Assessing the status of Open SDI/INSPIRE in Europe
Open SDIs, Sustainable SDIs?

EuroSDR workshop 'Sustainable open data business models for NMCAs'
18 & 19 September 2017, Delft (the Netherlands)

KENNISCENTRUM OPEN DATA

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Some topics of yesterday

- Changing role of NMCAs

- Non-expert user (outside the public sector)

- Open data assessments (e.g. OD Barometer)

- Public versus private sector: who should do what?

- From products to platforms

- ...

Topic of this presentation

Open SDI

SDI open to everybody to use and share data, to upload and download dat

Easily accessible

Easy to find good quality and reliable data that is easy to use. Collaboration between data producers and users. Transparency.

Open in terms of full data accessibility by users

Easy available and useable

Beneficial to all actors

An SDI, where users, government, academia and business have equal roles.

open data and user contribution

Data accessible to everyone

I thinnk itmust be usefull

An SDI that users are not able to distinguish from mainstream open data initiatives

open source platform

Good morning! fulfills all organizational and technical standards, free and easy access to the infrastructure, no charges for data

No fees No User Registration Grouped Services Well tested Services
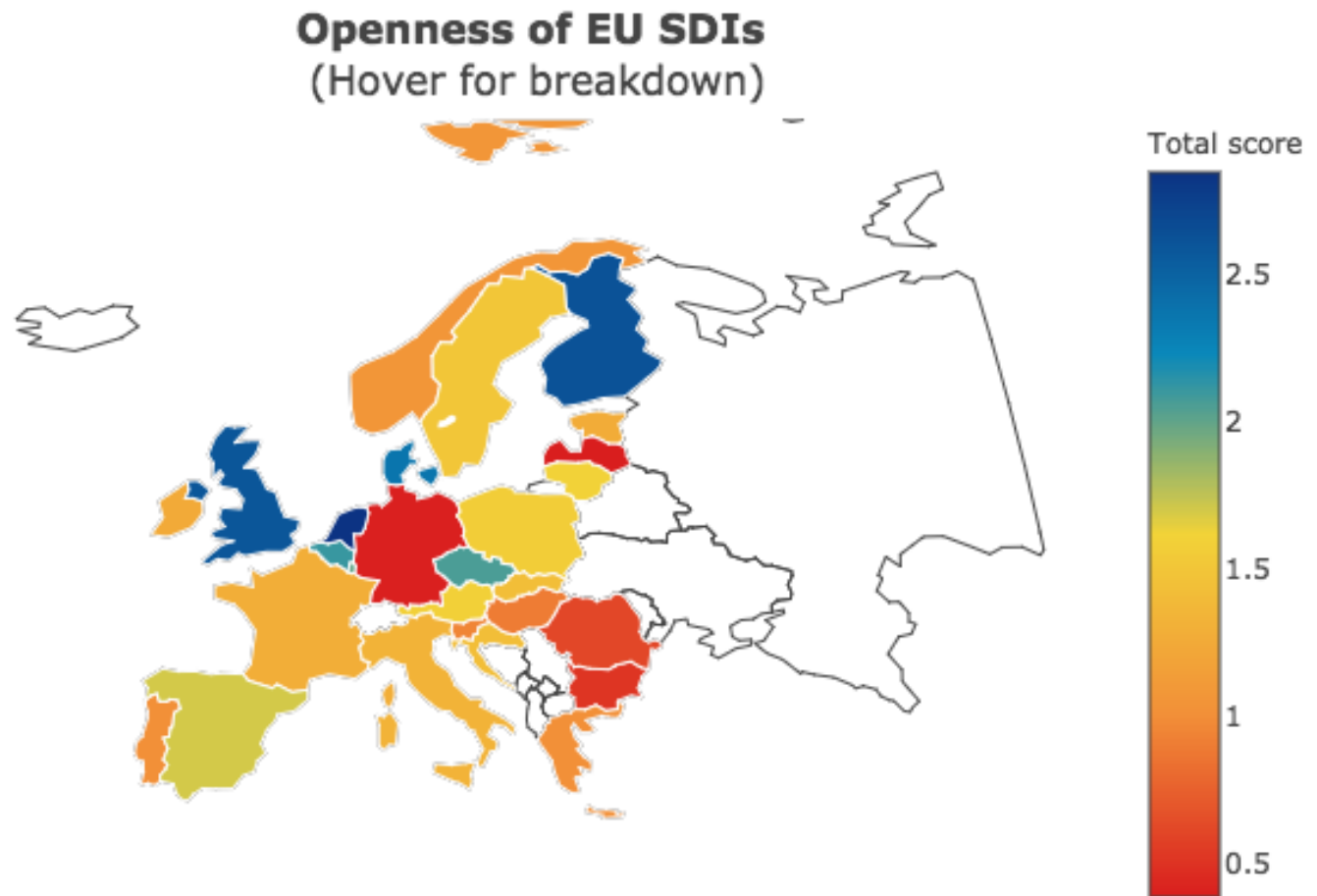
Collaboration between actors

SDI allowing access to open data by means of open standards.

with clear conditions for accessing data and services

i think it must be useful for sharing and uploading data easily and also easy available and useable

Open SDI workshop @ INSPIRE Conference 2017
Participants' views on Open SDI

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Map of Open SDI

Openness of EU SDIs
(Hover for breakdown)

Total score

More results: kcopendata.eu/opensdi

Context

TU Delft, Master of Geomatics

https://www.tudelft.nl/en/education/programmes/masters/geomatics/msc-geomatics/

5 ECTS Master Course Geomatics

GEO-INFORMATION ORGANIZATION AND LEGISLATION

This year's assignment

Write a paper on the status of the open SDI in a European country

1. **develop** an assessment framework for measuring the openness of spatial data infrastructures
2. **apply** this framework to one European country
3. **suggest** a plan to arrive at a next level of an open SDI

The assessors

User profile (of our assessors)

- Does not work within public adminstration

- Has no money

- Has no idea what INSPIRE or a geoportal is

- Just wants to download and play with the data

- Speaks English

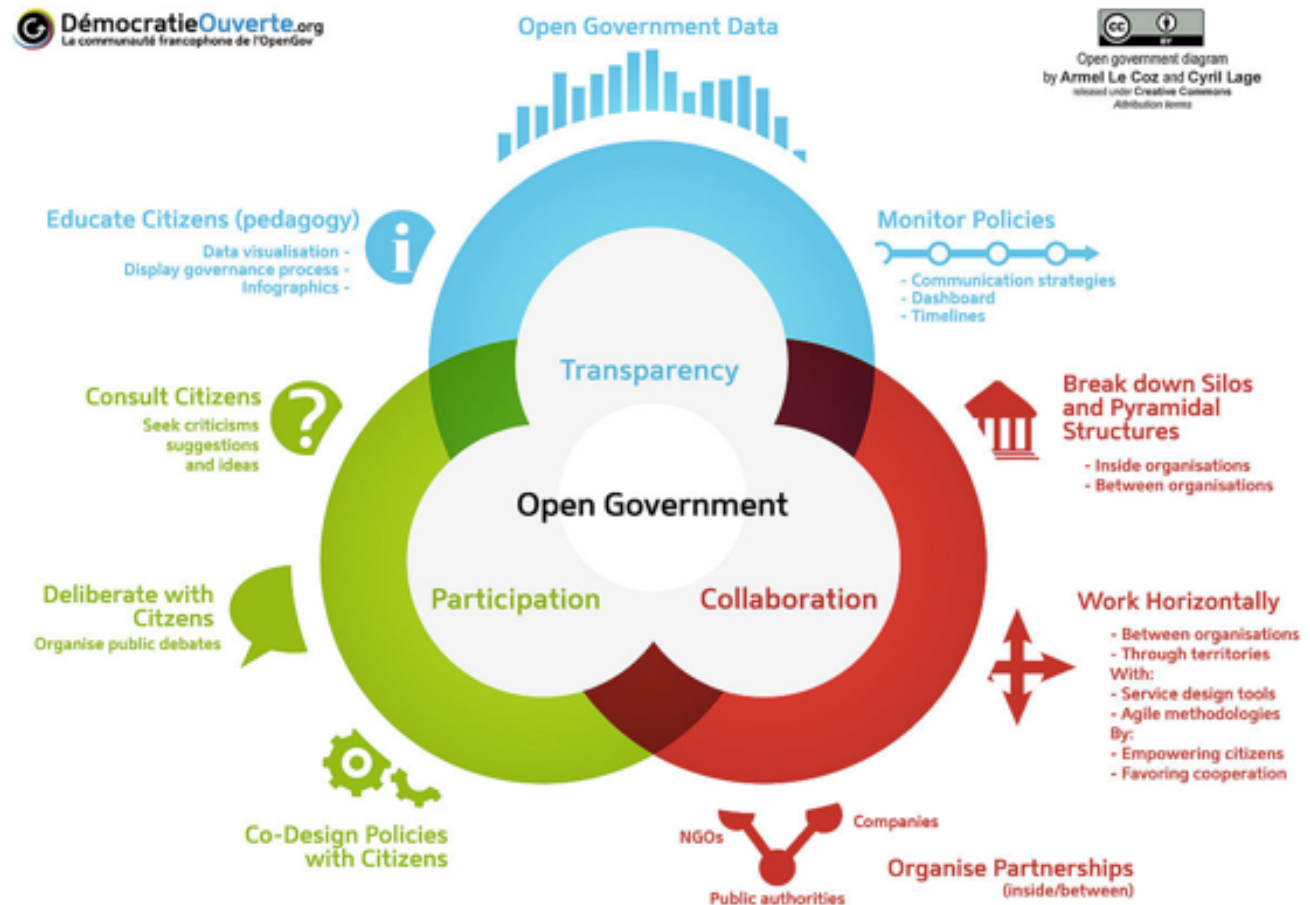# Open SDI

Looking for a definition

Open SDI

= open spatial (government) data

Government data shall be considered open if it is made public in a way that complies with the principles below:

1. Complete
   All public data is made available. *Public data* is data that is not subject to valid privacy, security or privilege limitations.

