



Open Data and Sustainability

November, 2013 · **ulrich atz** · @statshero





Sir Tim Berners-Lee, inventor of the web, tweeting from middle of the 2012 Olympics

Vague but exciting ...

CERN DD/OC

Tim Berners-Lee, CERN/DD

Information Management: A Proposal

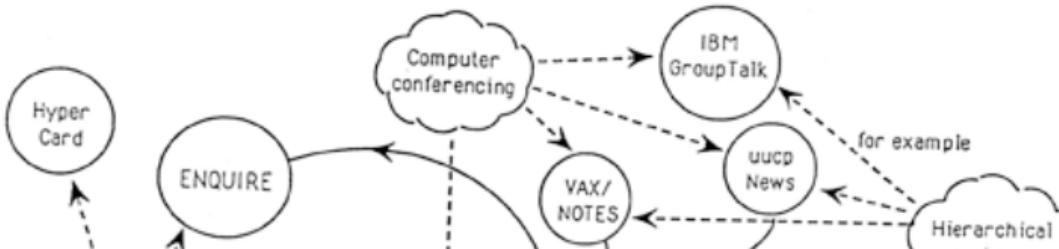
March 1989

Information Management: A Proposal

Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control



Open data can help us address
the greatest challenges of our time
and generate value for everyone.

Open Data Institute 2012



“a new era in which people can use open data to generate insights, ideas, and services to create a better world for all”

G8 Open Data Charter 2013



“Data is the New Oil”

But data is not oil!

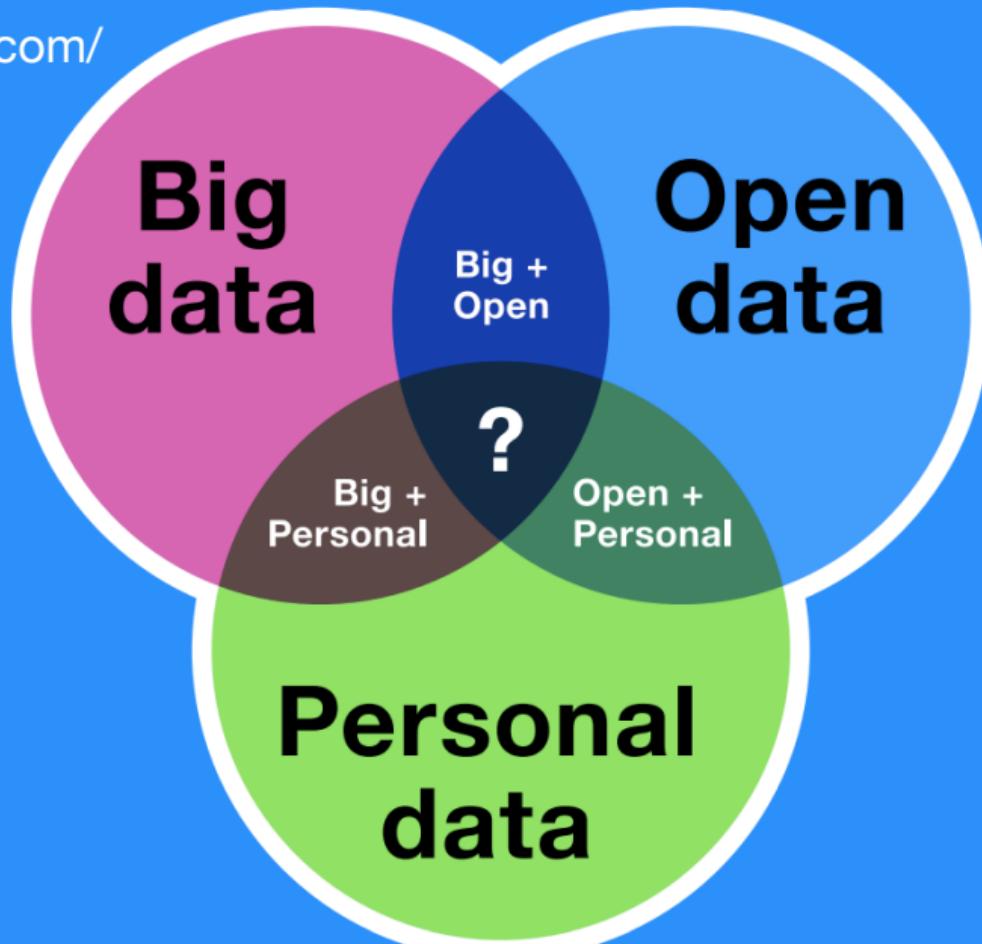


More like a goldmine...



<http://www.flickr.com/photos/48806909@N00/497511638/>

[https://github.com/
theodi/data-definitions](https://github.com/theodi/data-definitions)



Overview for the reminder

1. What is the ODI?
2. Open data and sustainability
3. What you can do for sustainability!





What is the ODI?



Sir Tim Berners-Lee



Sir Nigel Shadbolt



Gavin Starks CEO

18+ years startup experience

20+ years science, web, media, and data



Jeni Tennison CTO

World-leader in open data and linked data
W3C, legislation.gov.uk and data.gov.uk



Stuart Coleman VP Market Dev.

