



Open Data opportunities



Mar-16

ONLINE IN 60 SECONDS

ON THE INTERNET, WE ALL KNOW THINGS CAN MOVE AT A LIGHTNING-FAST PACE. IN JUST A MINUTE, YOU CAN READ THROUGH AND COMPOSE A FEW TWEETS ALONG WITH LOOK AT DOZENS OF FACEBOOK PHOTOS. THAT SAID, WE'VE PULLED TOGETHER THIS INFOGRAPHIC TO GIVE YOU AN UPDATED VIEW OF EVERYTHING THAT HAPPENS ONLINE IN 60 SECONDS DURING 2013.



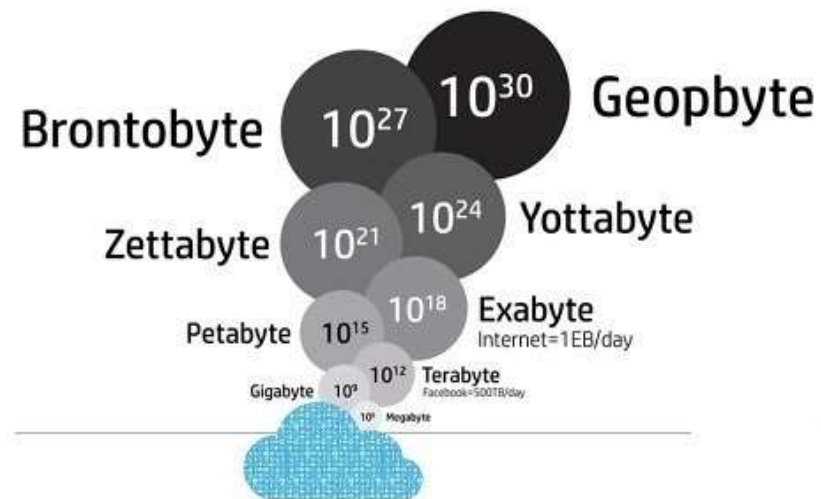
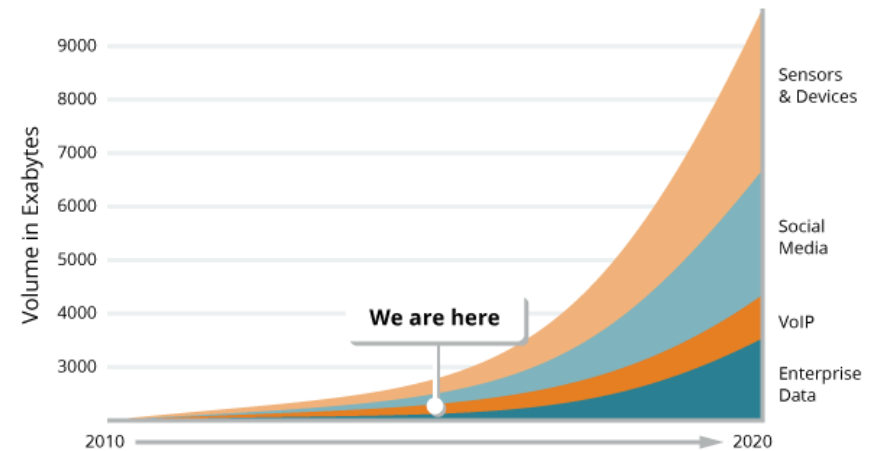
Qmee

Data
www.pinterest.com
www.google.com
www.facebook.com
www.tumblr.com
www.instagram.com
www.linkedin.com
www.amazon.com

Design
myclever
agency

Scale of data growth ...

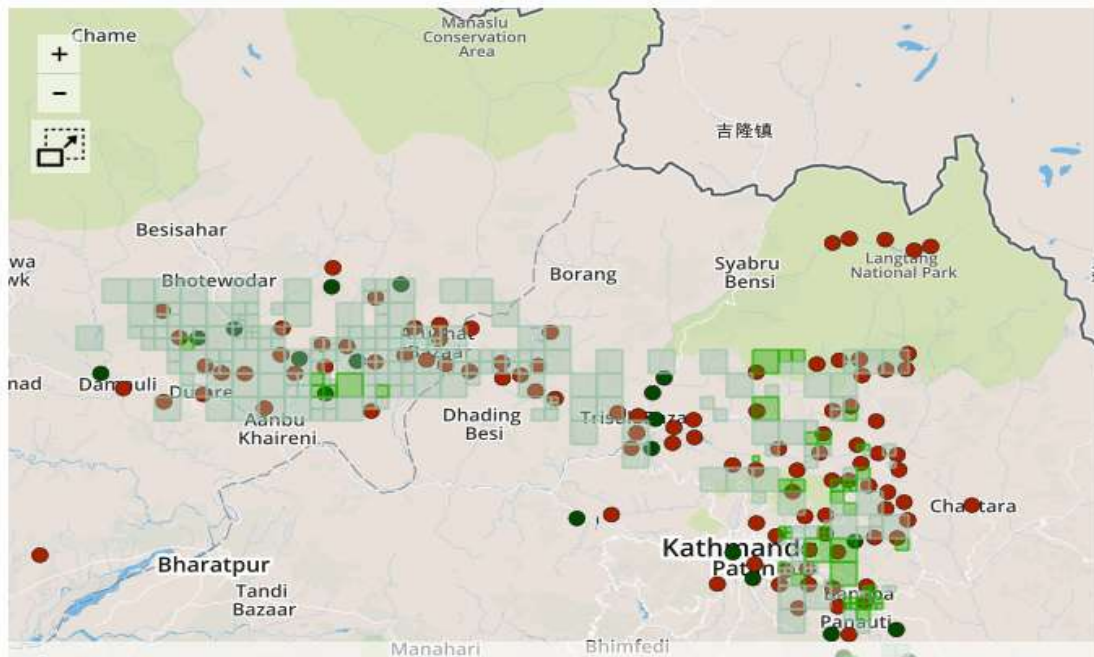
The Dawn of Big Data: the uncertainty of new information is growing alongside its complexity