2. Primary
   Data is as collected at the source, with the highest possible level of granularity, not in aggregate or modified forms.

3. Timely
   Data is made available as quickly as necessary to preserve the value of the data.

4. Accessible
   Data is available to the widest range of users for the widest range of purposes.

5. Machine processable
   Data is reasonably structured to allow automated processing.

6. Non-discriminatory
   Data is available to anyone, with no requirement of registration.

7. Non-proprietary
   Data is available in a format over which no entity has exclusive control.

8. License-free
   Data is not subject to any copyright, patent, trademark or trade secret regulation. Reasonable privacy, security and privilege restrictions may be allowed.
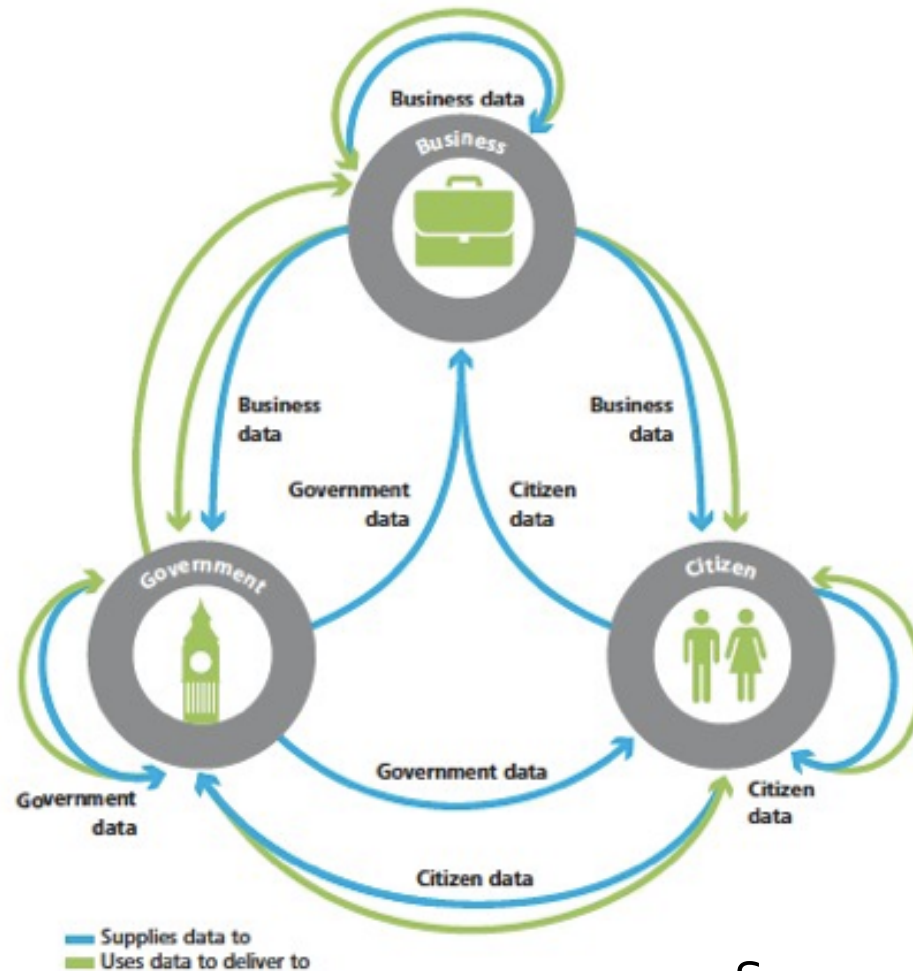
Compliance must be *reviewable*.

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Open SDI

= open – spatially-enabled – government

Source: Le Coz & Lage

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Open SDI

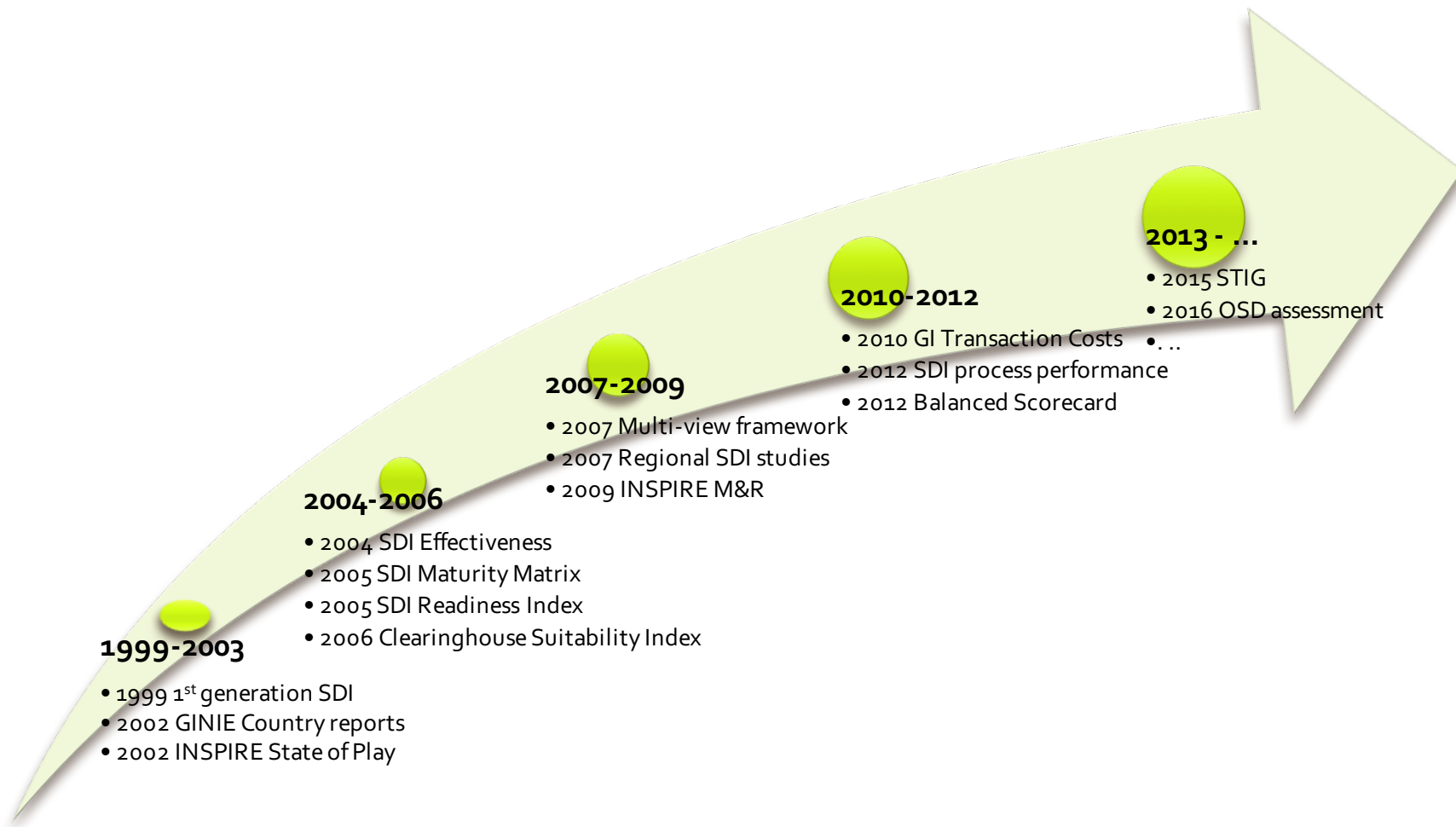## = creating an open spatial data ecosystem

Source: Deloitte, 2012

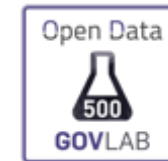"An SDI where government and non-government actors commonly govern, share and use open geodata"

Assessment framework(s)

Development, relevance

History of SDI assessment

2013 - …
- 2015 STIG
- 2016 OSD assessment
- …

2010-2012
- 2010 GI Transaction Costs
- 2012 SDI process performance
- 2012 Balanced Scorecard

2007-2009
- 2007 Multi-view framework
- 2007 Regional SDI studies
- 2009 INSPIRE M&R

2004-2006
- 2004 SDI Effectiveness
- 2005 SDI Maturity Matrix
- 2005 SDI Readiness Index
- 2006 Clearinghouse Suitability Index

1999-2003
- 1999 1st generation SDI
- 2002 GINIE Country reports
- 2002 INSPIRE State of Play

History of open data assessment

PSI Scoreboard

1999-2003

2004-2006

2007-2009

2010-2012

2013 - …

OSD assessment

Key Performance Indicators

Open spatial data assessment framework

1. Readiness	2. Data	3. Impact
Technological and non-technological components	Availability and accessibility of spatial data and services	Socio-economic benefits of using spatial data and services
To involve non-government actors in developing and implementing the SDI	**To businesses, citizens, non-profit organizations and other actors**	**For businesses, citizens, non-profit organizations and other actors**

