

**Hewlett Packard
Enterprise**



Flanders
State of the art

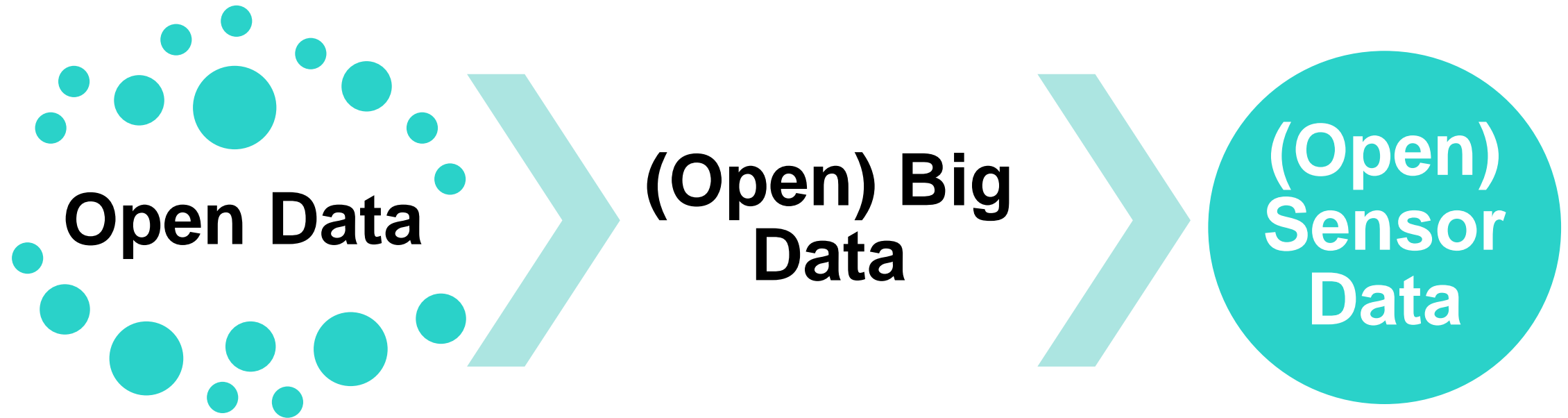
Open (Government) Data

HOE DE OVERHEID NIEUWE DIENSTEN EN
ECONOMIEËN HELPT STIMULEREN MET BEHULP VAN
OPEN DATA

Yves Vanderbeken - Flemish Government Open Data team member
& HPE Account Chief Technologist
On behalf of Noël Van Herreweghen – Project Manager Flemish
Government Open Data Team



Topics

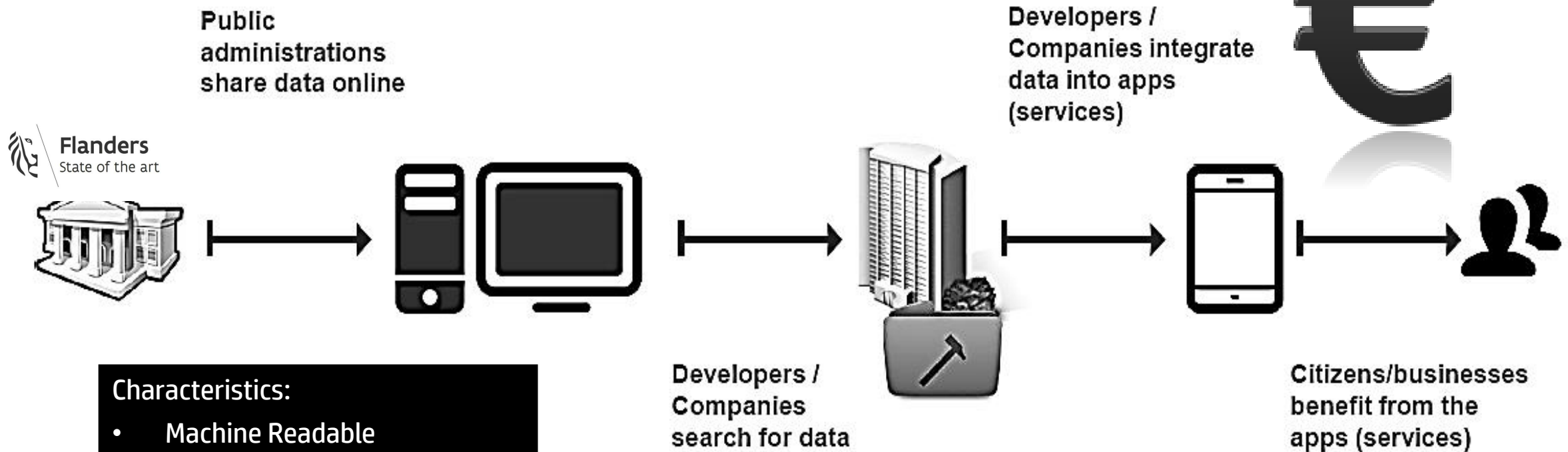


Topics



Open Government Data: The basics

Publishing data

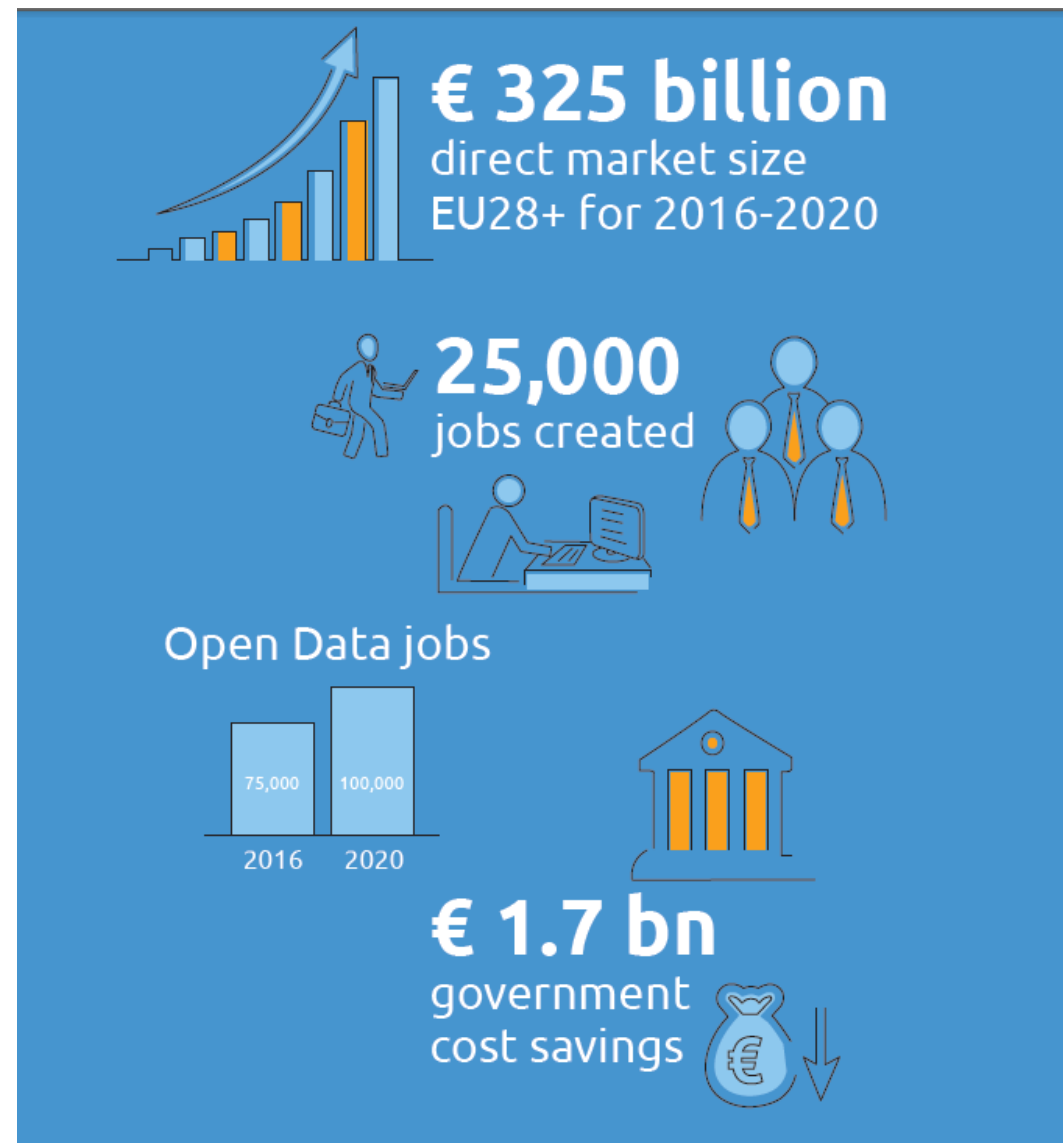


Characteristics:

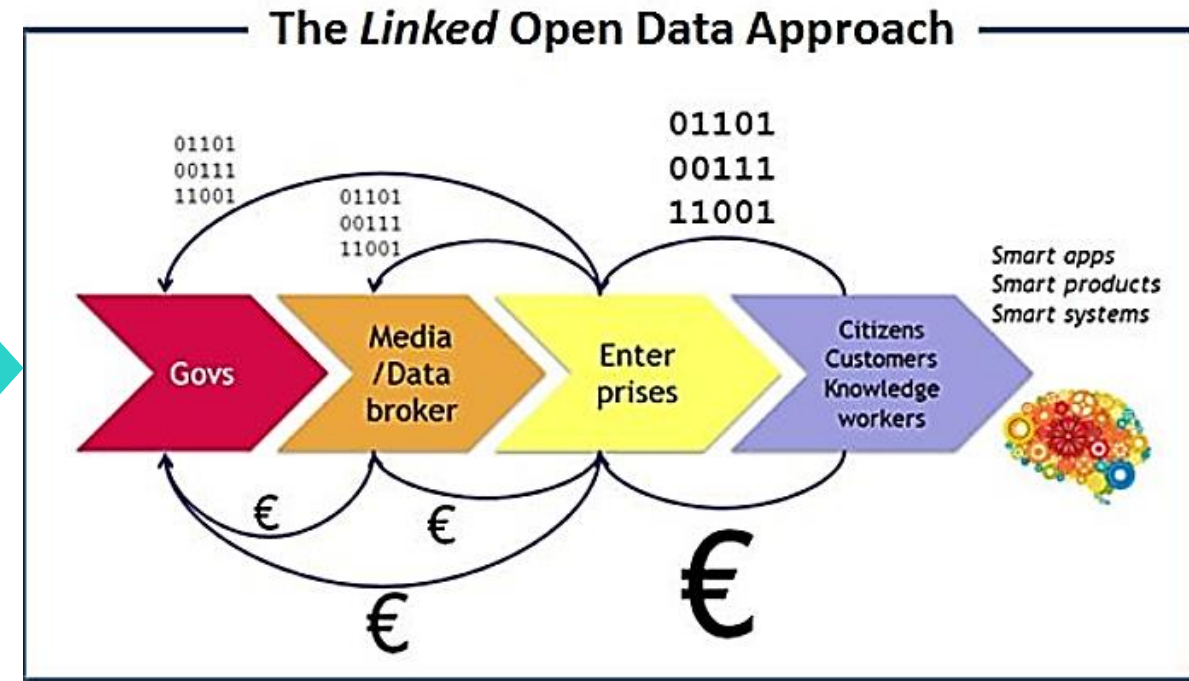
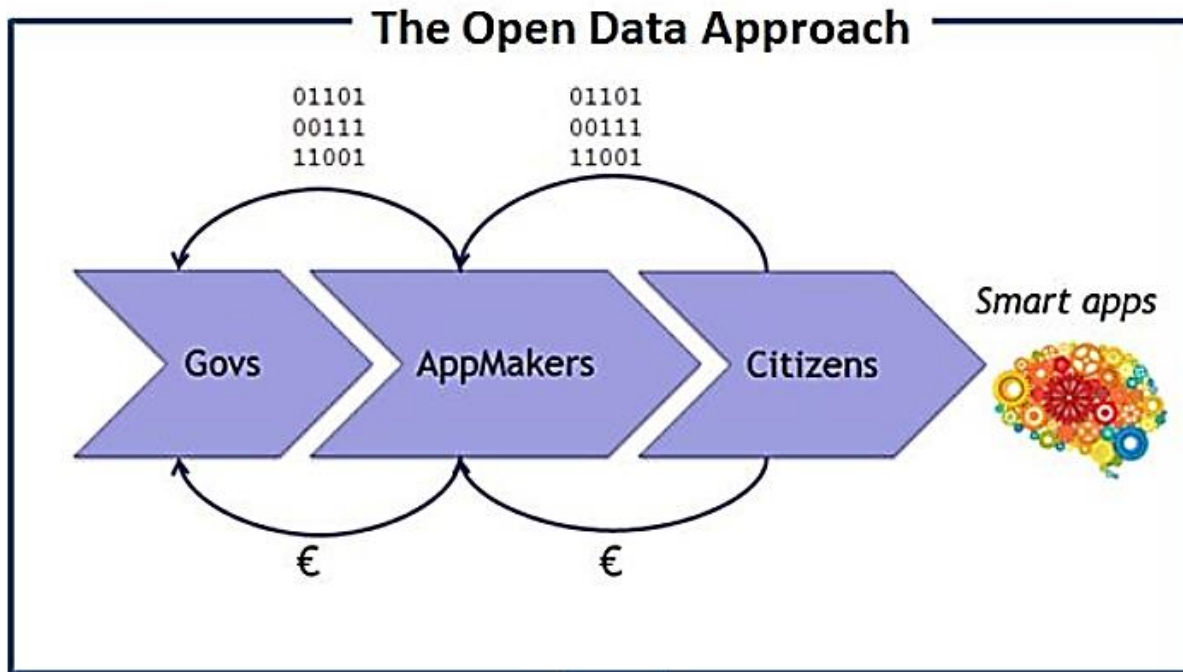
- Machine Readable
- Free
- With respect for Privacy
- Open Standards

Reusing data

Creating Value through Open Data (EU view by 2020)



Where is the money in Open (Government) Data?



Immo van schatbare waarde

Vind je nieuwe thuis in een aanbod van 106.754 woningen. [Lees meer](#)

Te Koop

Te Huur

Verkoop

Realo Schatting®

Vul hier een adres, stad of postcode in

Type pand: Alle ▾

Prijs: Alle ▾

Zoeken

[Uitgebreide zoekopdracht >](#)

Help

Aanbevolen voor jou



1. Publieke overheidsdata

Het overgrote deel van de gegevens die verwerkt worden door Realo en vertoond worden op de website zijn afkomstig uit publieke overheidsbronnen, zoals:

- De Algemene socio-economische enquête 2001 ([SEE 2001](#)).
- Census 2011 (zie [FGOV.be](#))
- Publieke gegevens van de FOD Economie
- Het [CadGIS](#) van AAPD (Algemene Administratie van de Patrimoniumdocumentatie)
- publieke gegevens van de VDAB
- Publieke gegevens van het AGIV ("Agentschap voor geografische informatie Vlaanderen"):
 - Overstromingsgevoelige gebieden (Watertoets) (zie [AGIV.be](#))
 - [Gewestplan](#)
 - [Recht van voorkoop](#)
 - Het Grootchalig Referentiebestand ([GRB](#))
 - Adresposities ([CRAB](#))
- Gegevens over [Overstromingsgevaar en -risico](#) van Leefmilieu Brussel
- [De Inventaris van het Bouwkundig Erfgoed](#) van Onroerend Erfgoed
- Publieke gegevens van het SPW (Service publique de Wallonie)
 - [Risques d'inondation](#)
 - [Plan de secteur](#)
 - [Patrimoine / Biens classés](#)
 - [PICC](#) (Projet Informatique de Cartographie Continue)
 - [CADMAP](#)
- Publieke gegevens van het CIBG (Centrum voor Informatica voor het Brusselse Gewest)
 - BROH: [Bestemmingen](#)
 - BROH: [Patrimonium](#)
 - [UrbIS](#)
- Publieke gegevens van het Nationaal Geografisch Instituut ([NGI](#))
- GeoPostcodes (door [GeoData](#))



Yves ▾

Publiceer je pand

cht >





VrijeParking

VrijeParking.be is een ontwikkeling van [ProjectsLouis.be](#) en is een uitbreiding op de eerste (web)applicatie die ontwikkeld werd met als doel mobiele toestellen. Begin 2012 ontwikkelde we de eerste stappen voor ParkingGent, een online website waarmee het mogelijk was voor een reeks ondergrondse parkings in Gent na te gaan hoeveel beschikbare plaatsen er nog waren. Zo kon men voorkomen nodeloos naar een volzette parking te rijden en zelfs onderweg een snelle check-up te doen van de beschikbare capaciteit. Na enkele weken besloten we dat het gebruik van een mobiele website niet altijd voor iedereen even gemakkelijk is, en we maakten van deze mobiele website, eveneens een app voor Android en iOS. De vraag naar deze toepassing bleek dan ook groter dan verwacht met tegen eind 2013 net geen 2000 actieve installaties op beide platformen. Begin van VrijeParking.be In de zomer van 2013 valt voor de eerste keer de term 'vrijeParking', het idee bestaat eruit om ParkingGent uit te breiden naar diverse andere steden. De enige voorwaarde die hiervoor geldt is dat het mogelijk is de gegevens van deze parkeerplaatsen te kunnen ophalen van een opendata platform. Op dit moment maken we dan ook gebruik van het opendata-platform van de Stad Gent en de Stad Kortrijk (gegevens van Parko).

