish data to ensure maximum re-use?**



CUSTOMERS WHO BOUGHT THIS ITEM:



ALSO BOUGHT:



Picard

demotivateur.fr

About 65,100,000 results (0.36 seconds)

Showtimes for The Martian

Oct 14 Thu, Oct 15

All times Morning Afternoon Evening Night

Regal Gallery Place Stadium 14 - Map

Standard	1:00pm	4:30	6:00	8:00			
3D	11:30am	12:30pm	2:45	3:45	7:00	9:25	10:20

AMC Loews Georgetown 14 - Map

Standard	11:00am	2:15pm					
3D	12:00pm	1:00	3:15	4:15	6:30	7:30	9:45
	10:40						

AMC Courthouse Plaza 8 - Map

Standard	4:45pm	9:00					
3D	12:30pm	1:30	3:45	7:00	8:00	10:15	


All times are in ET

More showtimes

The Martian

2015 film

8.4/10 · IMDb
93% · Rotten Tomatoes
81% · Metacritic



When astronauts blast off from the planet Mars, they leave behind Mark Watney (Matt Damon), presumed dead after a fierce storm. With only a meager amount of supplies, the stranded visitor must utilize his wits and spirit to find a way to survive on the hostile planet. Meanwhile, back on Earth, membe... More

Release date: October 2, 2015 (USA)
Director: Ridley Scott
Running time: 2h 22m
MPAA rating: PG-13
Adapted from: The Martian

Available on YouTube From \$14.99

Critic reviews

View 6+ more

An enthralling and rigorously realistic outer-space survival story in which Matt Damon plays a NASA botanist stranded on the Red Planet after a sandstorm forces his crewmates to abort mission. Full review
Peter Debruge · Variety

You won't find a space epic that's more fun to geek out at than The Martian. Full review
Peter Travers · Rolling Stone

Anchored by another great turn from Matt Damon, The Martian mixes smarts, laughs, weird character bits and tension on a huge canvas. The result is Scott's most purely enjoyable film for ages. Full review
Ian Freer · Empire

At its heart, The Martian is an unapologetically stirring celebration of our ability, as a species, to solve even the most daunting problems via rational thought, step by step. Full review
Mike D'Angelo · A.V. Club

The Martian (2015) - IMDb
www.imdb.com/title/tt3659388/ Internet Movie Database
★ ★ ★ ★ Rating: 8.3/10 - 79,977 votes
Directed by Ridley Scott. With Matt Damon, Jessica Chastain, Kristen Wiig, Kate Mara. During a manned mission to Mars, Astronaut Mark Watney is presumed ...
[Full Cast & Crew](#) - [Kate Mara](#) - [Ridley Scott](#) - [Poster](#)

The Martian (film) - Wikipedia, the free encyclopedia
[https://en.wikipedia.org/wiki/The_Martian_\(film\)](https://en.wikipedia.org/wiki/The_Martian_(film)) Wikipedia
Plot. When the Ares III manned mission to Mars is hit by an intense Martian storm, astronaut Mark Watney is lost and presumed dead. With the lives of her crew at ...
[The Martian \(Weir novel\)](#) - [Michael Peña](#) - [Naomi Scott](#) - [Drew Goddard](#)

The Martian (Weir novel) - Wikipedia, the free encyclopedia
[https://en.wikipedia.org/wiki/The_Martian_\(Weir_novel\)](https://en.wikipedia.org/wiki/The_Martian_(Weir_novel)) Wikipedia
The Martian is a 2011 science fiction novel and the first published novel by American author Andy Weir. It was originally self-published in 2011 after which ...
Author: Andy Weir **Publisher:** Crown Publishing Group
Pages: 369 **Cover artist:** Eric White

In the news

Box office: 'Pan' bombs, 'Martian' stays No. 1
CNN - 5 hours ago
... loss for Warner Bros. after opening to \$15.5 million. "Martian" once again topped box office.






US box office: The Martian soars into blockbuster territory as Pan plummets
The Guardian - 3 hours ago

'Pan' lacks magic at the box office; 'The Martian' soars
Fox News - 18 hours ago

More news for the martian


Cast

View 10+ more

 Matt Damon Mark Watney	 Jessica Chastain Melissa Lewis	 Kristen Wiig Annie Montrose	 Kate Mara Beth Johanssen	 Michael Peña Rick Martinez
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People also search for

View 15+ more



Search for "The Martian", Google shows:

- Facts about the film
- Cast
- Showtimes
- Reviews
- Related films

This is Linked Data in action!

(powered by schema.org vocabulary)

Why can't we do the same for data?

Summary

- Exploring Open Linked Data through eight real applications, with emphasis on user's point of view
- Application developers see benefits of Linked Data flexibility and ease of data integration
 - but data conversion is expensive
- We are developing tools and standards for producing and using *geospatial* linked data
- Handling raster/image/coverage data in LD environment is a key research area
- Need to consider the role of mass-market search engines



Thank you!

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<http://melodiesproject.eu>
@MelodiesProject

