



# Open data from SME perspective

ir. Dirk Frigne

4 September 2017

# Geosparc: What we do

We create digital maps for our clients. We create those digital maps based on open data, commercial data and proprietary data. And then, we integrate those digital maps within our clients specific application, within any software they use (CRM, ERP, Document Management System, etc) or within their business processes.

This integration results in better business decision-making, more efficient operations and brand new insights. In doing so we help our clients unlock the full potential of spatial information contributing to a smarter, safer and more eco-friendly world.



Ready-made solutions

Projects and customized solutions

Geomajas Technology

# Geosparc: About us

## Team:

- Our team consists of consummate professionals from software engineers, project managers, consultants, business developers, to finance & admin people. Everyone of us has specialist expertise that complements the team and a single-minded focus to serve our customers as best as we can.

## Philosophy:

- Our Utmost priority is customer satisfaction
- Our core values are integrity, respect and sustainability
- Our beliefs: we believe in teamwork and win-win partnerships to benefit our customers
- Our approach: we have a penchant for open source technologies and believe in the power of sharing ideas and resources.

## Partners:

- Our partners play a pivotal role in bringing Geosparc's Web GIS solutions to market, by spreading the word about our world-class GIS solutions, and by implementing our solutions and complementing them with their own offerings and local support services. We believe in win-win when working with our partners and in fully leveraging each other's strengths to accomplish great things. We are building a network of partners with system integrators, value added resellers, software developers and consultants. If you are interested in partnering with us, we'd like to hear from you!

# Geomajas Technology

- Geosparc ("Geospatial Architects") is the company commercially supporting the open source web GIS technology, Geomajas. As such Geosparc is coupling the innovative power of open source with the reliability of a true enterprise-class application framework. Geosparc has several years of experience and expertise in geospatial solutions, web GIS and enterprise integration. Its commercial services and offerings include Geomajas support contracts with service level agreements, Geomajas commercial licenses, consulting services, Proof of Concepts, training and support services for web GIS projects (architecture, design, implementation, deployment).
- Geosparc provides developers, industries and governments with the best products, services and ideas to create and integrate Web GIS solutions. We build pre-defined Web GIS solutions and services using the open source software framework Geomajas. In doing so we help our customers unlock the full potential of spatial information on the web, contributing to a smarter, safer and more eco-friendly world.
- Geosparc has customers in the private and public sector and is active in several international projects. With Geomajas, Geosparc focuses on delivering advanced GIS capabilities in standard web technology and integrate them with existing business applications like ERP, CRM, CMS, BI, BPM, etc. Geomajas showcases very robust security and scalability, while being open and extensible.
- Solutions such as Issuedoc and Sleevemonkey are based on the Geomajas technology.

# Projects and customized solutions: some examples

## Department of Agriculture

Every year, the Agriculture and Fisheries agency of the Flemish Government receives reports from over 30.000 Flemish farmers on the use and the location of their farmland. With our Web GIS solution, the Flemish Government has now developed a virtual counter which enables farmers to submit their reports online.

## Digital Building Permit

This e-government application automates the process to request and handle building permits and is used by citizens, professionals and the public authorities.

Geosparc professional services and web GIS technology are used for realising the powerful [web front-end](#).

## MAGDA GEO

Flanders has many small & medium sized businesses (SMBs). Until recent, there was no public map available with the exact location of all these SMBs.

Our Web GIS technology has made it possible for the Flemish e-government unit to map and analyse all SMEs.

## Soil Explorer

The Soil Explorer is an INSPIRE application for discovering soil and sub-soil data in the region of Flanders, Belgium.

Learn more about the [Soil Explorer](#) on this public web site.

## Ready-made solutions



# Dirk Frigne – curriculum



Visionary GIS entrepreneur: passionate and talented **entrepreneur** and organizer who knows how to link a **strong vision** to specific results.

