



Open und Personal Data – Voraussetzungen und Perspektiven für eine faire Datenwirtschaft in der Schweiz

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Präsident Opendata.ch und
Vorstandsmitglied MIDATA.coop

Fernfachhochschule Schweiz FFHS
Big Data Workshop
11. Juni 2015, Regensdorf



Agenda

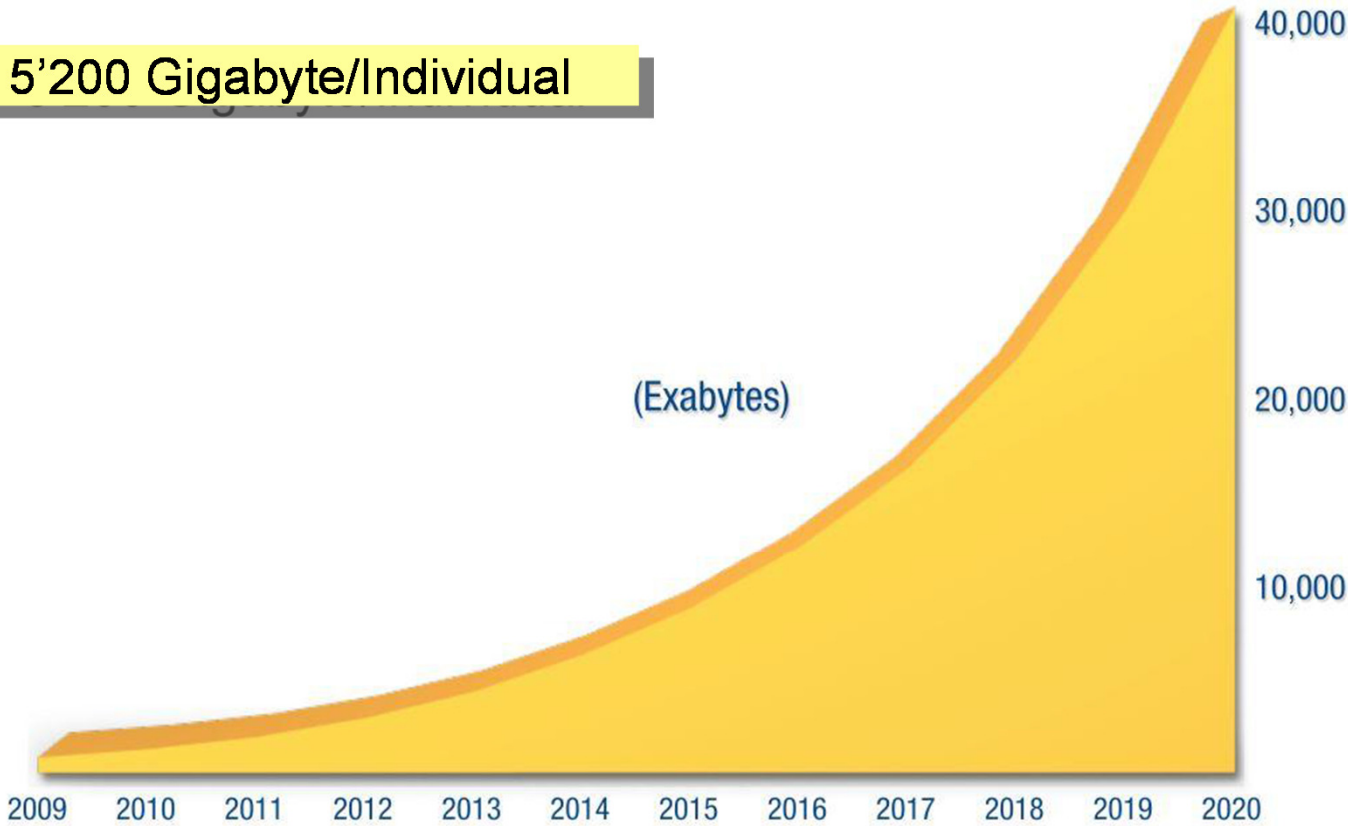
- Einleitung
- Vision «Daten-Demokratie»
- Open Data
- MIDATA
- Data Innovation Lab

Big Data – das digitale Universum explodiert



The Digital Universe: 50-fold Growth from the Beginning of 2010 to the End of 2020

