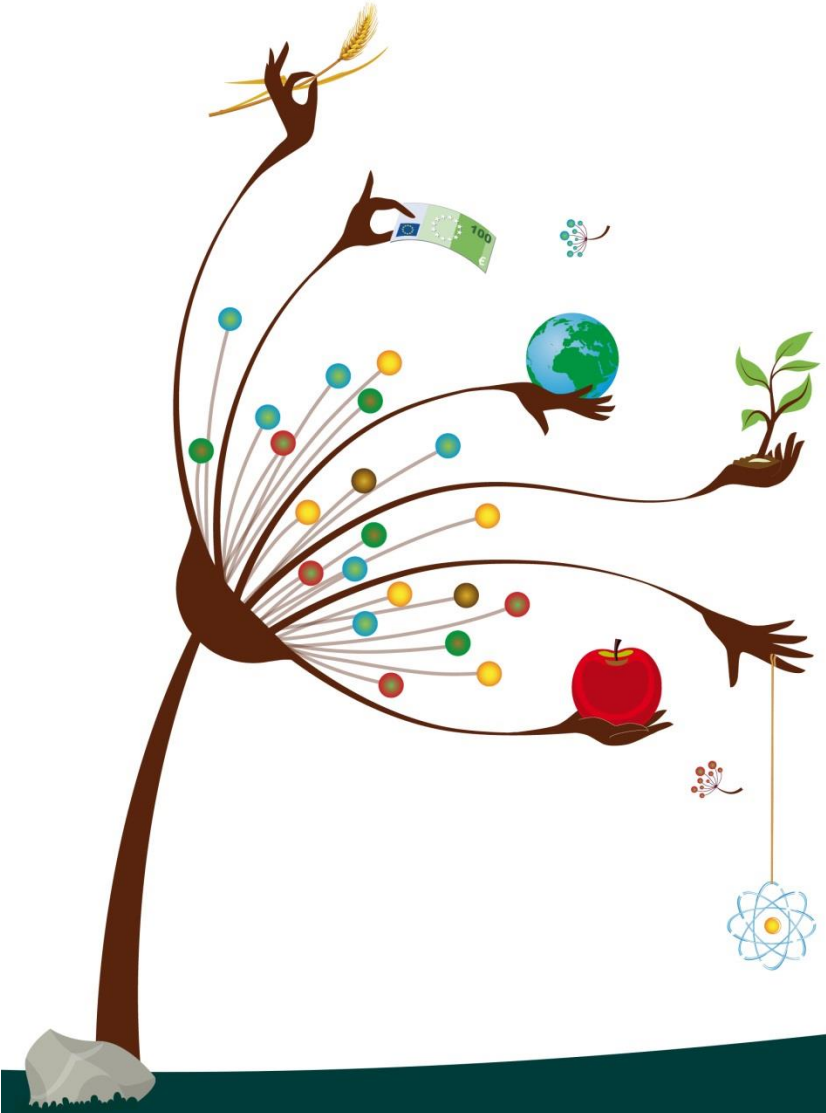
The European Commission's science and knowledge service

Joint Research Centre



Digital Earth Connecting multiple information infrastructures and data sharing

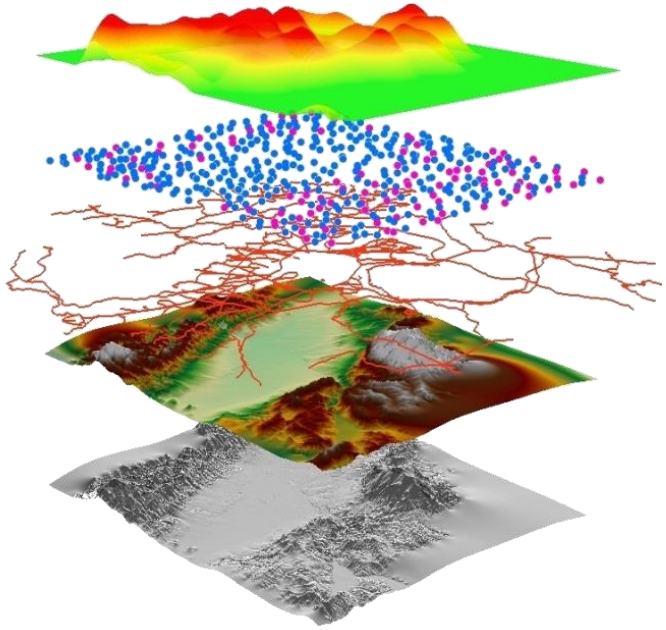
Kiev 14 September 2016

Jean Dusart,

B6 - Digital Economy

European Commission

Digital Economy Unit (B.6)



