

Open Data in Practice: Five Years of Lessons Learned and Best Practice in achieving value and success



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04 Sep 2014

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Lessons Learned

Policy Objectives of Open Data

New Economic and Social Value

More Transparent Government

Improved public services

More Efficient Government

Open Data can help public policy and service delivery

Greater Citizen Engagement and Social Accountability



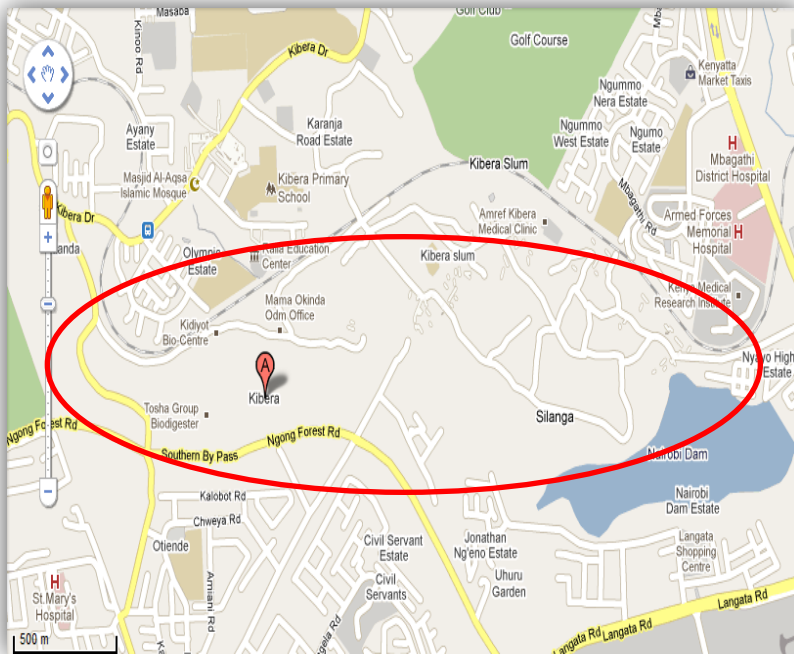
Uganda/Health

- 33% reduction in under-5 mortality
- 20% extra utilisation of out-patient services
- Significant improvements in:
 - Immunization
 - Waiting times
 - Absenteeism

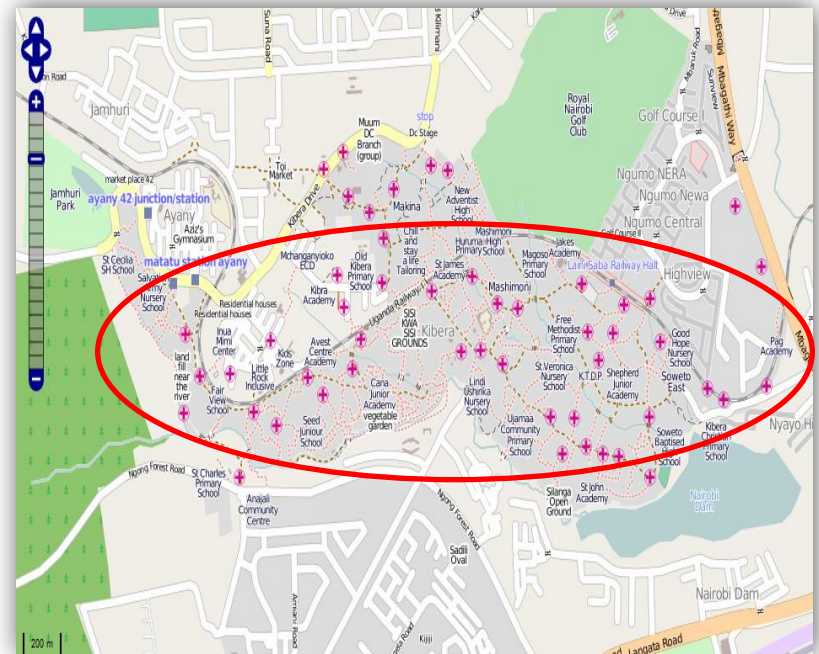
ICT for Urban Development

Mapping the Kibera slum in Nairobi

With Google Maps



With OpenStreetMaps



Additional Value: Reference Data for others



THE eGOVERNMENT
STRATEGY 2011-2015

THE DANISH GOVERNMENT /
LOCAL GOVERNMENT DENMARK
OCTOBER 2012

**GOOD BASIC DATA FOR
EVERYONE – A DRIVER FOR
GROWTH AND EFFICIENCY**

Base for contribution of citizen-sourced data

The screenshot shows a web browser window with the address bar displaying `desktop.bey2ollak.com/kol-el-toro2/#roads-Autostrad`. The browser's bookmark bar includes items like 'Apps', 'GMapToGPX', 'Google Bookmark', 'WB STRequest Logout', 'Sevenoaks Weather', 'Google Translate', 'World Clock', and 'Googl'. The main content area is a social media feed for 'Autostrad'. On the left, there is a vertical sidebar with icons for sharing, downloading, commenting, information, email, a ribbon, a list, a question mark, and social media links for Twitter, Facebook, and Instagram. The feed itself is divided into two columns. The left column lists road segments with their last update times and status icons (green for good, orange for bad). The right column shows user comments with their avatars, usernames, and timestamps. The top right of the feed features a 'pepsi.' logo and the text 'Matestanash bokra w matfakarsh fi e'.

| Road Segment | Last updated | Status | User | Time | Status |
|-------------------------------|----------------|--------|-----------------|----------------|---------|
| Helwan To Da2ery | 0 hr 24 mn ago | Good | @sara.b1 | 0 hr 12 mn ago | Good |
| Da2ery To 2al3a | 0 hr 23 mn ago | Good | @c_7oodaz | 1 hr 12 mn ago | Good |
| 2al3a To Kobry 6 October | 0 hr 49 mn ago | Good | @fa3el kheir | 1 hr 40 mn ago | Good |
| Kobry 6 October To City Stars | 0 hr 11 mn ago | Bad | @fa3el kheir | 1 hr 54 mn ago | Unknown |
| City Stars To Matar | 0 hr 6 mn ago | Good | @serroo | 2 hr 42 mn ago | Good |
| Matar To City Stars | 0 hr 23 mn ago | Good | @Ghassan.Mattar | 3 hr 28 mn ago | Good |
| City Stars To Kobry 6 October | 0 hr 7 mn ago | Good | @memog987 | 5 hr 44 mn ago | Good |

Additional value: Better use of data in government

The screenshot displays the INSPIRE geoportal interface. At the top, a banner reads "Welcome to the INSPIRE geoportal" and includes a brief description of the INSPIRE Directive. Below this, a map of Europe is the central focus, with several tool panels overlaid:

- Discovery / Viewer:** A panel on the left with a small map of the Iberian Peninsula. Text: "Search, discover and access geographic information provided by European governmental, commercial, and non-commercial organizations." Includes a "More ..." link.
- Validator:** A panel on the right. Text: "The purpose of the INSPIRE Metadata Validator is to test the compliancy of INSPIRE metadata with the INSPIRE Metadata Regulation." Includes a "More ..." link and a list of error codes: "Invalid theme number of inst (2.2.5) Unique (1)/* identifi (2005/gmd) (2005/gmd) (2.4) For dat (/www.iso/".
- Metadata Editor:** A panel at the bottom center. Text: "Create metadata according to the INSPIRE implementing rules." Includes a "More ..." link and a small XML snippet: "<xsd:schem
<-DocI
<xsd:el
A CI".

The background map shows major European cities and geographical features like the Alps and the Mediterranean Sea.