1. Readiness

- Establishment of components to enable the participation of non-government actors in implementing SDI/INSPIRE

- Indicators
    - 1.1. Vision on Open SDI
    - 1.2. Participation of non-government actors in SDI
        - decision making
    - 1.3. Open data policy (for all – spatial – data)
    - 1.4 Non-government data included in the SDI

2. Data

- Availability and accessibility of spatial data to non-government actors

- Focus on two datasets:
  - Topographic data 1:10000
  - Address data

2. Data

- Indicators
  - 2.1. Search engine score
  - 2.2. Available through geoportal and/or open data portal
  - 2.3. Language(s)
  - 2.4. Publicly available
  - 2.5. Discovery, view and download services
  - 2.6. Available for free
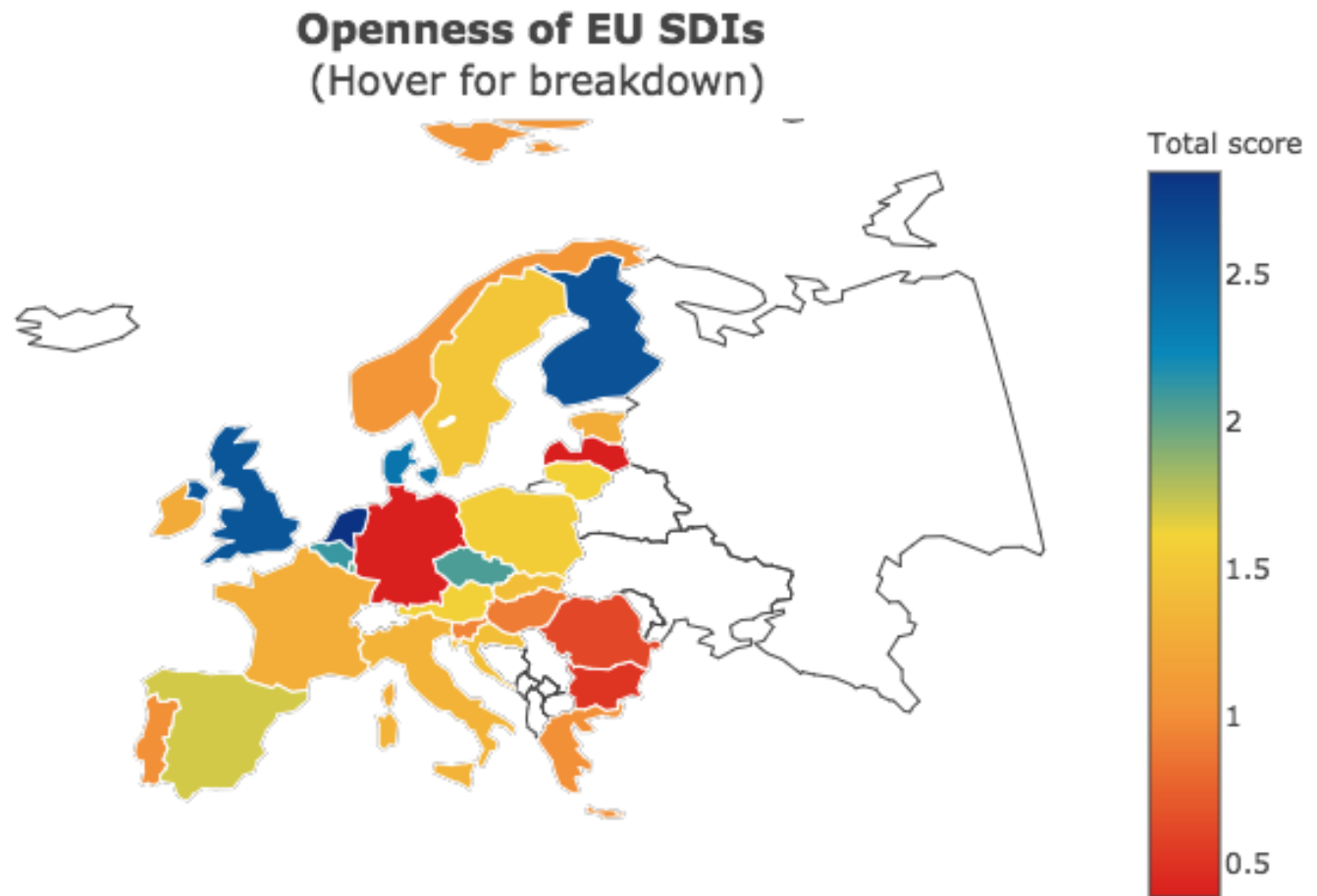 - 2.7. Use restrictions
  - 2.8. Interoperability

3. Impact

- Use of spatial data by non-government actors and associated benefits

- Indicators
    - 3.1. Use cases of non-government actors using open spatial data
    - 3.2. Studies showing the benefits of open spatial data

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Results

- Go to http://kcopendata.eu/opensdi/

- Disclaimer: work in progress!

Map of Open SDI

Openness of EU SDIs
(Hover for breakdown)

Total score

Map of Open SDI - Readiness

Readiness result
(Hover for breakdown)
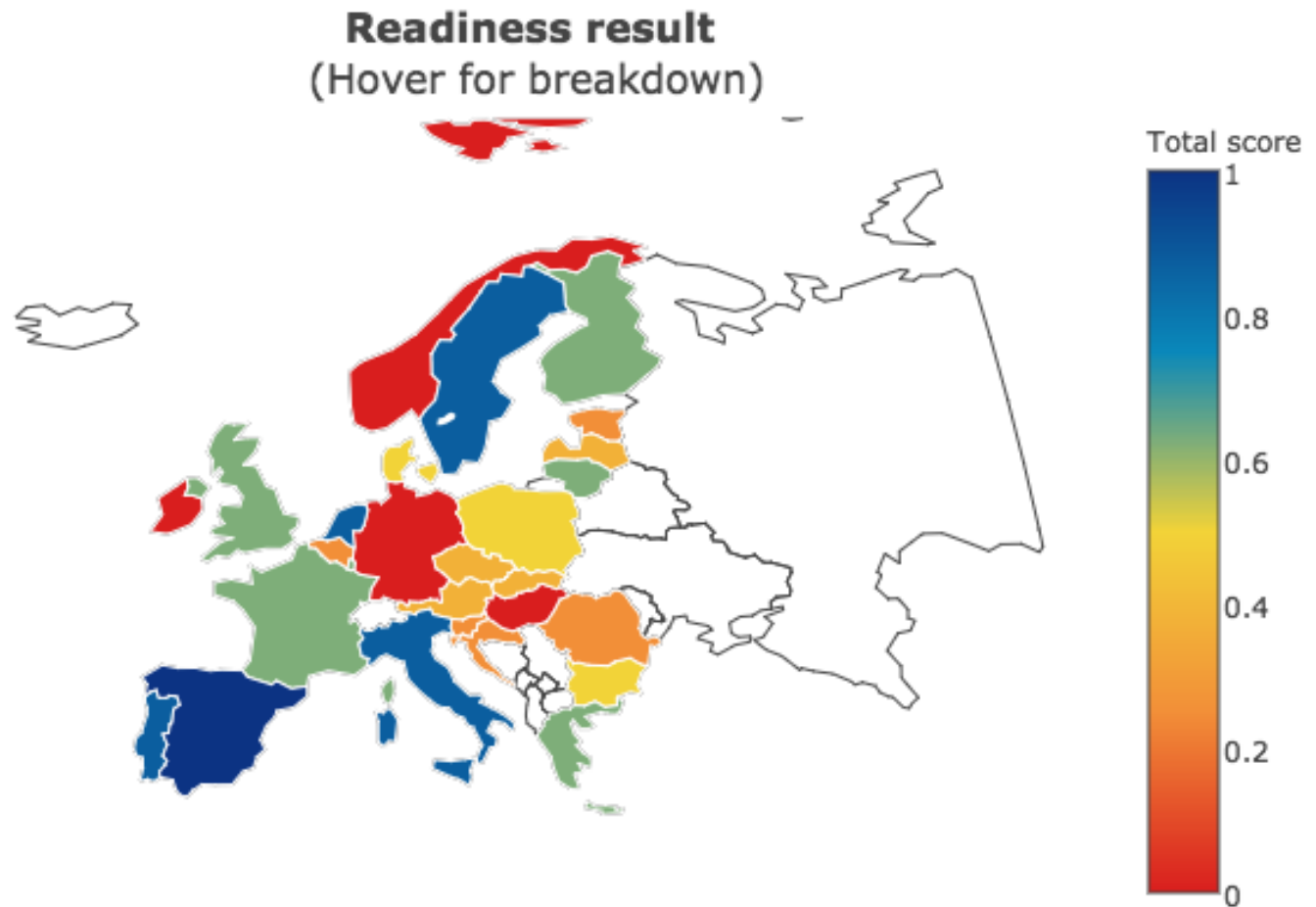
Map of Open SDI - Data

Implementation result
(Hover for breakdown)