- Data sharing and reuse
  - Open data
  - Private sector owned
  - Geospatial
  - Big data (incl. from sensors)
  - Citizen generated
- Assess and foster data-driven economy
- Technical coordination of the INSPIRE Directive
- **Connecting multiple information infrastructures**

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Digital Economy

Digital economy refers to an **economy** that is based on **digital** computing technologies. The **digital economy** is also sometimes called the Internet **Economy**, the New **Economy**, or Web **Economy**. Increasingly, the "**digital economy**" is intertwined with the traditional **economy** making a clear delineation harder.

"…We need to work for a Europe that empowers our citizens and our economy. And today, both have gone digital. Digital technologies and digital communications are permeating every aspect of life..."

J.C. Juncker, State of the Union Address 2016 - 14-9-2016

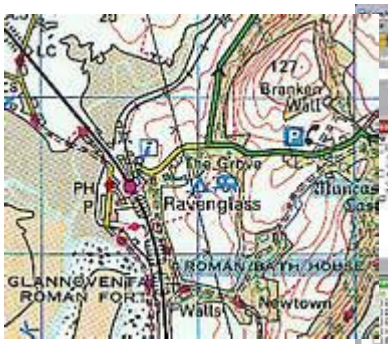
Geo-data landscape evolution

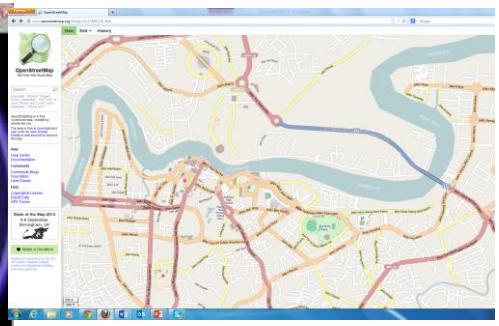
<2000-2016
Government

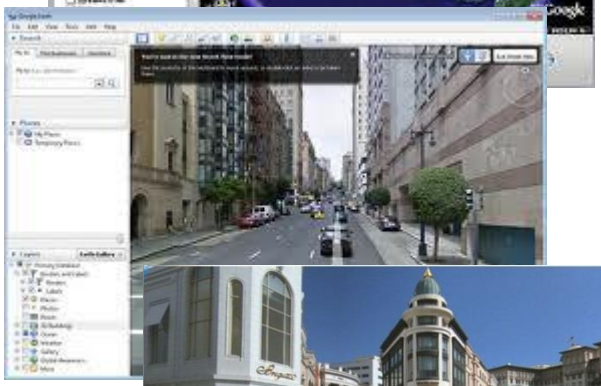
2005-2016
Private Sector

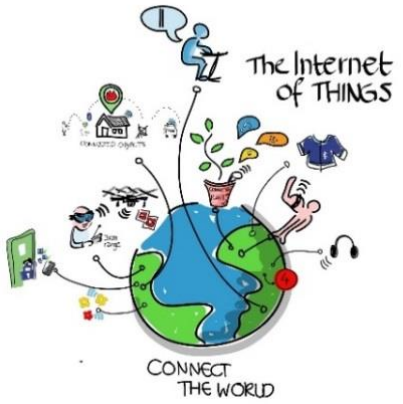
2008-2016
VGI

2010-2016
Social media









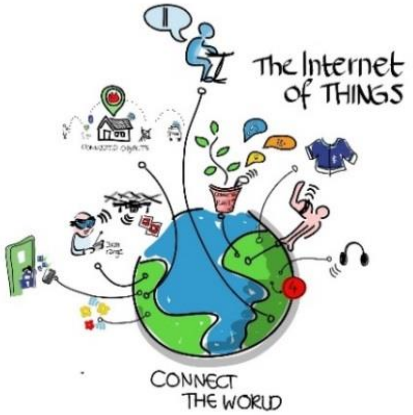
GSDI
Global Spatial Data Infrastructure Association

