

Open data

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Outline

- What is open data?
- Why do we need open data?
- Key issues/ (research) challenges

Re-users on public sector data

- Too expensive
- Use conditions restrictive, not transparent and not consistent
- Quality of the data insufficient

(Micus 2008)

Users “will probably be the most mentioned group and yet actually the least considered” (McLaughlin and Nichols, 1994).

But now there is...

OPEN DATA

Definition open data

1. Data Must Be Complete
2. Data Must Be Primary
3. Data Must Be Timely
4. Data Must Be Accessible
5. Data Must Be Machine processable
6. Access Must Be Non-Discriminatory
7. Data Formats Must Be Non-Proprietary
8. Data Must Be License-free
9. Compliance must be reviewable
10. The work shall be available as a whole and at no more than a reasonable reproduction cost

<http://opengovernmentdata.org> & <http://opendefinition.org/okd>

Or simply

Data available for anyone without any restrictions in the (re-)use and provided free of charge

Why open data?

- improved efficiency and effectiveness of public services
- increased transparency
- accountability and citizen participation
- economic and social value creation and job creation

If open data, then

- 68 billion euro (Pira International, 2000)
- 27 billion euro (Dekkers et al., 2006)
- 40 billion euro (Vickery, 2011)
- \$3 trillion (McKinsey, 2013)

If open data, then

- Landsat imagery: 1 million downloads in 6 months v. 25,000 per year



“The coolest thing to do with your data will be thought by someone else” (Rufus Pollock*)



(* see De Vries, et al. 2011)

If open data, then

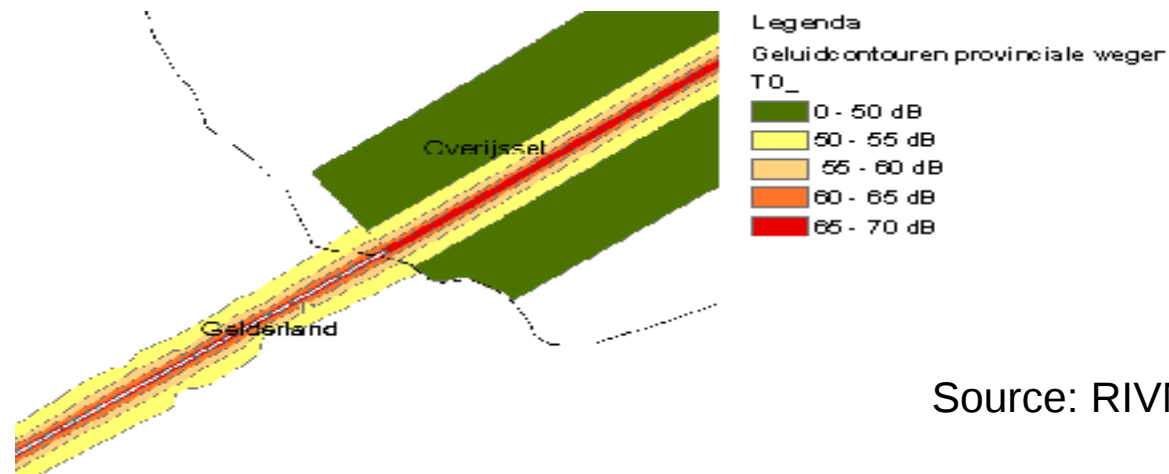


Failing energy networks



...Great opportunity for providers of standalone printers

Transparency: Data quality



Source: RIVM

EC (2014) priority for release as open data

Category	Examples of datasets
1. Geospatial data	Postcodes, national and local maps (cadastral, topographic, marine, administrative boundaries, etc.)
2. Earth observation and Environment	Space and in situ data (monitoring of weather, land and water quality, energy consumption, emission levels, etc.)
3. Transport data	Public transport timetables (all modes of transport) at national, regional and local levels, road works, traffic information, etc. (*).
4. Statistics	National, regional and local statistical data with main demographic and economic indicators (GDP, age, health, unemployment, income, education, etc.)
5. Companies	Company and business registers (lists of registered companies, ownership and management data, registration identifiers, balance sheets, etc.)