2020: 5'200 Gigabyte/Individual



Source: IDC's Digital Universe Study, sponsored by EMC, December 2012

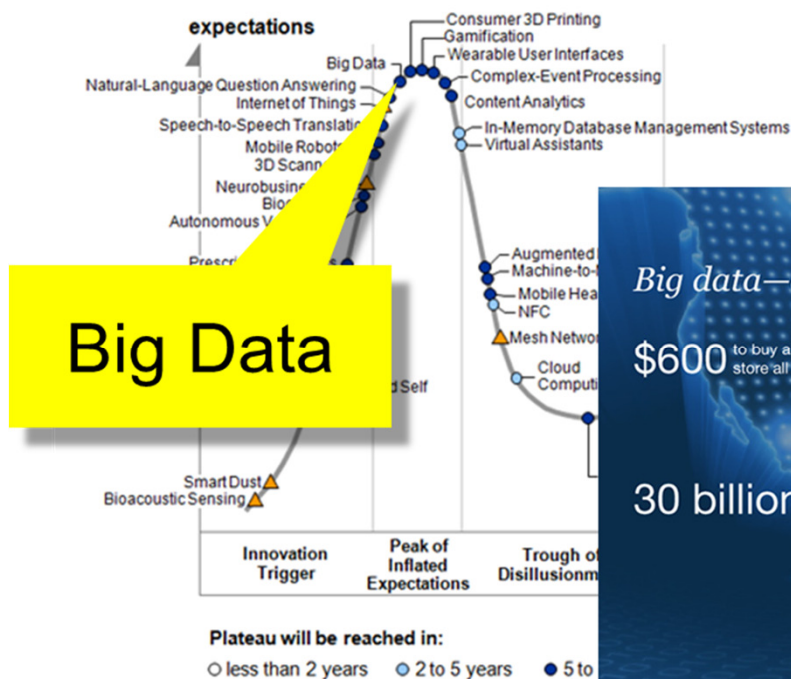
Big Data – Big Numbers

- Bit 1 | 0
- Byte 8 Bits
- Kilobyte (KB) = 1'000 Bytes
- Megabyte (MB) = 1'000 KB = 1'000'000 Bytes
- Gigabyte (GB) = 1'000 MB = 1'000'000'000 Bytes
- Terabyte (TB) = 1'000 GB = 1'000'000'000'000 Bytes
- Petabyte (PB) = 1'000 TB = 1'000'000'000'000'000 Bytes
- Exabyte (EB) = 1'000 PB = 1'000'000'000'000'000'000 Bytes
- Zetabyte (ZB)= 1'000 EB = 1'000'000'000'000'000'000'000'000 Bytes
- Yotabyte (YB)= 1'000 ZB = 10^{24} Bytes
- ...

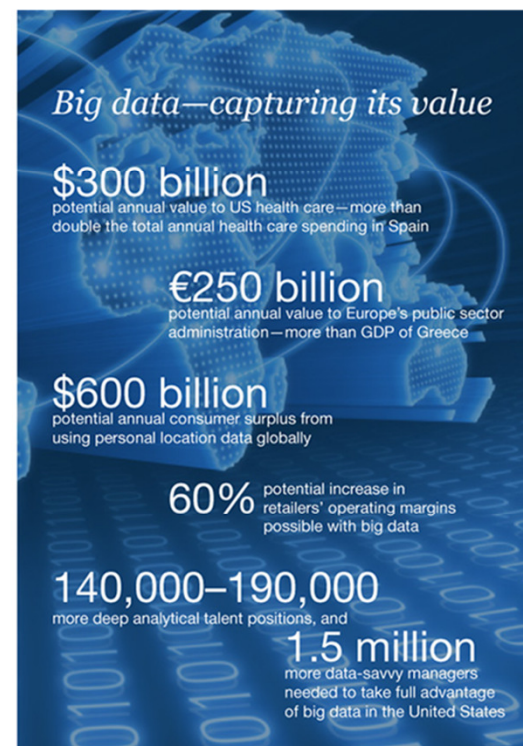
• **1 Googol* = 10^{100}**

*) The term was coined in 1938^[1] by 9-year-old Milton Sirotta, nephew of American mathematician Edward Kasner (see <http://en.wikipedia.org/wiki/Googol>)

Big Data – Big Hype?...



Source: Gartner's 2013 Hype Cycle for Emerging Technologies Maps Out Evolving Relationship Between Humans and Machines