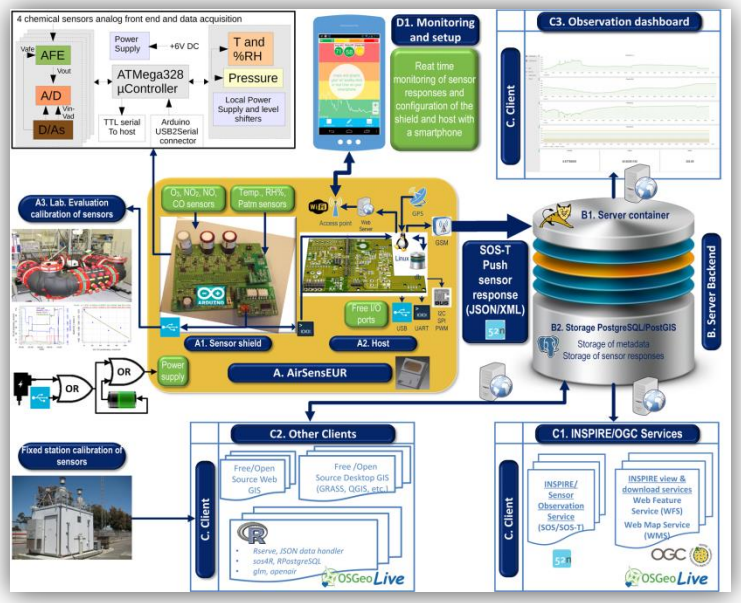
INSPIRE - Infrastructure for Spatial Information in Europe

fgdc
Federal Geographic Data Committee

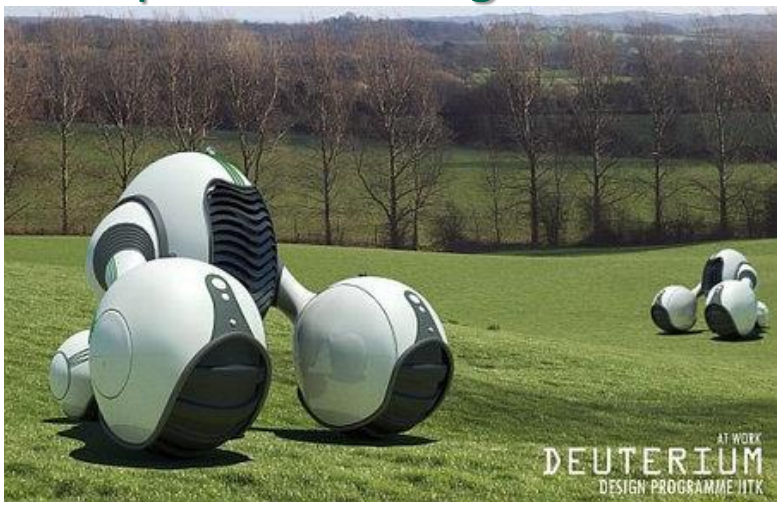
European Commission

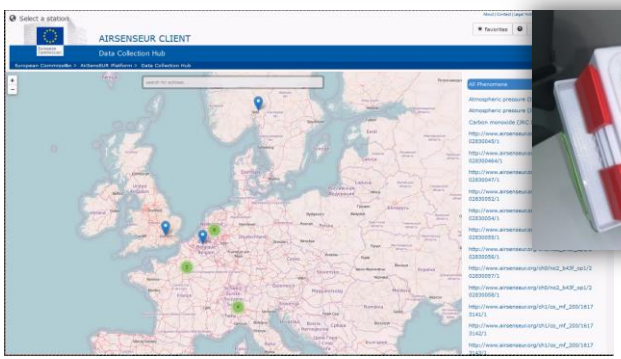
Internet of Things
Sensorizing the world…





European Farming tomorrow ?