In his professional life, Dirk is founder and **CEO of Geosparc**. He has extensive software development experience as a developer, architect, project manager and has been involved with the development and implementation of numerous IT infrastructures using a variety of technologies on multiple platforms. In an IT career spanning more than 30 years, Dirk understands that leadership and team building are the keys to successful IT and development projects. His key skills are situated in the valorisation of specialised state of the art technology trough bringing technical experts into contact with the right commercial and marketing teams for a perfect fit. Dirk was project manager for several projects amongst them, the open source project “**Generic GIS for e-Government**” and **the OSGeo project Geomajas**. Dirk is a member of the **advisory board of the Industrial Research Fund (university of Ghent)** and part of the "geospatial datainfrastructure" (GDI) advisory board of Flanders. Dirk is an OSGeo member since 2007, became a charter member in 2013 and is since January **2016 vice president of OSGeo**.

In 2015 Dirk took the initiative, together with a team of enthusiastic open source adepts to found The **Belgium OSGeo local chapter**, and is actively involved in the organisation of the Belgian FOSS4GBE event.

In 2016-2017 Dirk took the initiative, together with an international team op OSGeo charter and board members to found the **European OSGeo Local Chapter**.

# Empower everyone with open source geospatial

- OSGeo is a not-for-profit software foundation
  - Provides projects financial, organizational and legal support
- Outreach and advocacy
  - Promoting global adoption of open source geospatial technology
  - Partnerships on open approach to standards, data and education.
- OSGeo is a volunteer driven
  - Passionate membership of individuals from around the world.



# OSGeo: some key data

- Started in 2006
- Community of communities of geo-OSS projects
- Growing every year
- Worldwide active - local presence
- > 26 500 subscriptions on the mailing list
- Google for “OSGeo” returns > 400 000 hits
- OSGeo.org > 30.000 unique visitors (May '15)
- > 600 members (registered)
- > 240 Charter members (elected)
- > 50 local chapters
- > 20 official projects



# OSGeo: for Who?

- OSGeo is an organisation of people for people:

Students, GIS users, developers, professors, researchers, entrepreneurs, civil servants, government officials, ...

- If you want to know more about

- GIS software solutions
- Open source software
- Open data
- Open standards
- How communities work