Total score
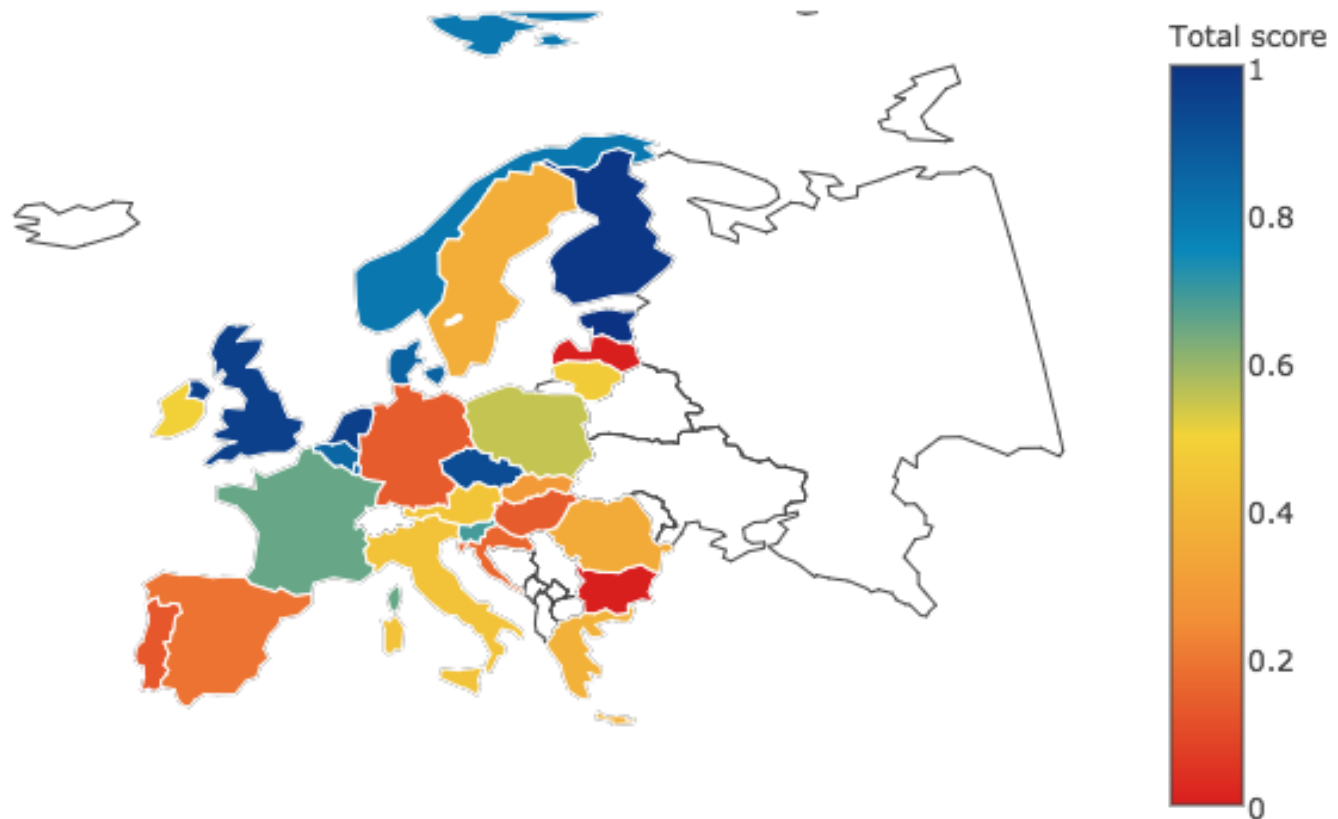
Map of Open SDI - Impact
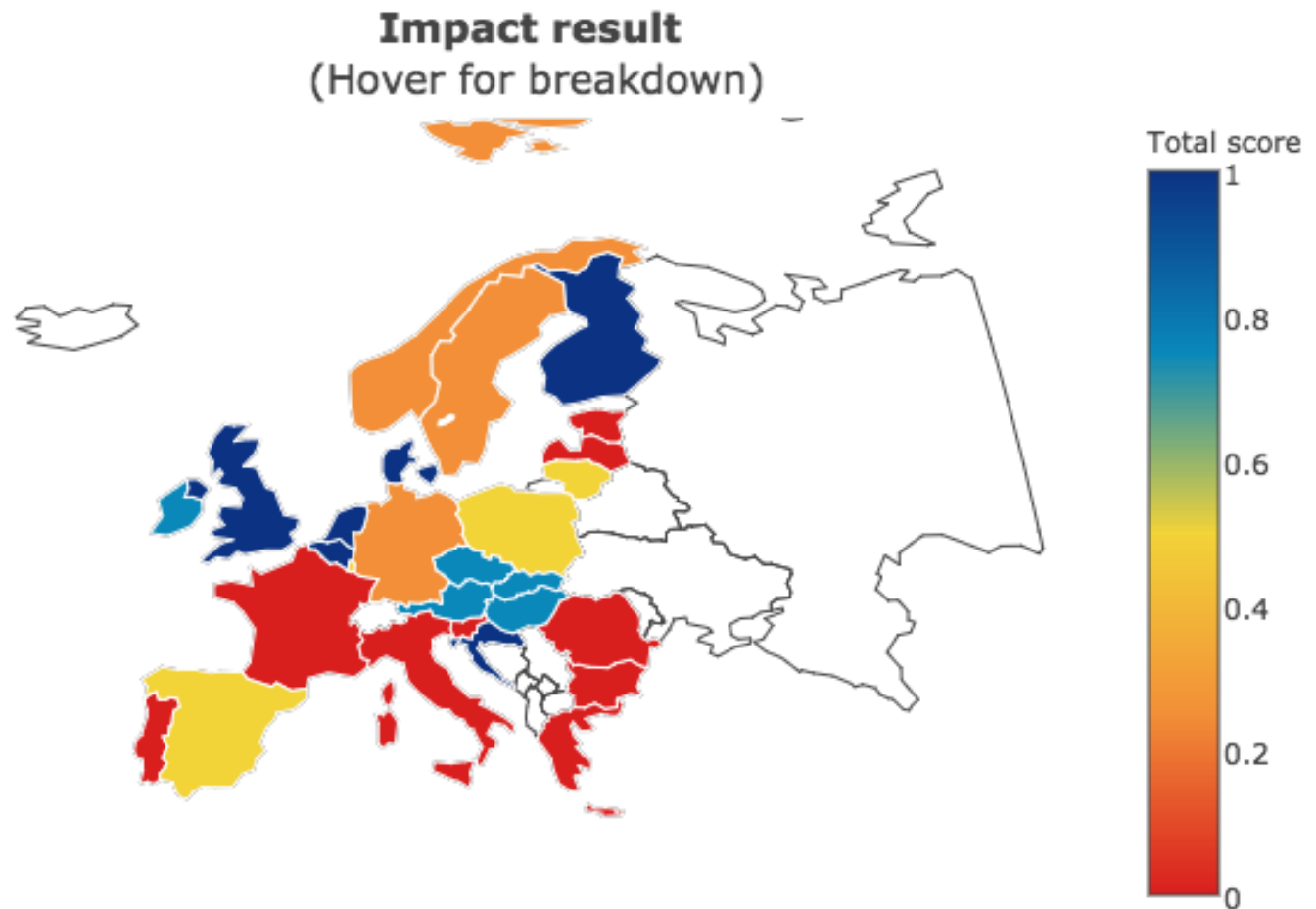
Map of Open SDI - overview