15+ years in commercial tech space

Formerly HP, CA, and AMEE

We are convening a community



10 Startups

MASTODON C



BIG DATA DONE BETTER

opencorporates

 Locatable

**CARBON
CULTURE**
Join in, team up, make a difference


Honest Buildings


powering change and innovation in transport



PROVIDING A NICE

Spend Network

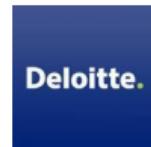




50 Members



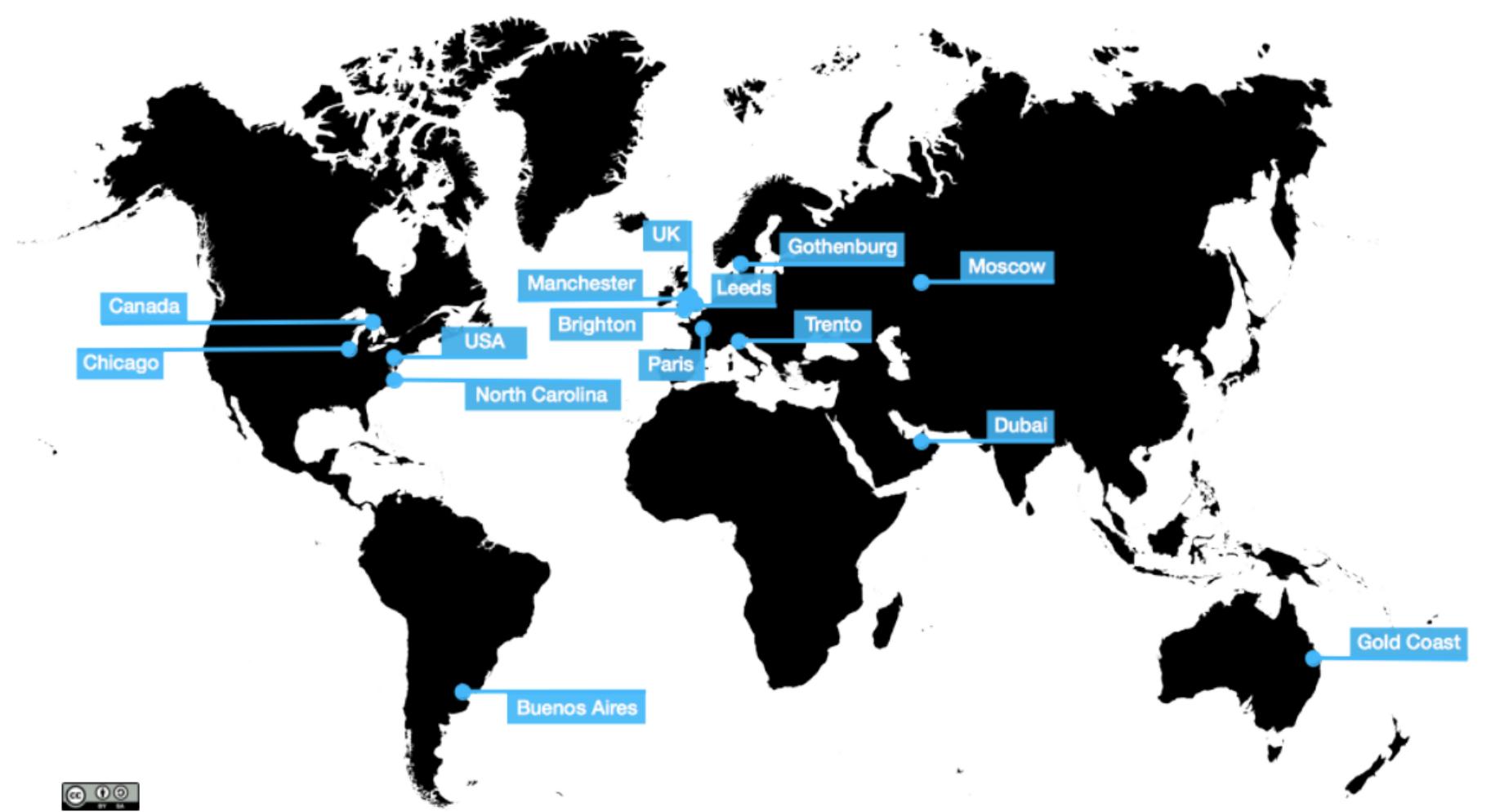
ARUP



:snips

10C
Open

Cogent
analytics



ODI Nodes

ODI Nodes connect the organisations that support open data projects and people



Businesses + Universities + NGOs



=



Supporting local, national and international impact



City or Region Node
Deliver projects, training,
research, and development



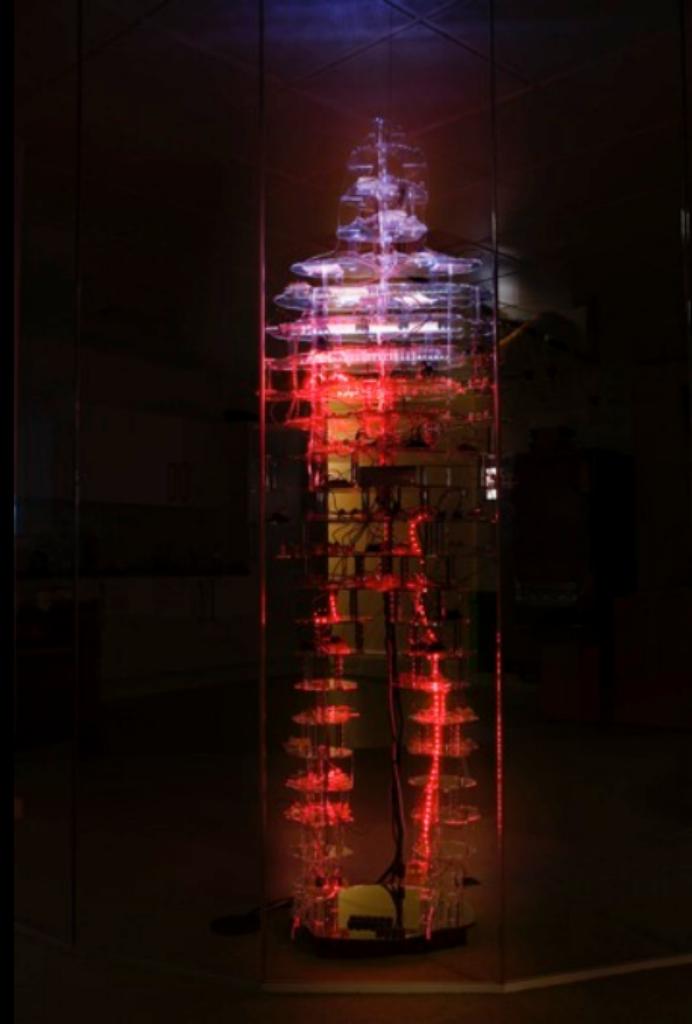
Country Node
Country-lead, close to
government,
independent