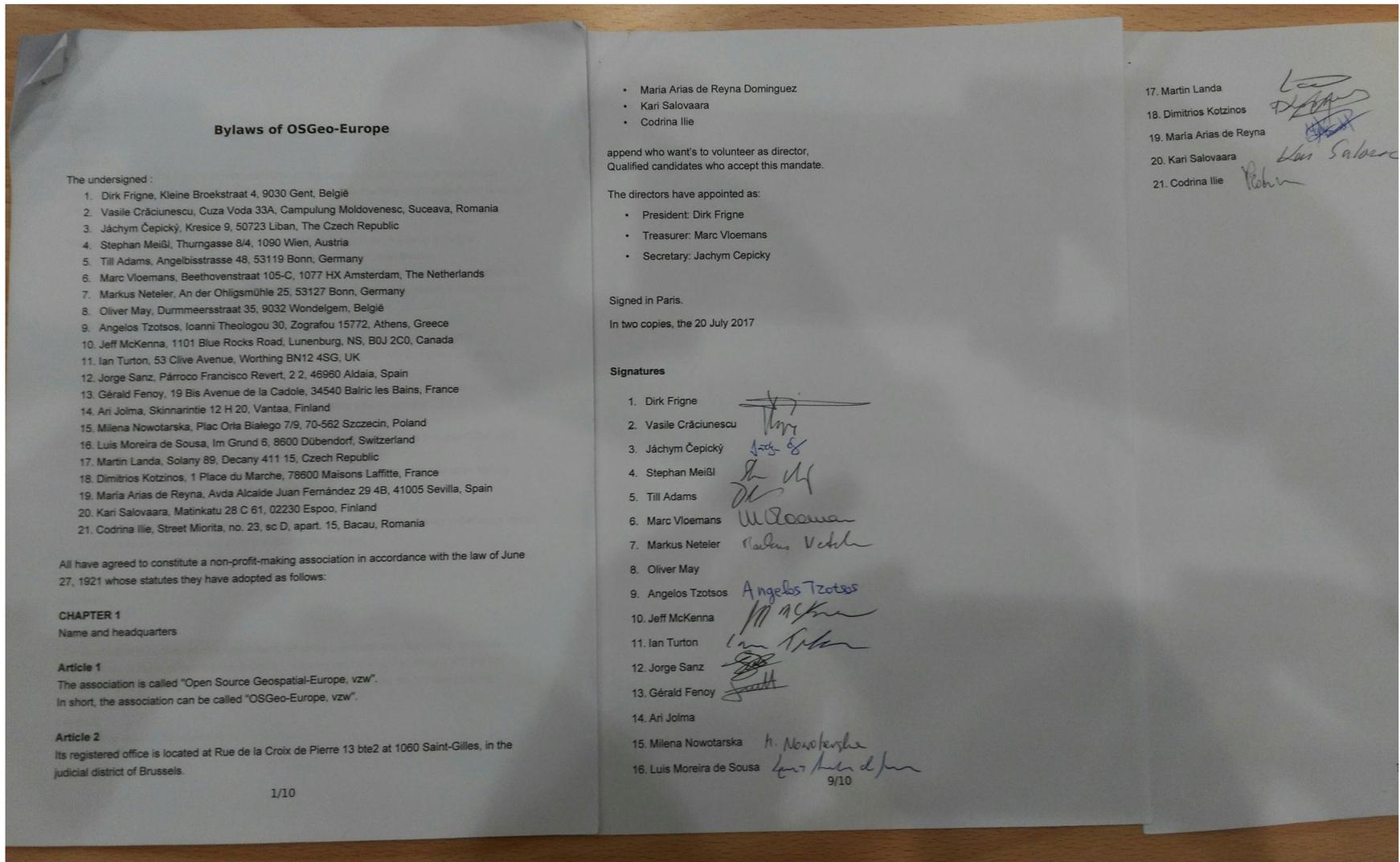


- If you want to

- share ideas
- commit to a project
- have fun in creating great software
- make friends all over the globe
- change and improve the world

- You should become a participant, or register as a member

# OSGeo Europe is a fact!



# OSGeo Europe is a fact!

**Founding  
members:**



CC BY 2.0 Jody Garnett – 21 July 2017

# Communities – working together



©geolab como Group Picture FOSS4G 2015 – 16 July 2015

# Energic-OD

European Network for Redistributing Geospatial Information to user Communities - Open Data

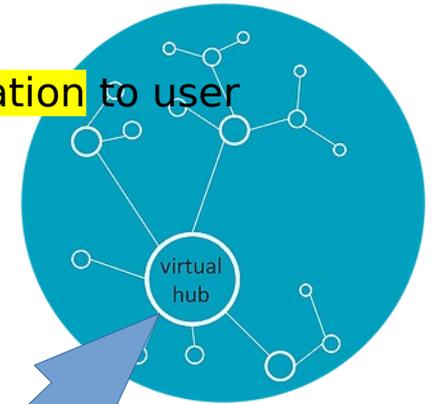
Glad to be invited as a keynote speaker ...

Great to be at the final workshop!

Curious in the great results of the project:

- WP2: State of the art in R&D, projects & technologies
- WP5: Virtual Hubs: Architecture and Implementation
- WP6: Development of New Innovative Applications
- WP8: Proof of concept, exploitation, business plans and networking

My2c



# Virtual Hub – Why?

To create a single point of access

The wet dream of a lot amongst us!

Should be easy:

- Integration
- Interoperability
- Harmonisation

# Virtual Hub – Why?

The proof of the pudding is in the eating

- English saying



# Virtual Hub – Why?

The proof of the pudding is in the eating

- English saying



- Proof: try to use the catalogs and search for data<sup>[1]</sup>
  - Use following keywords: 'open data bodem'
  - ENERIGIC\_OD Use the catalogs and search for data
  - Google Search
  - Bing Search

[1] test executed 1 September 2017 by Dirk Frigne

# Virtual Hub – Why?

The screenshot shows a web browser window with several tabs open, including 'ENERGIC OD - official', 'European Network for Re...', 'ENERGIC Catalog...', 'Gratis online woorden', 'open data bodem - Bl...', and 'open data bodem - Go...'. The address bar shows the URL 'www.srp-gmbh.de/sab/?Szenario=eu\_crawler' and the search term 'open data bodem'. The page header includes a 'Search' button and the 'SRP online' logo. The main content area is divided into two sections: 'Search by keywords' and 'Archivsuche'. The 'Search by keywords' section has a search input field containing 'open data bodem' and a red question mark icon. Below it is a button labeled '»apply search criteria'. The 'Archivsuche' section has a red question mark icon and a checkbox labeled 'Archivsuche'. The right side of the page shows the search results, which are empty. It displays 'results: 0', 'searching conditions: area: no | Keywords: open data bodem | topics: no', and 'No data found' in red text. The footer of the page contains the text 'SRP - Gesellschaft für Stadt- und Regionalplanung mbH, Berliner Straße 112A, 13189 Berlin, support@srp-gmbh.de'.