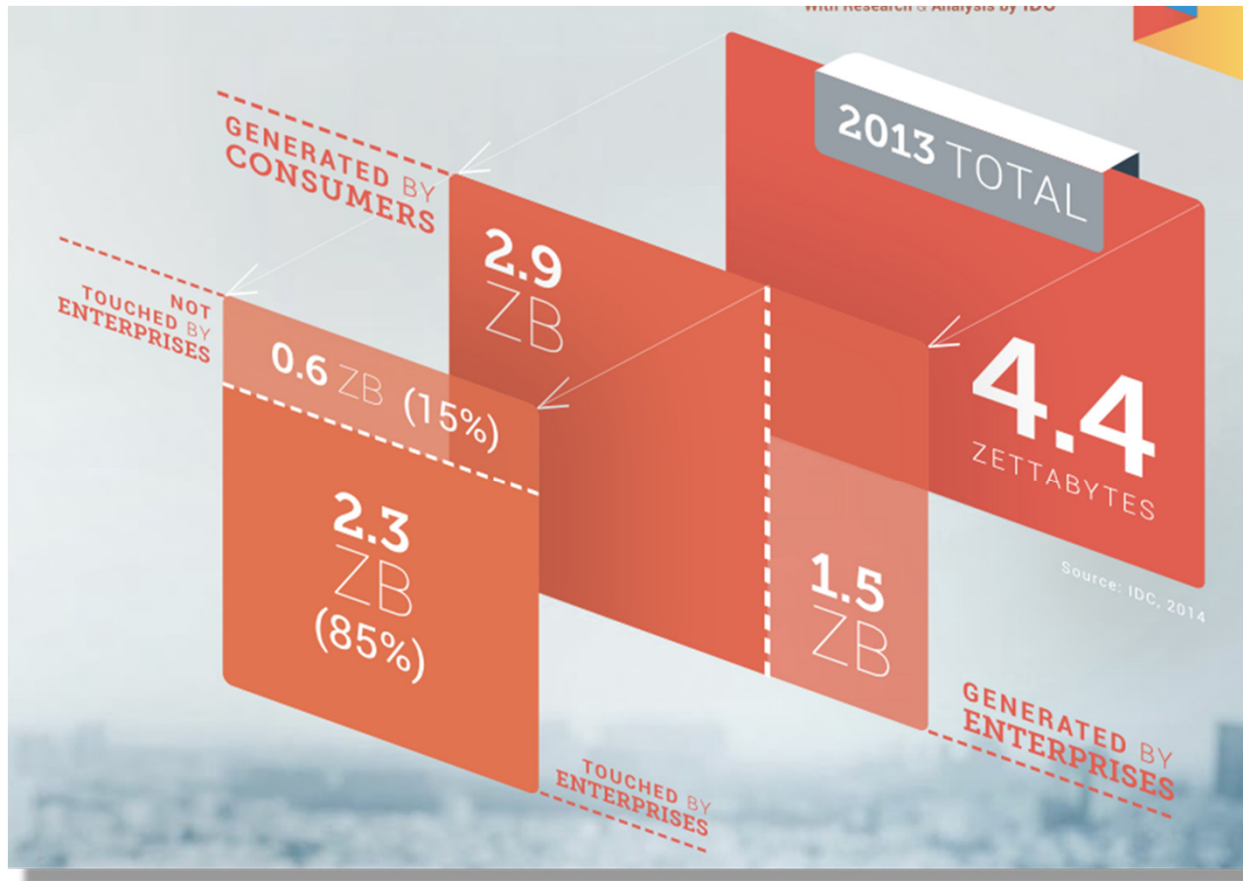


Source: Report| McKinsey Global Institute: Big data: The next frontier for innovation, competition, and productivity, March 2011

Big Data – The Power of the Dark Side?...