EU INSPIRE: ROI 8:1 in first 4 years within government itself, plus wider benefits

Unforeseen Innovation supports other policies

Spikes Cavell
KNOW, KNOW, KNOW

Search [GO >](#)
[LOG IN](#)

[Home](#)

DELIVER CASH SAVINGS

WITHOUT COMPROMISING
FRONT-LINE SERVICES

[A procurement savings blueprint...](#)

- Spend & Contract Visibility**
Profile your spend to find savings, identify opportunities to aggregate...
- Transparency**
Improve the accessibility, relevance and value of the spend data...
- Performance**
Evidence your progress, create context through comparison...
- Sustainability**
Measure and manage CO₂ in the supply chain...

Data Transformation
Our highly experienced team rapidly transform your spend, supplier and contract data into actionable business intelligence regardless of the completeness, accuracy or fitness for purpose of the source.

More actors: Open Transport Data



London

- ~500 Applications from
~ 25 feeds
- ~5000 people involved
in “app industry”
- TFL have stopped
making their own apps

Madrid: 20 bus apps

St Petersburg: 30 bus apps

New York: 68 subway apps

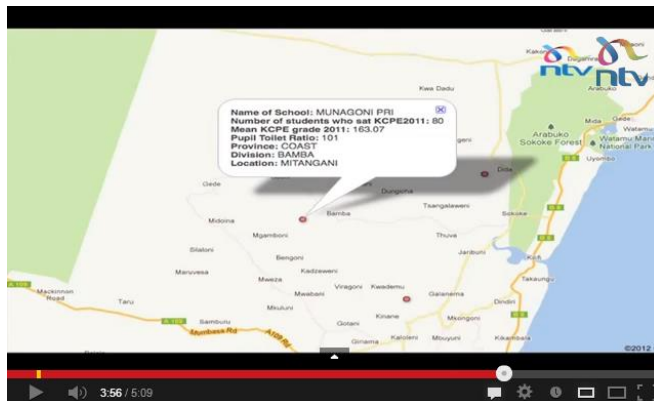


Combining Data adds new insights

Irene Choge, data journalist, NTV, Kenya.



The Health Assignment: Toilets and Grades



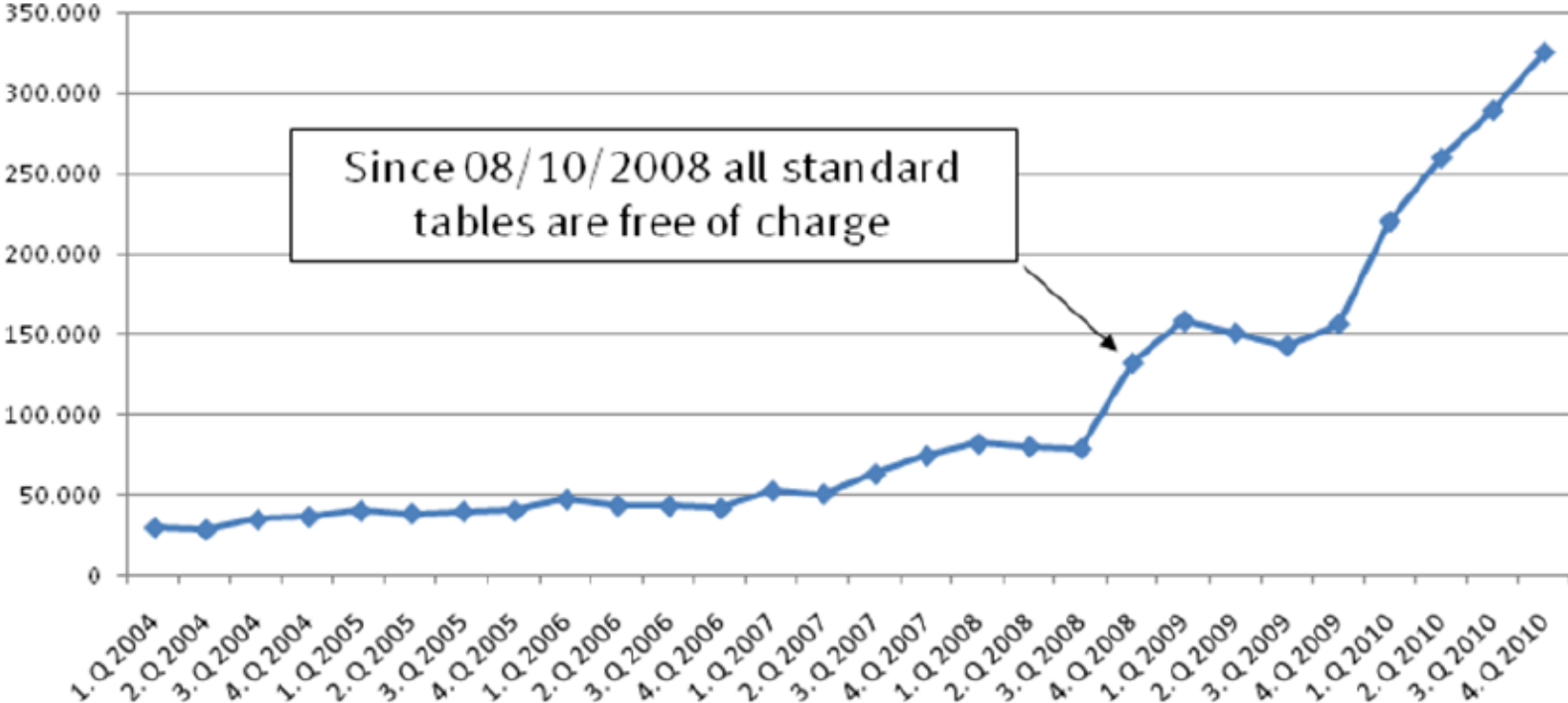
| | | | | | |
|-------------|-----|-----|-----|----|----|
| DANICHA | 217 | 175 | 392 | 2 | 4 |
| DIDA | 226 | 227 | 493 | 4 | 4 |
| KALHORORDNI | 306 | 427 | 733 | 3 | 4 |
| KAFITSONI | 34 | 30 | 64 | 1 | 1 |
| KAHINGONI | 144 | 136 | 280 | 6 | 6 |
| NABIRIKANI | 287 | 277 | 564 | 4 | 4 |
| NYARI | 331 | 356 | 681 | 12 | 12 |
| RARE | 140 | 150 | 290 | 2 | 6 |

<http://www.youtube.com/watch?v=A58R2yNQtio>

**Opening data means
the data is used much more**

Case Study: Statistics Germany

GENESIS Online: Table downloads per quarter



Users: +1800% Downloads: +800%

Opening Data means it is used much more

- “Where PSBs moved to marginal and zero cost charging, the number of re-users increased by between 1,000% and 10,000%.”
- “Lowering charges may attract new types of re-users, in particular SMEs.”
- “Once re-use facilitation processes are properly organized ... they become embedded in the PSB's public task-funded activities at no extra cost.”

-Deloitte/POPSIS study for EU

What are the Open Data Businesses

Aggregators


DATA PUBLICA
DONNÉES PUBLIQUES, OPEN DATA & DATA STORE

Trouver des données

ACTUALITE DES DONNEES


Les monopoles de la grande distribution



A Paris ou en provi
la grande distribu
semble s'être part
les territoires.

C'est ce que diser
nos cartes et nos don

Analyse




placr

Moving information to where the questions are...