# Virtual Hub – Why?

The screenshot shows a web browser window displaying the ENERGI C website. The address bar shows the URL: <https://www.energi-c.eu/catalogue-of-open-gi-platforms>. The page title is "Catalogue of open GI platforms" and the subtitle is "Deliverable D3.3".

The page content includes a search bar with the text "Search by keywords" and a search input field containing "Bitte Schlagwort eingeben (z.B. boden)". There is also a section for "Archivsuche" (Archive search) with a checkbox and an "apply search criteria" button.

The main content area displays a list of results under the heading "related applications". The list includes the following items:

- Biodiversity Bird Indicator (LUP)
- Coastline Evolution Monitoring (BRGM)
- eye2eye (AED-SICAD)
- GEOdemos (SRP)
- Geopan Atl@as (POLIMI)
- GI-Suite CNR-IIA
- Natural hazard assessment for agriculture (IGIK)
- OnoMap (CNRS-IRSTV)
- ProxiSanté (DEPTH)
- Sensor Open Data Portal (Alkante)
- Spatial extent of found services
- Zaragoza Historical Maps (UNIZAR)

At the bottom of the page, there is a footer with the text "SRP - Gesellschaft für Stadt- und Regionalplanung mbH, Berliner Straße 112A, 13189 Berlin, support@srp-gmbh.de".

# Virtual Hub – Why?

The screenshot shows a web browser window with multiple tabs open, including 'ENERGIC Catalog' and 'open data bodem'. The address bar shows the URL 'www.srp-gmbh.de/sab/?Szenario=eu\_crawler'. The page features a search bar with the text 'Bode' and a dropdown menu with suggestions: 'Boden', 'Bodennutzung', 'Bodenrichtwert', 'Bodenrichtwertatlas', 'Bodenrichtwerte', 'Bodenschutz', and 'Bodenschätzung'. A button below the search bar reads '> apply search criteria'. To the right, the search results are displayed, showing 'results: 15' and 'searching conditions: area: no | Keywords: no | topics: no'. The results are listed in a table with columns for 'list' and 'detail'. Below the search results, there are sections for 'crawler data' and 'related applications'. The 'crawler data' section includes 'Service / Service metadata', 'Potential links', and 'Crawling result'. The 'related applications' section includes 'Biodiversity Bird Indicator (LUP)', 'Coastline Evolution Monitoring (BRGM)', 'eye2eye (AED-SICAD)', 'GEOdemos (SRP)', 'Geopan Atl@as (POLIMI)', and 'GI-Suite CNR-IIA'. The SRP logo is visible in the top right corner, and the text 'Stop' is next to it. The footer of the page contains the text 'SRP - Gesellschaft für Stadt- und Regionalplanung mbH, Berliner Straße 112A, 13189 Berlin, support@srp-gmbh.de'.

Search

CSW | Stop

Search by keywords ?

Bode

Boden

Bodennutzung

Bodenrichtwert

Bodenrichtwertatlas

Bodenrichtwerte

Bodenschutz

Bodenschätzung

> apply search criteria

> Suchbedingungen zurücksetzen

A to Z B | C | E | G | N | O | P | S | Z

results: 15

searching conditions: area: no | Keywords: no | topics: no

1 to 1

list | detail

**crawler data**

- Service / Service metadata
- Potential links
- Crawling result

**related applications**

- Biodiversity Bird Indicator (LUP)
- Coastline Evolution Monitoring (BRGM)
- eye2eye (AED-SICAD)
- GEOdemos (SRP)
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SRP - Gesellschaft für Stadt- und Regionalplanung mbH, Berliner Straße 112A, 13189 Berlin, support@srp-gmbh.de

# Virtual Hub – Why?

The screenshot shows a web browser window with several tabs open, including 'ENERGIC OD - official', 'European Network for R...', 'ENERGIC Catalog...', 'Gratis online woorden', 'open data bodem - Bir', and 'open data bodem - Go'. The address bar shows the URL 'www.srp-gmbh.de/sab/?Szenario=eu\_crawler' and the search term 'open data bodem'. A notification in the top right corner states: '"Sales and Marketing" is synchronized. Added or modified "Select default keyword.png".' The SRP online logo is visible in the top right corner.

