

# *Presentation metadata*

Open Data Support is funded by the European Commission under SMART 2012/0107 'Lot 2: Provision of services for the Publication, Access and Reuse of Open Public Data across the European Union, through existing open data portals' (Contract No. 30-CE-0530965/00-17).

© 2014 European Commission



# OPEN DATA SUPPORT

Training Module 1.1

# Open Government Data & the PSI Directive

# *Learning objectives*

By the end of this training module you should have an understanding of:

- Open Data, Open Government Data, Linked Data and how these concepts relate;
- Open Government Data, related policies and initiatives;
- The role of the PSI Directive in opening up Government Data.

# Content

This module contains ...

- An introduction to Open Data, Open Government Data and Linked Data;
- Open Government Data policies;
- Case studies with examples of apps and services based on Open Government Data;
- The history, objectives and obligations of the PSI Directive.

# Open Data, Open Government Data Linked Data

*What do these terms mean and how do they relate?*

# What is Open Data?

*“A piece of data or content is open if **anyone is free to use, reuse, and redistribute** it — subject only, at most, to the requirement to attribute and/or share-alike.”*

*--opendefinition.org*

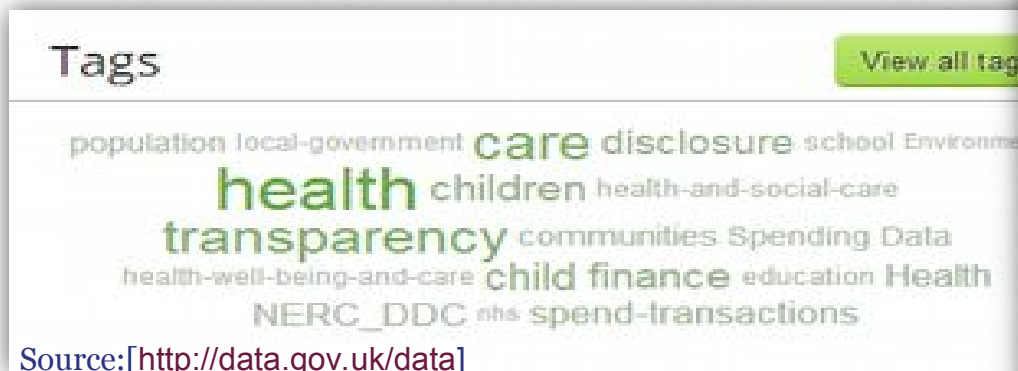
In summary, this means the following:

- **Availability and Access:** the data must be available as a whole and at no more than a reasonable reproduction cost, preferably by downloading over the internet. The data must also be available in a convenient and modifiable form.
- **Reuse and Redistribution:** the data must be provided under terms that permit reuse and redistribution including the intermixing with other datasets.
- **Universal Participation:** everyone must be able to use, reuse and redistribute - there should be no discrimination against fields of endeavour or against persons or groups. For example, ‘non-commercial’ restrictions that would prevent ‘commercial’ use, or restrictions of use for certain purposes (e.g. only in education), are not allowed.

# What is Open Government Data?

Open government data means:

- Data produced or commissioned by government or government controlled entities.
- Data which is open as defined in the Open Definition – that is, it can be freely used, reused and redistributed by anyone.
- Data that is not sensitive or private.



Source: [<http://data.gov.uk/data>]



Source: [<http://publicdata.eu/>]

# What is a dataset

*“A **collection of data**, published or curated by a single agent, and available for access or download in one or more formats.”*

*--Data Catalogue Vocabulary (DCAT) - W3C*

For instance:

- Credit Institutions Register of the European Banking Authority ;
- % of persons employed with ICT user skills;
- ...

# *Expected benefits of Open Government Data*

- 🌐 **Transparency.** Citizens need to know what their government is doing. They need to be able freely to access government data and information and to share that information with other citizens. Sharing and reuse allows analysing and visualising to create more understanding.
- 🌐 **Releasing social and commercial value.** Data is a key resource for social and commercial activities. Government creates or holds a large amount of information. Open government data can help drive the creation of innovative business and services that deliver social and commercial value.
- 🌐 **Participatory governance.** Open Data enables citizens to be much more directly informed and involved in decision-making and facilitation their contribution to the process of governance.
- 🌐 **Reducing government costs.** Open Data enables the sharing of information within governments in machine-readable interoperable formats, hence reducing costs of information exchange and data integration. Governments themselves are the biggest reusers of Open Government Data.



# What is Linked Data?

*“Linked Data is about publishing and connecting structured data on the Web, using standard Web technologies to make the connections readable by computers, enabling data from different sources to be connected and queried allowing for better interpretation and analysis.”*

Tim Berners-Lee outlined four principles of Linked Data:

- Use URIs as names for things.
- Use HTTP URIs so that people can look up those names.
- When someone looks up a URI, provide useful information, using the standards (RDF\*, SPARQL).
- Include links to other URIs, so that they can discover more things.