Communications Node
Amplify use-cases to,
and from, around the
world



data as culture



Stanza: Body 01000010011011110110010001111001

Groß and Clerc: Metrography



A collaboration with the World Bank



THE WORLD BANK
Working for a World Free of Poverty

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News

This page in: [English](#)

PRESS RELEASE

New Partnership Seeks to Bring Benefits of Open Data to Developing Countries





9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

January 2010

<http://vimeo.com/9182869>

OpenStreetMap

CC-by-SA www.itoworld.com

Map data www.openstreetmap.org 31 Jan 2010

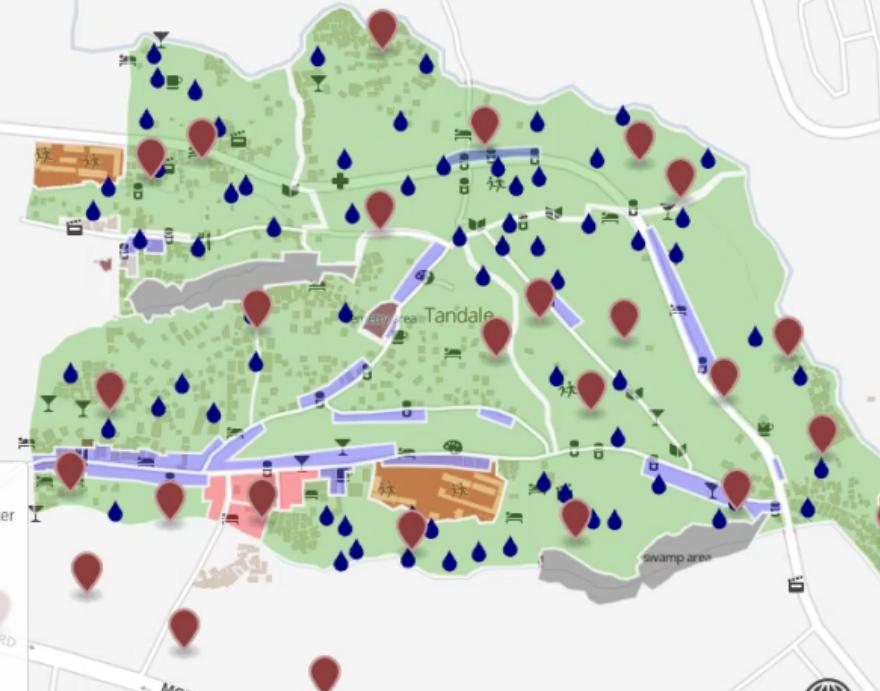


III

Open Mapping in Tandale

-

+



Residents of Tandale, an informal settlement Mwananyamala in Dar es Salaam, Tanzania, used OpenStreetMap to identify key local features, and are now sharing geo-located reports on Ushahidi and a blog in order to influence local development and share a community voice.

- Points of Interest
- Wells, towers and drinking water
- Local Ushahidi reports
- Residential
- Retail
- Commercial
- Landfill
- Recreation ground

GroundTruth Initiative



SUSTAINABILITY



“Sustainability” mentioned in forest management in 1761



Economic

“Without money, there is no sustainability.”

Beyond Transparency 2013

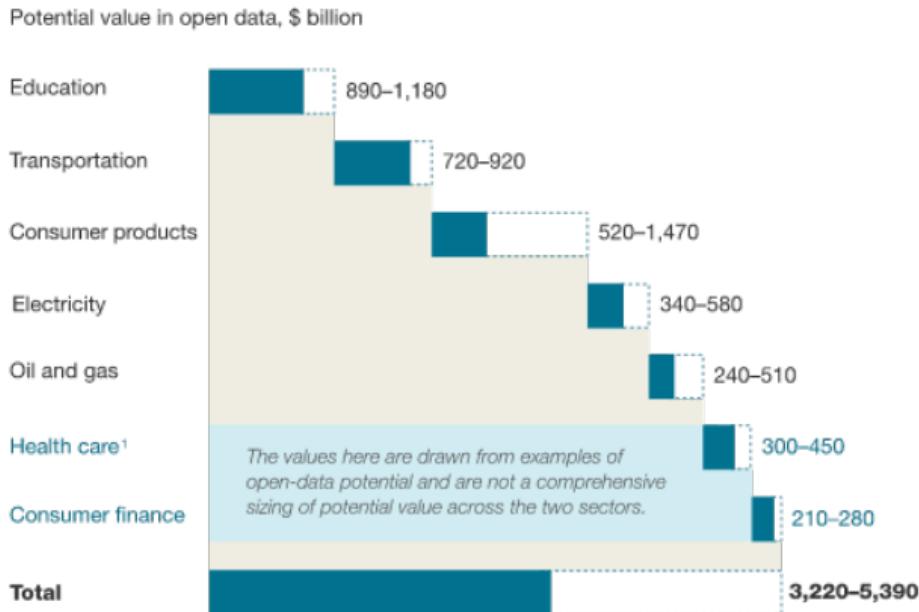




Open data can help unlock \$3-5 trillion in economic value annually across seven sectors.

Open data: Unlocking innovation and performance with liquid information

McKinsey Global Institute



¹Includes US values only.

Source: McKinsey Global Institute analysis



The Climate Corporation: sold for \$1.1bn in October 2013

CLIMATE | BASIC

Better Data. Better Decisions.

The most advanced way to get insight into your fields.



Weather



Tracker



Alerts



Scouting & Notes

[LEARN MORE >>](#)



Social

“What happens to cities that do not become smart? They will die.”