Some interesting uses of crowd sourced data

Satellite-Visible Damage Assessment Map

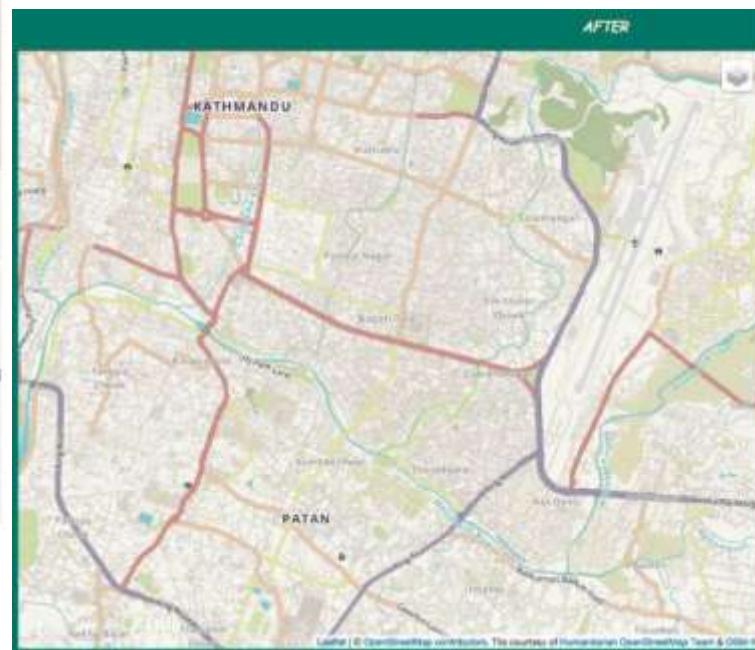
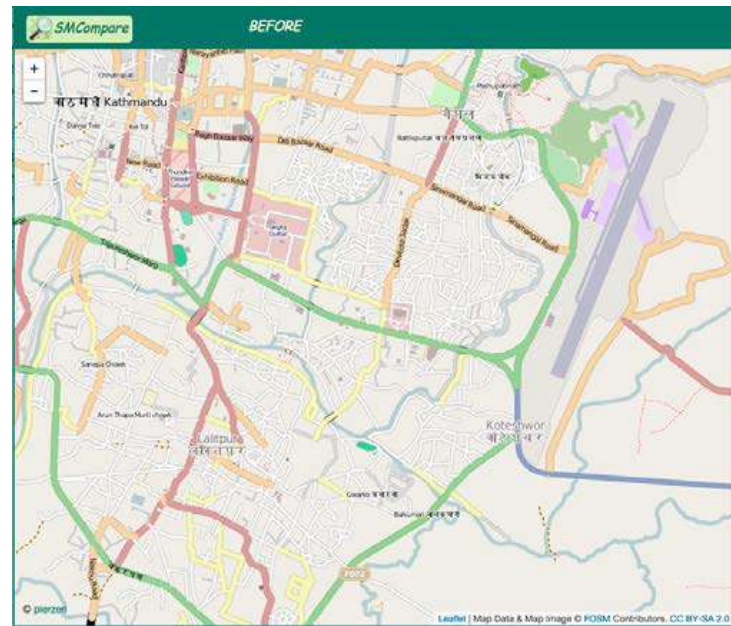


Satellite-Visible Damage and IPD Camps

Using Satellite Imagery, volunteers have mapped IDP Camps (■) and Visible Damage (■). Boxes overlaid indicate where mapping and validation have been done. IDP Camps and visible damage outside mapped boxes indicate mapping in progress.

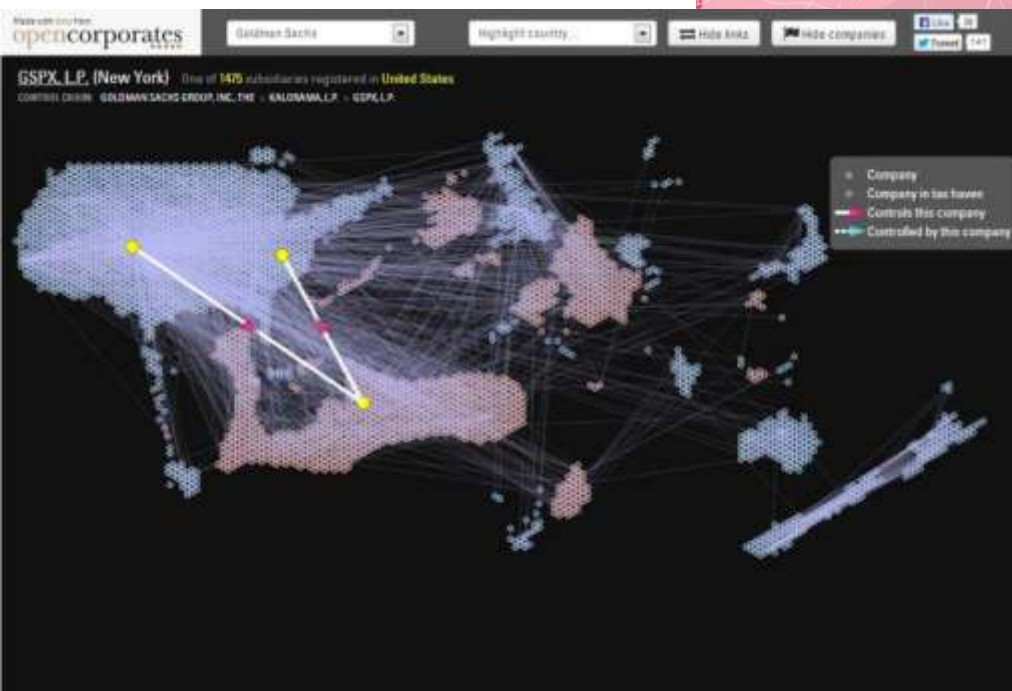
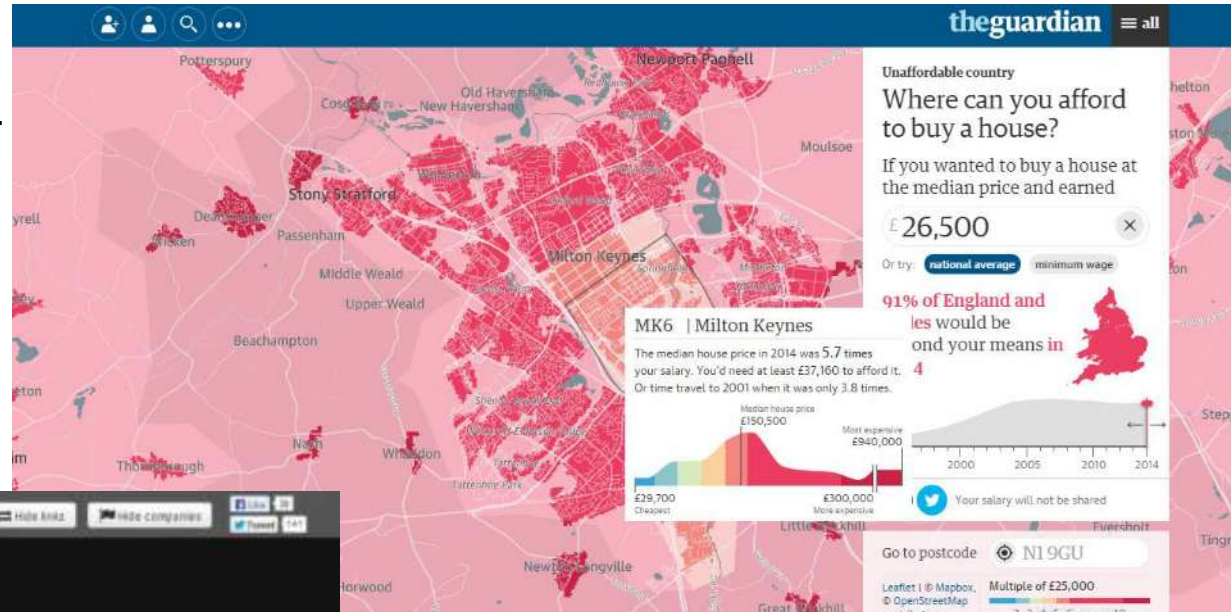