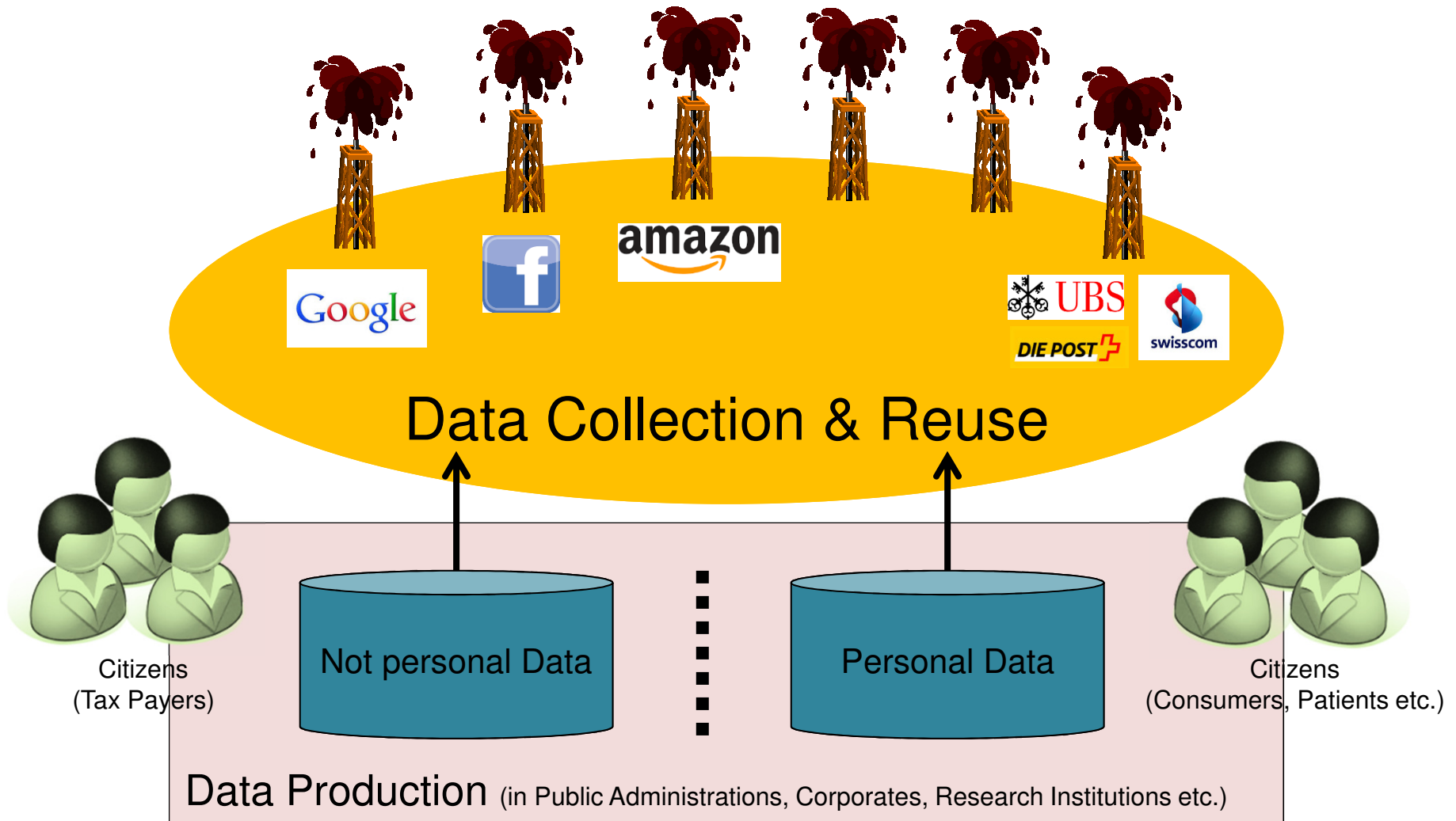


Wem gehört Big Data?