# Open Government Data and Linked Data

## The five stars of Linked Open Data

- ★ make your stuff available on the Web (whatever format) under an open license<sup>1</sup>
- ★★ make it available as structured data (e.g., Excel instead of image scan of a table)<sup>2</sup>
- ★★★ use non-proprietary formats (e.g., CSV instead of Excel)<sup>3</sup>
- ★★★★ use URIs to denote things, so that people can point at your stuff<sup>4</sup>
- ★★★★★ link your data to other data to provide context<sup>5</sup>

Temperature forecast for Galway, Ireland

Day	Lowest Temperature (°C)
Saturday, 13 November 2010	2
Sunday, 14 November 2010	4
Monday, 15 November 2010	7

A screenshot of an Excel spreadsheet showing the same temperature forecast table as above. The spreadsheet has columns A and B, with the table content starting from row 3.

```
[ "Temperature forecast for Galway, Ireland", "Day", "Lowest Temperature (C)" "Saturday, 13 November 2010", "2" "Sunday, 14 November 2010", "4" "Monday, 15 November 2010", "7"
```

```
<h1 property="dcterms:title">Temperature forecast for Galway, Ireland</h1>
<div id="data" about="#Galway" typeof="meteor:Place">
  <table border="1px">
    <tr>
      <th>Day</th>
      <th>Lowest Temperature (4degC)</th>
    </tr>
    <tr rel="meteor:forecast" resource="#forecast20101113">
      <td>
        <div about="#forecast20101113">
          <span property="meteor:predicted" content="2010-11-13T00:00:00Z"
            datatype="xsd:dateTime">Saturday, 13 November 2010</span>
        </div>
      </td>
      <td rel="meteor:temperature">
        <div about="#temp20101113">
          <span property="meteor:celsius" datatype="xsd:decimal">2</span>
        </div>
      </td>
    </tr>
  </table>
  <div about="#temp">
    Lowest
    <a rel="rdfs:seeAlso" href="https://en.wikipedia.org/wiki/Temperature">
      resource="http://dbpedia.org/resource/Temperature">Temperature</a>
    {<span rel="owl:sameAs"
      resource="http://dbpedia.org/resource/Celsius">4deg:C</span>}
  </div>
</th>
</tr>
</table>
</div>
```

```
<h1 property="dcterms:title">Temperature forecast for Galway, Ireland</h1>
<div id="data" about="#Galway" typeof="meteor:Place">
  <span rel="owl:sameAs" resource="http://dbpedia.org/resource/Galway"></span>
  <table border="1px">
    <tr>
      <th>Day</th>
      <th>
        <div about="#temp">
          Lowest
          <a rel="rdfs:seeAlso" href="https://en.wikipedia.org/wiki/Temperature">
            resource="http://dbpedia.org/resource/Temperature">Temperature</a>
          {<span rel="owl:sameAs"
            resource="http://dbpedia.org/resource/Celsius">4deg:C</span>}
        </div>
      </th>
    </tr>
  </table>
</div>
```

See also:  
<http://www.slideshare.net/OpenDataSupport/introduction-to-linked-data-23402165>



# *Linked (open) government data - value proposition*

- **Flexible data integration:** LOGD facilitates data integration and enables the interconnection of previously disparate government datasets.
- **Increase in data quality:** The increased (re)use of LOGD triggers a growing demand to improve data quality. Through crowd-sourcing and self-service mechanisms, errors are progressively corrected.
- **New services:** The availability of LOGD gives rise to new services offered by the public and/or private sector.
- **Cost reduction:** The reuse of LOGD in e-Government applications leads to considerable cost reductions.

**See also:**

**ISA Study on Business Models for LOGD**

<https://joinup.ec.europa.eu/community/semic/document/study-business-models-linked-open-government-data-bm4logd>

## Group questions



<http://www.visualpharm.com>

Some public agencies are sceptical towards Open Government Data, because opening-up data results in a loss of revenue. How would you deal with this in your country?



<http://www.visualpharm.com>

What are, in your opinion, the expected benefits and pitfalls of Open Government Data?



<http://www.visualpharm.com>

Can you think of possible value-added applications and services based on Open Government Data?

# Take also the online test here

# Open Government Data Policies

# *European Commission Open Data policy*

Focus on generating value through reuse of a specific type of data – public sector information, sometimes also referred to as government data

- Significant potential for reuse in new products and services;
- Addressing societal challenges –discover new and innovative solutions;
- Achieving efficiency gains inside and between public administrations;
- Fostering participation of citizens and increasing transparency of government.

Concrete measures:

- Legal rules, e.g. revised PSI Directive (Directive 2013/37/EU ) and national legislation, and rules on reuse of the Commission's own data (Commission Decision 2011/833/EU);
- Non-legislative measures such as: economic studies, discussion in Member States' expert group, thematic networks and stakeholder outreach activities;
- National/regional/sectoral Open Data Portals.

**See also:**

<https://ec.europa.eu/digital-agenda/en/open-data-o>

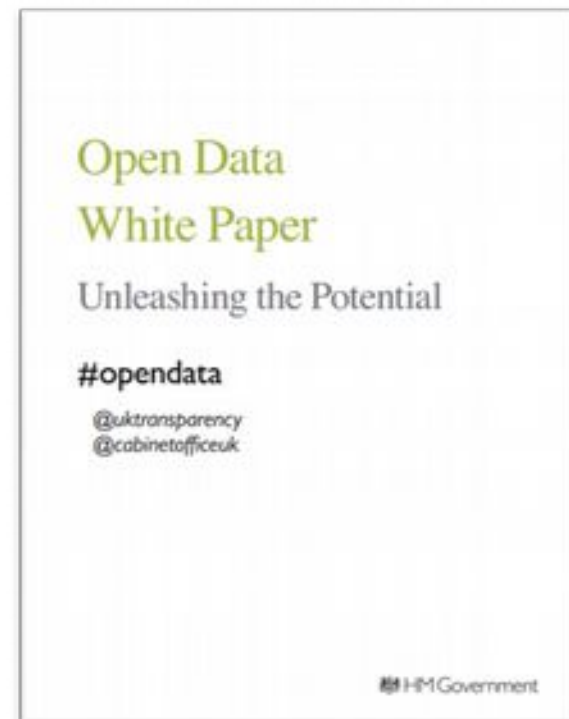
# UK Open Data White Paper: Unleashing the Potential

## Main goals:

- Building a transparent society
- Enhanced access
  - More open data, engaging developers and users, changing culture in the public sector, regulating data, strengthening usability.
- Building trust
  - Open policy making, privacy impact assessment.
- Making smarter use of data
  - Anonymised data, breaking down barriers.