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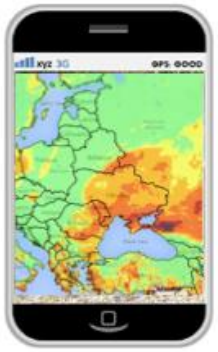
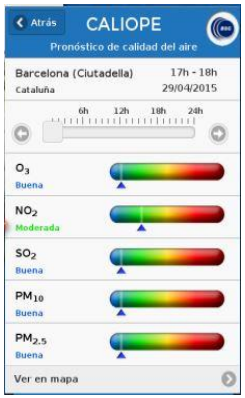
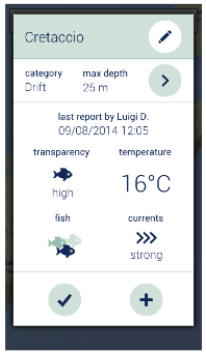
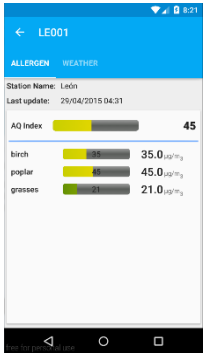
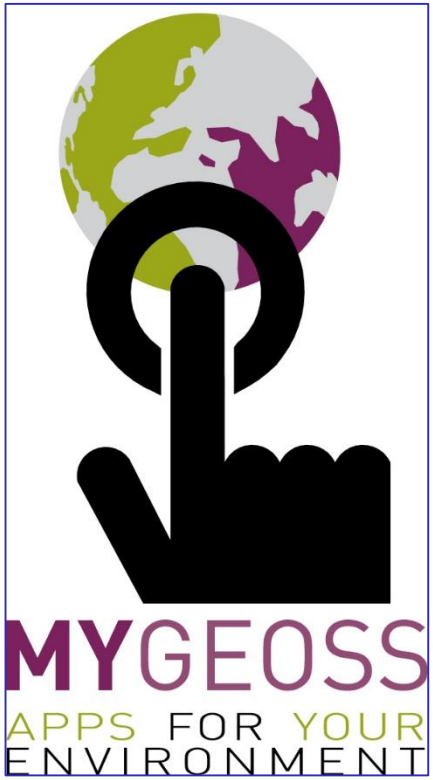
Building Apps to Spread Use of Open Data











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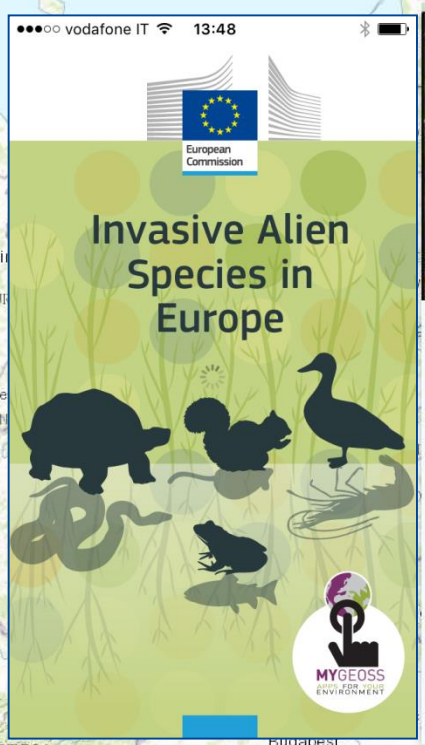
MYGEOSS EASIN APP

Data Collection Hub



Coordinates

45.512 / 14.032

Abundance

1 number of individuals

Precision

Measured

Comment

Habitat : terrestrial. Comment :

ICCID

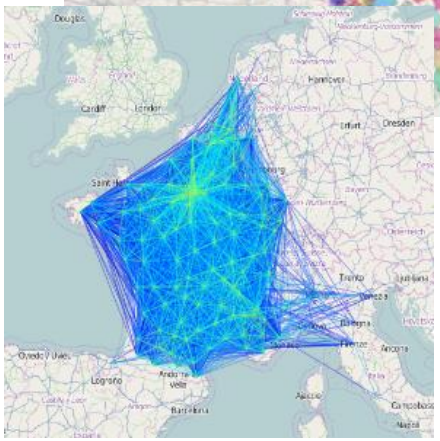
629dd5f87c98d892

Observed by (OAUTH-ID):

opendayjrc@gmail.com

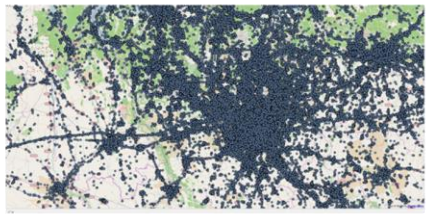
New data sources

Use of mobile phone data: Up-to-date population

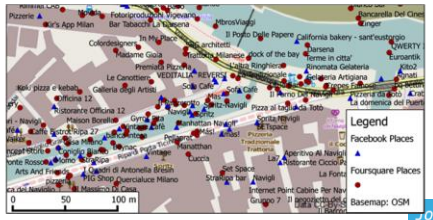


Multiple sources:
- same entity (city of Milan)
- different views

Milan by Copernicus Source: ESA



Milan by Twitter



Milan by FourSquare & Facebook

Development of new indicators on mobility from car sharing platforms

Digital revolution is much faster than the industrial revolution and requires new tools and metrics to measure progresses and trends.