Map of Open data
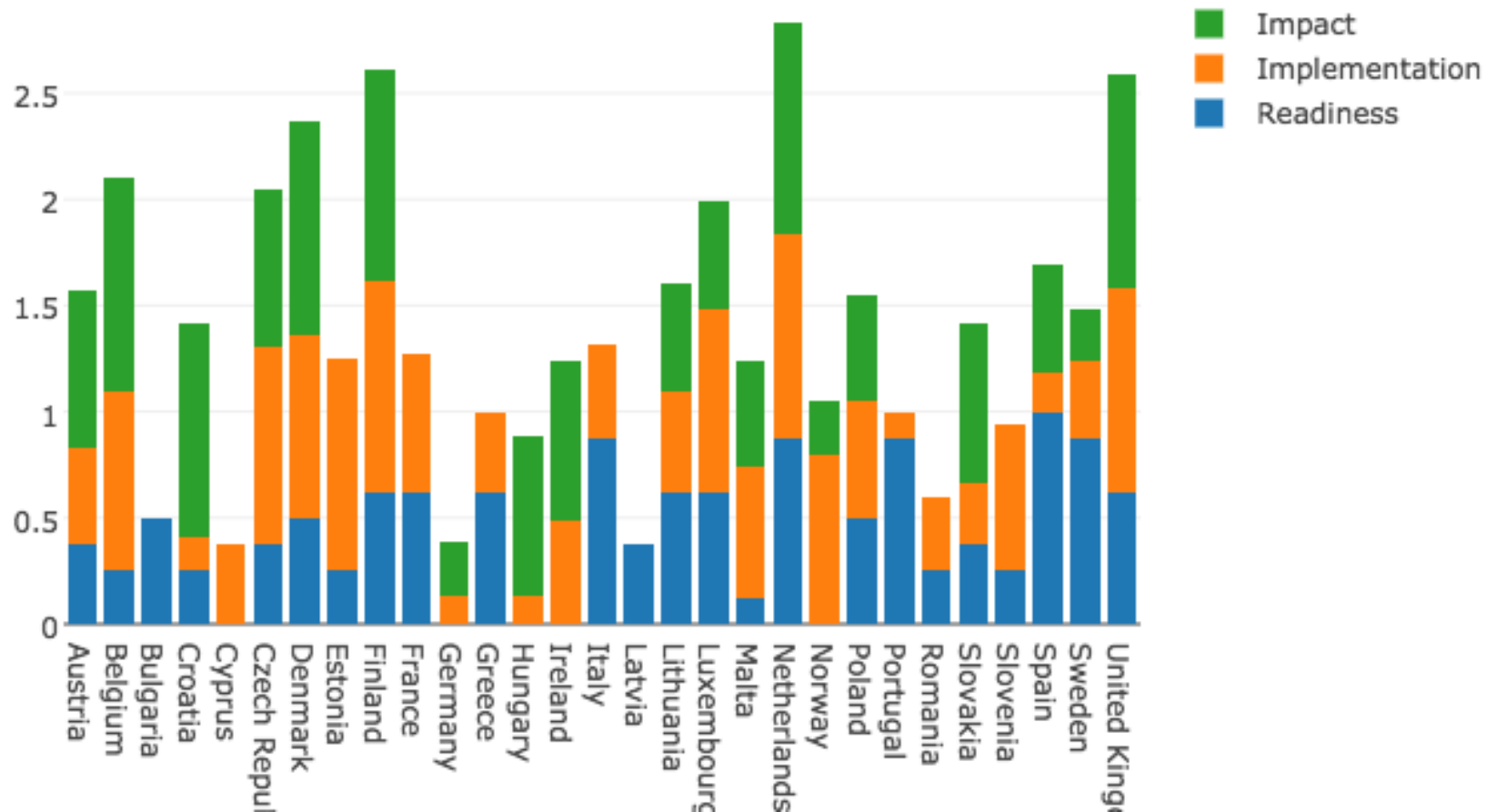
Open Data
(Hover for breakdown)
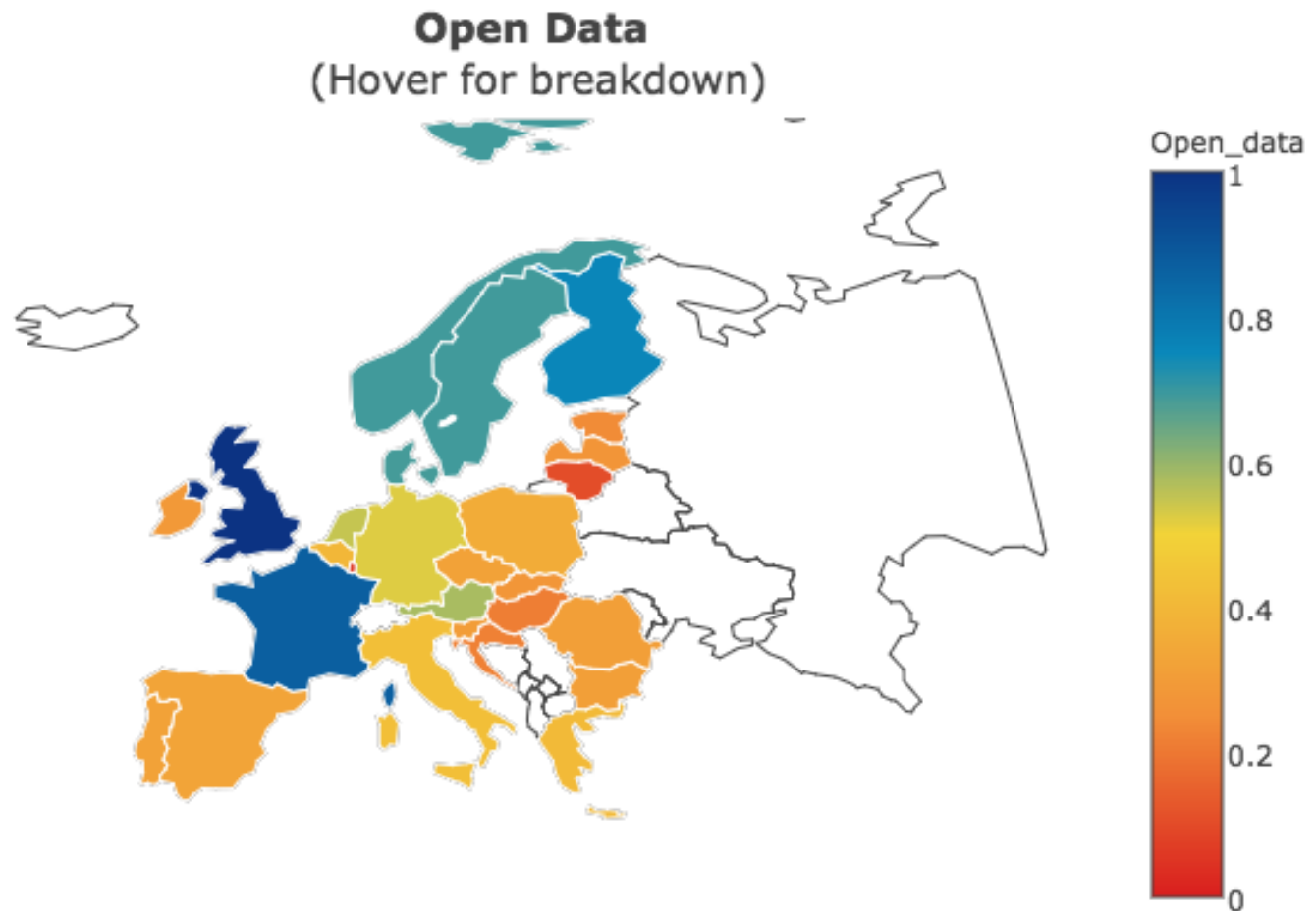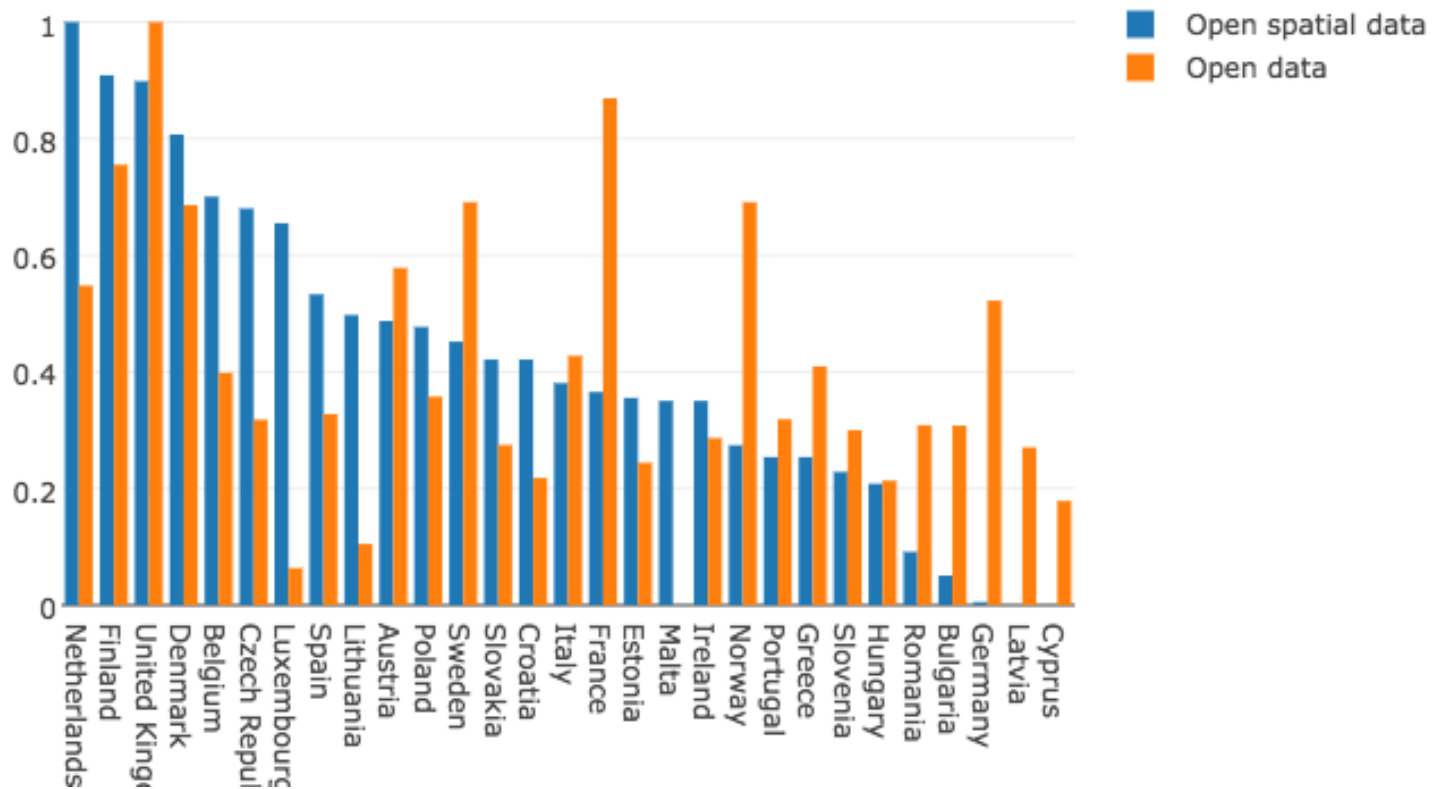
TOP 5: OSD versus OD
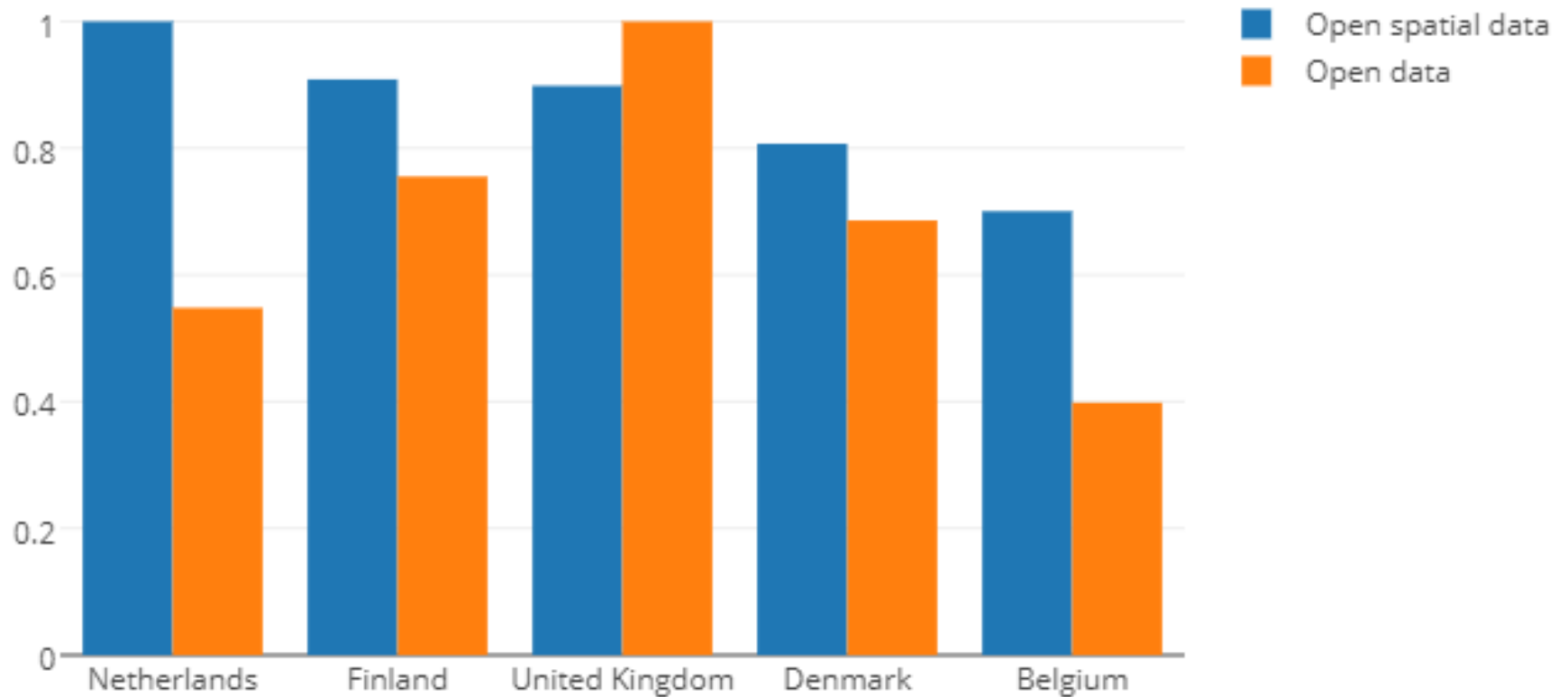
Open SDI & Open Data