Leaflet | © OpenStreetMap Contributors | Satellite Imagery Dates: April 29, 2015 and May 3, 2015 | Data Updated: May 7, 2015



Some interesting uses of Data Science

- Uses Land Registry Price-Paid data.
- Includes **20 million** transactions
- **78,000** data downloads between January 2012 and March 2013:
- **\$1.4 billion** global investment in proptech in 2014:



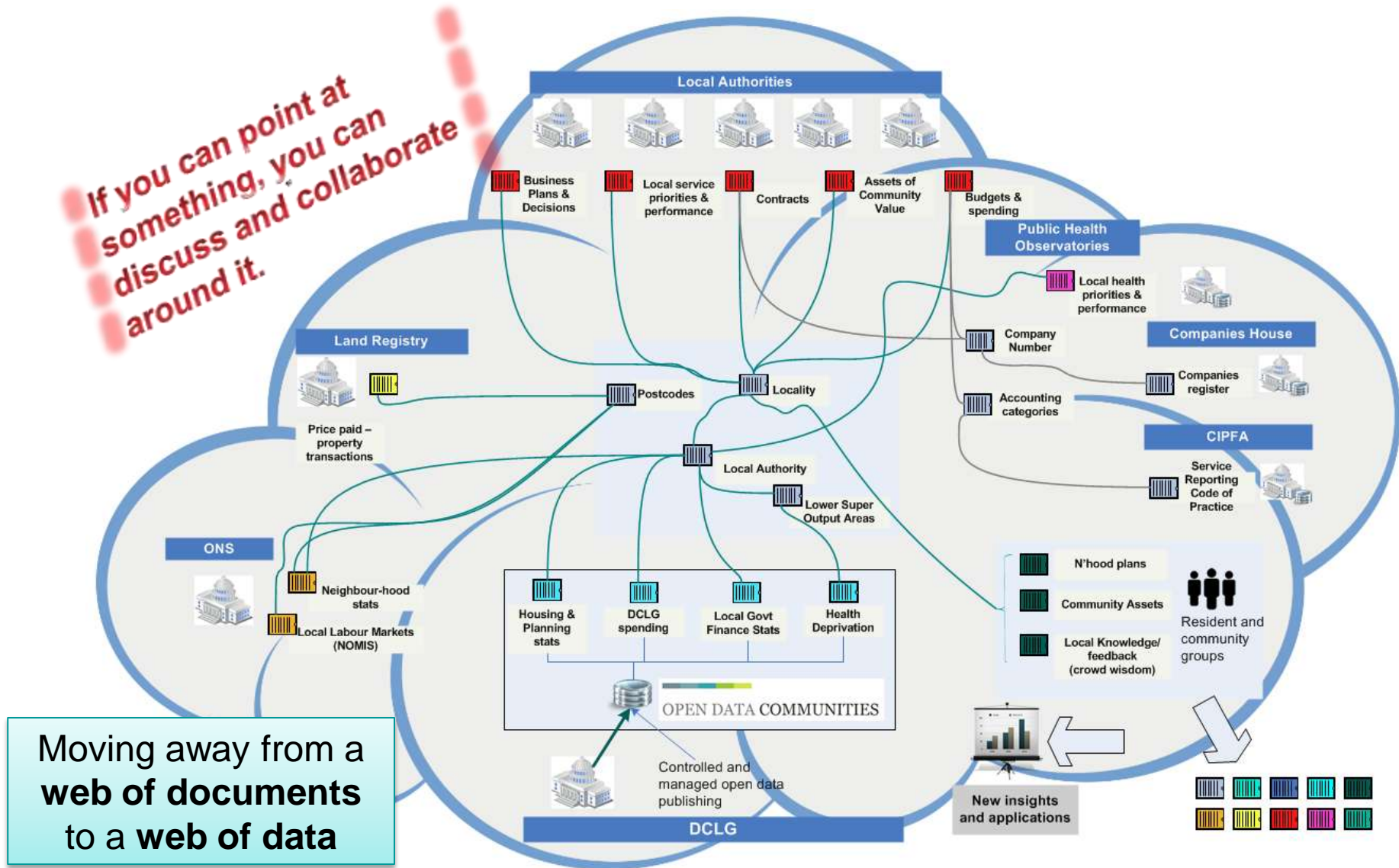
- Built on OpenCorporates.com
- Contains information & data about: **85 million** companies, in **105 jurisdictions**
- Number of Goldman Sachs subsidiaries registered in the Cayman Islands: **739**
- Total proceeds of corruption across 150 grand investigations involving corporate vehicles **\$56.4 billion**