The search interface is divided into two main sections. On the left, there is a search sidebar with the following elements:

- Search** (highlighted in a dark blue box)
- CSW | Stop
- Search by keywords** (with a red question mark icon)
- Search input field containing the text "Boden"
- Archivsuche** (with a red question mark icon)
- Archivsuche
- [»apply search criteria](#)
- [» Suchbedingungen zurücksetzen](#)

On the right, the search results section is titled "A to Z" and displays the following information:

- results: 0
- searching conditions: area: no | Keywords: **Boden** | topics: no
- No data found**

# Virtual Hub – Why?

The screenshot shows a web browser window with multiple tabs. The active tab is 'ENERGIC Ca x'. The address bar shows the URL 'www.srp-gmbh.de/sab/?Szenario=eu\_crawler'. The browser's search bar contains 'my2c'. The page header includes a 'Search' button and the 'SRP online' logo. The main content area is divided into two sections: 'Search by keywords' and 'Archivsuche'. The 'Search by keywords' section has a search input field containing 'Bodennutzung'. Below it is a button labeled '»apply search criteria'. The 'Archivsuche' section has a checkbox labeled 'Archivsuche'. The search results area on the right shows 'results: 0', 'searching conditions: area: no | Keywords: Bodennutzung | topics: no', and 'No data found' in red text. The footer contains the text 'SRP - Gesellschaft für Stadt- und Regionalplanung mbH, Berliner Straße 112A, 13189 Berlin, support@srp-gmbh.de'.

# Virtual Hub – Why?

The screenshot shows a Bing search results page for the query 'open data bodem'. The browser's address bar shows the URL: <https://www.bing.com/search?q=open+data+bodem+&pc=MOZI&form=MOZSBR>. The search bar contains the text 'open data bodem'. The page displays several search results, each with a title, a URL, and a brief description. The results are as follows:

- Bodemgegevens Nederland worden open ...**  
Translate this page  
<https://www.computable.nl/artikel/nieuws/overheid/6054331/250449/b...>  
3/07/2017 · De Bodemkaart van Nederland, een omvangrijke database over de Nederlandse bodem, is sinds deze maand vrij toegankelijk. Dit schrift staatssecretaris ...
- Bodemkaart | Open Data Stad Antwerpen** Translate this page  
[opendata.antwerpen.be/datasets/bodemkaart](https://opendata.antwerpen.be/datasets/bodemkaart)  
Algemeen bestaat de bovenste bodemlaag (tot 2 meter diepte) uit zand of zandleem. Slechts op enkele locaties is klei in de bovengrond te vinden.
- Bodem - Rotterdam Open Data** Translate this page  
[rotterdamopendata.nl/dataset/bodem](https://opendata.rotterdam.nl/dataset/bodem)  
Informatie over bodem: bodemkwaliteit, bodemonderzoeken, verdachte locaties, ondergrondse tanks, baggerspecielocaties.
- Bodem- Aardkundig waardevolle ... - ...** Translate this page  
<https://opendata.gelderland.nl/dataset/bodem-aardkundig...>  
Bestand bevat een overzicht van aardkundig waardevolle gebieden in Gelderland die van (inter)nationaal, provinciaal of regionaal belang zijn.
- Milieu- Bodem Locaties ... - Open Data ...** Translate this page  
<https://opendata.gelderland.nl/dataset/milieu-bodem-locaties...>  
Dataset: Milieu- Bodem Locaties bodemonderzoek vlakken, provincie Gelderland.
- Alle bodemgegevens van Nederland ...** Translate this page  
[www.wur.nl/nl/nieuws/Alle-bodemgegevens...open-data-beschikbaar.htm](http://www.wur.nl/nl/nieuws/Alle-bodemgegevens...open-data-beschikbaar.htm)  
Wageningen Environmental Research (Alterra) stelt alle bodemgegevens van Nederland als open data beschikbaar voor gebruik.
- Bodembezetting - Open Data - ...** Translate this page  
[statbel.fgov.be/nl/statistieken/opendata/datasets/.../bodembezetting](http://statbel.fgov.be/nl/statistieken/opendata/datasets/.../bodembezetting)  
Bodembezetting volgens het Kadasterregister. Periode : 2015. Kies een formaat:TXT (ZIP, 523.39 Kb) XLSX
- De Bodemkaart van Nederland ...** Translate this page  
[biplatform.nl/944055](http://biplatform.nl/944055)  
7/07/2017 · De Bodemkaart van Nederland is vrij beschikbaar als open data bij Publieke Dienstverlening Op de Kaart (PDOK), een centrale voorziening voor het ontsluiten ...