About Us
Services
Projects
Contact


placr.mobi

the transport app solution

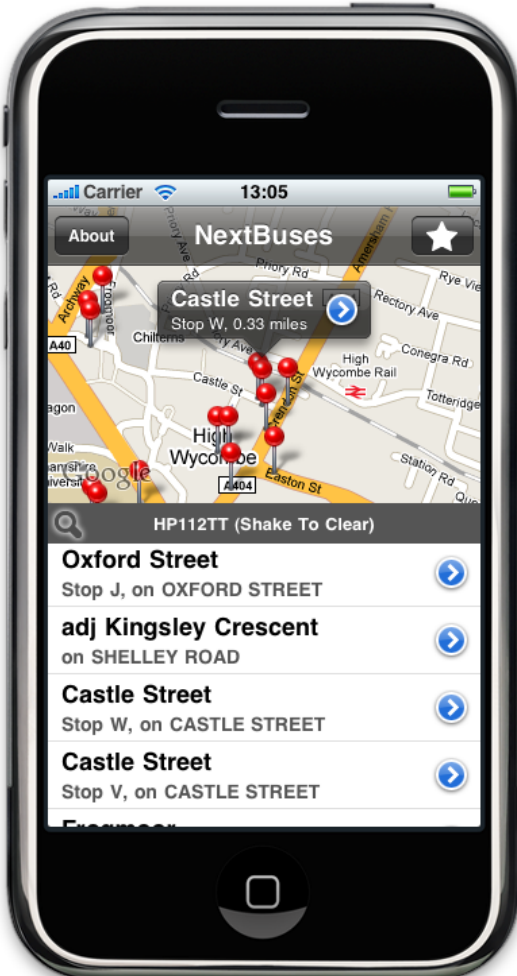


transport API

total public transport data solution



Developers



Enrichers

waze LIVE MAP MAJOR EVENTS

Happening Now

Boston Marathon

Apr 19 - Apr 21, 2014
Boston, USA

02 days 21 hours
since event started

[See Details >](#)

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THE CLIMATE CORPORATION

CLIMATE | BASIC

Better Data. Better Decisions.
The most advanced way to get insight into your fields.

- Weather
- Tracker
- Alerts
- Scouting & Notes

Enablers



Health Data NY

MetroChicagoData

Edmonton

Citizen Dashboard

Traffic Injury Rate

Socrata API Foundry

The image displays four examples of Socrata data portals. The top-left is the Health Data NY portal, featuring a colorful graphic and news articles. The top-right is the MetroChicagoData portal, showing a search bar and various data visualizations. The bottom-left is the Edmonton Citizen Dashboard, which includes a traffic injury rate chart and a bus icon. The bottom-right is the Socrata API Foundry, an isometric illustration of a building with data flowing in and out.



cloudera
Ask Bigger Questions

PRODUCTS & SERVICES TRAINING

CLouDERA ENTERPRISE

OPEN

GOVERNED

APACHE HADOOP

MANAGED

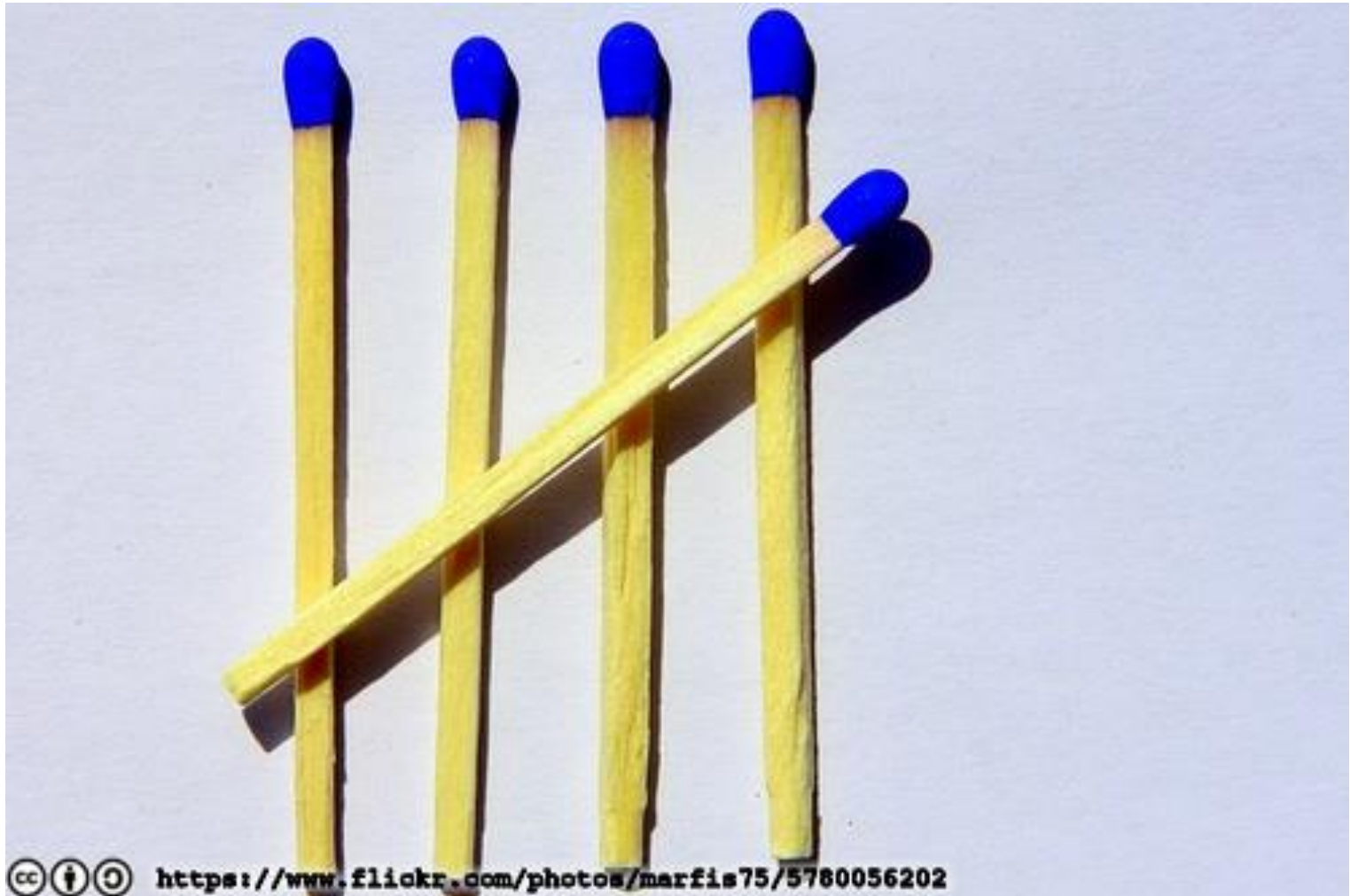
SECURE

— STORE, PROCESS & ANALYZE ALL YOUR DATA —



The Cloudera Enterprise diagram is a circular graphic with 'APACHE HADOOP' in the center. Four quadrants radiate from the center, labeled 'OPEN', 'GOVERNED', 'SECURE', and 'MANAGED'. The outer ring of the circle is labeled 'CLouDERA ENTERPRISE'. Below the circle, the text reads '— STORE, PROCESS & ANALYZE ALL YOUR DATA —'. The top of the slide features the Cloudera logo and the tagline 'Ask Bigger Questions', along with navigation links for 'PRODUCTS & SERVICES' and 'TRAINING'.

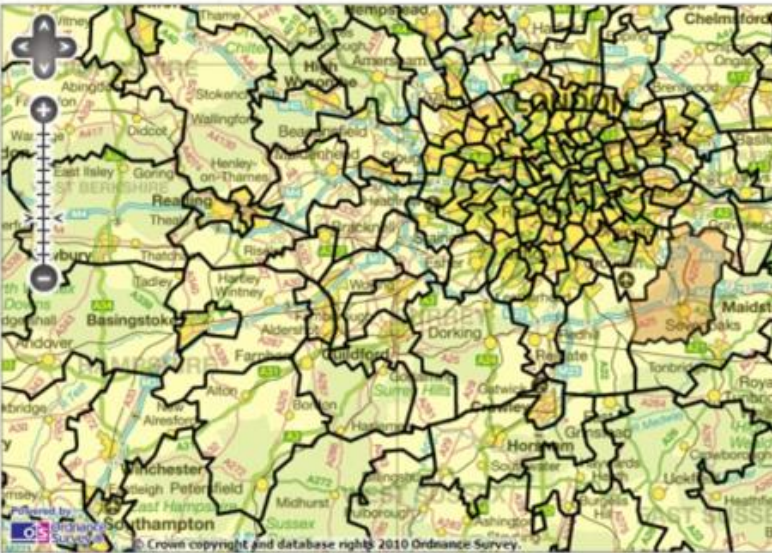
**Which data is most valuable or
most widely valuable?**

Census and other detailed statistics



Maps and Geospatial Data



[about](#)

[View, download and order](#) OS OpenData or use [OS OpenSpace®](#) to enhance your own application.