(*) Sector-specific rules (e.g. EU railway law) make take precedence

In Denmark

Table 1: Socio-economic value of the open geodata in 2016 and 2012

(PwC 2017)

DKK in millions	2012	2016
Production effect of the open geodata	1,402	2,542
Private enterprises	116	446
Government agencies	321	373
Municipalities		1,376
Regions	965	151
Independent institutions, etc.		196
Efficiency effect of the open geodata	190	999
Private enterprises	40	726
Utility companies	100	229
Government agencies		22
Municipalities		18
Regions	50	2
Independent institutions, etc.		0
Total socio-economic value of the open geodata	1,592	3,541

Source: The questionnaire survey has been performed among private enterprises, utility companies and public authorities and pre-measurement (2012)

Cost benefits analyses

- 1:2 to 1:70 ratio
- Difficult to verify and confirm CBAs
- CBAs based on assumed numbers, extrapolation of limited number of cases
- Key figures (e.g., hourly rates, exchange rate currency) varies among studies

Key issues open data/ (research) challenges

Who should pay?

- Data provider bears the costs, but does not obtain the financial benefits (directly)

See [EuroSDR workshop on Sustainable Open Data Business Models for NMCAs](#)

User: who & what does he need?

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Open data and data protection

“How can the interests of the right to data protection be balanced with the interests of open data into a legal construct that enables the fulfilment of smart city objectives?”

See for more information the SPOW project:

<http://kcopendata.eu/research/projects/>

Open licences



Open licences

- Can we move to a single standard?



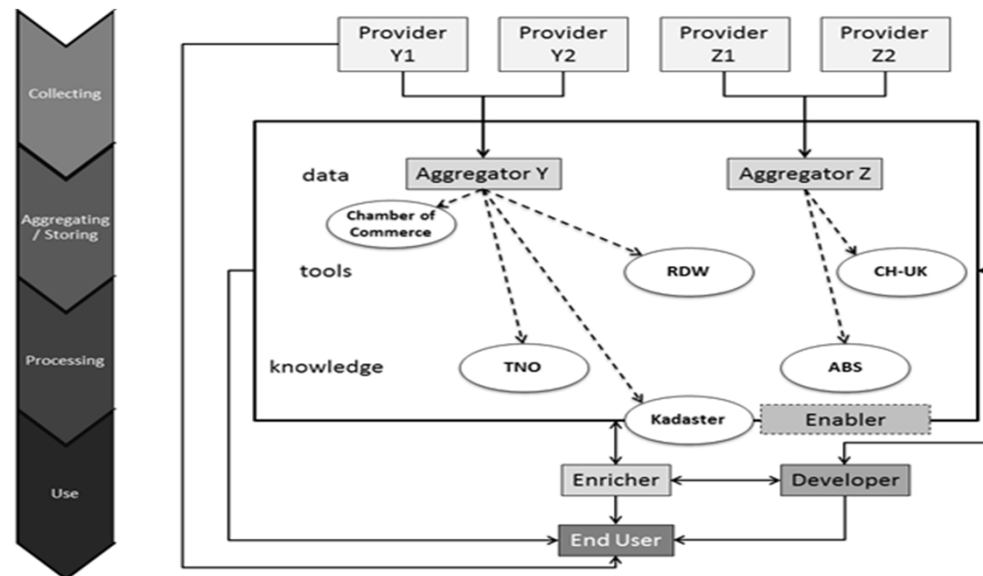
(future) Role of public authorities

A number of barriers, however, have also been identified, which SDFE and other public players should consider working on overcoming. In relation to the private enterprises, the barriers can be divided into four overall types, namely:

- 1) Technical challenges
- 2) Uncertainty concerning the future market potential
- 3) ~~The geographic reach and quality of the open geodata~~
- 4) Uncertainty concerning the nature and scope of the role of public authorities

(PwC 2017)

Case study research 2016



More information: Welle Donker, F., & van Loenen, B. (2016). [Sustainable Business Models for Public Sector Open Data Providers](#). *JeDEM eJournal of eDemocracy and Open Government*, 8(1), 28-61.