On the right side of the search results, there is an advertisement for 'Online Open-Data Shop - Open-Data bij Centralpoint'. The ad includes the text: 'Ad : [www.centralpoint.nl/Open-Data](http://www.centralpoint.nl/Open-Data) Welkom bij de Open-Data ICT winkel. 24h levering & gratis verzending!' and a link 'See your ad here »'.

# Virtual Hub – Why?

The screenshot shows a Google search interface with the query 'open data bodem'. The search results are as follows:

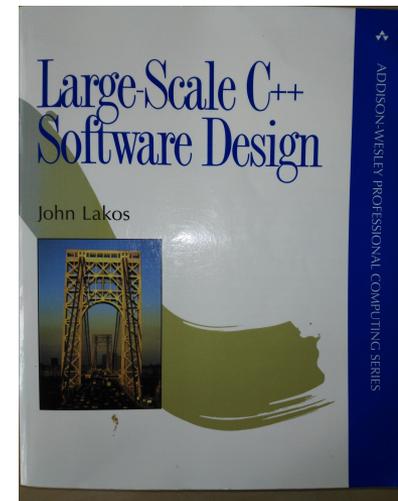
- Bodemkaart: bodemtypes, substraten, fasen en varianten van het ...**  
[www.geopunt.be/.../datasetfolder/5c129f2d-4498-4bc3-8860-01cb...](http://www.geopunt.be/.../datasetfolder/5c129f2d-4498-4bc3-8860-01cb...) ▼ Translate this page  
Jun 20, 2016 - Alternatieve titel: Digitale bodemkaart van het Vlaams Gewest ... Toegevoegd GDI-VI, Herbruikbaar, Vlaamse Open data, Kosteloos, Metadata ...
- Bodemkaart | Open Data Stad Antwerpen**  
[opendata.antwerpen.be/datasets/bodemkaart](http://opendata.antwerpen.be/datasets/bodemkaart) ▼ Translate this page  
Algemeen bestaat de bovenste bodemlaag (tot 2 meter diepte) uit zand of zandleem. Slechts op enkele locaties is klei in de bovengrond te vinden.
- [PDF] open data van dov, hoe aan de slag ermee - Vlaanderen.be**  
[https://dov.vlaanderen.be/.../7.Studiedag\\_Open\\_data\\_Marleen\\_Van...](https://dov.vlaanderen.be/.../7.Studiedag_Open_data_Marleen_Van...) ▼ Translate this page  
Open data forum haalt data op bij Geopunt, afgesproken trefwoorden spelen hierbij ... Voorbeeld:  
<http://data.opendataforum.info/dataset/bodemkaart-van-belgie->
- Datasets - Open Belgium**  
[portal.openbelgium.be/dataset?res\\_format=HTML](http://portal.openbelgium.be/dataset?res_format=HTML) ▼ Translate this page  
Bodemkaart: bodemtypes, substraten, fasen en varianten van het moedermateriaal... Digitale vectoriële dataset van de analoge Bodemkaart van België voor het ...
- Een schone bodem of niet? Open Data geeft antwoord | 2CoolMonkeys**  
<https://www.2coolmonkeys.nl/een-schone-bodem-of-niet-open-dat...> ▼ Translate this page  
Mar 18, 2014 - Hieruit is naar voren gekomen dat er een groeiende behoefte is aan open bodem data. 2CoolMonkeys is daarom gestart met de ontwikkeling ...
- Open 3D-data Stad Gent | Stad Gent**  
<https://stad.gent/over-gent-en-het.../open-3d-data-stad-gent> ▼ Translate this page  
Mar 20, 2017 - Gebruik onze open data-sets in uw eigen applicaties. ... Deze datasets bevatten geen bodem-, gevel- en daktexturen. De datasets vindt u op ...