*Kevin Ashton (*Internet of Things*)*





Analysing the impact of fire station closures
using open data



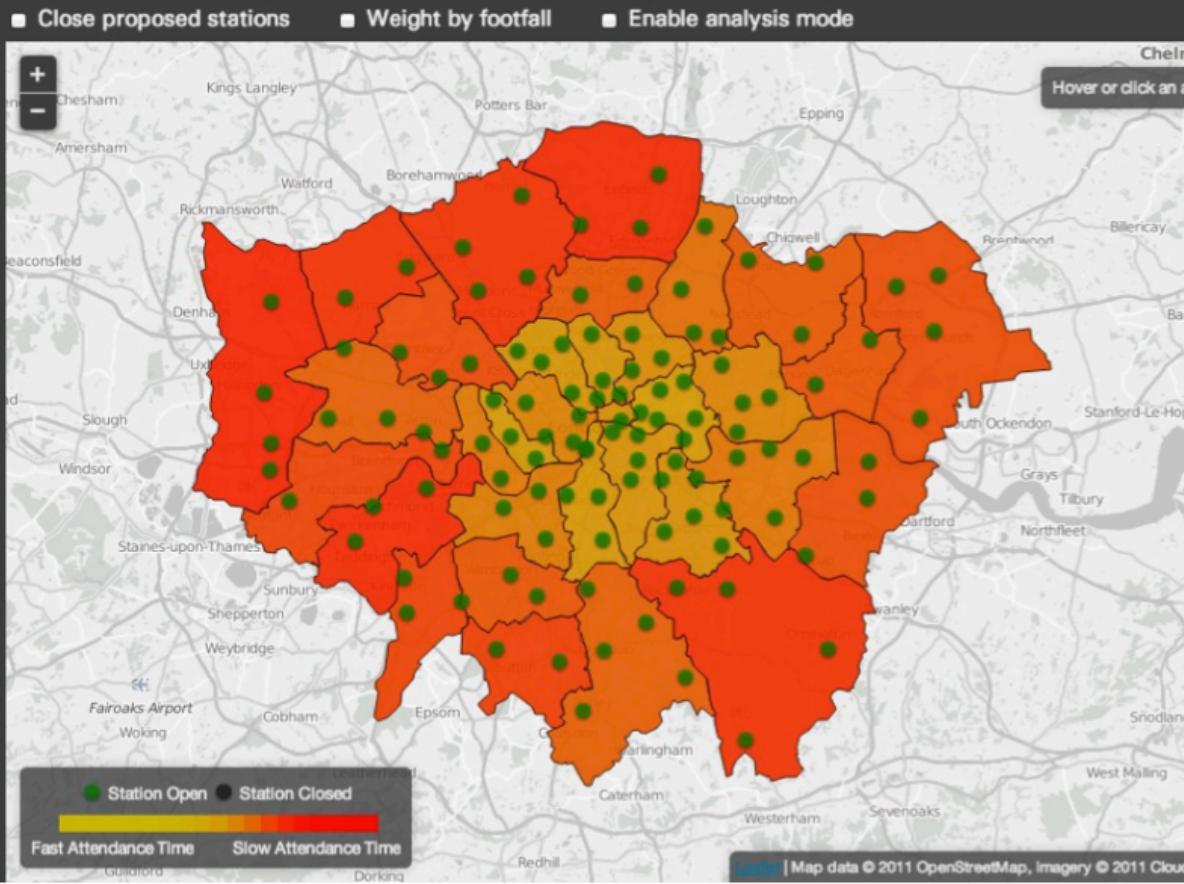
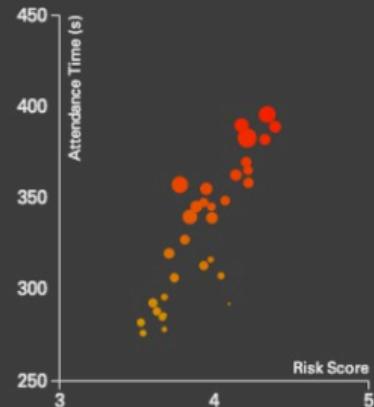
David Tarrant, UKODI, @davetaz

Combining public and private open data

London

Average attendance time:

5m34s



Close proposed stations Weight by footfall Enable analysis mode

London

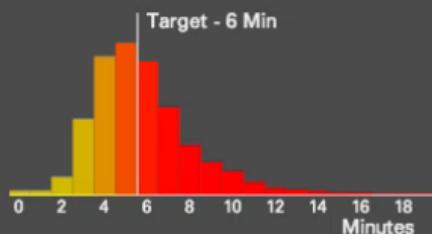
Average attendance time:

5m34s

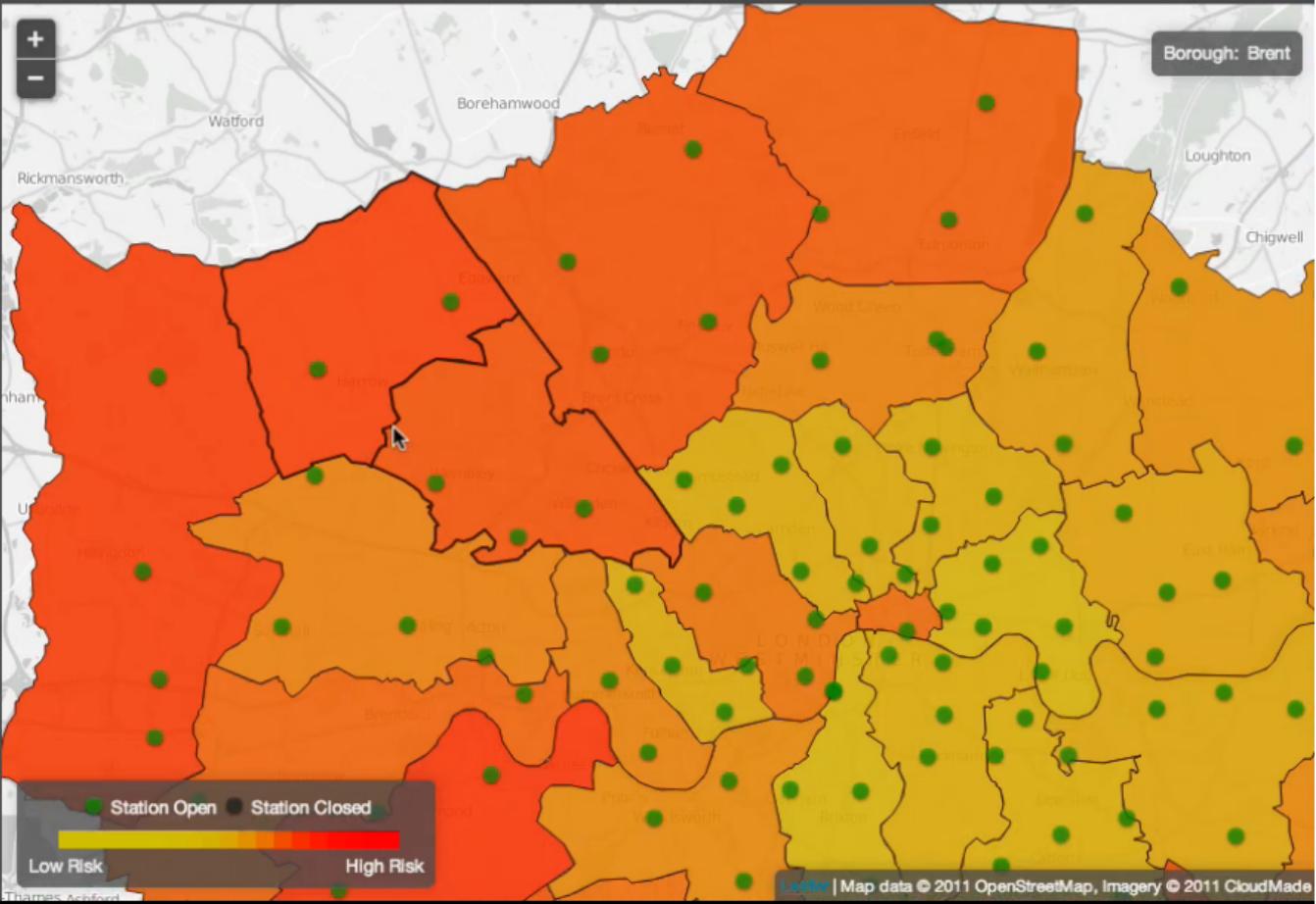
Harrow

Average attendance time:

6m22s



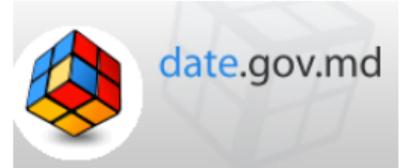
[Back to overview](#)



Initiatives in developing countries

Some ICT stats from 2013:

- Mobile-cellular penetration at 89% in developing countries.
- In the developing world, 31% of the population is online.
- In developing countries, the number of mobile broadband subscriptions reached 1.16bn (472m in 2011).



Environmental

“I got it wrong on climate change
– it's far, far worse.”

Nicholas Stern



Measuring carbon

Demand Logic and King's College energy savings of £390,000 per year; carbon savings of 2500 t/y

San Francisco: carbon footprint of benchmarked facilities decreased 5.1% since 2011, cost savings of \$450,000



Nike Materials Sustainability Index

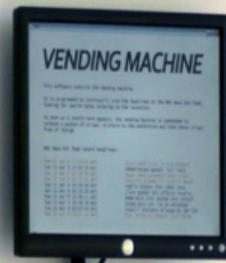


WeatherSafe: climate warning for coffee farmers in Rwanda



Open data and climate change: What can you do?