## Case studies at:

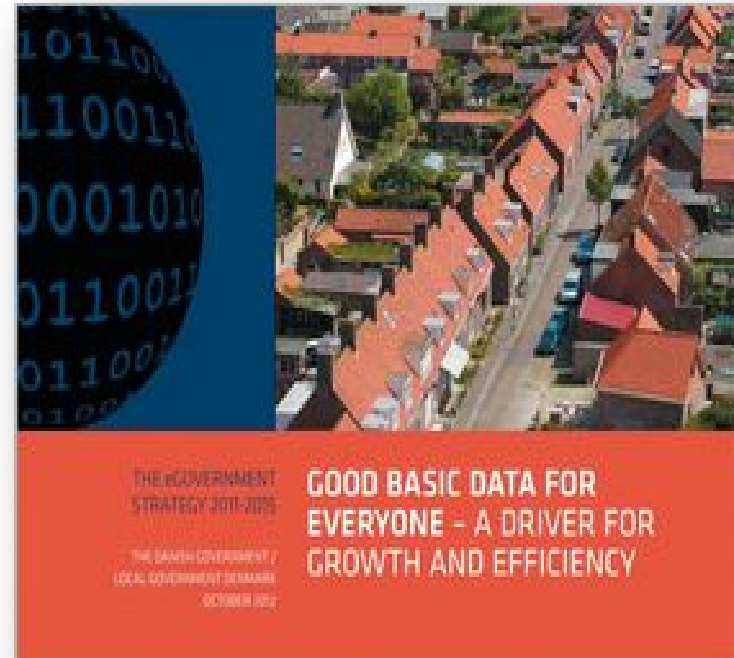
[http://data.gov.uk/search/apachesolr\\_search?filters=type:resource%20tid:11279](http://data.gov.uk/search/apachesolr_search?filters=type:resource%20tid:11279)



# Denmark: Good basic data for everyone

*Public authorities in Denmark register various core information about individuals, businesses, real properties, buildings, addresses, and more. This information, called basic data, is reused throughout the public sector.*

- Public and businesses are provided a better and more efficient service, when data that has already been recorded is shared across institutions and is included directly in case processing.
- Employees in the public sector will be less burdened by repetitive and routine tasks, and this, in turn, will release more resources for increased welfare in e.g. the healthcare and education sectors.
- Open and homogenous reuse of basic data also has great value for the private sector, partly because businesses use this data in their internal processes and, partly, because the information contained in public-sector data can be exploited for entirely new products and solutions, in particular digital ones.





# *US Executive Order - Open and Machine Readable Government Information*

## General principles:

- Openness strengthens democracy, promotes good services to citizens and contributes to economic growth; fuels entrepreneurship, innovation and scientific discovery and contributes to job creation
- Default state for government information resources to be open and machine-readable, managed through life-cycle, promoting interoperability and openness
- Release data in such way that it is easy to find, accessible, and usable
- Ensure safeguarding individual privacy, confidentiality, and national security

# Swedish mission for the further development of *öppndata.se*

The Swedish Agency for Innovation Systems (Vinnova) was commissioned in 2012 to develop a technology platform for the dissemination of data that is made available for re-use (*öppndata.se*) - a portal for innovation.

In order to achieve this objective the platform will provide citizens and businesses with:

- A common service directory for published open data sources;
- An open directory of the services and applications that have been developed using resources from the above catalogue of services; and
- A common development environment for developers.



# *Estonian Open Data Green Book*

- Green Paper on the **disclosure** of Public Sector Information in Estonia in a **machine-readable format**.
- The Green Paper is based on the Government's Action Programme 2011 - 2015
- (In Estonian)



# France open data strategy

*The French government agency Etalab, responsible for open government data, published an overview of priorities and activities for the French government concerning open government data.*

The actions are grouped in the following areas:

- Working on opening up strategic data sets;
- Facilitating and improving the process of opening up public data in ministries, public institutions and local authorities;
- Supporting innovative reuse;;
- Evaluation of existing charging practices;
- Changes in the administrative and legal framework;
- International actions;



The screenshot shows the Etalab website interface. At the top right, the logo 'etalab' is displayed with 'gouv.fr' in smaller text above it. Below the logo, the text reads: 'Service du Premier Ministre chargé de l'ouverture des données publiques et du développement de la plateforme française Open Data.' A navigation bar contains links for 'Qui sommes-nous?', 'Actualités', 'Licence', 'data.gouv.fr', and 'Dataconnexions'. Below the navigation bar is a sign-up form for a newsletter with the label 'Inscription à la newsletter' and a text input field for 'Votre eMail'. The main content area features a date 'Jeudi 28 février 2013' and a red headline: 'La feuille de route du Gouvernement en matière d'ouverture et de partage des données publiques'. Below the headline is a sub-headline: 'L'ouverture des données publiques, liberté publique et levier d'innovation'. The main text discusses the legal basis for open data, mentioning the law n° 78-753 of July 17, 1978, and the principle of public access to administrative documents.