# Lessons learned

- Risk: Become Single point of Failure
- Risk: High entry barrier, only one chance to succeed
- Risk: a community can not be build, a community is growing because it is fun and everyone wants to become part of it ...
- Risk: valorisation of this ambition is not necessary based on pure economic business principles. The right incentive to incubate is hard to find, but obligatory

Conclusions from this experiment:

- I am not so smart as I thought I was :-)
- Integration is not a simple challenge,  
... and a lot of issues need to be handled
- We live in a world of complex software systems,  
... and the systems become more and more complex
- ... and intelligent



# Challenges for integration

Only one aspect out of many ...

# Challenges for integration

- Sustainability
- Maintainability
- Manage Complexity
- Encourage Reuse
- Interoperability
- Quality
- Update latency (from months into tens of seconds)

# Google

- Is working hard to get things right
- Is creating a better world to serve the individual users information (by knowing what they want sell this information to the businesses who can deliver a surrogate for that desire)
- Is asking help to her users to help to build a great AI environment (learning from FOSS initiatives)
- Is trying to deliver key tools in such a way that the data can be used to further improve this process. The clients are dependend on these tools.
- Owns their (meta-)data
- Interoperable with their own technology together with the willing, on their conditions

# Open Data – Why?

about Open Data – European Perspective:

- The directive on public access to environmental information
- [European Parliament and Council, 2003a] which states that “
- [i]increased public access to environmental information and the dissemination of such information contribute to a greater awareness of environmental matters, a free exchange of views, more effective participation by the public in environmental decision - making and, eventually, to a better environment
- ”

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My vision on open data:

- “Open data is one of resources we need to create an open world, the only way to guarantee a future where people and machines can work together to meet the modern challenges and to improve the world we want to live in”

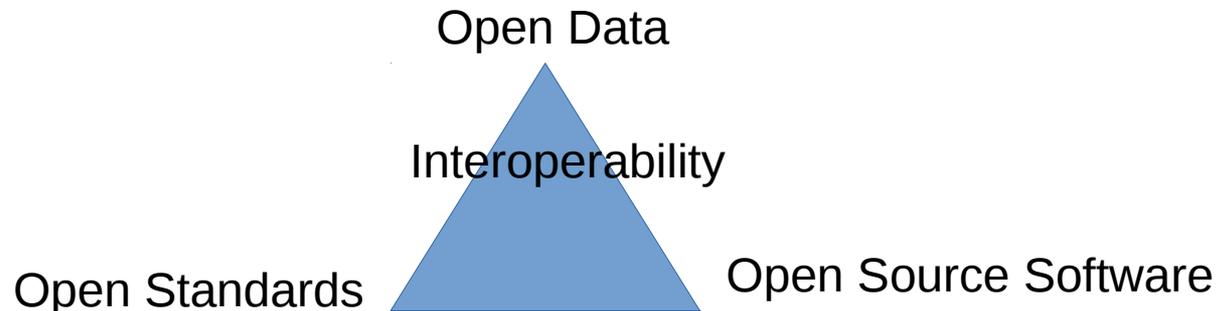
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My vision on open data:

- “Open data is one of resources we need to create an open world, the only way to guarantee a future where people and machines can work together to meet the modern challenges and to improve the world we want to live in”
- Open data is only one of 3 necessary pillars to succeed in that mission.



# Final workshop - Questions

- The idea of the project is great! But we should think how to “sell” this idea to create the right circumstances for a growing community?
- Can we learn something from the voluntariness approach of organisations like OSGeo or OSM?
- How can we stimulate users to share more? In the public interest: obligation for open data to fundamental research data
- What brings us together?
- What is the fun part? What are good incentives?
- Who benefits, who can help? What are the benefits when you help? (respect is an important driver in FOSS)
- **How to create a community to support this project?**
  
- If we don't believe today the climate is changing due to the impact of man, Houston we have a problem



THANK YOU