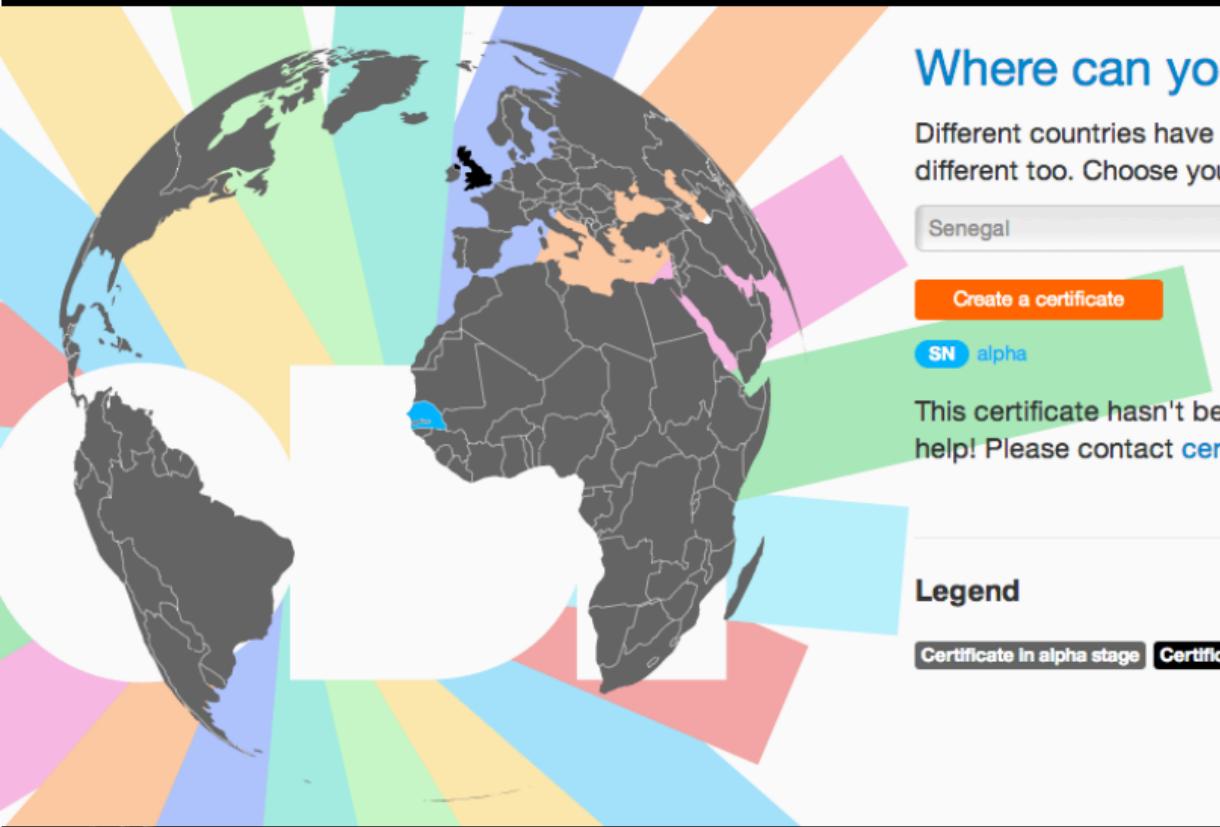
1

Demand data

All open data are good,
but some are better.



<http://certificates.theODI.org>



Where can you create certificates?

Different countries have different laws, so their certificates are slightly different too. Choose your country to create the right certificate.

Senegal

Create a certificate

SN alpha

This certificate hasn't been properly **localised** yet, and we need your help! Please contact certificate@theodi.org

Legend

Certificate in alpha stage

Certificate in beta stage

Certificate in final stage

The first robust quality badge for open data.



Expert

An exceptional example of information infrastructure.



Standard

Regularly published open data with robust support that people can rely on.



Pilot

Data users receive extra support from, and can provide feedback to, the publisher.



Raw

A great start at the basics of publishing open data.