A screenshot of a mobile application interface titled 'VrijeParking: GENT'. It displays a list of parking locations with their current status. The status is shown in a large box on the right of each row: a green box with the number '81' for Sint-Pietersplein, and red boxes with the word 'VOL' (full) for Sint-Michiels and Ramen. The interface includes a back arrow, a forward arrow, a refresh icon, and a star icon in the top right corner.

P10 - Sint-Pietersplein	81
P07 - Sint-Michiels	VOL
P08 - Ramen	VOL



Department
for Environment
Food & Rural Affairs

Environmental open-data applications and datasets

Under its [Open Data Strategy Defra](#) and its [agencies](#) are increasing the range of the data that they provide. All our data can be found in the [data.gov.uk catalogue](#), but here we highlight other data portals, and services and applications that are built on open environmental data.

Applications

[Bathing Water Explorer](#) [England](#) · [Wales](#)



View water quality at designated bathing water sites

[Catchment Data Explorer](#) [England](#) · [Wales](#)



Explore and download information about the water environment

[Bathing Water Widgets](#) [England](#) · [Wales](#)



Web widgets that you can use to embed up-to-date bathing water quality information on your website



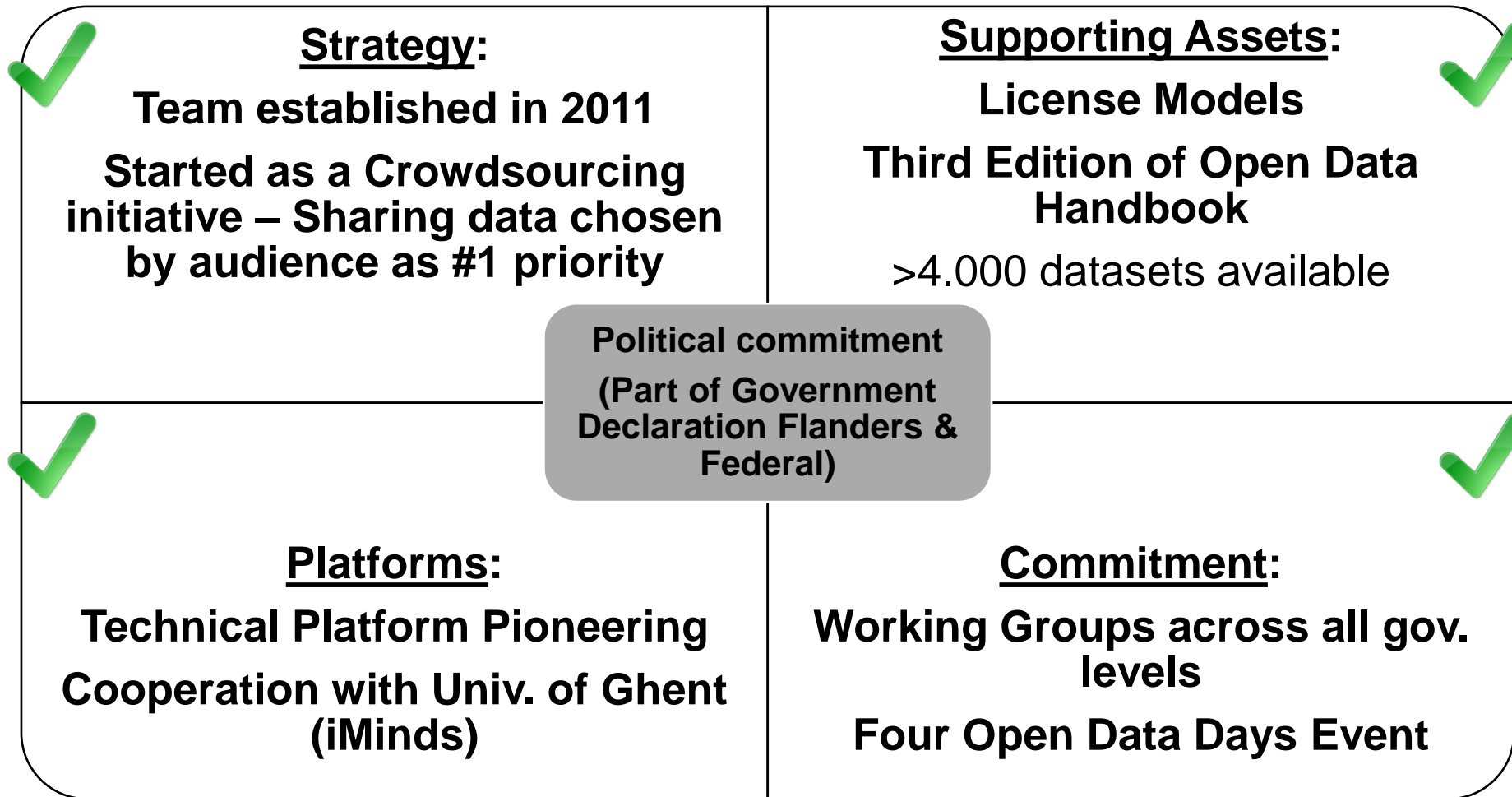
TURNING DATA INTO KNOWLEDGE

Climate change doesn't
recognize borders. Neither
should climate knowledge.


Climate change is the greatest challenge of our time, spanning countries and continents, societies and generations, sectors and disciplines. Yet crucial data and information on climate issues are still too often amassed - diffuse - in closed silos. Climate Tagger utilizes Linked Open Data to scan, sort, categorize and enrich climate and development-related data, improving efficiency and performance of knowledge management systems.

Flanders leads Open Data innovation in Belgium


Flemish Government has invested in all elements to make Open Data successful since 2011



Opendata.vlaanderen.be

 Vlaanderen

CONTACTEER ONS



ICT, e-government & informatie

OPEN DATA: [INLOGGEN](#) [REGISTREREN](#)

Open data in Vlaanderen

Zoek data:

Zoek

Populaire tags

[BG](#) [Databank Ondergrond...](#) [DOV](#) [Geologie](#) [geologie](#) [Herbruikbaar](#) [Kosteloos](#) [Landgebruik](#) [Lijst M&R Metadata](#) [Metadata GDI-VI-con...](#) [Metadata INSPIRE-co...](#) [Ondergrond](#)

A lot of data is already available to the public



Datasets

Verfijn uw zoekresultaat

4.391 datasets gevonden

Relevantie |

Zoek

Doorzoeken datasets...

Filter by location [Clear](#)

Antwerpen
Gent
Leuven
Maastricht

Organisaties binnen sociaal-cultureel werk in Vlaanderen en Brussel via POI-s...

geopunt

Locatie, adresgegevens, contactgegevens en link naar detailpagina's van de gesubsidieerde organisaties binnen sociaal-cultureel werk in Vlaanderen en Brussel.



Verfijn uw zoekresultaat

721 datasets gevonden

Relevantie



Zoek

Doorzoeken datasets...

Filter by location

Clear

Map data © [OpenStreetMap](#) contributors
Tiles by [MapQuest](#)

Organisaties

Organisaties

Groepen

Milieu-attitude: bezorgdheid over het milieu als problematisch gegeven, in %

SVR

Milieu-attitude: bezorgdheid over het milieu als problematisch gegeven, in %
formaat MS-Excel - 47 views

XLS

Gedragsintenties: bereidheid om iets te doen voor het milieu, in %

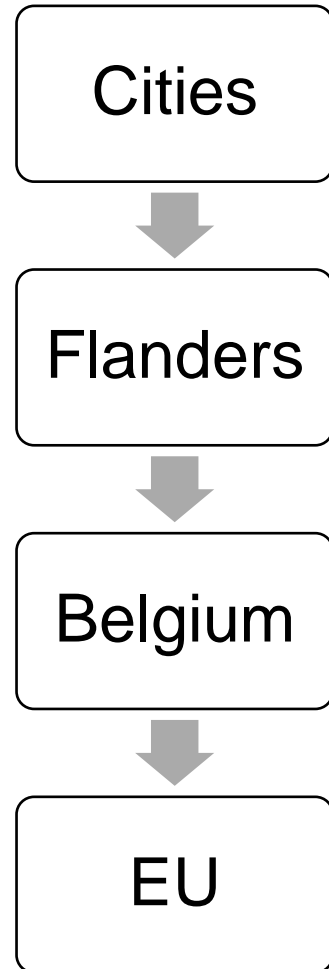
SVR

Gedragsintenties: bereidheid om iets te doen voor het milieu, in % formaat MS-Excel - 16 views

XLS

Milieubeleidsvaluatie: mening over de inzet van Vlaanderen om het milieu te ...