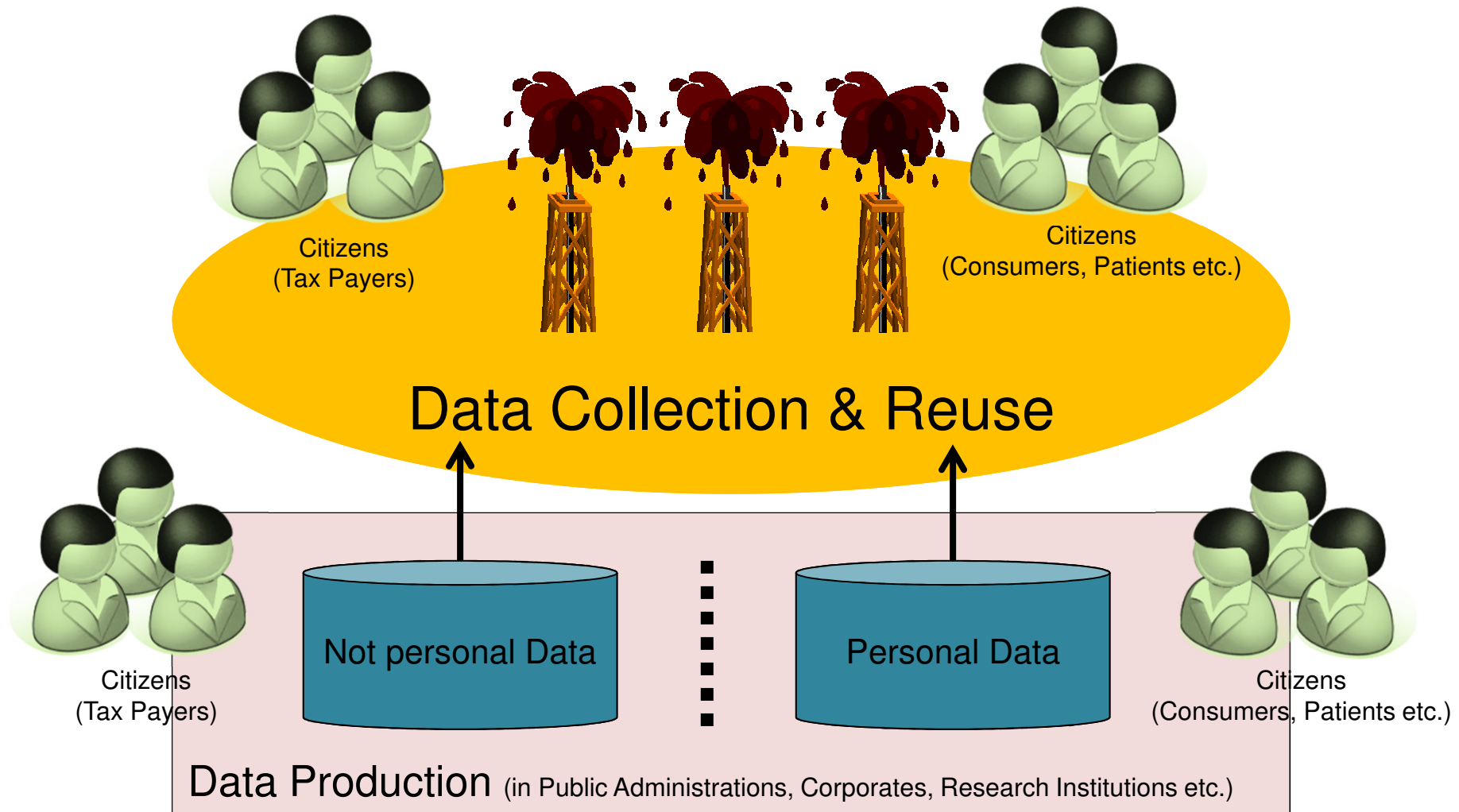


Source: IDC's Digital Universe Study, sponsored by EMC, December 2014

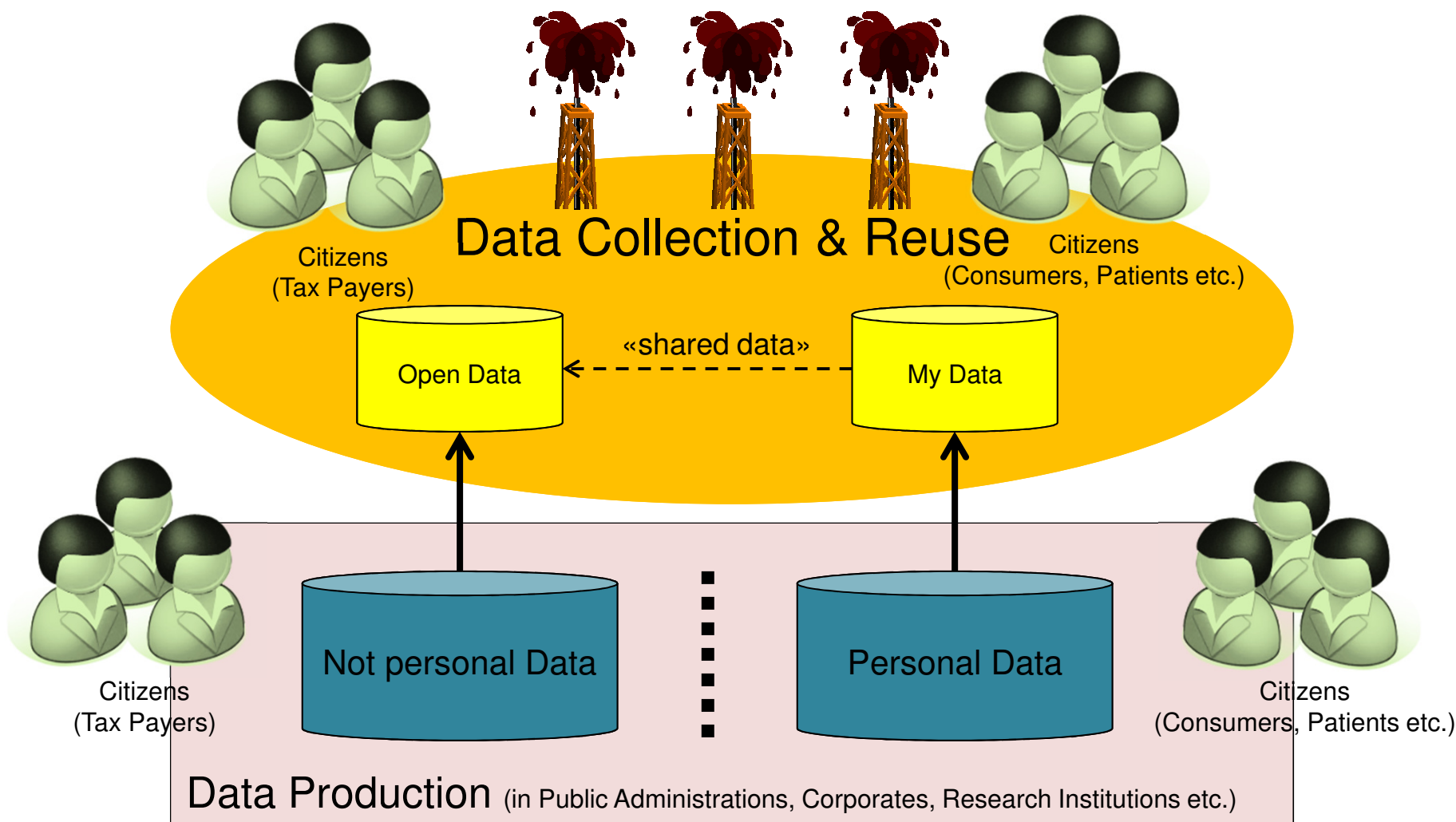
Erst die Sekundärnutzung macht Daten zum «Erdöl» des 21. Jahrhunderts...



Die Vision «Daten-Demokratie»: Digitales «Erdöl» für uns alle!



Voraussetzung: Open Data und MIDATA





What is «Open»?



“Open data and content can be **freely used, modified, and shared** by **anyone** for **any purpose** subject, at most, to requirements that preserve provenance and openness.”

(Source: <http://opendefinition.org/>)



Openness and Citizen Empowerment



«Open Knowledge to empower citizens and enable fair, sustainable societies»

Open Knowledge Foundation



WIKIPE
The Free Encyclopedia

OPEN DATA

OpenStreetMap



!