You can also experiment with [OS OpenData in Linked Data format](#).

Why not take part in the [GeoVation Challenge?](#)

If OS OpenData doesn't meet your needs, why not try:

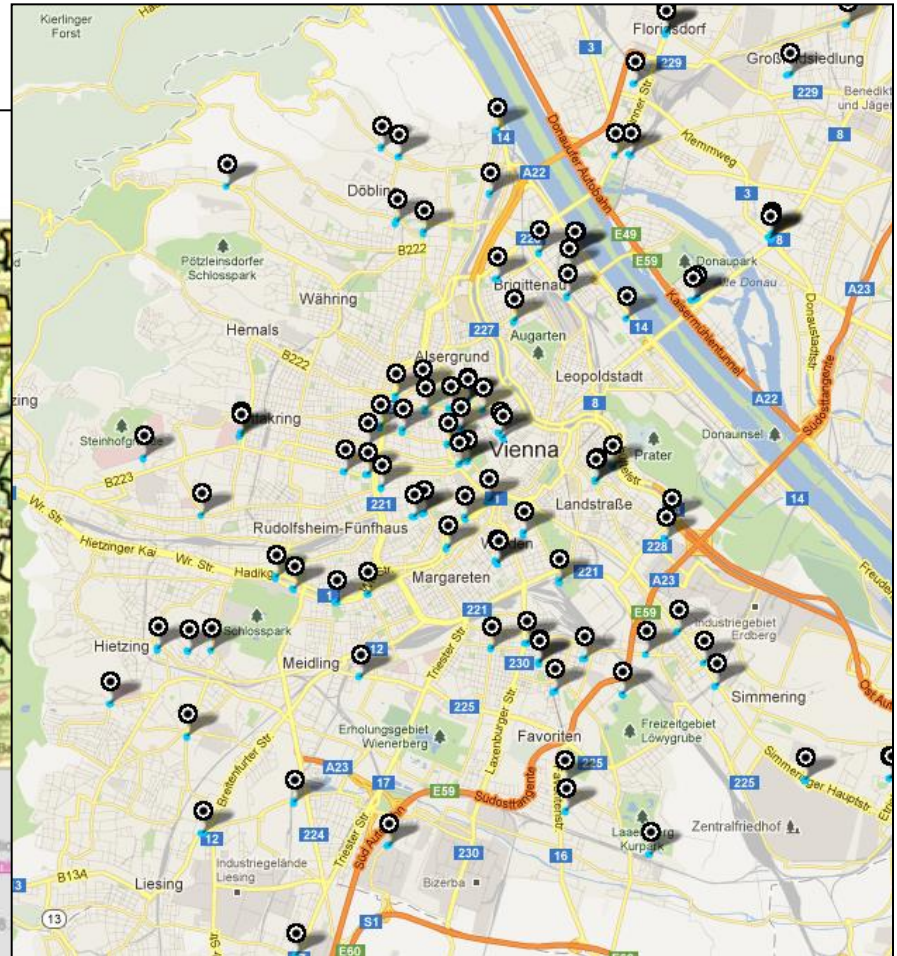
- The Ordnance Survey [Map Shop](#) for paper maps.
- The [Explore portal](#) for routes, photos and blogs.
- Ordnance Survey mapping for [business](#) or [education](#).

[help](#)

See our [FAQ](#) page to find answers to any question you might have about OS OpenData, get more [technical help](#) with the map viewer or downloads.

Or you can [email](#) or call us on **0845 408 1895** (8.5.30 pm, Monday to Friday).

- [OS OpenData Licence](#)
- [Public Viewing Service Licence](#)
- [Website privacy policy](#)
- [Website terms of use](#)




Featured blogs:

[Ordnance Survey Blog](#) [Sir Tim Berners-Lee](#) [Professor Nigel Shadbolt](#) [Digital Engagement](#)

Addresses and Property Data



 [flickr.com/photos/lennox_modough/9009441588/](https://www.flickr.com/photos/lennox_modough/9009441588/)

Government Spending and Procurement



Weather Data



<https://www.flickr.com/photos/ericparker/6707242547/>

Transport Information



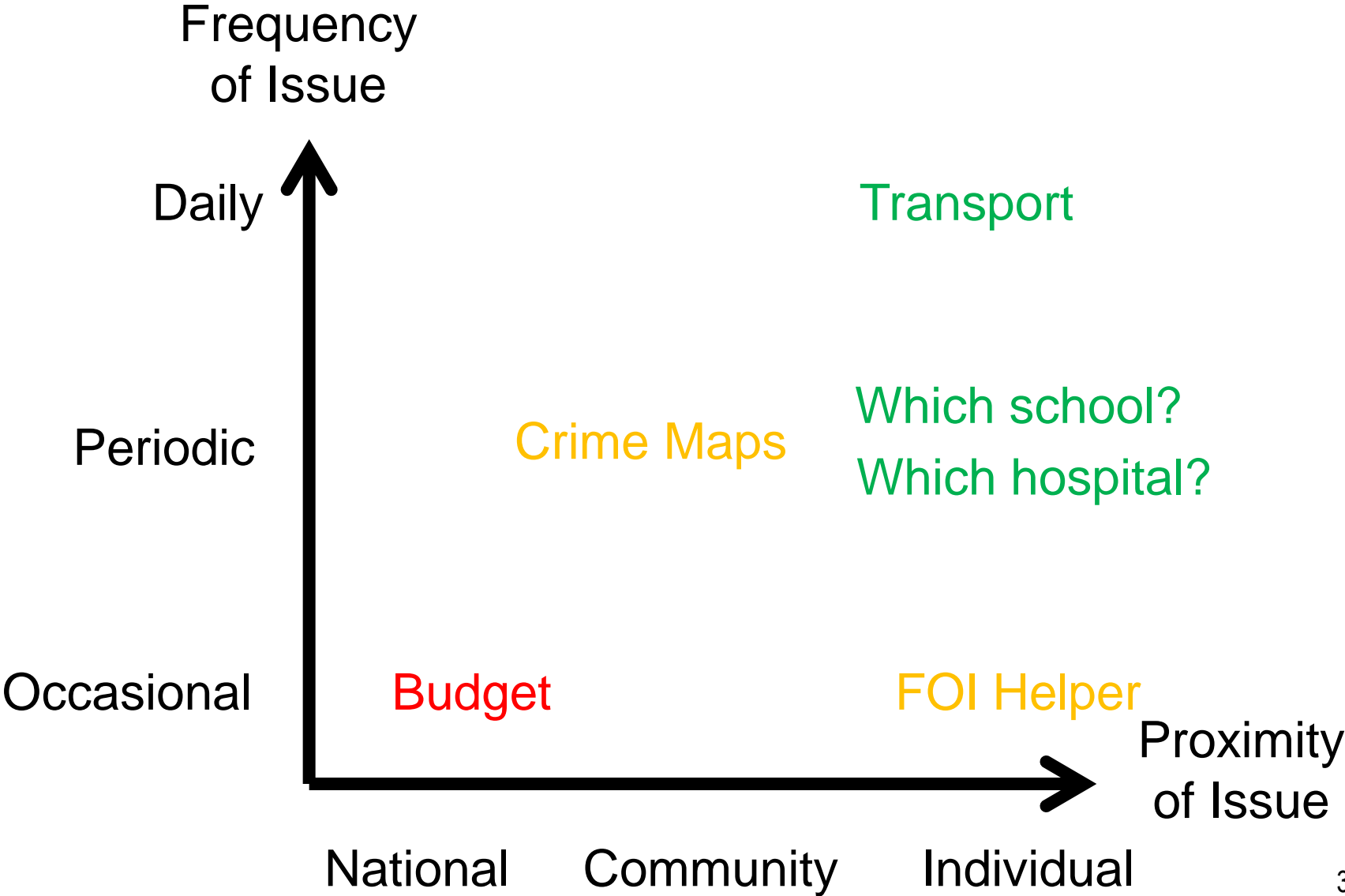
It's not just about new data

Scope for “Open Data” also includes data previously “published” but ...