# G8 Charter on Open Data...

*In the charter, the G8 agreed that open data are an untapped resource with huge potential to encourage the building of stronger, more interconnected societies that better meet the needs of our citizens and allow innovation and prosperity to flourish.*

The G8 agreed on the following set of principles:

- Open Data by Default;
- Quality and Quantity;
- Useable by All;
- Releasing Data for Improved Governance; and
- Releasing Data for Innovation.



The G8 Open Data Charter has been transposed in the Open Data Action Plans of the following EU MSs:

- [FR – Open Data Action Plan](#)
- [IT – Open Data Action Plan](#)
- [UK – G8 Open Data Charter: UK Action Plan 2013](#)

and the European Commission:

- [EU – Implementation of the G8 Open Data Charter](#)

## Group questions



<http://www.visualpharm.com>

Do you have an Open Data policy in your country? If so, what does it foresee?



<http://www.visualpharm.com>

Some national and local administrations, like the city of New York, are adopting “Open by Default” policies. What is your stand towards this approach?

**Take also the online test here**

# Case studies

*The examples that follow are a small selection of indicative applications built, products offered and services provided on the basis of Open Data.*



# Belgium: Where's my Villo

## Crowd-sourced service monitoring

Where's My Villo? uses real-time data to track the performance of Brussels' bike-sharing scheme, Villo!, a public-private partnership.

The site allows users to report on availability of bikes. The site then presents the empirical evidence that leads to improved services.

It uses open government data (location of bike stations) and adds crowd-sourcing for quality monitoring and feedback to the city council.

**ABOUT** | **HELP** | **SHARE**

**REPORT PROBLEM**

**WORST STATIONS FOR FINDING A BIKE**

VILLO! STATION NAME	%
ANNOIR	96
AEROPOLIS/AEROPOLIS	77
ARTS-LO / KUNST WET	63
ETIENNE	57
LIBERTE	55
HOSPITAL FRANCAIS/HOSPITAL	54
DE PANDRA	53
DESOLY	53
COLONEL BOURG/COLONEL BOURG	50
DUC PETALANDUC PETALS	48

**WORST STATIONS FOR PARKING**

VILLO! STATION NAME	%
CUREGHEM / KUREGHEM	79
SQUARE ALBERT I / ALBERT I SQUARE	68
THEO LAMBERT	65
MARION COMMUNALE / GEMEDENTHUIS	63
WOLSTE/WOLSTE	57
GRAY/GRAY	56
CLOVIS / CLOVIS	55
ETANGS / VUVERS	55
ETANGS NORD/DWARTE VUVERS	54
PARVIS ET ANTOINET/ANTONIAUS VOORPLEIN	52

<http://blog.okfn.org/2010/10/29/open-data-in-public-private-partnerships-how-citizens-can-become-true-watchdogs/>



# Denmark: Danish Enterprise and Construction Authority

Growth and increased revenue from opening up government data

The Danish Enterprise and Construction Authority (DECA) opened up its data in 2002.

The number of reusers went up by 10,000% leading to a reuse market growth of 1,000% over eight years.

The additional tax revenue for the government was estimated to be 4 times the reduction in income from fees.



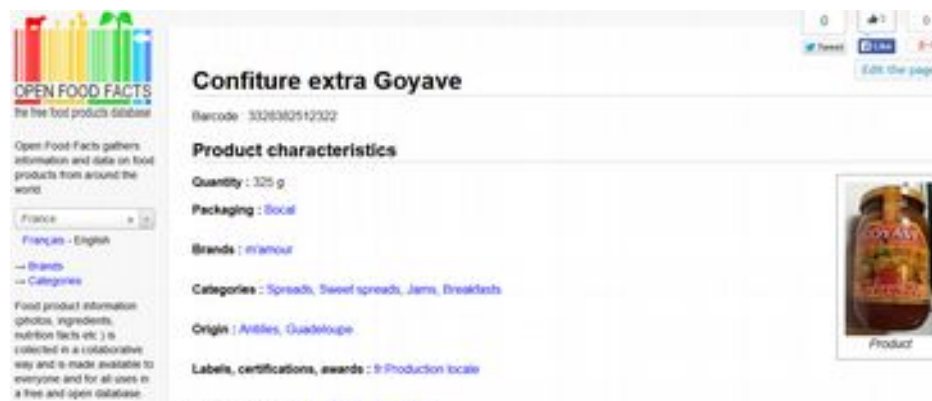
<http://dba.erhvervsstyrelsen.dk/>

# France: Open Food Facts

## Opening up nutritional food information

Open Food Facts France collects data about nutritional products sold all over the world in a collaborative way, for instance by enabling the users to scan a product with an app on their smart phone.

All information collected is subsequently made openly and freely available .



The screenshot displays the Open Food Facts website interface. On the left, there is a sidebar with the 'OPEN FOOD FACTS' logo and a description: 'Open Food Facts gathers information and data on food products from around the world.' Below this, there are navigation options for 'France', 'Français - English', 'Brands', and 'Categories'. The main content area shows the product 'Confiture extra Goyave' with a barcode (3328380512322) and a 'Product characteristics' section. This section includes 'Quantity : 325 g', 'Packaging : Social', 'Brands : miamout', 'Categories : Spreads, Sweet spreads, Jams, Breakfasts', 'Origin : Antilles, Guadeloupe', and 'Labels, certifications, awards : 0-Production locale'. A small image of the product is shown on the right side of the page.