G8 Open Data Charter (Juni 2013)



Principles:

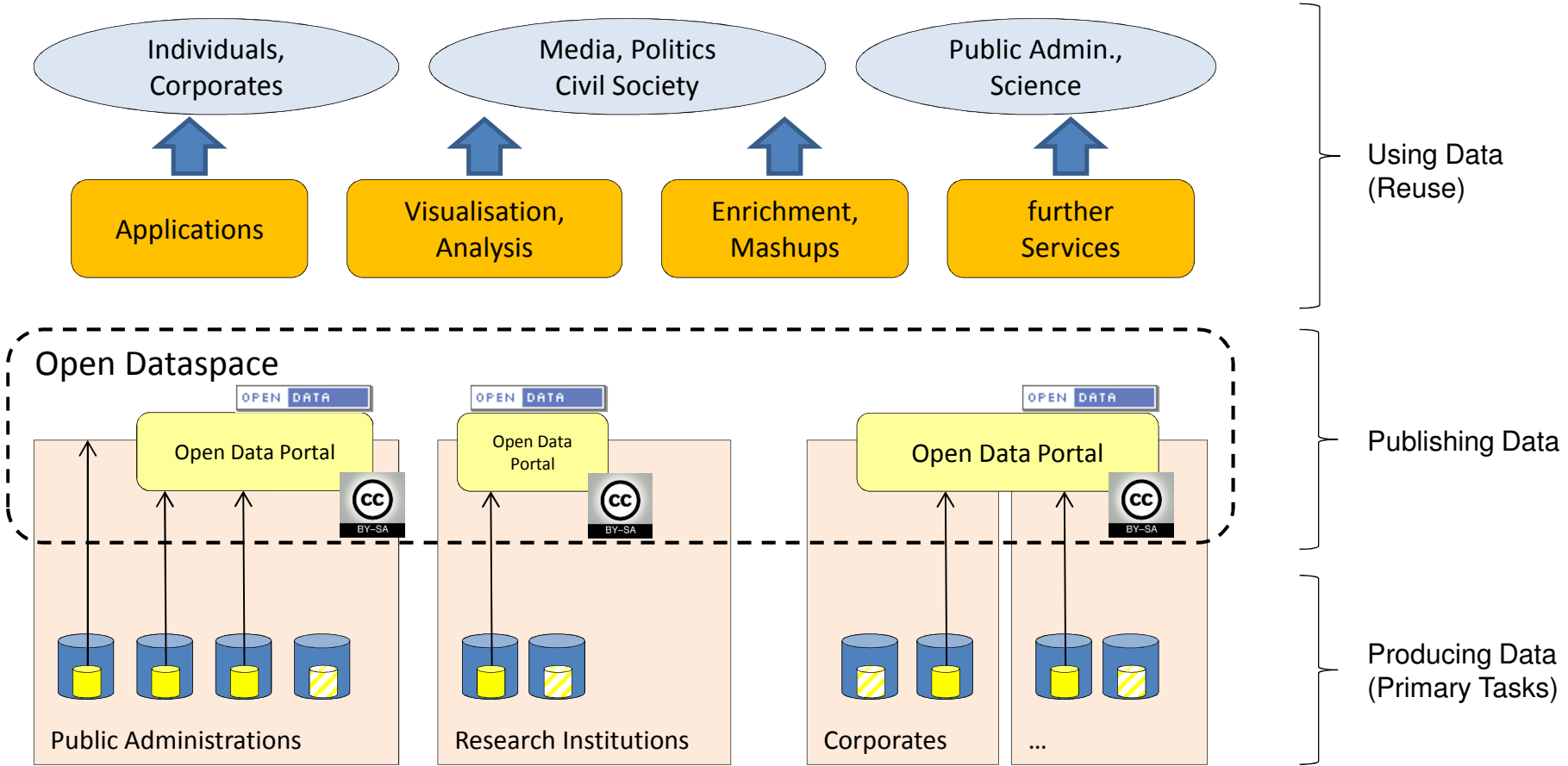
- Open Data by Default
- Quality and Quantity
- Useable by All
- Releasing Data for Improved Governance
- Releasing Data for Innovation