The opportunity for Government ... and you

Faster smarter data linking and innovative use

*If you can point at
something, you can
discuss and collaborate
around it.*



CHALLENGE: Connecting with multiple audiences

users of DCLG (and other 3rd party) statistics
some examples

Homelessness

Housing & households

Deprivation & poverty

Shelter

azdominion

ustreets

HBFB
HOME BUILDERS FEDERATION

cml
Council of Mortgage Lenders

centre point
give homeless
young people
a future

Nightshelter
Winchester Churches

Hampshire
County Council

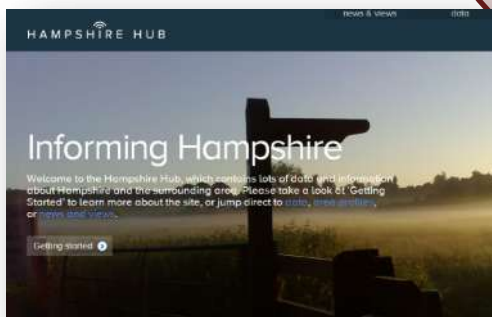
Leeds
CITY COUNCIL

MoveMaker

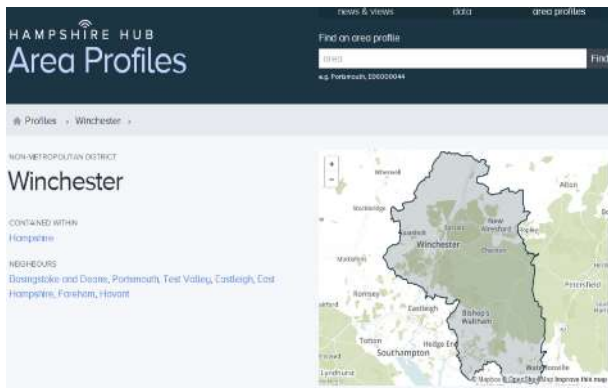
The ROYAL
MARSDEN
Cancer Charity

The FSEGroup
Investors

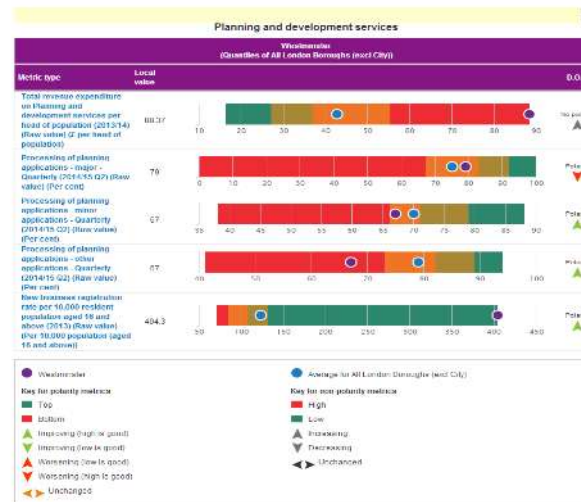
NHS
Wandsworth
Clinical Commissioning Group



Multiple sources, for multiple audiences



Source: Households by composition

[illegible]

2 bedroom flat for sale

From **£144,995**

Philip's Road, Plymouth, Devon PL1

[View agent's profile](#)

[Property details](#) [Floorplan](#) [Map & nearby](#) [Street view](#) [Local info](#)

Nearby transport

- Devonport (Devon)** (0.5 miles)
- Devonport (Cockport)** (0.7 miles)
- Keyham** (1.2 miles)
- Exeter International Airport** (41.8 miles)
- Culliff Airport** (79.7 miles)
- Bristol Airport** (94.5 miles)
- Devonport Ferry Terminal** (0.5 miles)
- Plymouth Docks/Ferry Terminal** (0.7 miles)
- Torpoint Ferry Terminal** (8.6 miles)

Nearby schools

[View all schools in Plymouth](#)

- St Joseph's Catholic Primary School** (0.1 miles)
- Woolfscott Primary School** (0.2 miles)
- Mount Pleasant Community Primary School** (0.3 miles)
- UTC Plymouth** (0.4 miles)
- City College Plymouth** (0.4 miles)
- Devonport High School for Boys** (0.7 miles)
- A.C.E. - Alternative Complementary Education** (1.8 miles)
- Mount Tamar School** (2.5 miles)
- Mill Fort School** (3.3 miles)

Note: Distances are straight line measurements

Local info for Plymouth

[Compare to similar areas](#)

People **Schools** **Crime** **Tax**

Household income in Plymouth (2012)

Income Bracket	Plymouth	National average (England and Wales)
0-14k	~18%	~22%
15-24k	~22%	~18%
25-34k	~18%	~18%
35-44k	~18%	~18%
45-54k	~18%	~18%
55-64k	~18%	~18%
65-74k	~18%	~18%
75-84k	~18%	~18%
85-94k	~18%	~18%
95-104k	~18%	~18%
105-114k	~18%	~18%
115-124k	~18%	~18%
125-134k	~18%	~18%
135-144k	~18%	~18%
145-154k	~18%	~18%
155-164k	~18%	~18%
165-174k	~18%	~18%
175-184k	~18%	~18%
185-194k	~18%	~18%
195-204k	~18%	~18%
205-214k	~18%	~18%
215-224k	~18%	~18%
225-234k	~18%	~18%
235-244k	~18%	~18%
245-254k	~18%	~18%
255-264k	~18%	~18%
265-274k	~18%	~18%
275-284k	~18%	~18%
285-294k	~18%	~18%
295-304k	~18%	~18%
305-314k	~18%	~18%
315-324k	~18%	~18%
325-334k	~18%	~18%
335-344k	~18%	~18%
345-354k	~18%	~18%
355-364k	~18%	~18%
365-374k	~18%	~18%
375-384k	~18%	~18%
385-394k	~18%	~18%
395-404k	~18%	~18%
405-414k	~18%	~18%
415-424k	~18%	~18%
425-434k	~18%	~18%
435-444k	~18%	~18%
445-454k	~18%	~18%
455-464k	~18%	~18%
465-474k	~18%	~18%
475-484k	~18%	~18%
485-494k	~18%	~18%
495-504k	~18%	~18%
505-514k	~18%	~18%
515-524k	~18%	~18%
525-534k	~18%	~18%
535-544k	~18%	~18%
545-554k	~18%	~18%
555-564k	~18%	~18%
565-574k	~18%	~18%
575-584k	~18%	~18%
585-594k	~18%	~18%
595-604k	~18%	~18%
605-614k	~18%	~18%
615-624k	~18%	~18%
625-634k	~18%	~18%
635-644k	~18%	~18%
645-654k	~18%	~18%
655-664k	~18%	~18%
665-674k	~18%	~18%
675-684k	~18%	~18%
685-694k	~18%	~18%
695-704k	~18%	~18%
705-714k	~18%	~18%
715-724k	~18%	~18%
725-734k	~18%	~18%
735-744k	~18%	~18%
745-754k	~18%	~18%
755-764k	~18%	~18%
765-774k	~18%	~18%
775-784k	~18%	~18%
785-794k	~18%	~18%
795-804k	~18%	~18%
805-814k	~18%	~18%
815-824k		