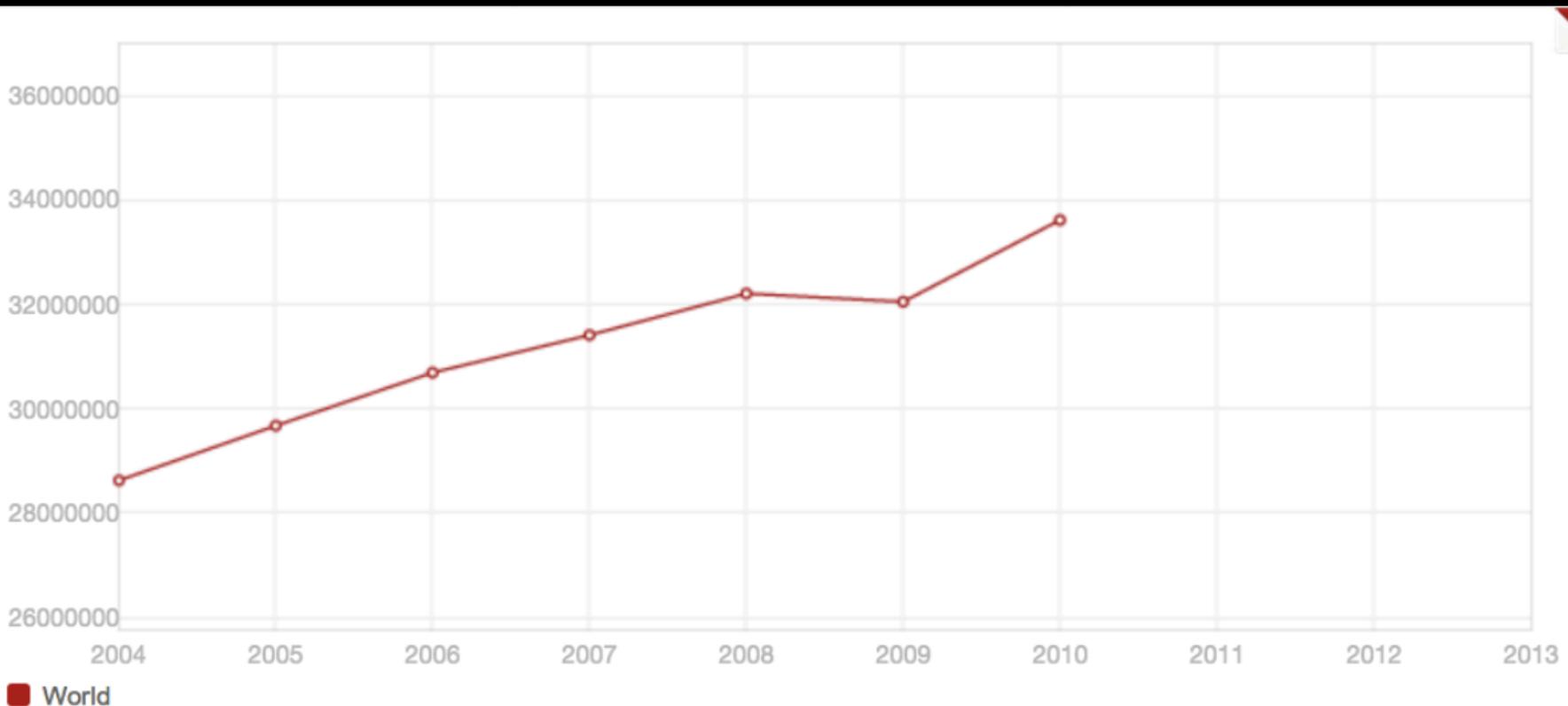


2

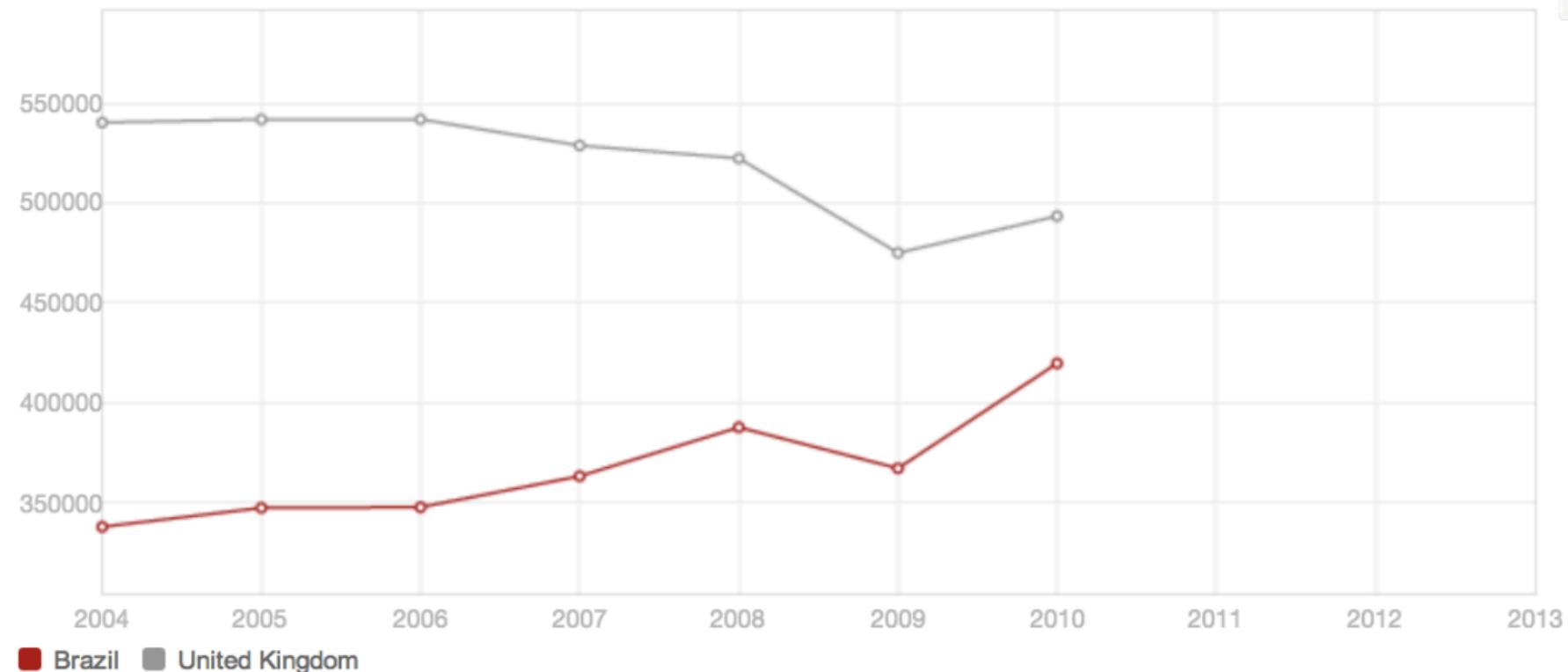
Test timeliness



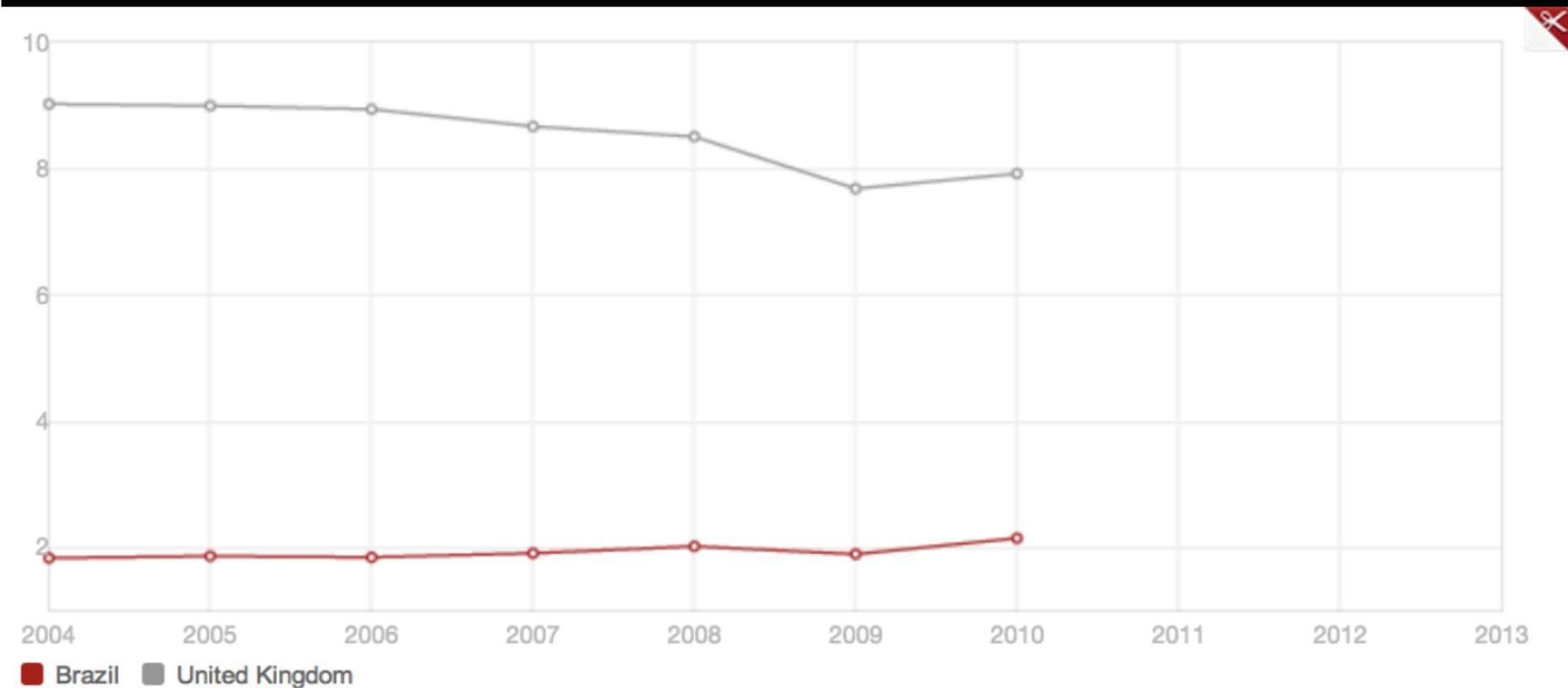
CO₂ emissions (kt) – World Bank



CO₂ emissions (kt) – World Bank



CO₂ emissions (t per capita) – World Bank

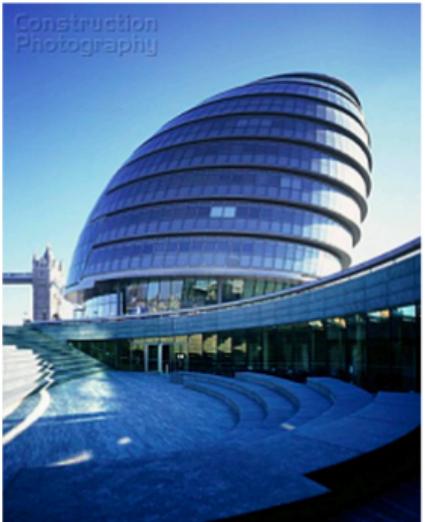


3

Explain, engage



Our energy use



London City Hall

This graph allows everyone to access a range of data from our offices at London City Hall. It's generated in real-time from data taken every 5 seconds from the on-site meters.

For the week commencing midnight on 25 Apr, London City Hall has used:

58,642 kWh

Energy use

58,642kWh in Electricity

0kWh in Gas

Average 349kWh per hour

£7,037

Energy cost

£7,037 from Electricity

£0 from Gas

Average £41 per hour

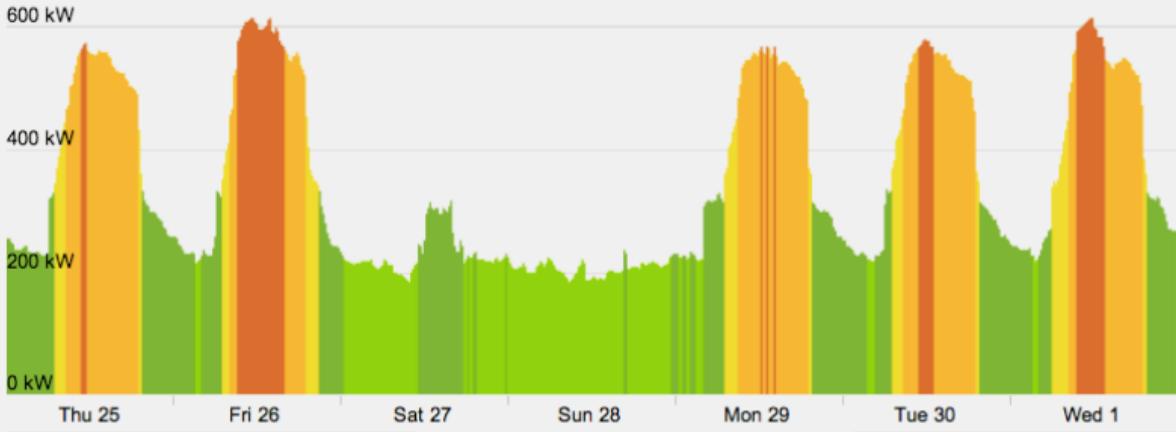
30,765kg

Carbon impact

30,765kg for Electricity

0kg for Gas

Average 183kg per hour



◀ 24 Hours Week 4 Weeks

Total Electricity Gas



[Mdbeckwith](#),
wikimedia

Data actions against climate change



1. Demand data (openness)
2. Test timeliness (quality)
3. Explain, engage (value)

Períodos

- ▶ Semestral
- ▶ Trimestral
- ▶ Mensal
- ▶ Diário

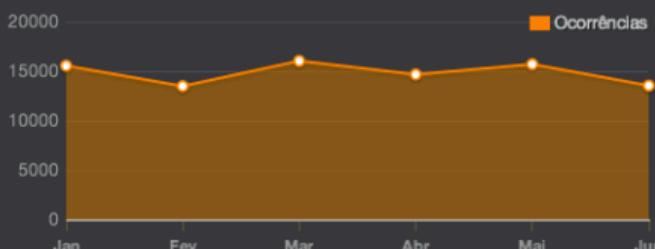
Acidentes**Condutores****Veículos****Rodovias****Filtrar por Período****Bem-vindo(a) ao aplicativo DPRF.info**Estatísticas de ocorrências em rodovias federais a partir de 2007. [Mais..](#)