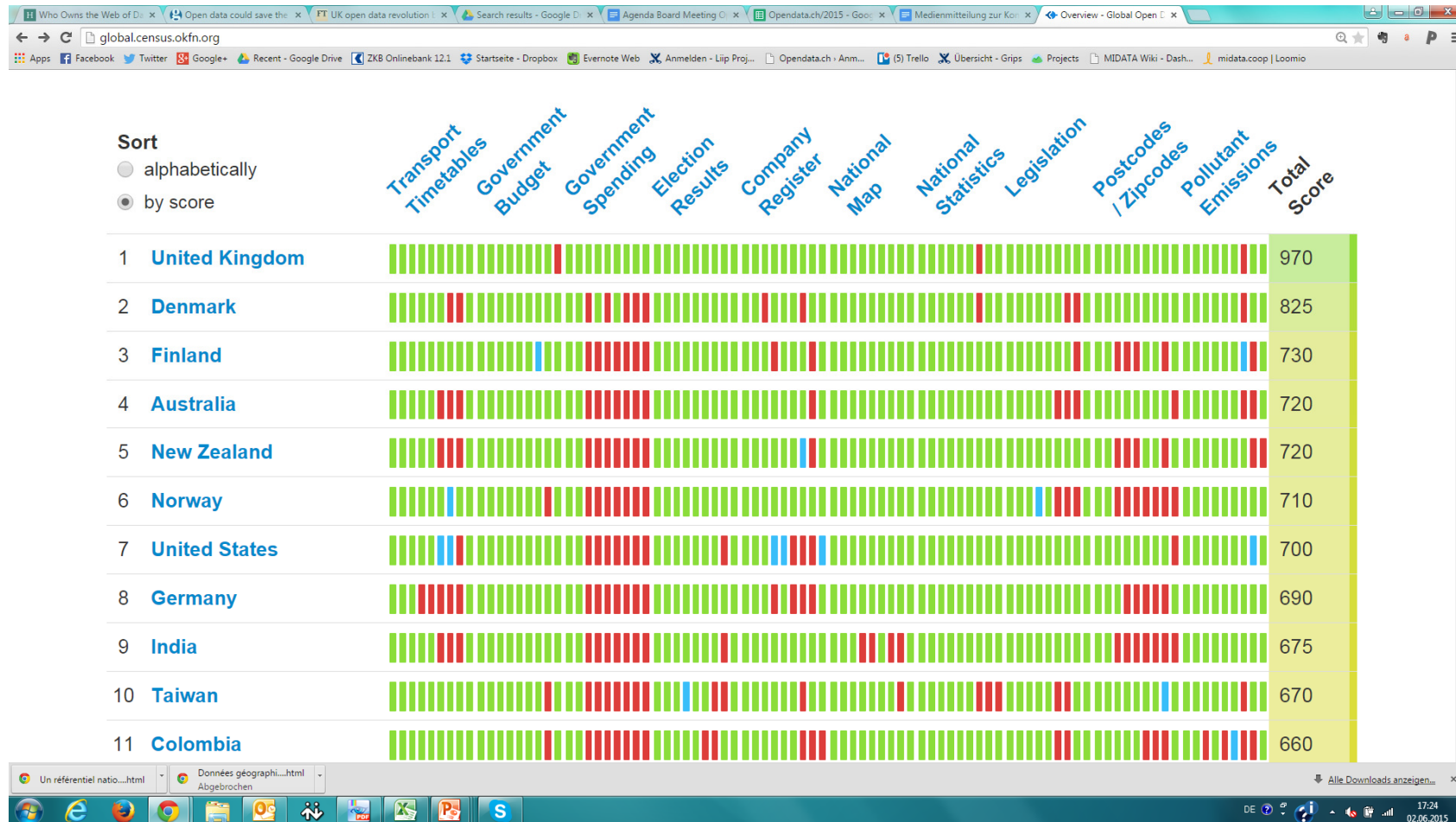
Data Categories (alphabetical):

- Companies
- Crime and Justice
- Earth observation
- Education
- Energy and Environment
- Finance and contracts
- Geospatial
- Global Development
- Government Accountability and Democracy
- Health
- Science and Research
- Statistics
- Social mobility and welfare
- Transport and Infrastructure

Die Vision: der Open Data Space



Open Data Census



Open Data Showcase #1: geolytix.co.uk (UK)



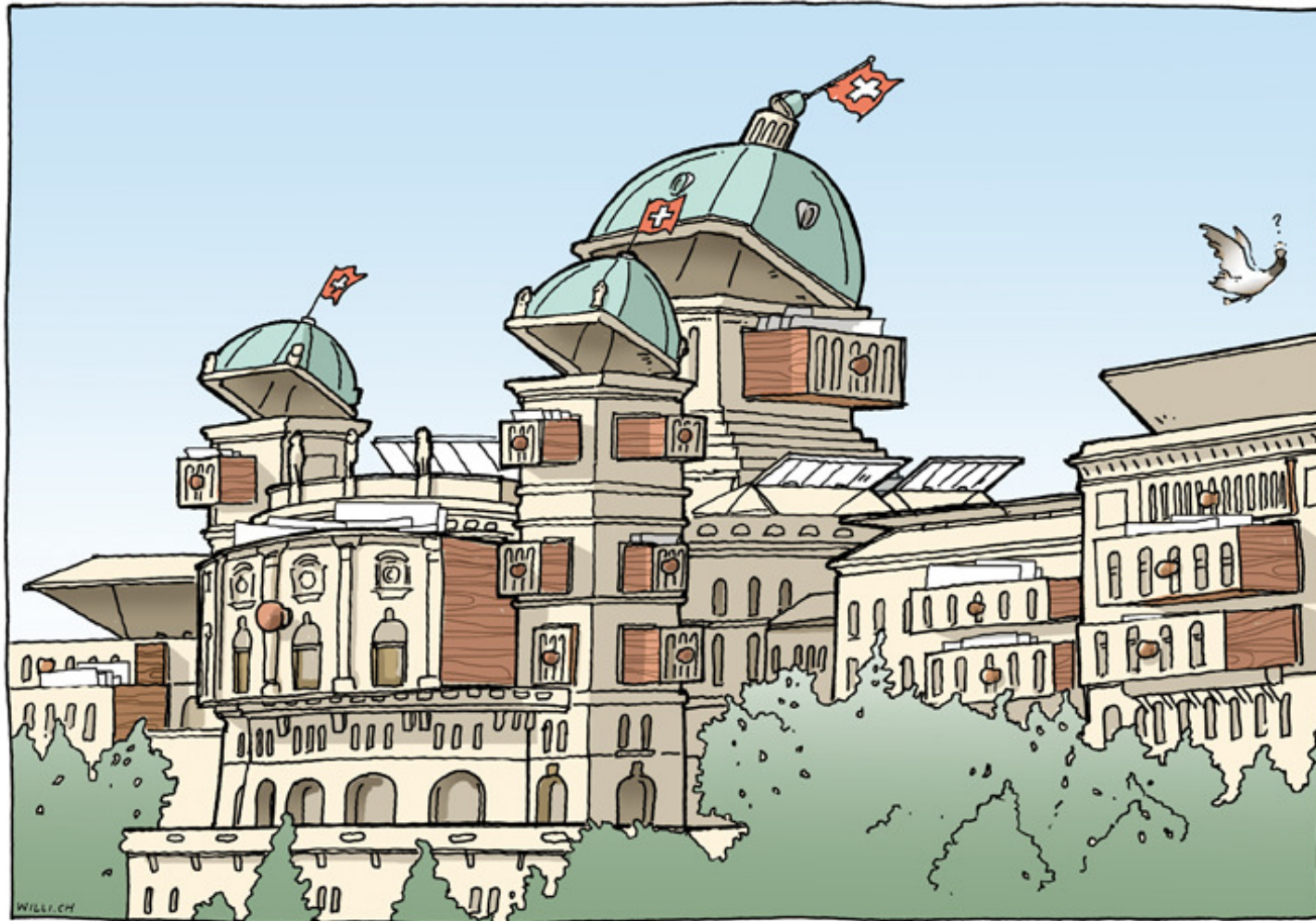
Open Data Showcase #2: adzuna (UK)