<http://www.new-homes.co.uk/starter-homes/>

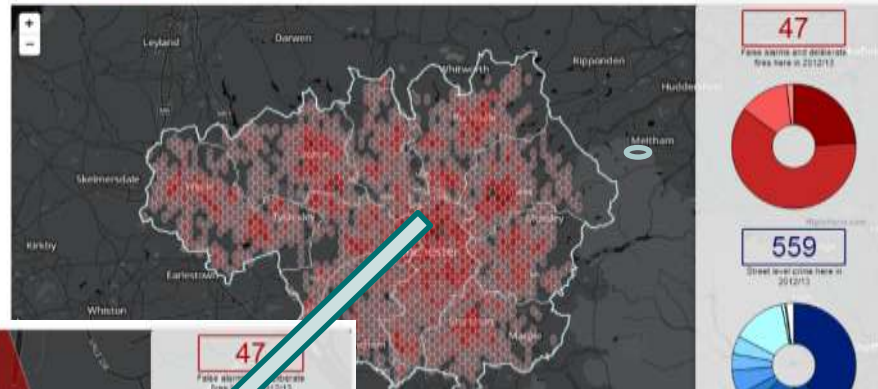
A fire and crime, and new build and floods example

Greater Manchester Fire and Rescue Service

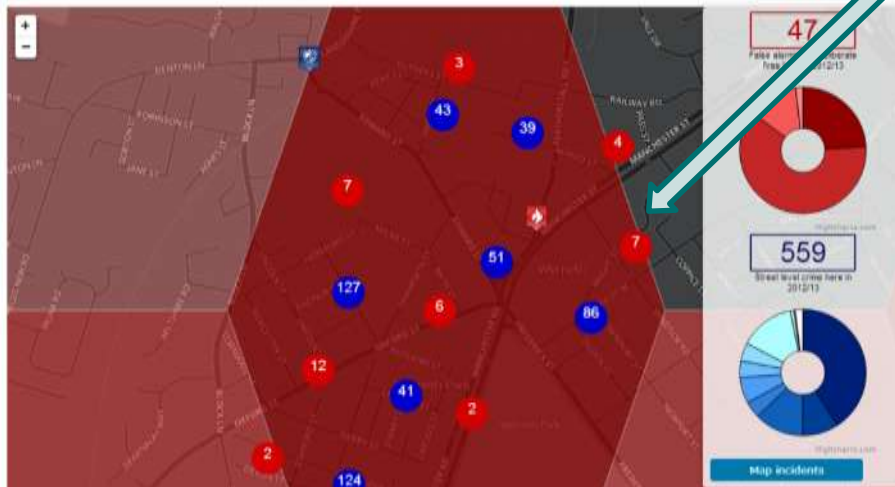
An open data demonstrator powered by
 OPEN DATA COMMUNITIES
 By Manchester City Council
 May 2014

False and deliberate incidents, and local crimes: 2012/13

Zoom map to:



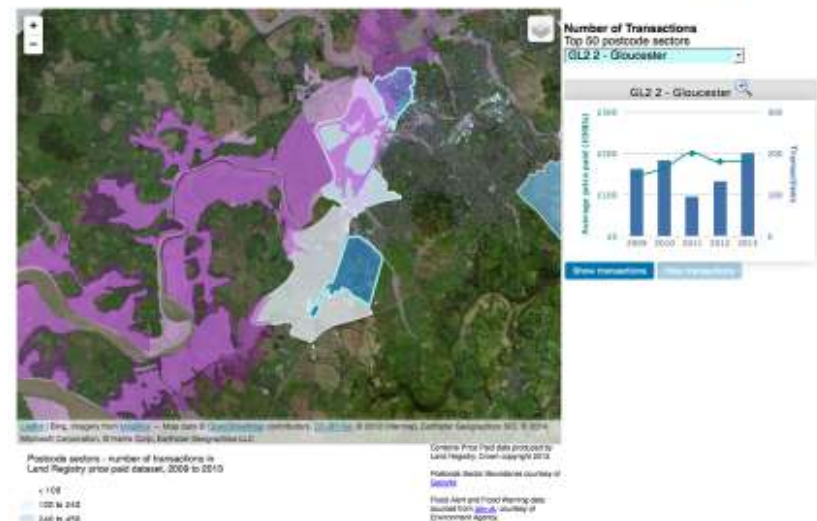
Fire & Crime hotspots



New build sales & flood risk

Flood alert and warning areas and
New build property transaction hotspots, 2009 to 2013

An open data demonstrator powered by
 OPEN DATA COMMUNITIES
 By Gloucester City Council
 April 2014





OpenDataCommunities is the solution?

Current position

What is OpenDataCommunities?

A trusted and actively used source of DCLG data in fully-open and accessible formats

DCLG
datasets in
5-star
formats

Open, accessible
DCLG data

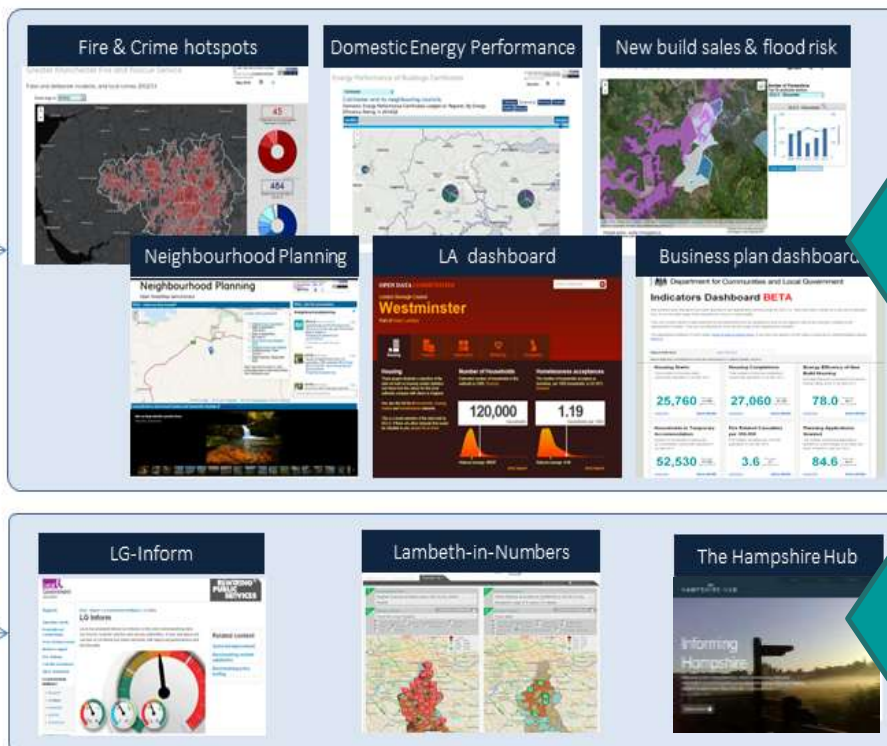
Tools for you to
combine and
extract data for
your places of
interest