A successful open data ecosystem?

Open data assessed

OpenData
Barometer

GLOBAL
OPEN DATA INDEX

Open Data Maturity
in Europe 2016

Open Data
500
GOVLAB

Open Data Impact Map
A public database of organisations that use open data from around the world.

OpenDataMonitor

PSI Scoreboard

1999-2003

2004-2006

2007-2009

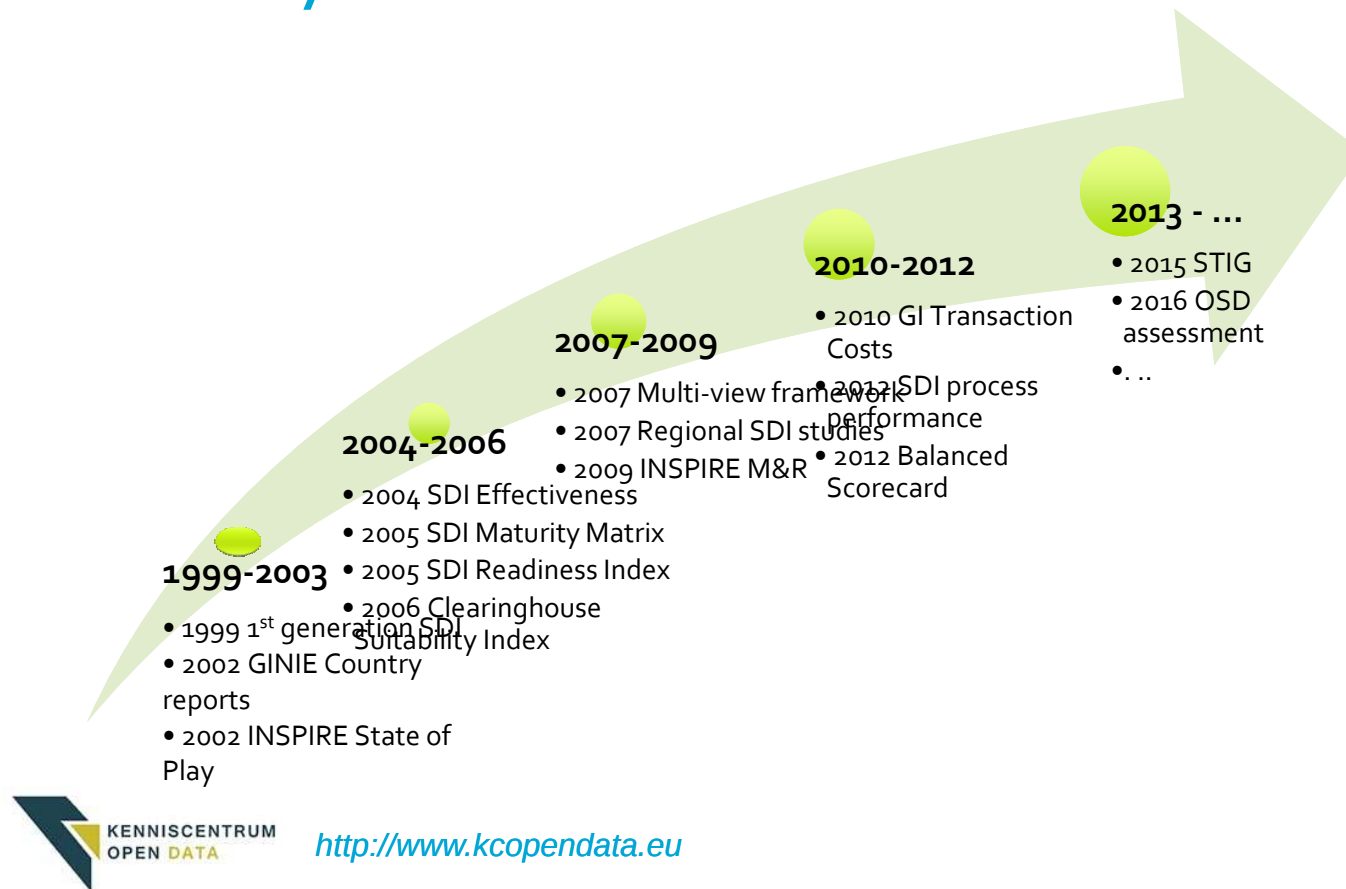
2010-2012

2013 - ...



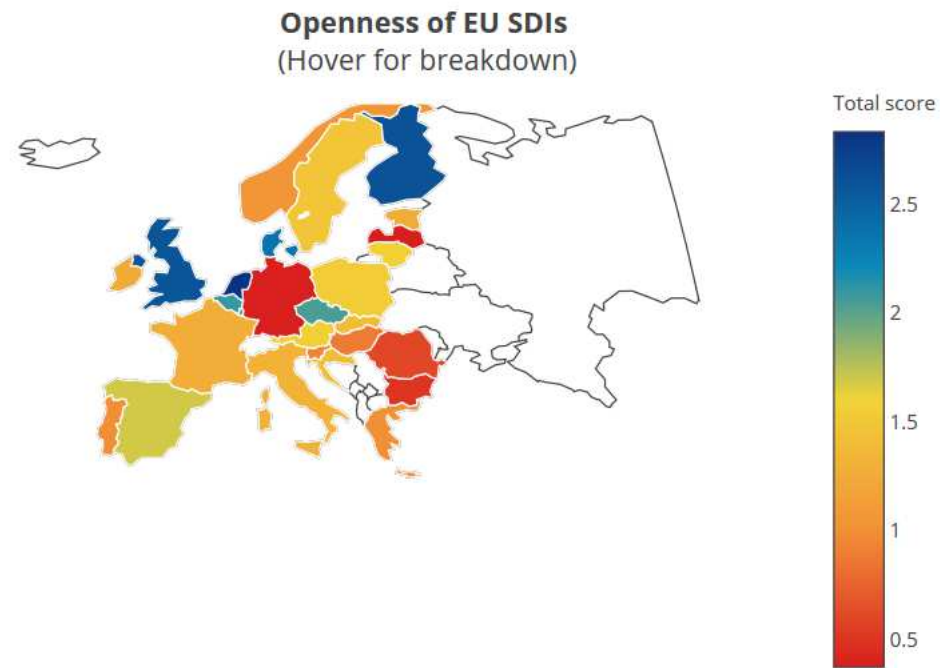
<http://www.kc.opendata.eu>

History of SDI assessment



Towards a Map of Open SDI/INSPIRE

Open SDI – Overview





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AGILE 2018

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 - Best Papers
- Committees**
 - Local Organizing Committee



AGILE conference 2018

The Association of Geographic Information Laboratories in Europe (AGILE) has held annual conferences focused on Geographical Information Science for more than two decades. The 21st AGILE conference will be held in Lund, Sweden on 12-15 June, 2018. The theme of the conference is **Geospatial Technologies for All**.

<http://www.kc.opendata.eu>

Interested?

Let me know @:

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Literature

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- McKinsey Global Institute. 2013. Open Data: Unlocking innovation and performance with liquid information. McKinsey Global Institute, McKinsey Centre for Government, The McKinsey Business Technology Office
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- Welle Donker and Van Loenen (2016). Sustainable Business Models for Public Sector Open Data Providers. *JeDEM* 8(1): 28-61, 2016

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