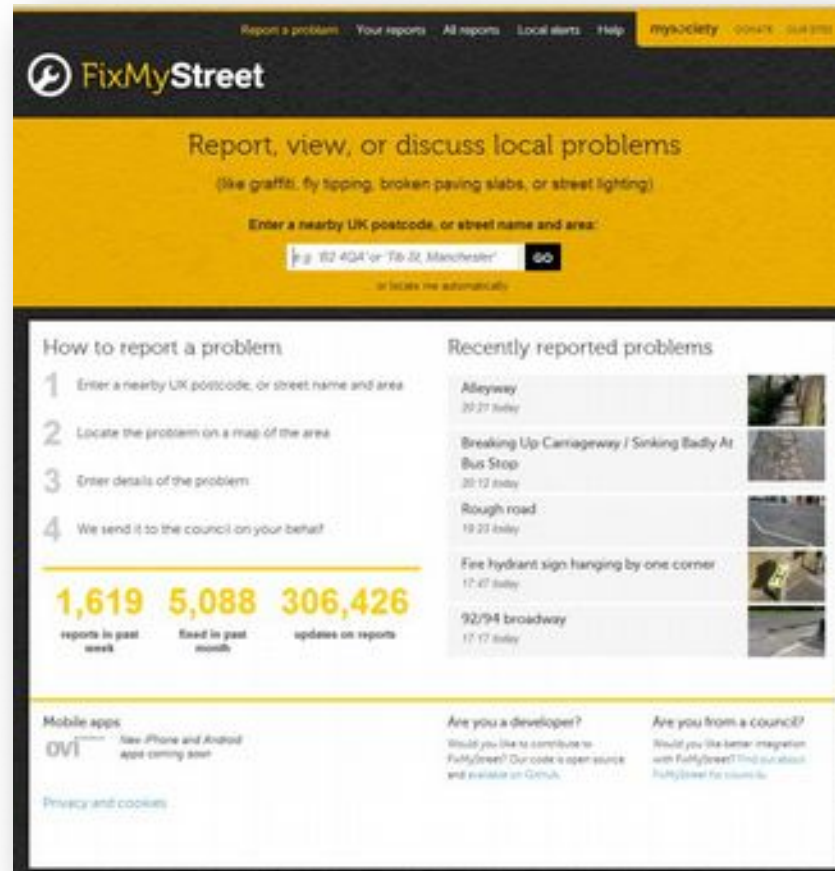


## UK: FixMyStreet

Crowd-sourced problem reporting

FixMyStreet is a site to help people report, view, or discuss local problems they have found to their local council by simply locating them on a map.

The site was built by mySociety, a project of a registered charity which has grown out of a community of volunteers, and uses maps from the UK Ordnance Service.



The screenshot shows the FixMyStreet website homepage. At the top, there is a navigation bar with links for 'Report a problem', 'Your reports', 'All reports', 'Local alerts', and 'Help'. The mySociety logo and contact information are also present. The main heading is 'Report, view, or discuss local problems' with examples like graffiti, fly tipping, broken paving slabs, or street lighting. Below this is a search bar where users can enter a nearby UK postcode or street name and area, with an example 'e.g. M2 4Q4 or 'The 22, Manchester'' and a 'GO' button. A secondary option 'or locate me automatically' is also visible. The page is divided into two main columns. The left column, 'How to report a problem', lists four steps: 1. Enter a nearby UK postcode, or street name and area; 2. Locate the problem on a map of the area; 3. Enter details of the problem; 4. We send it to the council on your behalf. Below this is a statistics section showing '1,619 reports in past week', '5,088 fixed in past month', and '306,426 updates on reports'. The right column, 'Recently reported problems', lists several issues with photos and dates: 'Alleyway' (20:27 today), 'Breaking Up Carriageway / Sinking Badly At Bus Stop' (20:12 today), 'Rough road' (19:23 today), 'Fire hydrant sign hanging by one corner' (17:47 today), and '92/94 Broadway' (17:17 today). At the bottom, there are links for 'Mobile apps' (OVI for iPhone and Android), 'Are you a developer?' (contributing to the open-source code on GitHub), and 'Are you from a council?' (seeking better integration with FixMyStreet). A 'Privacy and cookies' link is also present.

<http://www.fixmystreet.com/>

# UK: UK Pharmacy

## User-driven services from government

UK Pharmacy helps people in the UK find their nearest pharmacy via their Smartphone.

They can search for a pharmacy/chemist using their phone's built-in GPS or via a place name or postcode search.



<http://www.data.gov.uk/apps/uk-pharmacy>



# Europe: It's Your Parliament

Open democracy

It's your parliament gives citizens a unique overview of the votes cast in the European Parliament.

Citizens can find and compare voting records of members of the European Parliament (MEPs) and political groups, make your own comments and cast their own "votes".

**Members of Parliament**  
It's Your Parliament .eu

**It's Your Parliament**  
This website gives you an unique overview of the votes cast in the European Parliament. You can easily find and compare voting records of members of the European Parliament (MEPs) and political groups and you can make your own comments and cast your own votes.