This year's assignment

Write a paper on the status of the open SDI in a European country

1. *develop an assessment framework for measuring the openness of spatial data infrastructures*
2. *apply this framework to one European country*
3. *develop an implementation plan to arrive at a next level of an open SDI*

Find *and* **assess address data** *and* **topographic data (1:10k)** *the associated* **licence**: *can you find it and if so is it open and adhering to a (inter)national standard?*

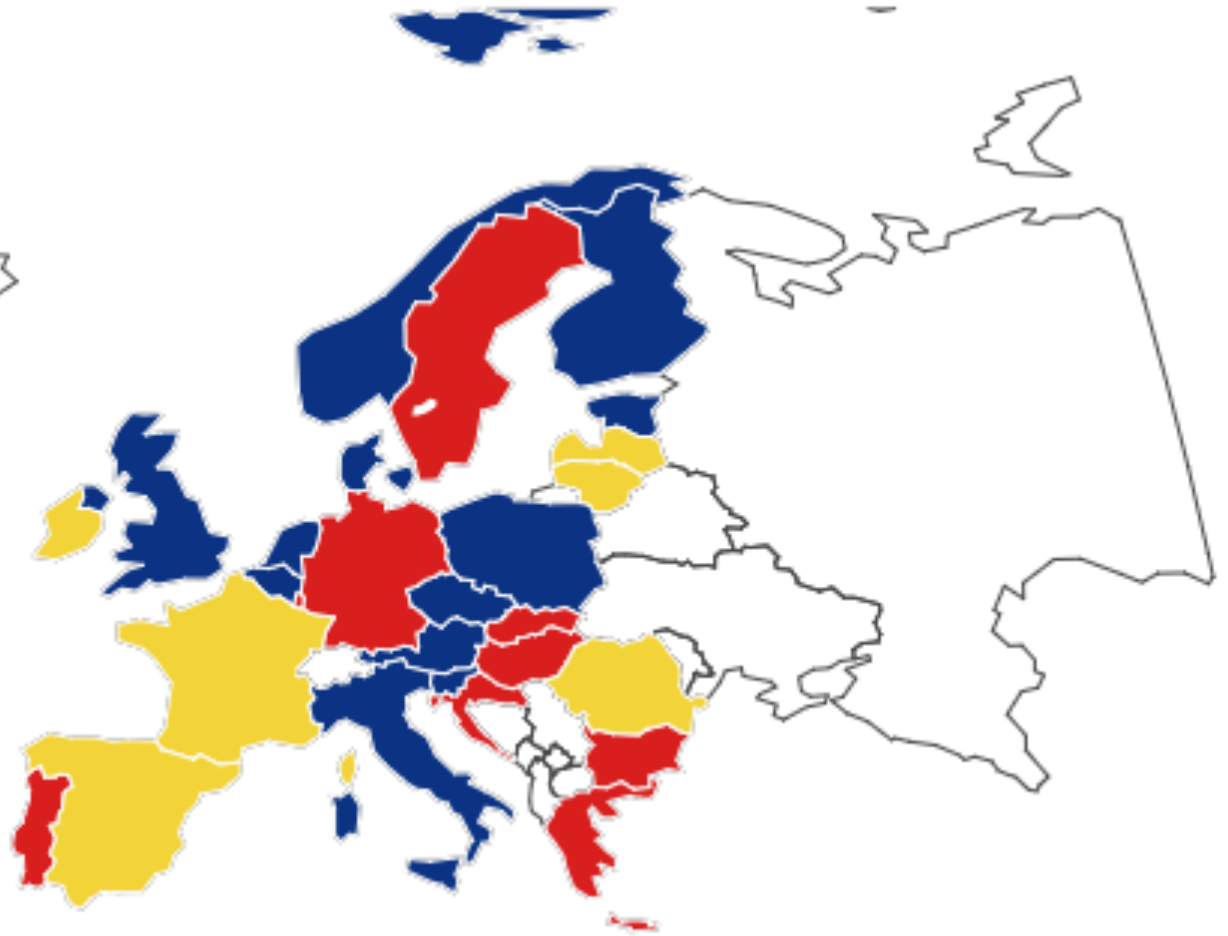# Are address data and topographic data (1:10k) in Europe open data?