Informações

Alterar período

**1º Semestre de 2013 Janeiro a Junho**

O gráfico abaixo representa o comparativo mensal de ocorrências neste período.

**Tipos de acidente**

Conheça os principais tipos de acidentes nas rodovias federais.

[Tipos mais comuns](#)[Lista completa](#)

Tipo

Ocorrências

Total de ocorrências

88.979 ▼ -4.1%

Semestre anterior: 92.827 ocorrências

Total de pessoas envolvidas

189.507 ▼ -3.8%

Semestre anterior: 196.972 pessoas

Trecho mais perigoso

BR-101/SC ▼

-6.1%

KM 200-210 718
ocorrências

Semestre anterior: 765 ocorrências

[Veja outros trechos ▶](#)

Sexo dos condutores



O sexo de aproximadamente 6.677 condutores não foi registrado no sistema.

 Pessoas feridas **46.584** Pessoas mortas **3.165**

Idade dos condutores

0-17 anos 467



Together!

Thank you!

Email: ulrich@theodi.org

Twitter: [@statshero](#)





Terms apply only to Node-related work,
not all of the work of the host organisation



Fees apply for the ODI Trademark
License. Exclusions can be agreed.



Nodes have to commit time.
How much is up to you.



Nodes must support a community.
They are different from ODI Members.



ODI UK is the “root Node”. When there are
5 country Nodes, we'll create a board.

<http://theodi.github.io/open-data-barometer-viz/>