**New of the site**

- 26/10/2011: Luke Bergman made a time-simulation of the voting in the EP using data from our API.
- 26/07/2011: Next plenary session starts Monday, 12 September 2011.
- 27/06/2011: We've made an analysis to position MEPs in political space according to their voting in the parliament. See it here.
- 27/06/2011: Today it is two years since the EP election. 1012 MEPs voted. Has been lost since then.
- 11/06/2011: Our first small project based on the an API for EU legislation is a visualization of EU legislation in time.
- 26/05/2011: We have launched an API for EU legislation.
- 25/03/2011: We are working on some improvements to this parliament.eu and its API. You are welcome to send us your suggestions and ideas for new features.
- 03/02/2011: After one year with the Services Commissioner who is the most liked within Commission? Look here!
- 26/11/2010: Holmström has made an interactive analysis of the voting behaviour in the EP based on our API.

**Most popular MEPs** | **Least popular MEPs**

MEP	Classification
Christian Engdalen, Sweden	126/542
George Linn, United Kingdom	For 12
Jensmann Pallas, Slovakia	40/7
Jill Evans, United Kingdom	26/12
Christina Lindh, Sweden	40/18

**Most popular votes** | **Least popular votes**

Vote of vote	For/against
Resolution on the transparency and state of play of the anti-counterfeiting Trade Agreement (ACTA) negotiations	16/14
Future of the CAP after 2013	7/11
Resolution on Burma	5/0
2008 discharge: EU general budget, Council	4/0
Equality between women and men in the European Union – 2009	2/0
Combating illegal fishing at the global level - the role of the EU	3/0

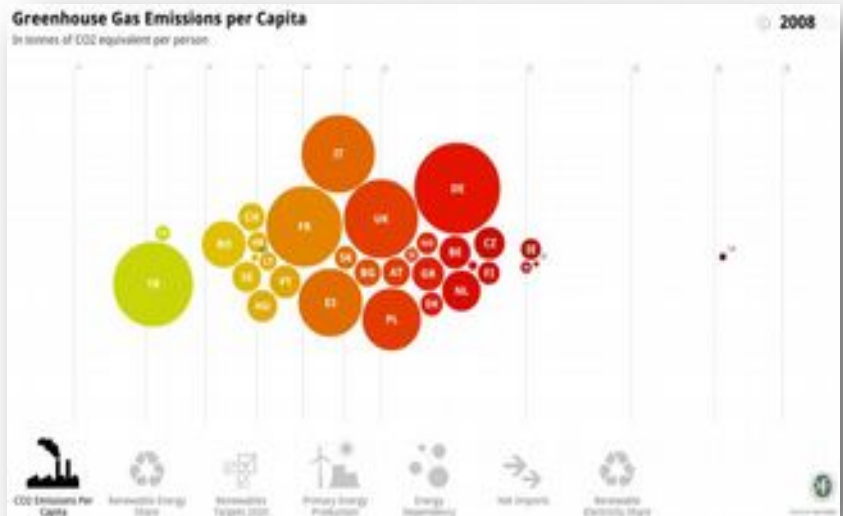
<http://www.itsyourparliament.eu/>

# Europe: Europe's energy

## Community-driven visualisations

Europe's energy combines data from Eurostat and other agencies to produce graphics which visualise Europe's commitments to reduce energy consumption by consumption by 20% and increase the share of renewables in the energy mix to 20% by 2020.

The app puts these targets into context and helps users to compare how progress is being made towards them in different countries.



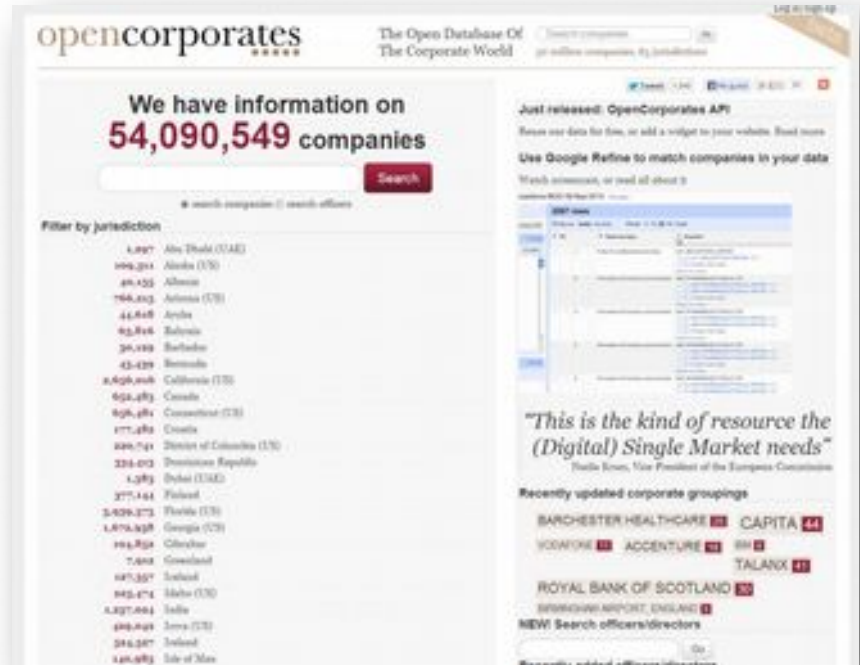
<http://energy.publicdata.eu/ee/vis.html>

# Global: OpenCorporates

## Non-profit business information

OpenCorporates is a database of companies. It aims to have a unique identifier in the form a HTTP URI for every company in the world.

OpenCorporates has grown from 3 territories and a few million companies to over 30 territories and over 54 million companies, and is working with the open data community to add more each week.