Where is the digital economy going?

extrapolation from current trends is very risky.

- Further erosion of privacy.
- Increased dichotomy in markets: a few large platforms that control a myriad of small suppliers, diminished importance of SMEs.
- "Platformisation" of the economy: data platforms will erode the market power of firms and affect a large part of the economy.
- Robotisation not limited to manufacturing but invading services sectors, including public services.
- More globalisation. It may create more local inequalities and undermine the socio-political structure and consensus
- More data but only few accessible for policy making creating inefficiency or increased costs in the PS

Use of new data source to measure and forecast overall trends in Digital Economy

Joint Research Centre

What do policy makers need:

- Policy makers want to use digital data to monitor what is happening in the (digital) economy and may intervene if there are market failures,
- Regulatory interventions require market analysis first, to examine if there are market failures and if it is possible to overcome them.
- Market analysis requires data on firms and consumer behaviour. In digital markets, these data are often collected and owned by online firms and are not publicly available.

The paradox of the digital economy is that never before have so much data been collected and never before has it been so difficult to access these data.

- Regulations suffer from lack of access
- The regulatory process is very slow compared to the digital market speed
- Data could be obtained from firms but firms will not release data that might be used against them

Challenge 2 – ensure access to critical data

What our role as JRC can be

- Collect (and curate) digital data)
- Analyse them for policy purposes
- Promote* and adopt open access policies.

  (*) *e.g. to facilitate access to private data we can throw our weight behind the on-going SM initiative (DG GROW) to access firm data, and the "Free Flow of Data – data ownership & access" initiative that is in preparation under the DSM.*

- Build our capacity to manage data
  - *not only HW, SW and programmers, but also analysts.*

Data needs to be curated and properly analysed. This requires investment in infrastructures and skills (data scientists).

Challenge 3 – reinforce data management capacities (including data analytics)

EU Strategy for the Danube Region

Many problems know no borders:

flooding, transport and energy links,

environmental protection and challenges

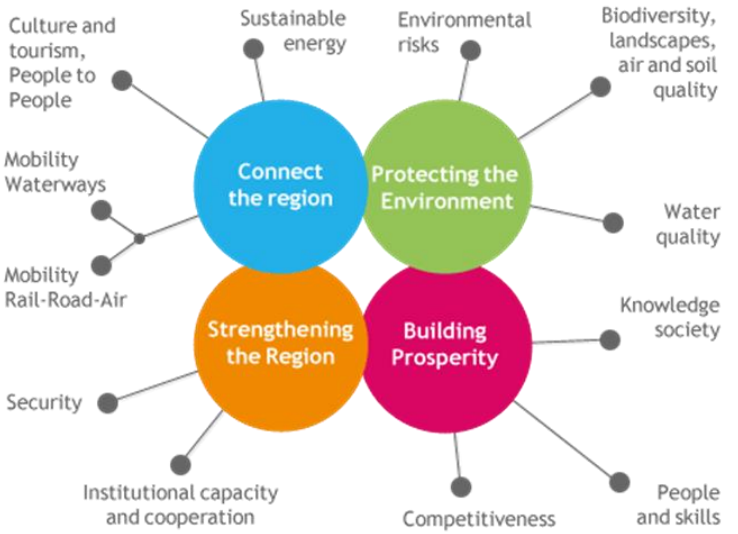
to security all demand a united approach

The European Union launched in 2011 the

EUSDR Strategy to address those issues

in an integrated way (macro-regional) focusing

On 11 priority areas.



It covers 14 countries and regions, including 4 Ukrainian Oblasts:

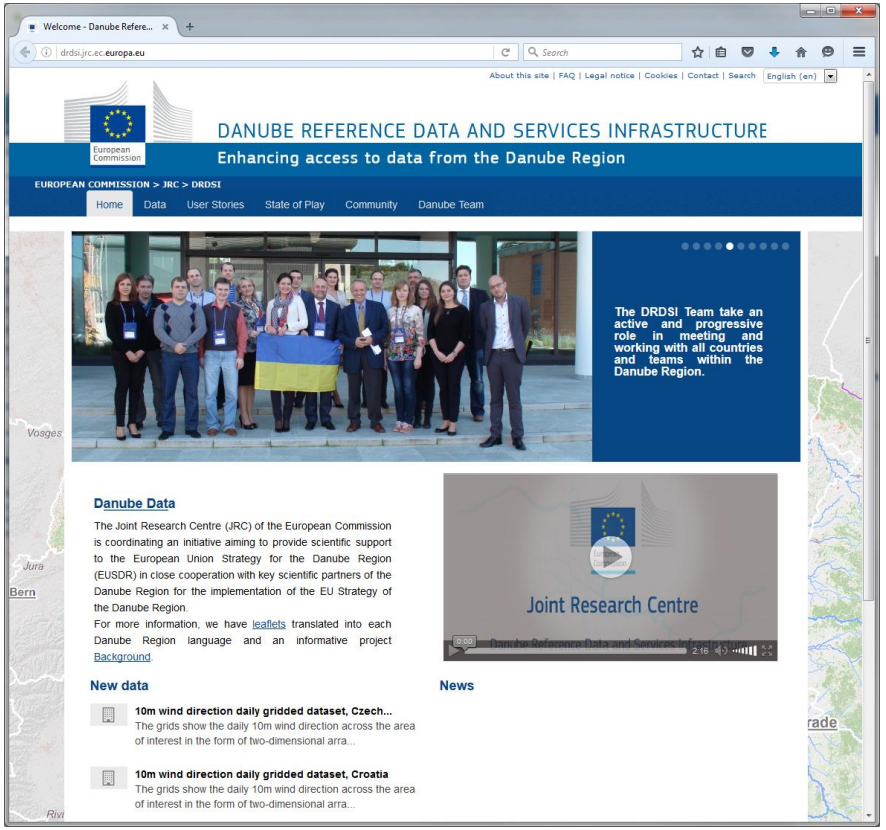
Zakarpattia, Ivano-Frankivsk, Chernivtsi, Odessa

JRC Scientific support to the Danube Strategy

JRC contributes directly the implementation of the Strategy through its scientific support and the strengthening of the scientific cooperation in the region (Science academies and Danube Rector's Conference)

The Scientific Support to the Danube Strategy initiative is sub-divided into different flagship clusters and activities

The **Danube Reference Data and Services Infrastructure** (DRDSI) aims at providing access to clear and comparable information for the Danube region

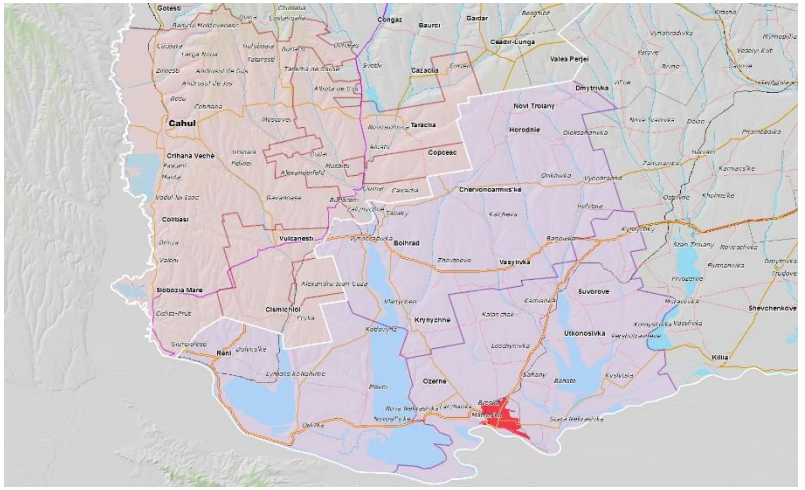


http://drdsi.jrc.ec.europa.eu

What have we done so far with Ukrainian partners?

Produce a **State-of-Play** and organisational context of data infrastructures **in Ukraine**

Geospatial resources available in DRDSI (about 200 datasets)



Access to resources from the entire Danube

Work with public administrations (*State enterprise Agency for the property rights and land relations in fuel-energy complex of Ukraine* and *Geospatial Data Center of Ukraine*) by launching cross-border harmonisation pilots and support to the setting-up of a national Danube service node in Ukraine

Workshop with regional authorities (Odessa 26/11/2015) on "Regions as knowledge users and facilitators"

Train user communities on INSPIRE and Open Data principles

Community of users and data producers on a collaboration platform

DRDSI Workshop, Odessa, November 2015

Stay in touch

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