Harvesting Data



The screenshot shows the European Data Portal homepage. At the top, there is a navigation bar with links for 'FAQ', 'Search', 'Contact', 'Cookies', and 'Legal notice', along with a language selector set to 'English (en)'. Below this is the 'EUROPEAN DATA PORTAL' header with the European Union flag. A large banner features a map of Europe with various national flags and the text 'Search Datasets'. A search bar is overlaid on the banner with the placeholder text 'Search datasets...' and a 'Search' button. Below the banner is a navigation menu with links: 'What we do', 'Providing Data', 'Using Data', 'Library', and 'Data'. The main content area is divided into two columns. The left column is titled 'Latest News' and features three news items: 'What are your plans for the autumn holiday?' (dated 30/09/2016), 'Hacking data science in Tartu, Estonia' (dated 29/09/2016), and 'Lisbon Opens up' (dated 27/09/2016). The right column is titled 'Browse Categories' and displays icons for various sectors: Agriculture, Fisheries, Forestry & Foods; Energy; Regions & Cities; Transport; Economy & Finance; International; Government; Justice, Legal; and Environment.

Time for Open Data (R)evolution





Quality of data

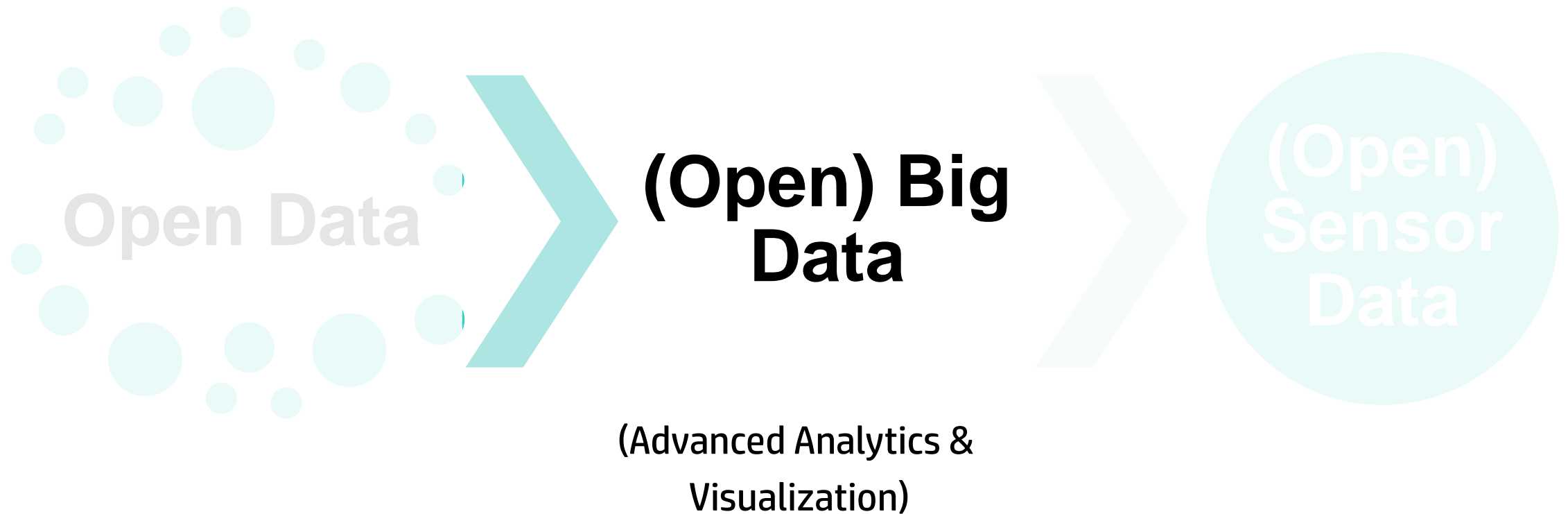
...starts at the source systems, not on the Open Data Platform



Consistency

...of data formats across the board makes it easier for companies to use and combine the Open Data sets into Apps that work

Topics



Today

Oncologists are prescribing the standard forms of cancer treatments for patients.

When Steve Jobs was diagnosed with cancer a few years ago it cost \$100,000 to sequence his DNA. Today it costs \$4,000. In 5 years it will cost \$40 to sequence your DNA



Tomorrow

Scientists will perform analysis on DNA data to detect cells **before** they turn into cancer.

Case: (Open) Personal Genomes

Personal Genome Project: PersonalGenomes.org

PersonalGenomes.org ▾ [Participate](#) ▾ [Global Network](#) [Donate](#)

Sharing Personal Genomes

The Personal Genome Project was founded in 2005 and is dedicated to creating public genome, health, and trait data. Sharing data is critical to scientific progress, but has been hampered by traditional research practices—our approach is to invite willing participants to publicly share their personal data for the greater good.

[Learn more >](#)



Participation

Donating your genome and health data to science is a great way to enable advances in understanding human genetics, biology, and health. We seek volunteers willing to donate diverse personal information to become a public resource.

[Learn about participating >](#)

Open Data

Open data is a critical component of the scientific method, but genomes are both identifiable and predictive. As a result, many studies choose to withhold data from participants and restrict access to researchers. The PGP's public data is a common ground to collaborate and improve our understanding of genomes.

[Use PGP data >](#)

Global Network

We are a member of the Global Network of Personal Genome Projects. Since the Personal Genome Project was launched at Harvard Medical School in 2005, the network has grown to include researchers at many leading institutions around the globe.

[Find out about the network >>](#)

Today Natural disasters strike, crippling public infrastructures and first responders' ability to quickly react to the devastation.



e.g. Tsunami world wide response center in Ostend

Tomorrow An **intelligent network of sensors** within public infrastructures will monitor data to accelerate response to and recovery from disasters.

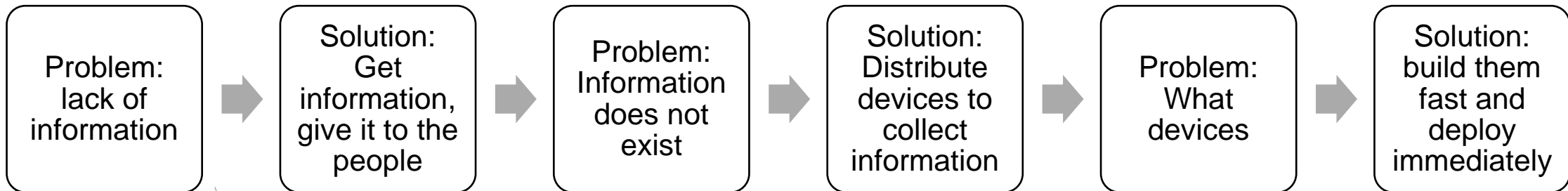
Case: SAFECAST

11Mar2011



Safecast was created 1 week after the 2011 Japan earthquake.

- Small core team, with more than 100 regular volunteers worldwide.
- Team concentrated in Tokyo, with smaller support teams globally
- Initially funded via Kickstarter and private donations
- Have deployed over 800 sensors currently
- As of December 2013, over 14,000,000 data points collected.
- All data is open and available under CC0 dedication.





Visualizing Gallery

Entries: Visualizing Urban Expansion

Featured Gallery: Visualizing Urban Expansion

< 1 2 3 4 >

visualizing.org

A community of creative people making sense of complex issues through data and design — [join us](#)