Powering low-cost
demonstration
apps

A direct feed of
DCLG data to 3rd
party sites

Apps by us, to
demonstrate the
power and
potential of open,
linked data

Apps by others,
re-using DCLG
data alongside
other sources



What has open data ever done for us

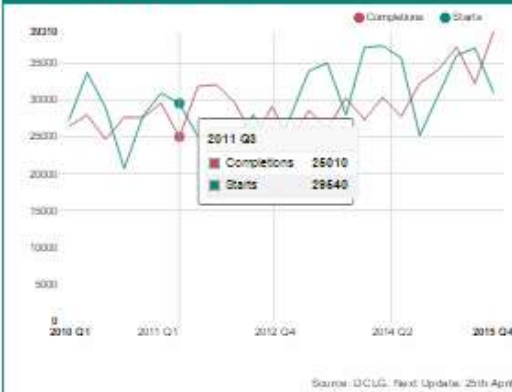
What are we doing at DCLG

Data driven Digital Dashboards

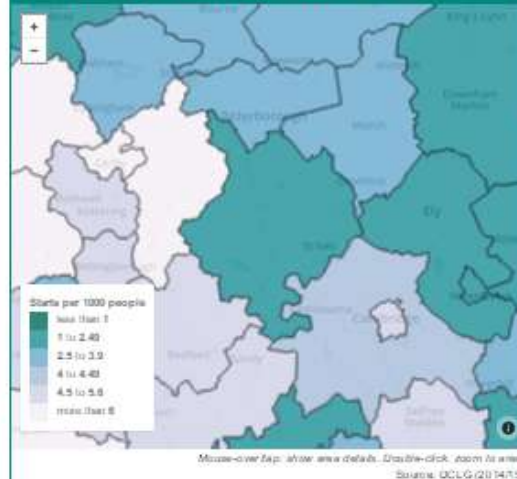
Housing Supply

Housing Supply

Housing starts and completions



Housing starts per 1000 households across England



Net additions

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Net Additions	137390	134900	124720	138810	170890
New Social Completions - HPR	117700	128160	116540	130340	155080
Net conversions	3050	3240	4100	4470	4850
Net change of use	11540	12590	12780	12520	20650
Net other gains and losses	5810	1100	1370	1330	630
Total demolitions	14890	12200	12060	12060	10610

Source: DCLG. Next Update: November 2018

Delivery

Housing Completions

Rolling annual average for year to December 2015

142,890

12 month	6 month	3 month
21% ▲	9% ▲	5% ▲

First Time Buyers

New mortgages to FTB, rolling annual average for year to September 2015

261,400

12 month	6 month	3 month
1% ▼	2% ▲	2% ▲

Pipeline

Planning Permissions

Granted for new homes, rolling annual average for year to September 2015

251,000

12 month	6 month	3 month
6% ▲	1% ▼	1% ▲

Young Owner Occupiers

Percentage of 25-34 year olds for the period 2014 - 2015

37%

12 month
0% ●

store

116 Street 11 Ltd.

Open Data (Local)

Step 1 - Web page for the service selected, simple right to change.

1. WHO YOUR LOCAL AUTHORITY 2. SELECT A FUNCTION

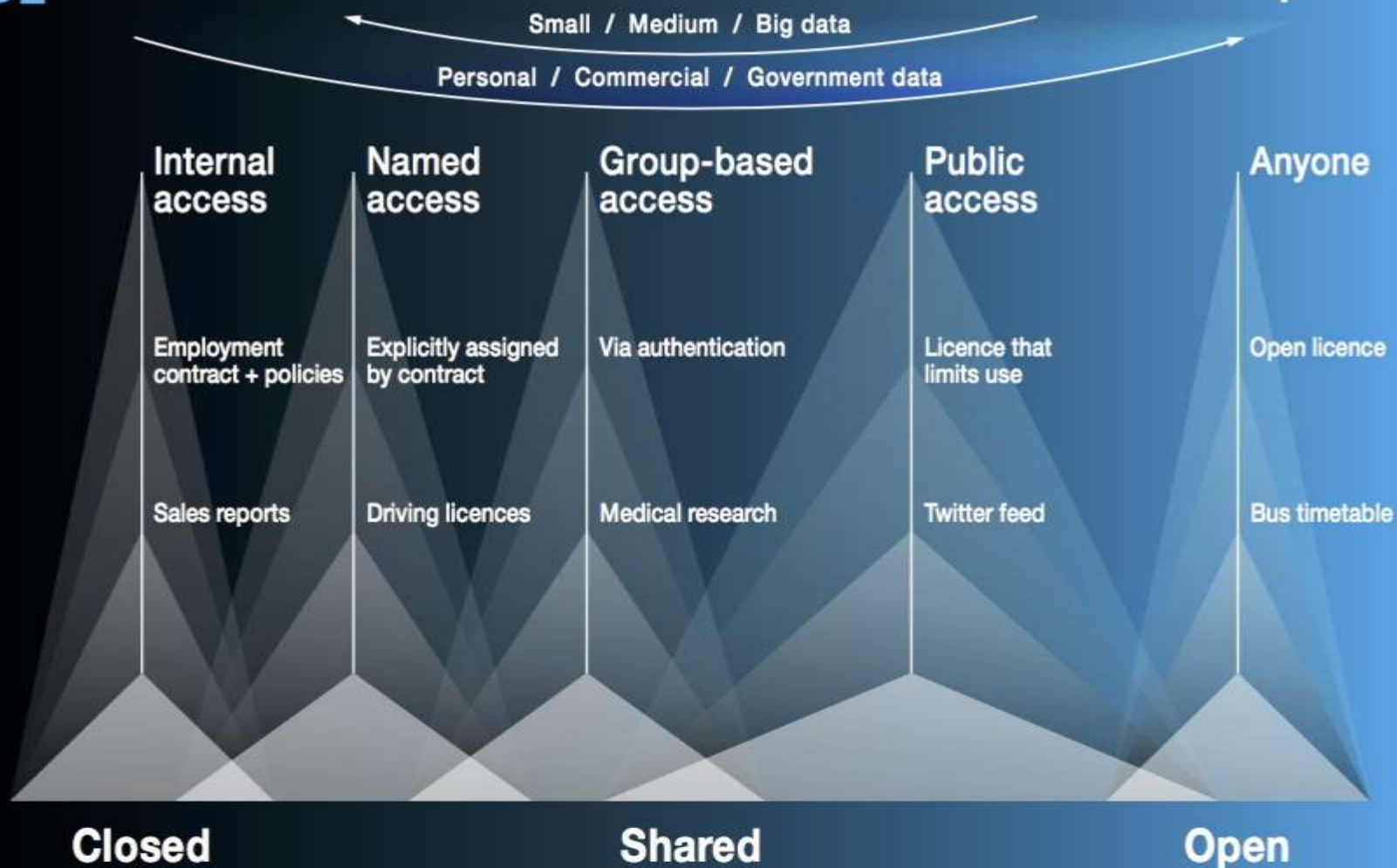
Your Authority is:
 Wandsworth
 The Town Hall Wandsworth High Street
 SW18 2PU
 Tel: 020 8871 6000
 (Email: enquiries@wandsworth.gov.uk)