<http://opencorporates.com/>



# The Linked Government Data Pilots of ISA

<http://health.testproject.eu/PPP/>

<http://maritime.testproject.eu/CISE/>

<http://cpsv.testproject.eu/CPSV/>

PORT

Slide 33

# The PSI Directive

*2013/37/EU of the European Parliament and of the Council  
26 June 2013 amending Directive 2003/98/EC on the re-use of  
Public Sector Information*

# *PSI Directive: history and status*

- Directive 2003/98/EC on the reuse of Public Sector Information.
- By 2008, all Member States had reported implementation of the obligations under the Directive in national legislation.  
<https://ec.europa.eu/digital-agenda/en/implementation-public-sector-information-directive-member-states>
- Revision of Directive: Proposal COM(2011)877 and public consultation in 2010.
- Endorsement and publication of Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the reuse of Public Sector Information.
- Member States are obliged to implement the new Directive in two years – there will be a gradual adoption of the new obligations.

# *PSI Directive: objectives*

Revised PSI **Directive 2013/37/EU** of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC **on the reuse of public sector information.**

Main objectives:

- to **stimulate** the further **development** of a European market for services based on Public Sector Information;
- to **enhance** the cross-border **use** and **application** of PSI in business processes, including publishing;
- to **strengthen competition** in the internal market;
- to **address divergence** as to reuse rules between Member States.

The Directive allows Member States to implement measures going beyond its minimum standards, thus allowing for more extensive reuse.

# *PSI Directive: obligations*

## ***Public sector bodies have to:***

- Make information re-usable for commercial or non-commercial purposes under non-discriminatory conditions.
- Process requests and provide access within 20 days (or 40 if request is complex); justify negative decision and inform about how to appeal.
- Charge no more than cost of reproduction, provision and dissemination; publicise charges and indicate calculation basis on request.
- Publish licences in digital format.
- Facilitate search for information preferably online (e.g. portal).

## ***Public sector bodies may not:***

- Unnecessarily restrict reuse.
- Grant exclusive rights, unless necessary, subject to review every 3 years.

## ***Public sector bodies do not have to:***

- Make information available that is excluded by virtue of access regimes in the Member States
- Adapt formats or provide translations.

### ***Note:***

While libraries, museums and archives are included in the revised Directive, they will be subject to a different regime for reuse and charging.

# *Opening up Public Sector Information*

How does the revised PSI Directive encourage openness?

- Sets minimum rules across the EU for availability of information produced by public sector and government agencies.
- Specifies rights for people and organisations that want to reuse the information.
- Recommends distribution by electronic means.

But:

- Does not mandate information to be available free of charge (marginal cost of reproduction, provision and dissemination may be charged).
- Allows some public sector organisations to charge in order to cover cost (e.g. special arrangements for cultural heritage organisations).

# Conclusions

- Open Government Data can:
  - improve government transparency and accountability;
  - release social and commercial value;
  - enable participatory governance; and
  - reduce government costs.
- The revised PSI directive requires:
  - information to be made openly available at (max) marginal costs as a default rule;
  - information and metadata to be made available in machine-readable and interoperable data formats (wherever possible); and
  - all legally public documents to be re-usable for commercial or non-commercial purposes.

**Thank you!**  
**...and now YOUR question**



# *This presentation has been created by Open Data Support*

## **Disclaimers**

1. The views expressed in this presentation are purely those of the authors and may not, in any circumstances, be interpreted as stating an official position of the European Commission. The European Commission does not guarantee the accuracy of the information included in this presentation, nor does it accept any responsibility for any use thereof. Reference herein to any specific products, specifications, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favouring by the European Commission. All care has been taken by the author to ensure that s/he has obtained, where necessary, permission to use any parts of manuscripts including illustrations, maps, and graphs, on which intellectual property rights already exist from the titular holder(s) of such rights or from her/his or their legal representative.
2. This presentation has been carefully compiled by PwC, but no representation is made or warranty given (either express or implied) as to the completeness or accuracy of the information it contains. PwC is not liable for the information in this presentation or any decision or consequence based on the use of it. PwC will not be liable for any damages arising from the use of the information contained in this presentation. The information contained in this presentation is of a general nature and is solely for guidance on matters of general interest. This presentation is not a substitute for professional advice on any particular matter. No reader should act on the basis of any matter contained in this publication without considering appropriate professional advice.

Authors:

Maxx Dekkers, Nikolaos Loutas, Michiel De Keyzer and Stijn Goedertier

# References

Slide 6:

- Open Knowledge Foundation. Open Definition. <http://opendefinition.org/>
- Open Knowledge Foundation. Open Data Handbook. What is Open Data? <http://opendatahandbook.org/en/what-is-open-data/>

Slide 7:

- Open Knowledge Foundation. Open Government Data. <http://opengovernmentdata.org/>

Slide 9:

- Tim Berners-Lee, W3C. Linked Data. <http://www.w3.org/DesignIssues/LinkedData>

Slide 10:

- 5 ★ Open Data. <http://5stardata.info/>
- EPSIplatform. What is Linked Open Government Data? <http://epsiplatform.eu/content/what-linked-open-government-data>

Slide 11

- Study on business models for Linked Open Government Data. <https://joinup.ec.europa.eu/node/72473>

Slide 14:

- European Commission. Digital Agenda for Europe, a Europe 2020 Initiative. Open Data. <http://ec.europa.eu/digital-agenda/en/public-sector-information-raw-data-new-services-and-products>
- Open Knowledge Foundation. European Commission launches Open Data Strategy for Europe. <http://blog.okfn.org/2011/12/12/european-commission-launches-open-data-strategy-for-europe/>
- Europa. Press releases RAPID. Digital Agenda: Commission's Open Data Strategy, Questions & answers. [http://europa.eu/rapid/press-release\\_MEMO-11-891\\_en.htm?locale=en&enropean-commission-launches-open-data-strategy-for-europe/](http://europa.eu/rapid/press-release_MEMO-11-891_en.htm?locale=en&enropean-commission-launches-open-data-strategy-for-europe/)
- European Commission. Digital Agenda for Europe. Open Data. <https://ec.europa.eu/digital-agenda/en/open-data-o>
- European Commission COMMISSION DECISION of 12 December 2011 on the reuse of Commission documents (2011/833/EU) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:330:0039:0042:EN:PDF>

Slide 15:

- (UK) HM Government. Open Data White Paper. Unleashing the Potential. [http://data.gov.uk/sites/default/files/Open\\_data\\_White\\_Paper.pdf](http://data.gov.uk/sites/default/files/Open_data_White_Paper.pdf).

Slide 16:

- (DK) Basic public data for everyone, <http://uk.fm.dk/publications/2012/good-basic-data-for-everyone/>

Slide 17:

- US White House. Executive Order -- Making Open and Machine Readable the New Default for Government Information. <http://www.whitehouse.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government->

Slide 18:

City of New York "Open by Default" policy. [http://nycopendata.pediacities.com/wiki/index.php/Local\\_Law\\_11\\_of\\_2012](http://nycopendata.pediacities.com/wiki/index.php/Local_Law_11_of_2012)

Slide 21

EPSIplatform. France Outlines Open Data Strategy. <http://www.epsiplatform.eu/content/france-outlines-open-data-strategy>

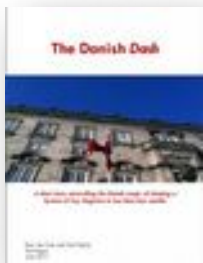
Slide 22

G8 Open Data Charter and Technical Annex. <https://www.gov.uk/government/publications/open-data-charter/g8-open-data-charter-and-technical-annex>

Slides 34-39:

- EPSIplatform. Quick Guide to the PSI Directive. Fact sheet Version May 2010. [http://epsiplatform.eu/sites/default/files/Quick%20Guide%20to%20the%20PSI%20Directive\\_MdV\\_2.pdf](http://epsiplatform.eu/sites/default/files/Quick%20Guide%20to%20the%20PSI%20Directive_MdV_2.pdf)
- European Commission. Digital Agenda for Europe. Implementation of the Public Sector Information Directive. <https://ec.europa.eu/digital-agenda/en/implementation-public-sector-information-directive-member-states>
- European Commission. Information Society. Revision of the PSI Directive. [http://ec.europa.eu/information\\_society/policy/psi/revision\\_directive/index\\_en.htm](http://ec.europa.eu/information_society/policy/psi/revision_directive/index_en.htm)
- European Commission. Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/98/EC on the reuse of public sector information. COM(2011)877. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0877:FIN:EN:PDF>
- EPSIplatform. Public Consultation on PSI Directive Review. <http://epsiplatform.eu/content/public-consultation-psi-directive-review>
- Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the reuse of public sector information. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:175:0001:0008:EN:PDF>

## *Further reading (1/2)*



The Danish Dash - A short story unravelling the Danish magic of shaping a System of Key Registers in less than nine months

<http://thegreenland.eu/2013/07/danis-dash/>



UK Government, Market assessment of public sector information

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/198905/bis-13-743-market-assessment-of-public-sector-information.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198905/bis-13-743-market-assessment-of-public-sector-information.pdf)



UK Government, Shakespeare Review - An Independent Review of Public Sector Information

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/198905/bis-13-743-market-assessment-of-public-sector-information.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198905/bis-13-743-market-assessment-of-public-sector-information.pdf)

## Further reading (2/2)



UK Cabinet Office, G8 Open Data Charter and Technical Annex

<https://www.gov.uk/government/publications/open-data-charter/g8-open-data-charter-and-technical-annex>



Semantic Web Company, Open Government Data Weissbuch

[http://issuu.com/semwebcomp/docs/ogd\\_weissbuch\\_2011\\_web](http://issuu.com/semwebcomp/docs/ogd_weissbuch_2011_web)



Spending Data Handbook, OpenSpending

<http://content.openspending.org/resources/handbook/spending-data-handbook.pdf>



The Open Data Handbook, Open Knowledge Foundation

<http://opendatahandbook.org/>

## *Related projects and initiatives*



The Open Data Institute, <http://www.theodi.org/>



The Open Knowledge Foundation, <http://okfn.org/>



Engage FP7 ICT project, <http://www.engagedata.eu/>



The European Public Sector Information Platform,  
<http://epsiplatform.eu/>



W3C eGov IG, [http://www.w3.org/egov/wiki/Main\\_Page](http://www.w3.org/egov/wiki/Main_Page)



HOMER project, <http://www.homerproject.eu/>



World Wide Web Foundation, <http://www.webfoundation.org/>



The World Bank Open Data, <http://data.worldbank.org/>



# *Be part of our team...*

## *Find us on*



Open Data Support

<http://www.slideshare.net/OpenDataSupport>



Open Data Support

<http://goo.gl/y9ZZI>

## *Follow us*



@OpenDataSupport

## *Join us on*



joinup

<http://www.opendatasupport.eu>

## *Contact us*

[contact@opendatasupport.eu](mailto:contact@opendatasupport.eu)