Share Your Work

Find Visualizations



Made Possible By



Open Data

Find and discuss data sets with the experts who produce them

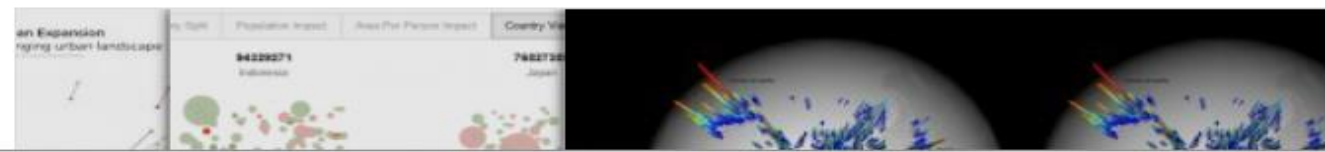


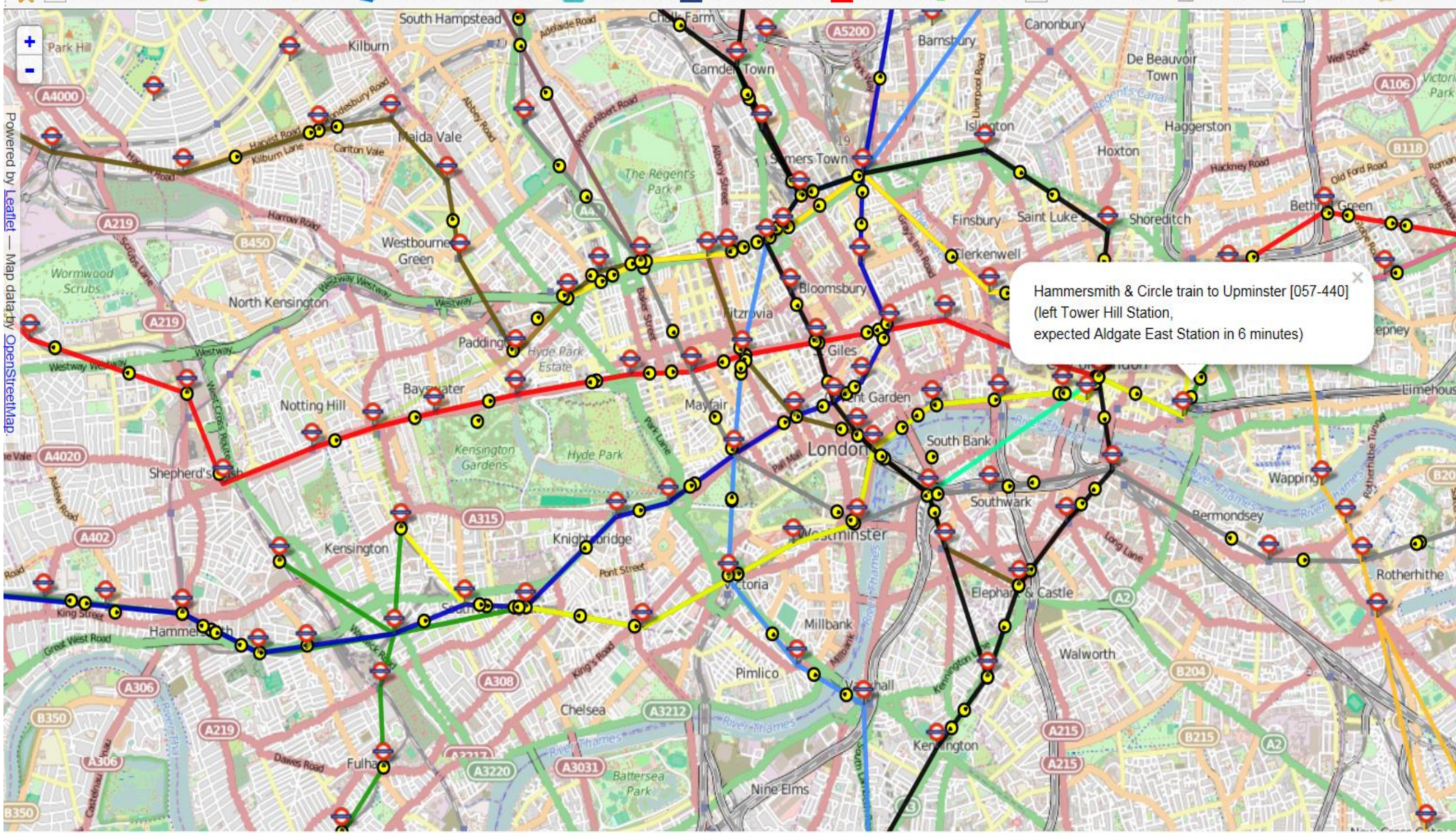
Challenges

Enter to sharpen your skills and win unique prizes

Featured Visualizations

See More





Tweet 6,016 Hide

What is this?

This map shows all trains (yellow dots) on the London Underground network in approximately real time. [Skyfall version](#)

I have similar things for the [London buses](#) and [National Rail](#), and an awesome [bookmarkable train times journey planner](#). [Donate](#)

— Matthew

How does it work?

Live departure data is fetched from the [TfL API](#), and then it does a bit of maths and magic. Some H&C and Circle stations are missing in the TfL feed.



Who did this?

[Matthew Somerville](#) (with helpful hinderances from [Frances Berriman](#) and [James Aylett](#)). Station icon by [Tim Diggins](#).

Originally built at [Science Hackday](#), June 2010. [Source code](#).

Live London Underground map

By Matthew Somerville. Data collected: Sat, 21 Mar 2015 13:02:03 +0000

Brussels

<http://bikes.oobrien.com>

14:51₉

Jump to a city

Colours

Blue to Red

Empty Station

Full Station

Circle sizes correspond to station size.

System: JCDecaux. Weather: 7°C. Mostly cloudy.

Global - Melbourne - Vienna - Antwerp - Brussels - Rio de Janeiro (citybik.es) - Montreal - Bordeaux - Paris - Rennes - Tel Aviv - Mexico City - Moscow - Daejeon - Barcelona - Seville - Taipei - Liverpool - London - Chicago - New York City - Washington DC/Arlington/Rockville - more...

053 - GARE DU MIDI / ZUIDSTATION

Bikes: 10
Spaces: 30

Bikes in Dock (last 24h)