What would you like to do next?
 Choose a different authority
 View services for this authority

Data driven Mobile phone apps



The Data Spectrum





1 Start with clear user need and public benefit

2 Use data and tools which have the minimum intrusion necessary

3 Create robust data science mode

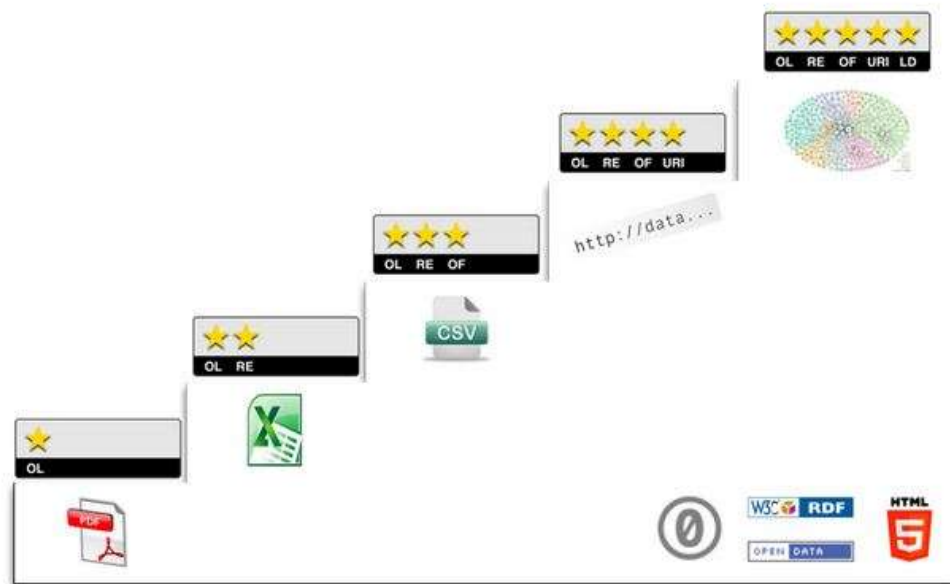
4 Be alert to public perceptions

5 Be as open as possible

6 Keep data secure

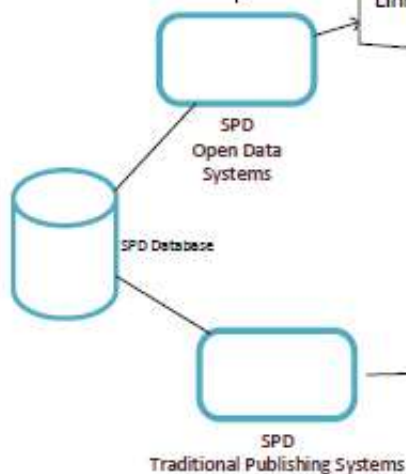
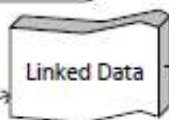
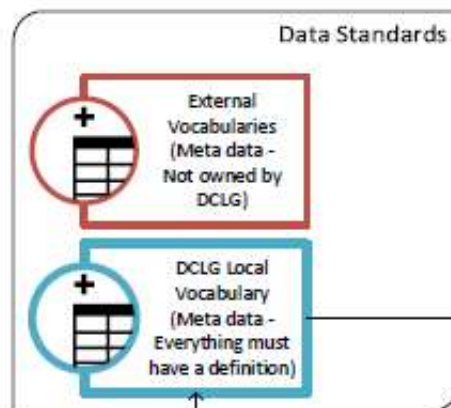
5 ★ Open Data

Tim Berners-Lee, the inventor of the Web and Linked Data initiator, suggested a 5 star deployment scheme for Data. Here, we give examples for each step of the stars and explain costs and benefits that come along with it.





What does linked data give you



Open Data (Data & Meta Data)

Data set identifier http://owl.t.org/linked-data/vocabulary	Homelessness Acceptances England, District By Ethnicity + http://homelessnessstatistics.org/linked-data/homelessness-acceptances-ethnicity/
Data Modified etienne:modified http://owl.t.org/linked-data/	September 09, 2015 12:40 etienne
Ethnicity http://homelessnessstatistics.org/linked-data/homelessness-acceptances-ethnicity/	Asian or Asian British + http://homelessnessstatistics.org/linked-data/general-concepts/ethnicity/ethnicity-terms/
Homelessness-Acceptances http://homelessnessstatistics.org/linked-data/homelessness-acceptances/	160 etienne
Label etienne http://owl.t.org/linked-data/vocabulary/	Homelessness, Homelessness-Acceptances, Ethnicity, 2014/12, Birmingham etienne
Reference area http://homelessnessstatistics.org/linked-data/geography/reference/	Birmingham (E0000025) + http://homelessnessstatistics.org/linked-data/geography/data-to-statistics/E0000025/
Reference period http://homelessnessstatistics.org/linked-data/geography/reference/	2014 Q4 + http://homelessnessstatistics.org/linked-data/geography/reference/
Type etienne http://owl.t.org/linked-data/vocabulary/	Observation + http://owl.t.org/linked-data/vocabulary/

Table 784a: Local Authority Summary

Local authorities' action under the homelessness provisions of the 1985 and 1996 Housing Acts