- in non-reusable format
- with restricted licence
- only aimed at specialist groups
- only for payment
- only in response to requests
- difficult to find

Creating Sustainable Applications

Creating Sustainable Applications

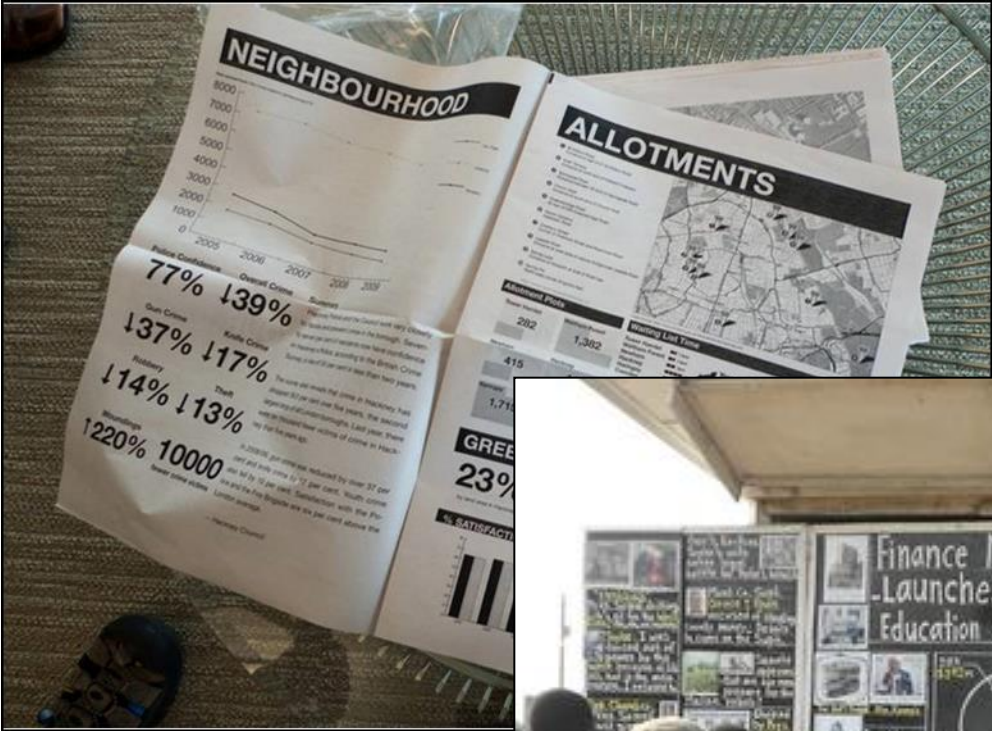


Creating Sustainable Applications



- Do things that matter to people
- Make it quick and easy to do – “while you’re still upset about it”
- Use location: input and visualisation
- Use simple design
- Build in community support, action & stickiness
- Sustainable apps come from (social) entrepreneurs – helped by IT people

Open Data does not have to be delivered digitally



Best Practices

Encourage requests for useful data

DATA.GOV
EMPOWERING PEOPLE

HOME | INTERACTIVE DATASETS | RAW DATA | APPS | GEODATA | COMMUNITY | METRICS | OPEN DATA SITES

Filter by Status
All
Open
Approved
Rejected

Dataset Suggestions

| Submitted by | Details |
|--------------|---|
| Matt Dotson | <p>Federal Income Tax Deductions July 10, 2012 (3 months ago)</p> <p>I'd like to see a data set that detailed the total number and dollar value of tax deductions/credits claimed by individuals & corporations for each tax year. Please break down the data by the deduction type (i.e. home interest deduction, medical expenses, etc). The goal of this data set is to see how much revenue is lost due to tax deductions/credits.</p> |
| Geoff | <p>Intercensal Estimates of Racial Makeup June 26, 2012 (3 months ago)</p> <p>You probably already have it, but I can't seem to find it. I'm interested in patterns of racial growth in the country, broken down at least to the state level, as far back as possible.</p> |

DATA.GOV.UK ^{Beta}
Opening up Government

↑ Home | Data | Participate | Apps | Location | Linked Data | Lib

HM Government
Search Content | Forum | Blogs | Ideas | ODUG

Request a dataset

Complete this form if you want a dataset from the public sector that has not been released. Requests will be reviewed used to make the case to government for release. We would like all requests to be published on this site, but we record confidential business plans. In all cases, your contact details and any answers to question 6 will not be published.

data.govt.nz
Kāwanatanga o Aotearoa
New Zealand Government

Search New Zealand Government data and data requests

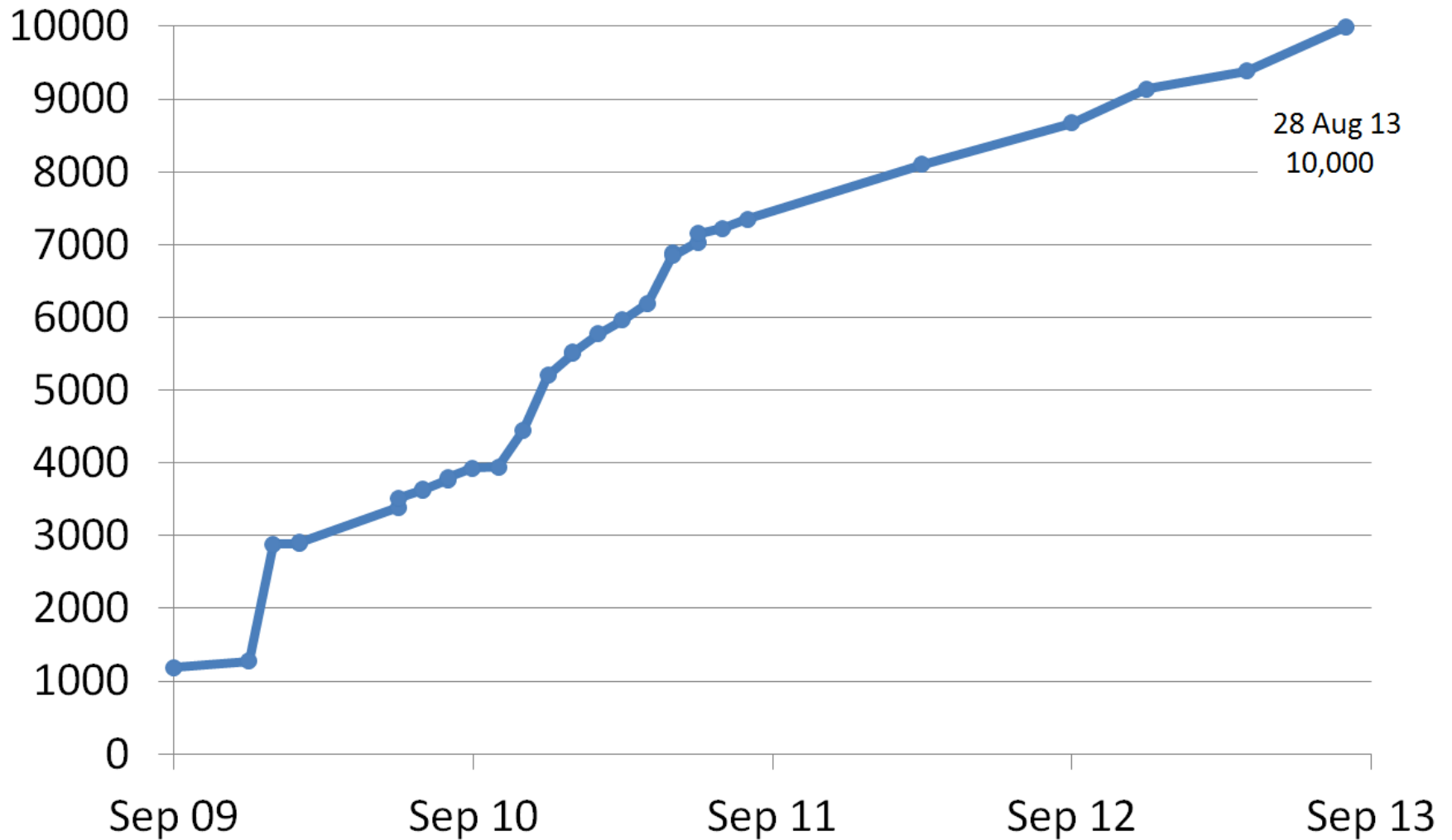
Home | Catalogue | Add Dataset | **Data Requests** | Forums | Contact Us