344

Active Docking Stations

10

Full Stations

26

Nearly Full Stations

13

Empty Stations

24

Nearly Empty Stations

8042

Active Docks

3737

Bikes in Active Docks



Like



Share



Tweet

5



6

Follow @oobr

Global

Animation

Blog

About

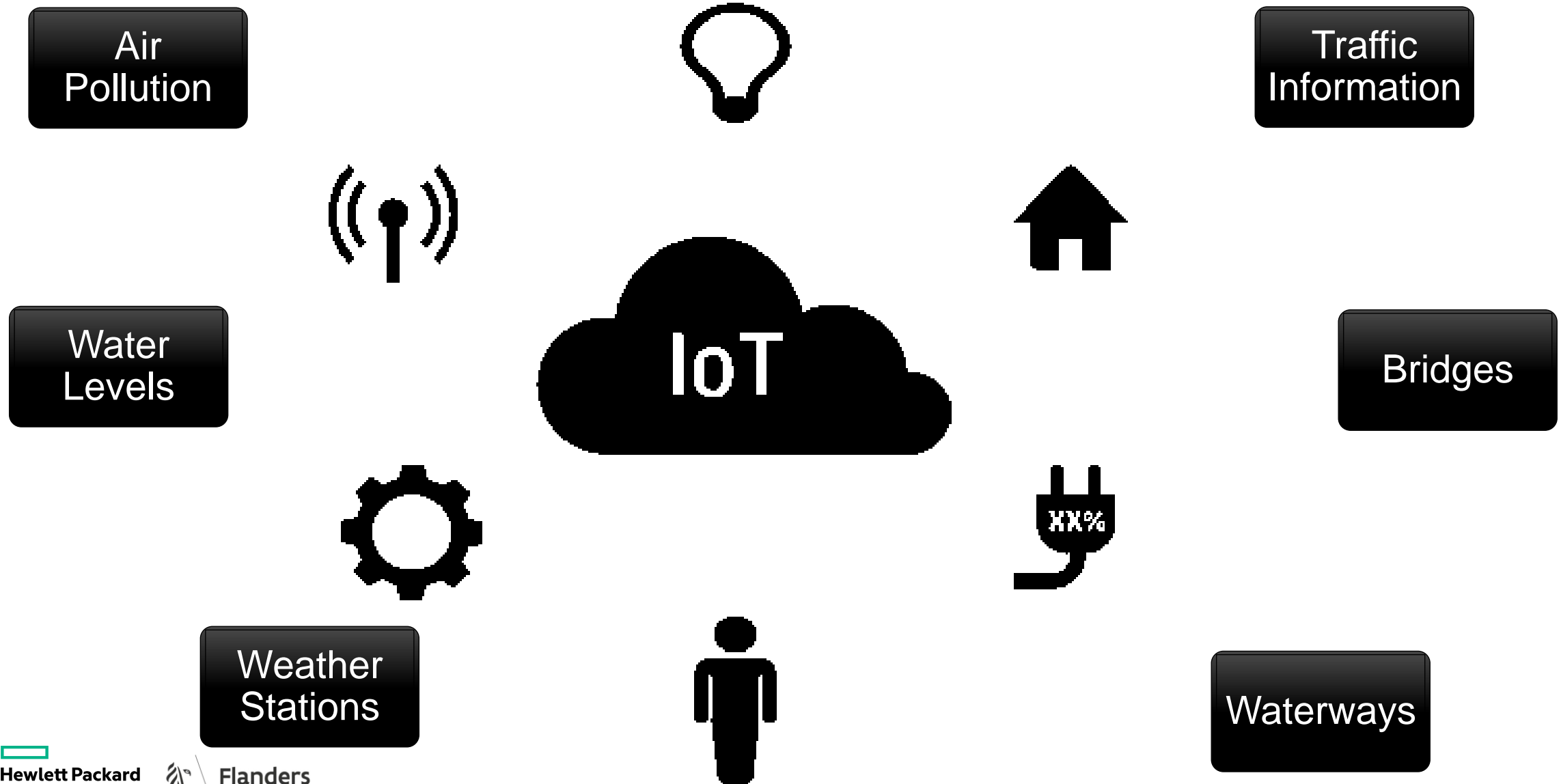
1000m

Show graphs

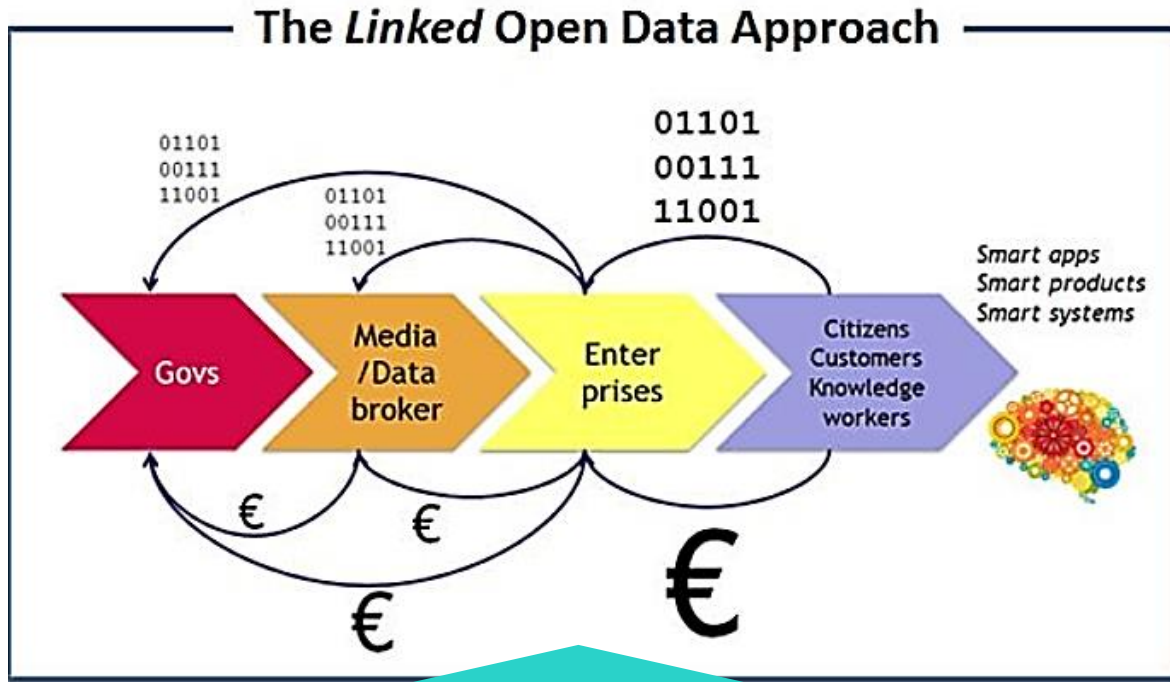
Topics



Sensors everywhere, (Open) Data everywhere



Open (Sensor) Data



"In the Internet of Things, you don't know who's going to use the data that's generated by your devices, and **you don't know who is going to help you unlock the value from the data that's being generated by all these devices. (*)**"





Earth Insights

Collecting and analyzing over a million camera trap images captured from around the world



Black-Fronted Duiker

SEEN ON APR 29 2012 AT
BWINDI IMPENETRABLE FOREST



Sun Bear

SEEN ON APR 22 2012 AT
BUKIT BARISAN



Central American Red Brocket

SEEN ON APR 15 2012 AT
VOLCÁN BARVA

EQUATOR



http://www8.hp.com/us/en/hpe/hp-information/environment/earth-insights.html#.V_Ekrmaa0jY



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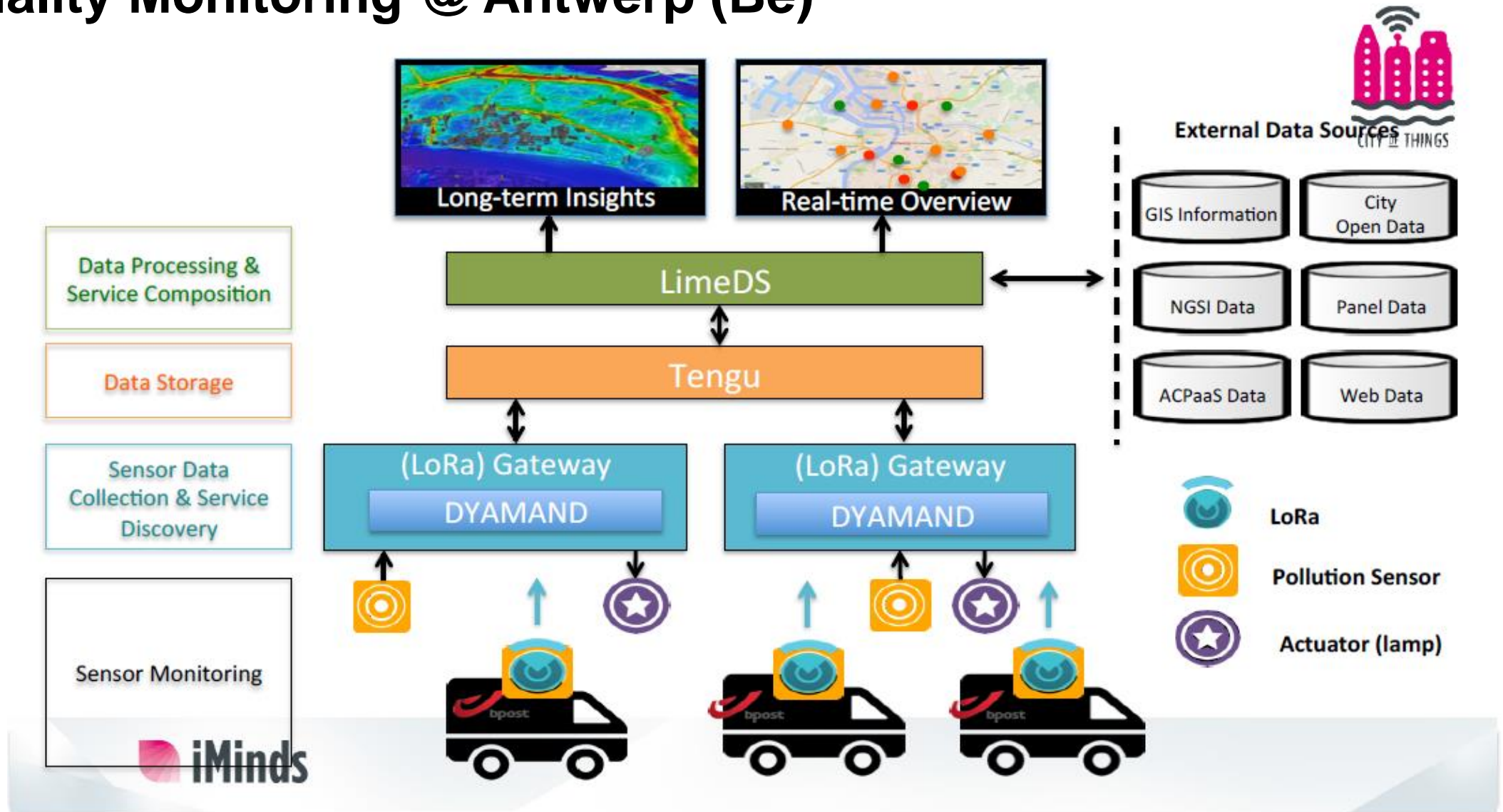
Week of Apr 2



2

BIRD SPECIES

Air Quality Monitoring @ Antwerp (Be)