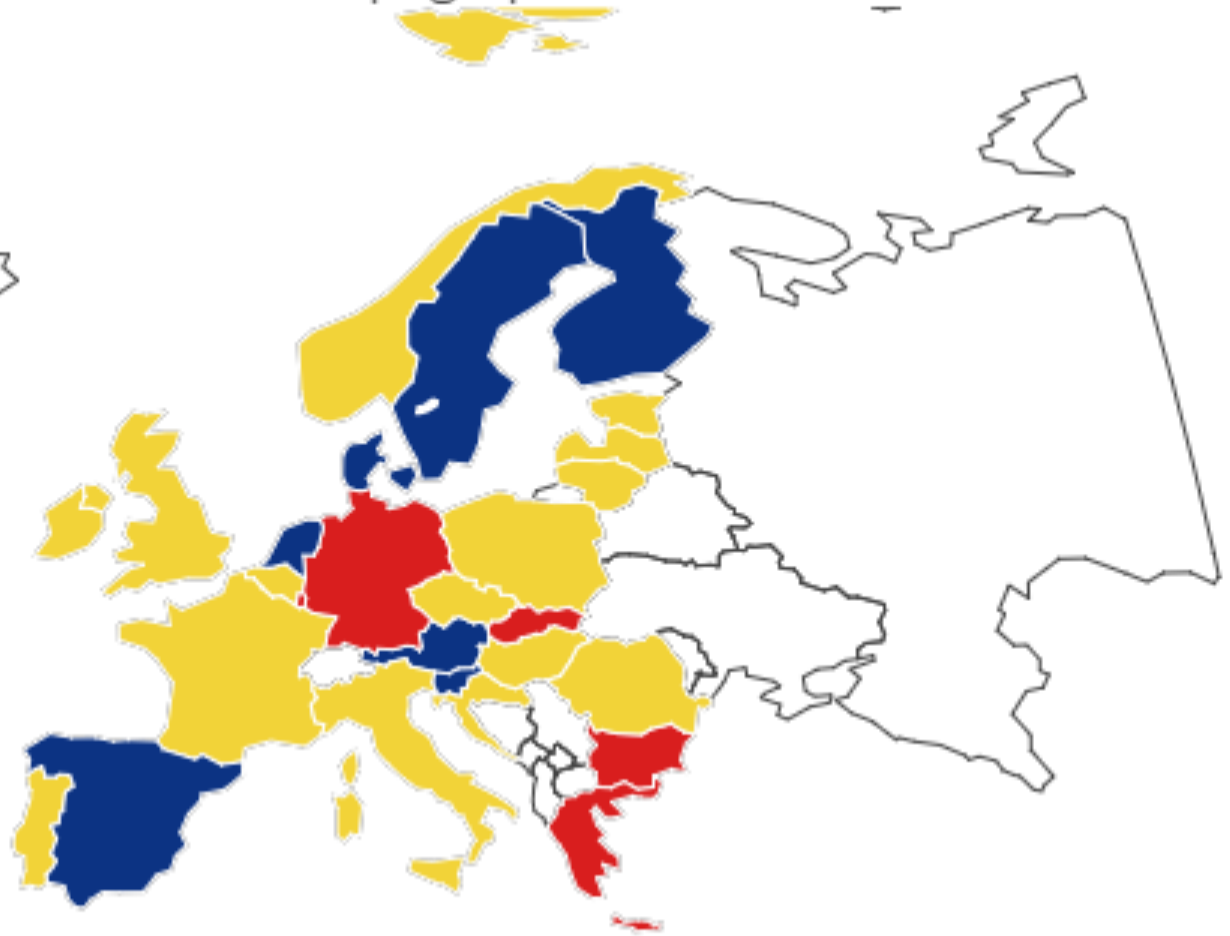
EU Licenses 2011
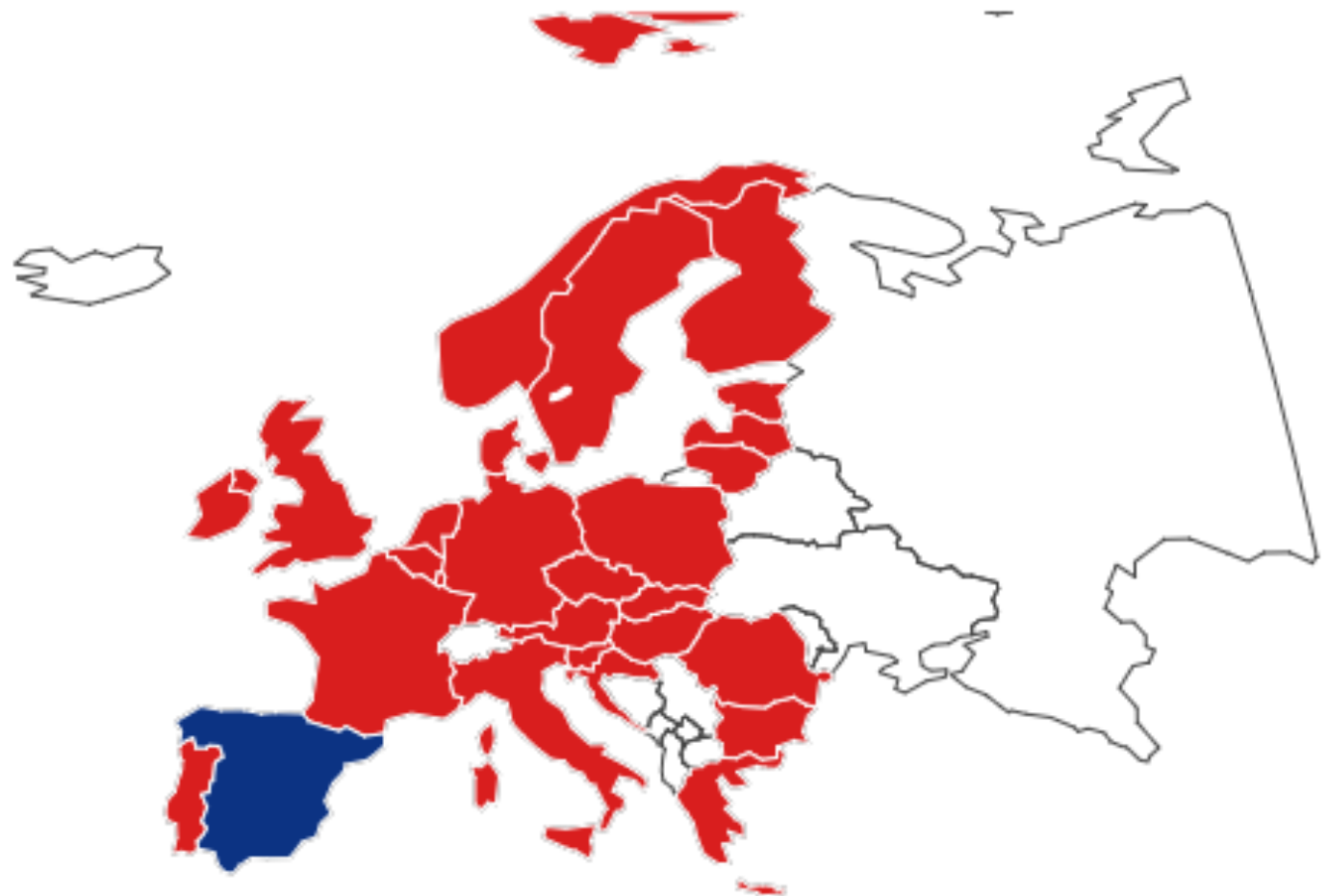
License openness
Address data

Open licence

No open licence

No licence or dataset found

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License openness
Topographic data

Open licence

Not open licence

No licence or
dataset found

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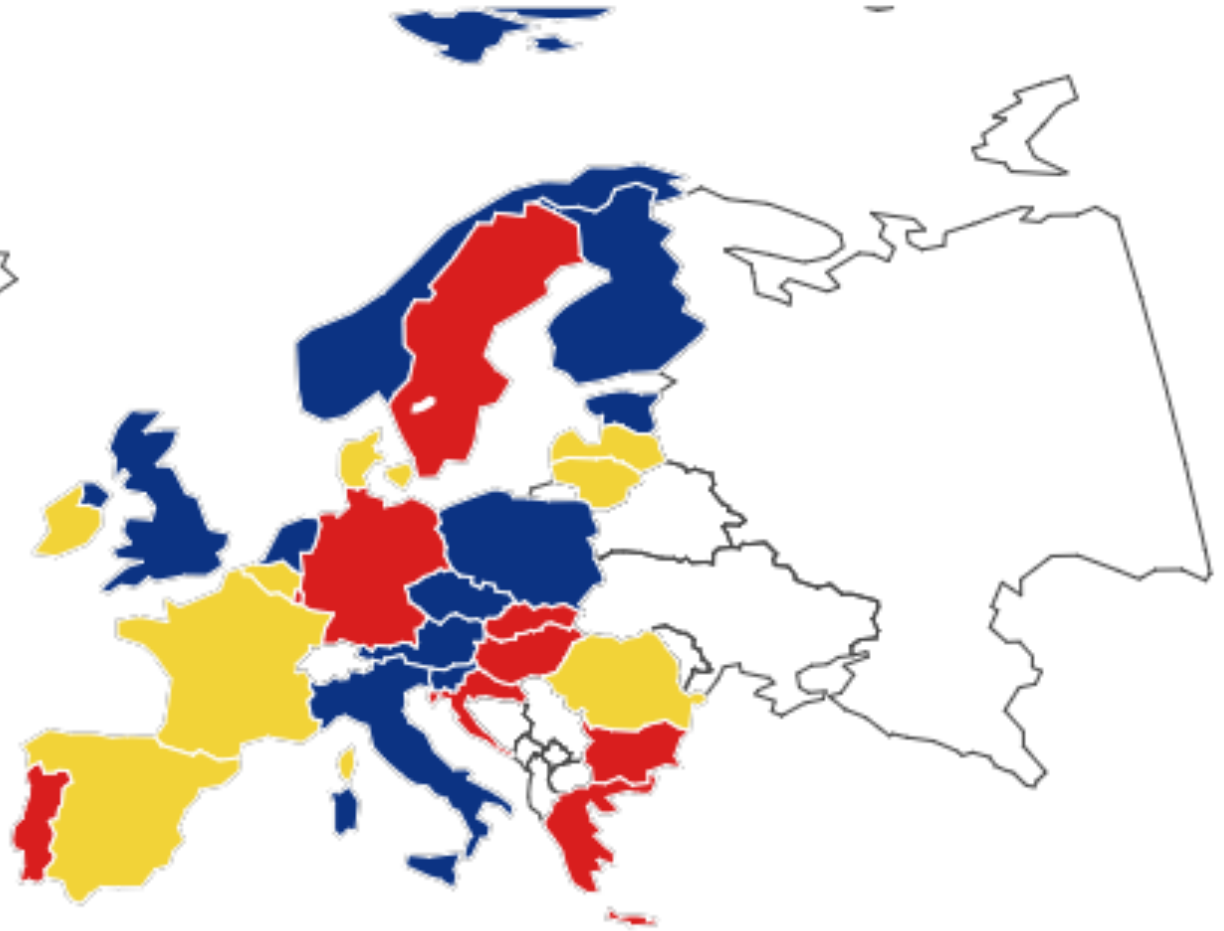
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Do these datasets come with an internationally interoperable licence?