Latest data requests

| Title | Likely source agency | Votes | Request Status |
|--|--|---|------------------|
| Paua quota management areas | Ministry for Primary Industries | 1 Vote <input type="button" value="+Vote"/> | Agency notified |
| PMP estimation for twin stream catchment | National Institute of Water and Atmospheric Research Limited | 1 Vote <input type="button" value="+Vote"/> | Agency notified |
| Walking Access Data Vector Download | New Zealand Walking Access Commission | 36 Votes <input type="button" value="+Vote"/> | Agency responded |

Deliver Incrementally

Datasets on data.gov.uk



28 Aug 13
10,000

Clear, common, terms and conditions



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[Disclaimer](#)

You are free:

to **Share** — to copy, distribute and transmit the work

to **Remix** — to adapt the work

to make commercial use of the work

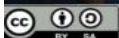
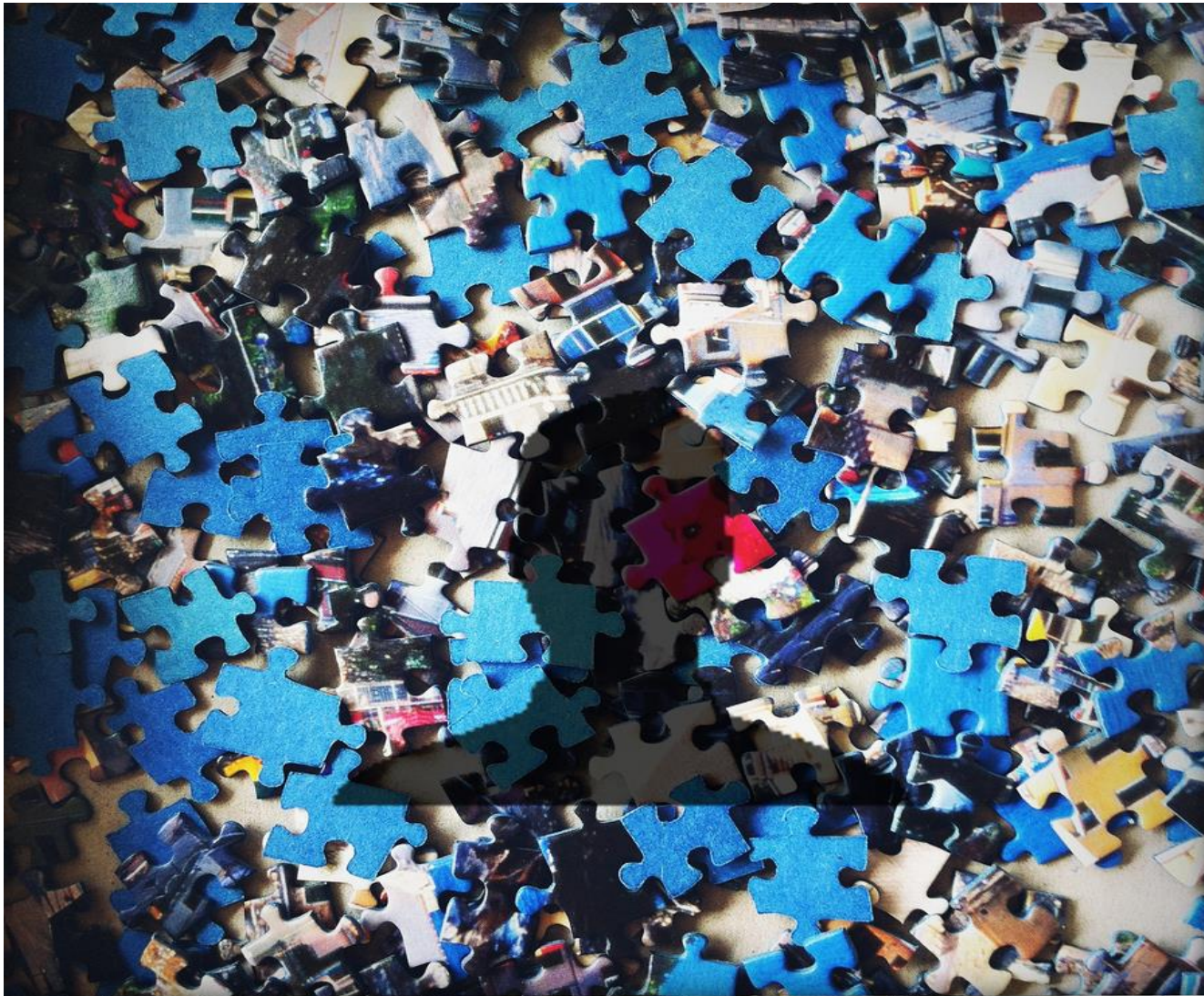


Under the following conditions:



Attribution — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).

Consider Privacy of Personal Data



<https://secure.flickr.com/photos/nathanmandjes/5606201919/>

Technical Excellence in Open Data delivery

- “Open by Design” in upstream systems
- Consistent policies, standards & formats
- Multiple access methods: bulk, API, etc
- Rich meta-data
- Ensure Open, machine readable, formats
- Use common identifiers
- Help build the “Semantic Web”

Already happening in Indian Rural Development

NDCC :: Attendance Report - Google Chrome

65.19.149.152/mNDCC_Andhra/MIS_Reports/MonthlyReports/Attendance_Monthly_State.aspx?NC=010650-1&RT=MR_ATN&CM=05&CY=2014

Health & Nutrition Management Information System

Attendance Report - May 2014

STATE : Andhra Pradesh

DPMU : Krishna

MANDAL NAME : Kruthivenu



Print



Export to Excel

| S.NO | NDCC Name | Village Name | NDCCs reported for >=26 days | Members Enrolled | | | |
|------|---------------------|---------------|------------------------------|------------------|-----------|-------|-------|
| | | | | Pregnant | Lactating | Child | Total |
| 1 | Aasridha | Laxmipuram | No | 0 | 2 | 8 | 10 |
| 2 | Aaswini | Chinapandraka | Yes | 0 | 2 | 13 | 15 |
| 3 | Arunodaya | Laxmipuram | No | 0 | 1 | 14 | 15 |
| 4 | Chaitanya | Chandala | No | 0 | 2 | 6 | 8 |
| 5 | Divya | Kruthivenu | Yes | 0 | 0 | 21 | 21 |
| 6 | Indhirapriyadarsini | Komallapudi | Yes | 7 | 10 | 10 | 27 |