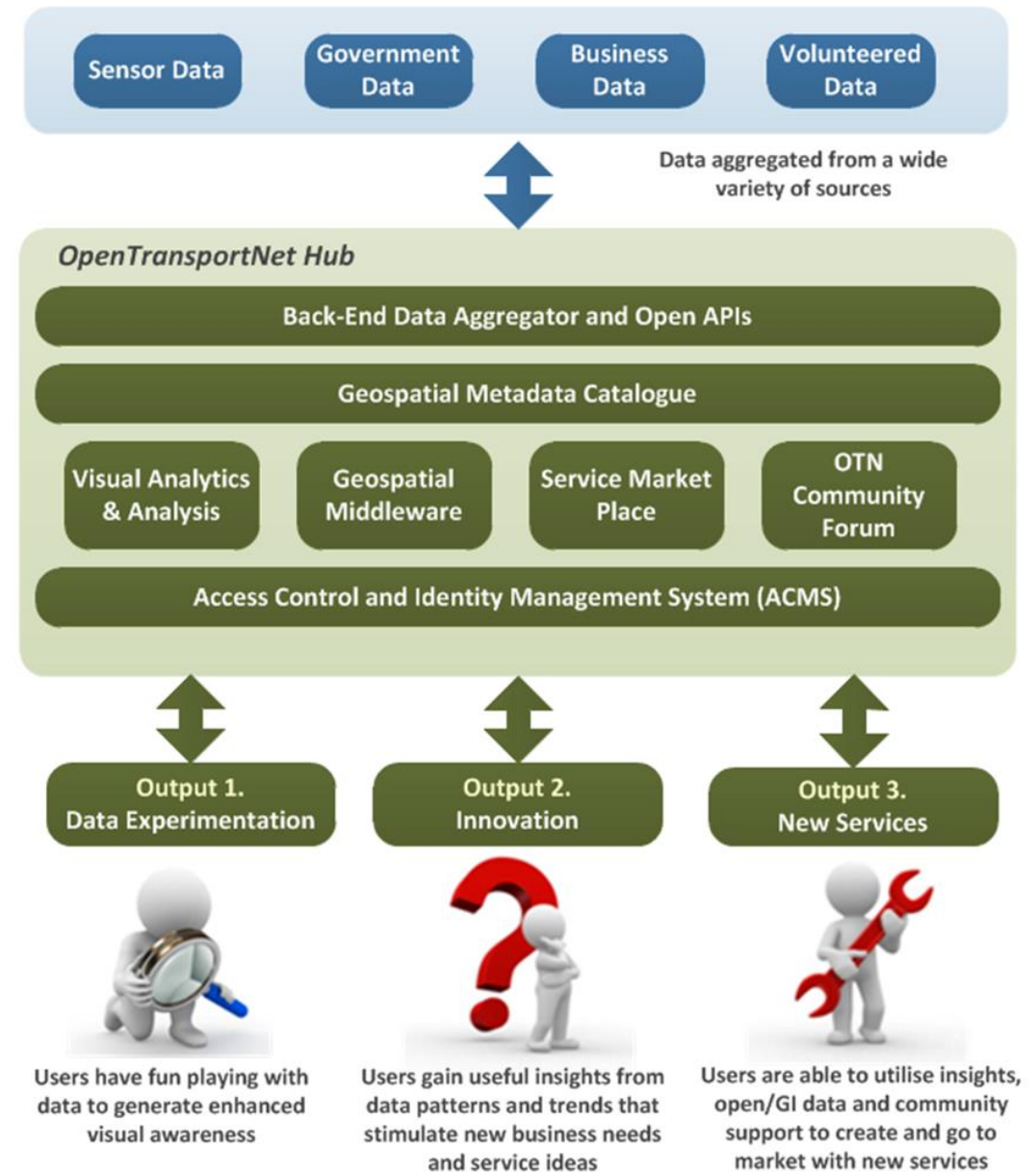


Case: Open Transport Network

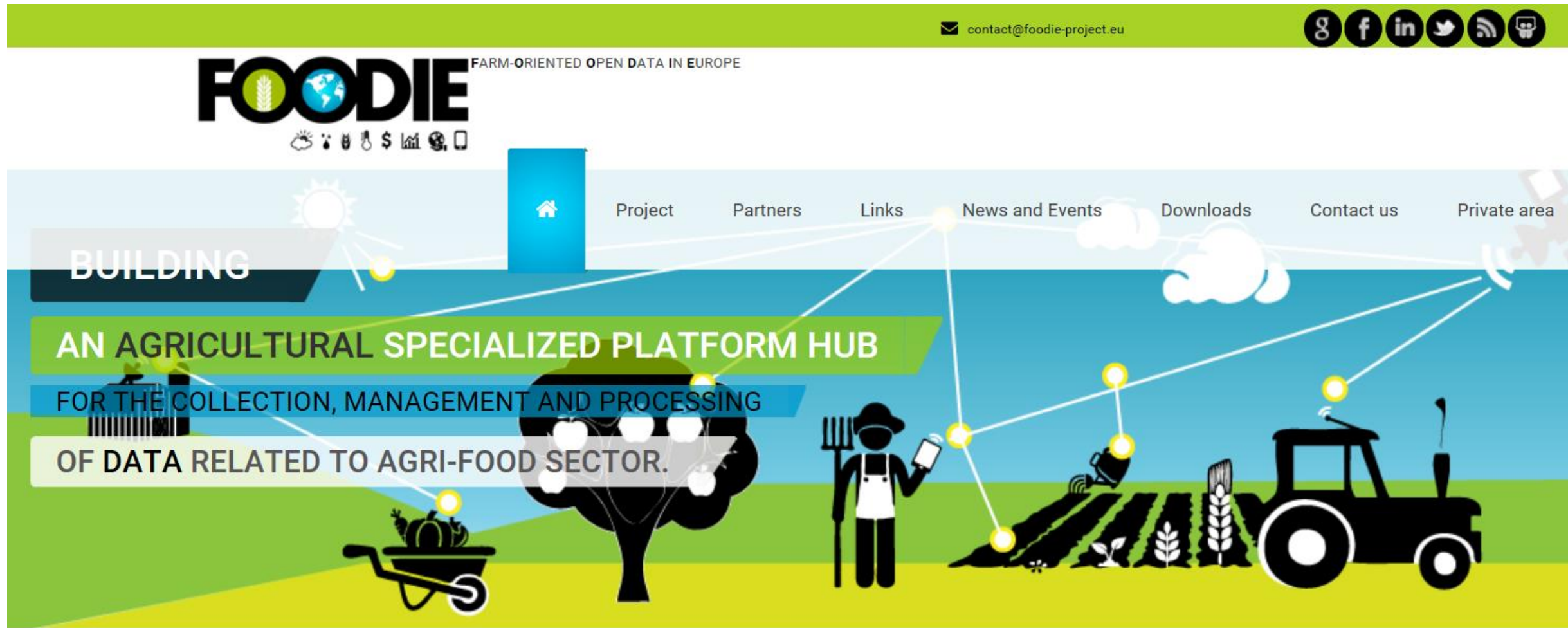


Spatially Referenced Data Hubs
for Innovation in the Transport Sector
February 2014 – January 2017

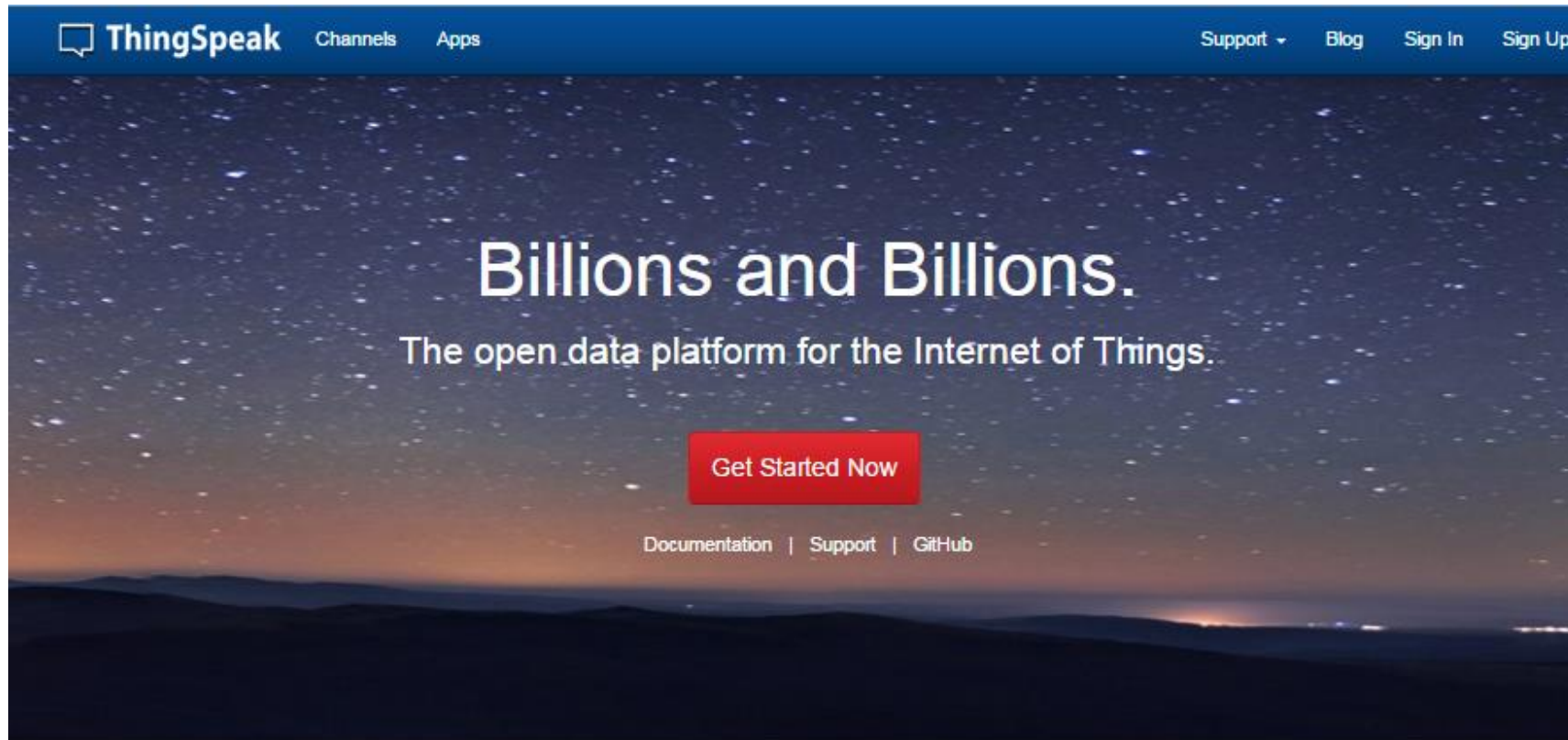
Create collaborative virtual hubs that aggregate, harmonise and visualise Transport-related Data to make it easier for innovators to create new services and applications