License harmonization
Address data

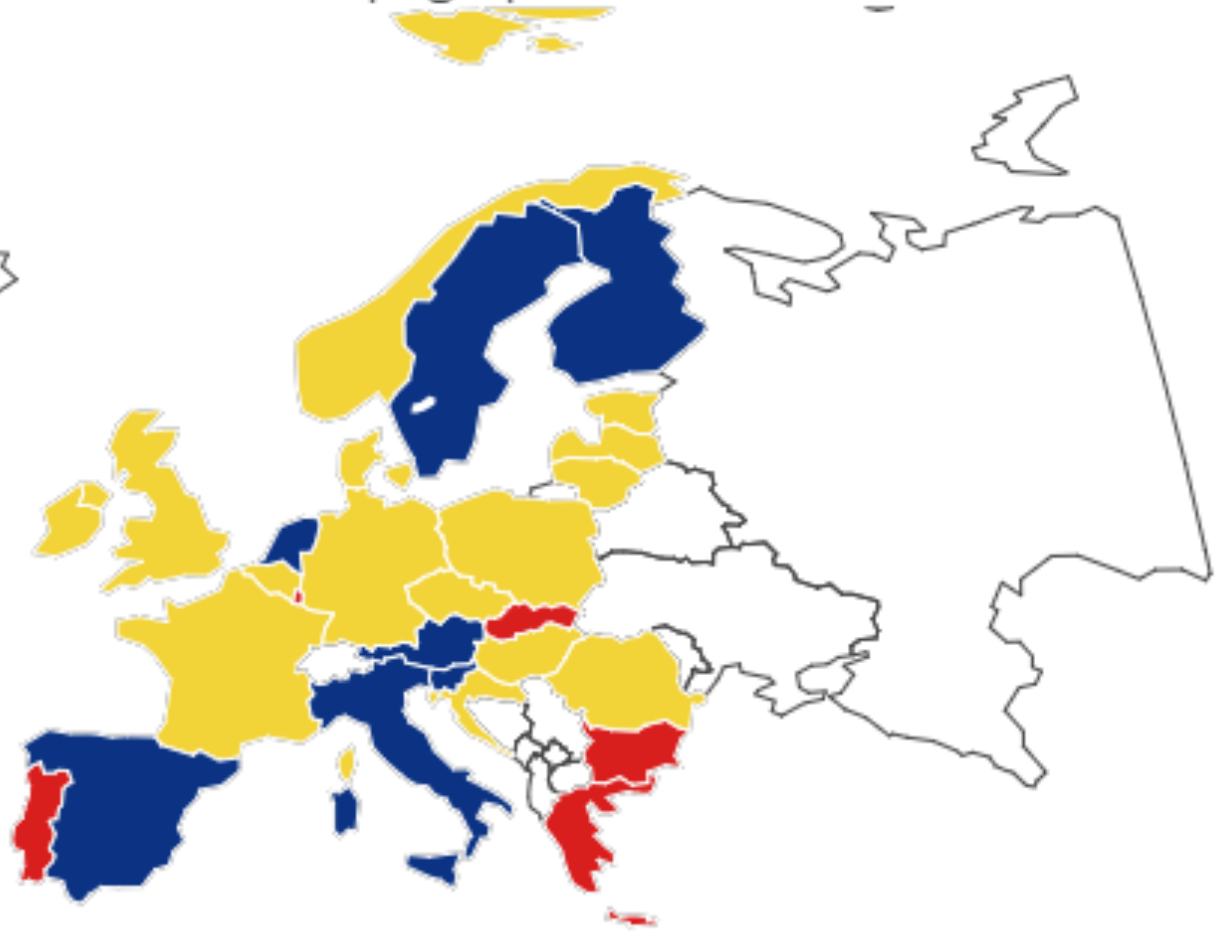Int. int. licence

Not int. int. licence

No licence or
dataset found

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License harmonization
Topographic data

Int. int. licence

Not int. int. licence

No licence or
dataset found

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Creative Commons Licenses

CC licence

No CC licence
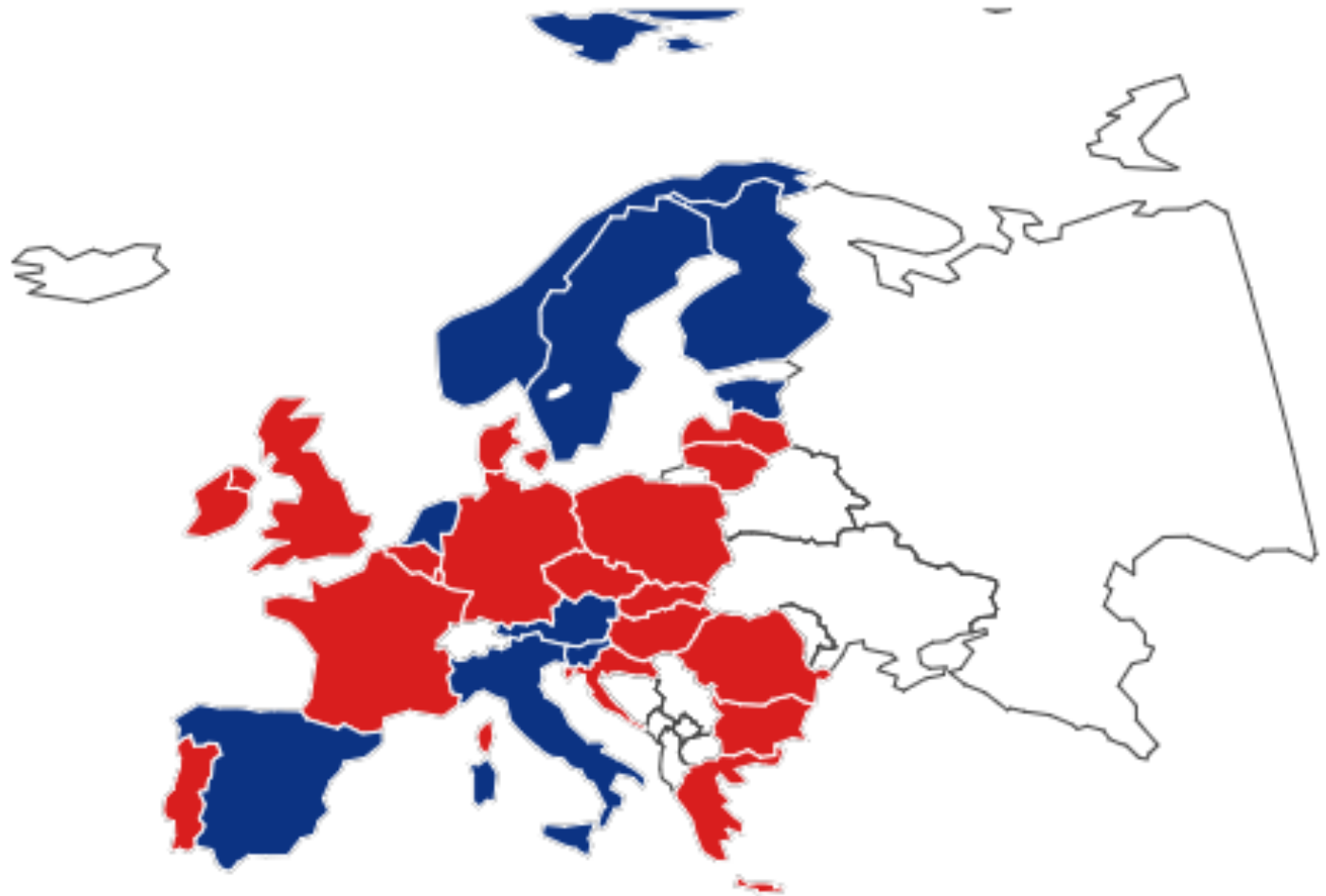
Conclusion

Mind the gap

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International non-expert spatial data user

- Hard to find:
  - Language barrier
  - Not in first 20 Google results
  - No common dataset naming
  - Multiple access points
- Hard to understand:
  - Language barrier
  - Geoportal search gives irrelevant results
- Hard to use:
  - Many – similar but different - datasets
  - National licenses

All in all…

- There is a gap between expert and non-expert users

- … between an SDI and open SDI

- … and between Open Data and Spatial Data

Conclusion

- *Open SDI is not only about open data*

- *Addressing the challenges for open SDI:*
  - *National*
  - *Pan-European*

- *Role of NMCAs in these Open SDIs*
  - *Follower?*
  - *Leader?*
  - *Barrier?*

- *Challenges, or also opportunities?*

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Resources

- Icons: Suitcase: [Xinh Studio](#); People: [Ivan Boyko](#), [CC BY 3.0](#), Temple: own work.

- All visualizations were made using Plotly Python Offline, under [MIT license](#)

Thank you for your attention

KNOWLEDGE CENTRE OPEN DATA
Delft University of Technology

Comments? Questions? Interested to contribute?

Let us know!
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Visit our website
http://kcopendata.eu/openSDI