Already happening in Indian Rural Development

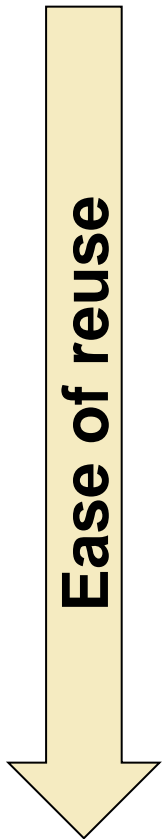
GridViewExport.xls - Microsoft Excel non-commercial use

Attendance Report - May 2014

STATE : Andhra Pradesh
 DPMU : Krishna
 MANDAL NAME : Kruthivenu

| S.NO | NDCC Name | Village Name | NDCCs reported for >=26 days | Members Enrolled | | | | Members attended | | | | % attended | | | Memb | | |
|------|---------------------|-----------------|------------------------------|------------------|-----------|-------|-------|------------------|-----------|-------|-------|------------|-----------|---------|---------|---------|---|
| | | | | Pregnant | Lactating | Child | Total | Pregnant | Lactating | Child | Total | Pregnant | Lactating | Child | | Total | |
| 1 | Aasridha | Laxmipuram | No | 0.00% | 2 | 8 | 10 | 0 | 0 | 2 | 8 | 10 | 0.00% | 100.00% | 100.00% | 100.00% | 0 |
| 2 | Aaswini | Chinapandraka | Yes | 0.00% | 2 | 13 | 15 | 0 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 |
| 3 | Arunodaya | Laxmipuram | No | 0.00% | 1 | 14 | 15 | 0 | 1 | 6 | 7 | 0.00% | 100.00% | 42.86% | 46.67% | 0 | |
| 4 | Chaitanya | Chandala | No | 0.00% | 2 | 6 | 8 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 | |
| 5 | Divya | Kruthivenu | Yes | 0.00% | 0 | 21 | 21 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 | |
| 6 | Indhirapriyadarsini | Komallapudi | Yes | 0.00% | 10 | 10 | 27 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 | |
| 7 | Interu | Interu | No | 0.00% | 2 | 3 | 5 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 | |
| 8 | Jyothi | Tadivenu | No | 0.00% | 12 | 22 | 35 | 1 | 7 | 6 | 14 | 100.00% | 58.33% | 27.27% | 40.00% | 0 | |
| 9 | Kranthi | Chinagollapalem | Yes | 0.00% | 5 | 7 | 13 | 0 | 3 | 0 | 3 | 0.00% | 60.00% | 0.00% | 23.08% | 0 | |
| 10 | Mahamad | Chinnapandraka | No | 0.00% | 1 | 1 | 4 | 1 | 0 | 0 | 1 | 50.00% | 0.00% | 0.00% | 25.00% | 1 | |
| 11 | Parimala | Munipeda | Yes | 0.00% | 7 | 8 | 16 | 0 | 5 | 6 | 11 | 0.00% | 71.43% | 75.00% | 68.75% | 0 | |
| 12 | Pragathi | Chinagollapalem | No | 0.00% | 3 | 6 | 9 | 0 | 3 | 0 | 3 | 0.00% | 100.00% | 0.00% | 33.33% | 0 | |
| 13 | Prasanthi | Garisepudi | Yes | 0.00% | 7 | 5 | 13 | 0 | 0 | 5 | 5 | 0.00% | 0.00% | 100.00% | 38.46% | 0 | |
| 14 | Pratibha | Nidamaru | No | 0.00% | 8 | 11 | 22 | 3 | 3 | 4 | 10 | 100.00% | 37.50% | 36.36% | 45.45% | 3 | |
| 15 | Saagarakanya | Nidamaru | Yes | 0.00% | 1 | 11 | 12 | 0 | 1 | 2 | 3 | 0.00% | 100.00% | 18.18% | 25.00% | 0 | |
| 16 | Samudraveni | Kruthivenu | Yes | 0.00% | 4 | 7 | 12 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 | |
| 17 | Sarojini | Kruthivenu | Yes | 0.00% | 5 | 13 | 18 | 0 | 3 | 4 | 7 | 0.00% | 60.00% | 30.77% | 38.89% | 0 | |
| 18 | Shavhacri | Chinapandraka | No | 0.00% | 5 | 4 | 11 | 0 | 0 | 0 | 0 | 0.00% | 0.00% | 0.00% | 0.00% | 0 | |

Data Publishing – Star Quality



Put your data on the Web with an Open Licence (any format)



Make it available as structured data (e.g. Excel instead of PDF)



Use open, standard formats (e.g. XML, RDF)



Use URLs to identify things (so people and machines can point at your data)

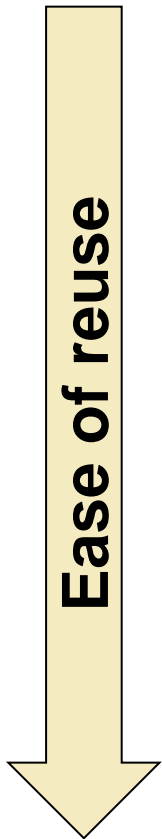


Link your data to other people's data

But look in more detail at the download!

```
GridViewExport.xls - Notepad
File Edit Format View Help
<style> .textmode { mso-number-format:\@; }
</style><table border="0">
  <tr>
    <td align="center"
valign="middle">Attendance Report - May 2014</td>
  </tr><tr>
    <td align="left" valign="middle">STATE
: Andhra Pradesh<BR />DPMU :Krishna<BR> MANDAL NAME :
Kruthivennu</td>
  </tr><tr>
    <td><div>
      <table cellspacing="0"
rules="all" border="1" style="border-
collapse:collapse;">
        <tr>
          <td
align="center" valign="middle" colspan="1" rowspan="2"
style="background-color:#e4e4e4;font-
family:Calibri;font-size:11pt;font-
weight:bold;">S.NO</td><td align="center"
```

Data Publishing – Star Quality



- ★ Put your data on the Web with an Open Licence (any format)
- ★★ Make it available as structured data (e.g. Excel instead of PDF)
- ★★★ **Use open, standard formats (e.g. XML, RDF)**
- ★★★★ Use URLs to identify things (so people and machines can point at your data)
- ★★★★★ Link your data to other people's data

SERP Mother Nutrition Data

| Criterion | Assessment |
|---------------------|-------------------------------------|
| Data Exists? | <input checked="" type="checkbox"/> |
| In Digital Form? | <input checked="" type="checkbox"/> |
| Publicly Available? | <input checked="" type="checkbox"/> |
| Free of Charge? | <input checked="" type="checkbox"/> |
| Available Online? | <input checked="" type="checkbox"/> |
| Machine Readable? | <input checked="" type="checkbox"/> |
| Available in Bulk? | <input checked="" type="checkbox"/> |
| Openly Licenced? | <input checked="" type="checkbox"/> |
| Up To Date? | <input checked="" type="checkbox"/> |



Easily Fixed!

Build and Leverage Open Data Ecosystem



Knowledge for everyone

The Open Data Institute

Open Data in a Day
Tuesday 25 March 2014
COURSES

Show me the future of Open

**ODI Fridays:
So you want to
build an open
data business?**

ODI accelerates government
open data expertise with new
funding
The ODI
21 February 2014
NEWS

DATA PUBLICA
DONNÉES PUBLIQUES, OPEN DATA & DATA STORE

Trouver des données

ACTUALITE DES DONNEES

Les monopoles de la grande distribution

A map of France with red shaded regions indicating distribution territories. A tooltip for the 'Isère' department is visible, listing 'Nombre de magasins du groupe Auchan: 1' and 'Don magasins Simply Market: 1'.

A Paris ou en province
la grande distribution
semble s'être partagé
les territoires.