Case: Foodie Network



And of course... also Open Data platforms for IoT



ThingSpeak Features

- Open API
- Real-time data collection
- Geolocation data
- Data processing
- Data visualizations
- Device status messages
- Plugins

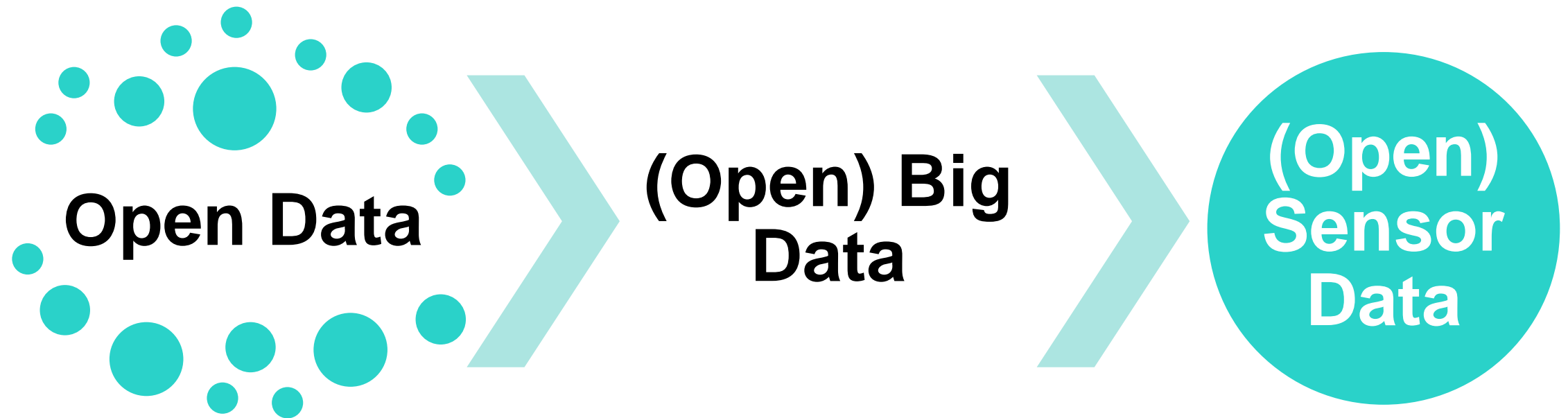
Integrate

- [Arduino](#)
- [Raspberry Pi](#)
- [ioBridge / RealTime.io](#)
- [Electric Imp](#)
- [Mobile / Web Applications](#)
- [Social Networks](#)
- [Data Analytics with MATLAB](#)

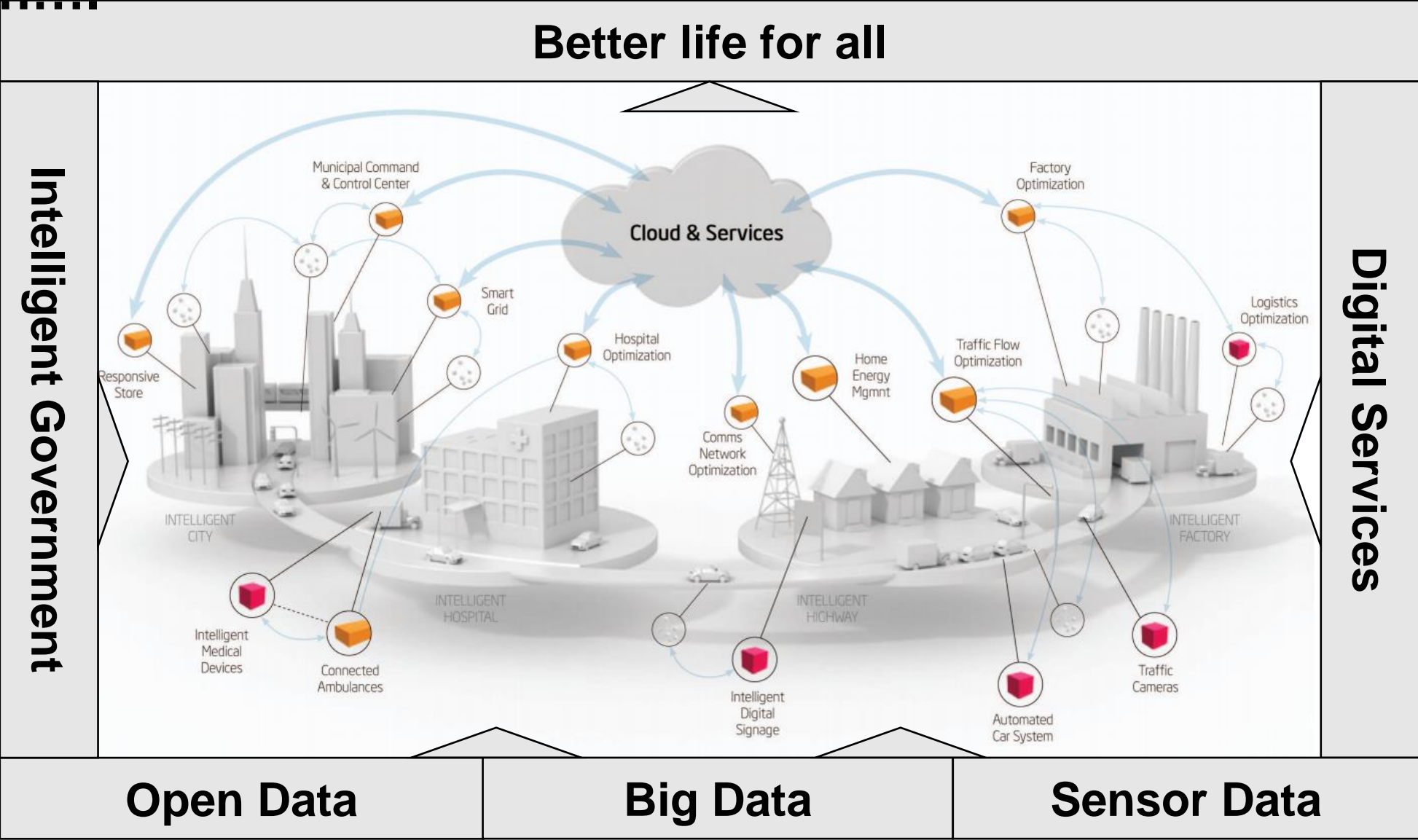
Connect With Us

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- [Forum](#)
- [Documentation](#)
- [Tutorials](#)
- [Questions](#)

Conclusion



A vision.....



The government wants you to be a partner in this!

Supply Driven

- Governments and local communities unilateral decide what datasets to publish
- Driven by number of datasets, not by quality and consistency of information



Demand Driven

- Governments and local communities seeking active partnerships with Industry
- Publish quality dataset and be a trustworthy partner
- “Tell us what you need and we will make it available”

Community of Technical Believers

Culture: Think reuse from the beginning

Some Advise before you go...

Get familiar with Open Data – techniques for publishing and using these datasets

Tap into existing Open Data platforms and start (re)using these datasets

Embrace the power of Big (Open) Data to improve services to your clients

Engage with your (local) government to request the right datasets

Let's start the dialogue



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