Local Authority, October to December 2014

		Numbers accepted as being homeless and in pri							
			White	Black or Black British	Asian or Asian British	Mixed	Other ethnic origin	Ethnic Group not Stated	Total
Current									
ONS code	County and local authority area	(000s)							
28	E09000004 Bexley	95.085	59	19	5	-	-	-	91
29	E08000025 Birmingham	422.744	237	144	160	44	68	83	736
30	E07000129 Babay	38.888	-	-	-	-	-	-	-
31	E06000008 Blackburn with Darwen	87.938	5	-	-	-	-	-	7



The importance of describing data

Open Data – Everything Must Be Described (Standards)

Homelessness Acceptances England, District By Ethnicity

IDENTIFIER

<http://opendatacommunities.org/data/homelessness/homelessness-acceptances/ethnicity>

COMMENT

This dataset contains the numbers of households accepted as homeless

DATASET CONTENTS

Spreadsheet view

This dataset contains *multidimensional* statistical data (a data cube) which can be viewed as a spreadsheet cross-referencing two dimensions at a time.

Use the drop-down menus to choose which dimensions to show (and, optionally, to fix the value of the other dimensions).

HOMELESSNESS ACCEPTANCES ENGLAND, DISTRICT BY ETHNICITY (

Reference period

Reference period	Asian_or_Asian_Bri...	Bl...
1 2011 Q2	167	21
2 2011 Q3	196	23
3 2011 Q4	166	22
4 2012 Q1	147	17
5 2012 Q2	168	19

2011 Q2

2011 Q2

IDENTIFIER
<http://reference.data.gov.uk/quarter/2011-Q2>

RESOURCE CONTENTS

METADATA

All metadata

Label: ethnicity
<http://www.x3.org/2007/07/inf-ethnicity.html>

2011 Q2 housing

Type: rdtype

<http://reference.data.gov.uk/quarter/2011-Q2>

Rows, columns & cells

CONCEPT SCHEME

DCLG Ethnic Group Concept Scheme

IDENTIFIER

<http://opendatacommunities.org/def/concept-scheme/general-concepts/ethnicity>

CONCEPT SCHEME CONTENTS

Concepts in scheme

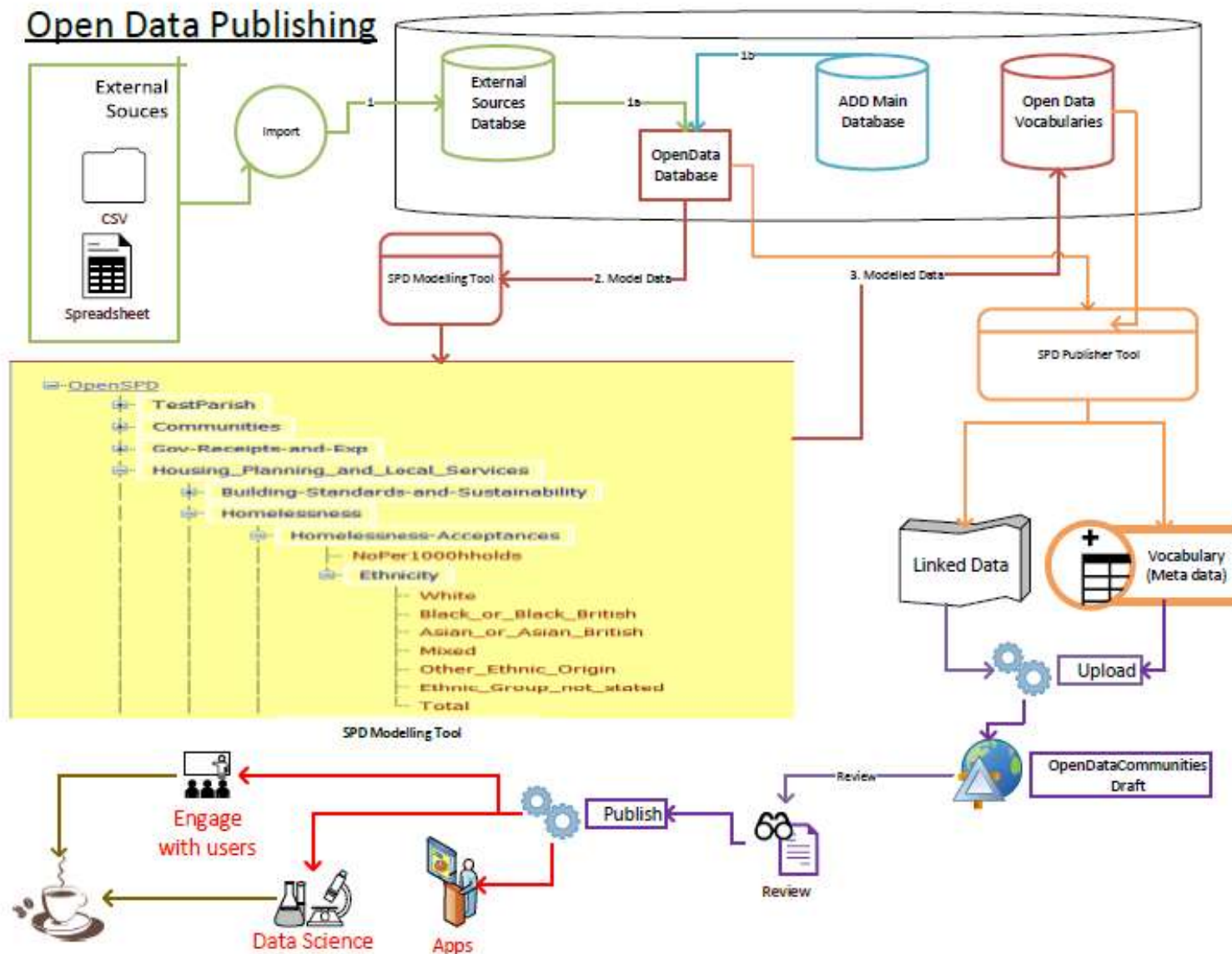
- Asian_or_Asian_British
- Black_or_Black_British
- Ethnic_Group_not_stated
- Mixed
- Other_Ethnic_Origin
- Total
- White



The sausage machine !

(producing linked data)

Open Data Publishing



Thank you & questions



Department for
Communities and
Local Government

Martin Waudby

Data, Analytics and Statistics Division

Analysis and Data Directorate

martin.waudby@communities.gsi.gov.uk

0303 444 2316

Towards open, re-usable data:

<http://opendatacommunities.org>