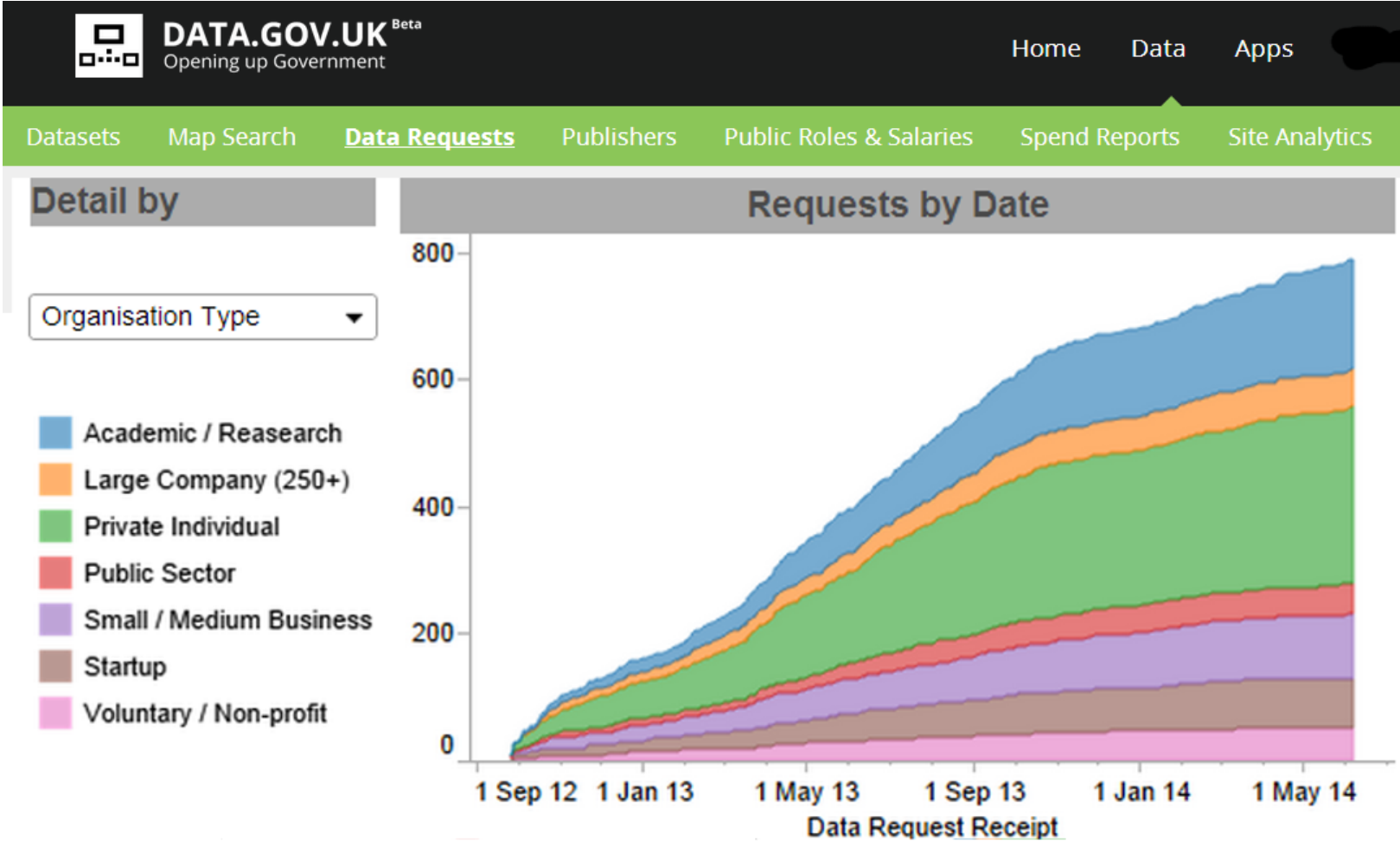
C'est ce que disent
nos cartes et nos données.

Analyse

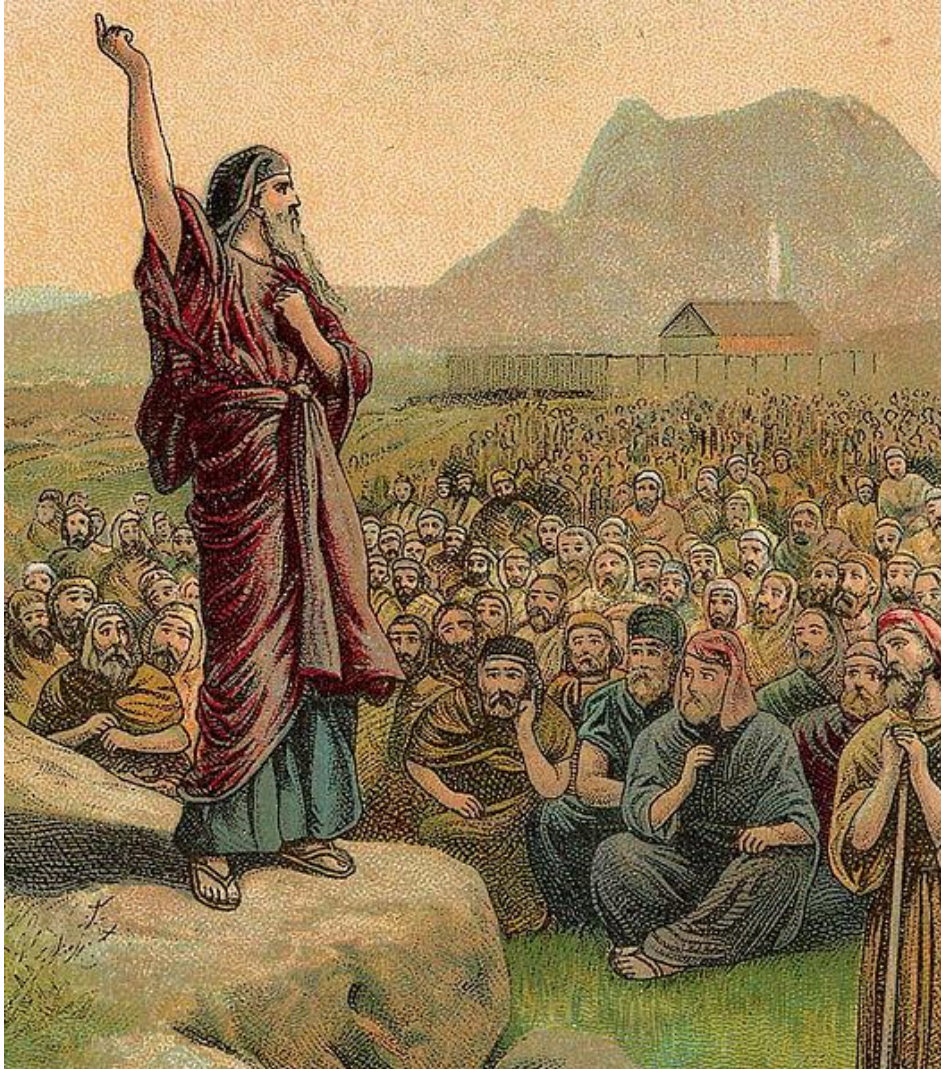


**Government needs to play
multiple roles**

Government as Supplier



Government as Leader



Government as Catalyst

A HEALTH DATA CONSORTIUM EVENT

HEALTH DATAPALOOZA™

5/31-6/3/2015

time left: 316 days 18 hrs 11 min

About Sponsors/Exhibitors 2014 Program Book 2014 Archives News

Check out Health Datapalooza videos of the event



TODD PARK
UNITED STATES CHIEF TECHNOLOGY OFFICER

1 2 3 >

Government as User



The screenshot shows the DataBC website interface. At the top left is the British Columbia logo, featuring a sun rising over mountains. To its right is the text "BRITISH COLUMBIA". Further right, separated by a vertical line, is the "DataBC" logo. Below the logos is a map of a coastal region with a label "Campbell River". A dark grey overlay box is positioned over the map, containing the following text:

Geographic Services

Discover, view, analyze and locate data using DataBC's geographic tools and services.

-  [Learn more about geographic services](#)
-  [Learn about iMapBC](#)

Thank You