A screenshot of the Adzuna website homepage. The browser's address bar shows 'https://www.adzuna.co.uk'. The page features the Adzuna logo (a green circular icon above the text 'adzuna') and the tagline 'Every job. Everywhere.'. Below the logo is a green search bar with two input fields: 'What?' and 'Where?'. The 'What?' field has a target icon and placeholder text 'e.g. job, company, title'. The 'Where?' field has a location pin icon and placeholder text 'e.g. city, county or postcode'. To the right of the 'Where?' field is a magnifying glass icon and a link for 'advanced search »'. Below the search bar is a yellow banner with the text 'Join our mission to get Britain Working - Invest in Adzuna'. The main content area is divided into three sections: 1. '1,000,000+' of the latest jobs from the best job boards and employers. But we want more. [Suggest source.](#) 2. 'ValueMyCV NEW!' Use Adzuna's free ValueMyCV tool and find out what you're worth. [Try it now](#) 3. 'Latest jobs LIVE!' Key Account Manager - Exciting Consumer Business, Inbound Customer retentions agent Glasgow, Customer Service Adviser FT, and Telemarketing Executive - Appointment Make...

Open Data Showcase #3: Skillsroute (UK)

A screenshot of the Skills Route website. The top navigation bar includes the Skills Route logo and links for Home, About, and Screenshots. The main banner features a pink background with the words "ACADEMIC", "ENGINEERING", "CONSTRUCTION", "VOCATIONAL", "UNIVERSITY", "MATHS", "APPRENTICESHIPS", "ICT", "TOURISM", "ARTS", and "SCIENCES" in white, each followed by a question mark. Below the banner are four portraits of diverse young people looking upwards. Below the portraits, the text reads "Stay tuned to Skills Route on [Twitter](#) - we're coming soon!". To the left, a section titled "Reach your goals after GCSEs" explains that Skills Route helps young people understand their options after finishing GCSEs. To the right, a sign-up form asks for an email address and a message, with radio buttons for "A school interested in trying the beta" and "Generally interested in Skills Route". The form includes fields for "Full Name" and "Email", and a text area for "Let us know more about your interest in Skills Route (optional)". The Windows taskbar at the bottom shows the date as 10.06.2015 and the time as 08:50.

... und Open Data in der Schweiz?



Open Data Census – Switzerland (23)



global.census.okfn.org/place/ch

Places / Switzerland

This is the overview page where you can see the state of open data across each key dataset.

Dataset	Score	Breakdown	Location (URL)	Information
Transport Timetables	95%		'15 http://www.fahrp...	Propose Revisions
Government Budget	45%		'14 http://www.efv.a...	Propose Revisions
Government Spending	10%		'14	Propose Revisions
Election Results	70%		'14 http://opendata...	Propose Revisions
Company Register	60%		'14 http://zefix.admi...	Propose Revisions
National Map	50%		'14	Propose Revisions
National Statistics	70%		'14 http://www.bfs.a...	Propose Revisions
Legislation	45%		'14 http://www.admi...	Propose Revisions
Postcodes / Zipcodes	70%		'14 http://opendata...	Propose Revisions
Pollutant Emissions	60%		'14 http://www.bafu...	Propose Revisions

Key: ■ Yes ■ No ■ Unsure ■ No data

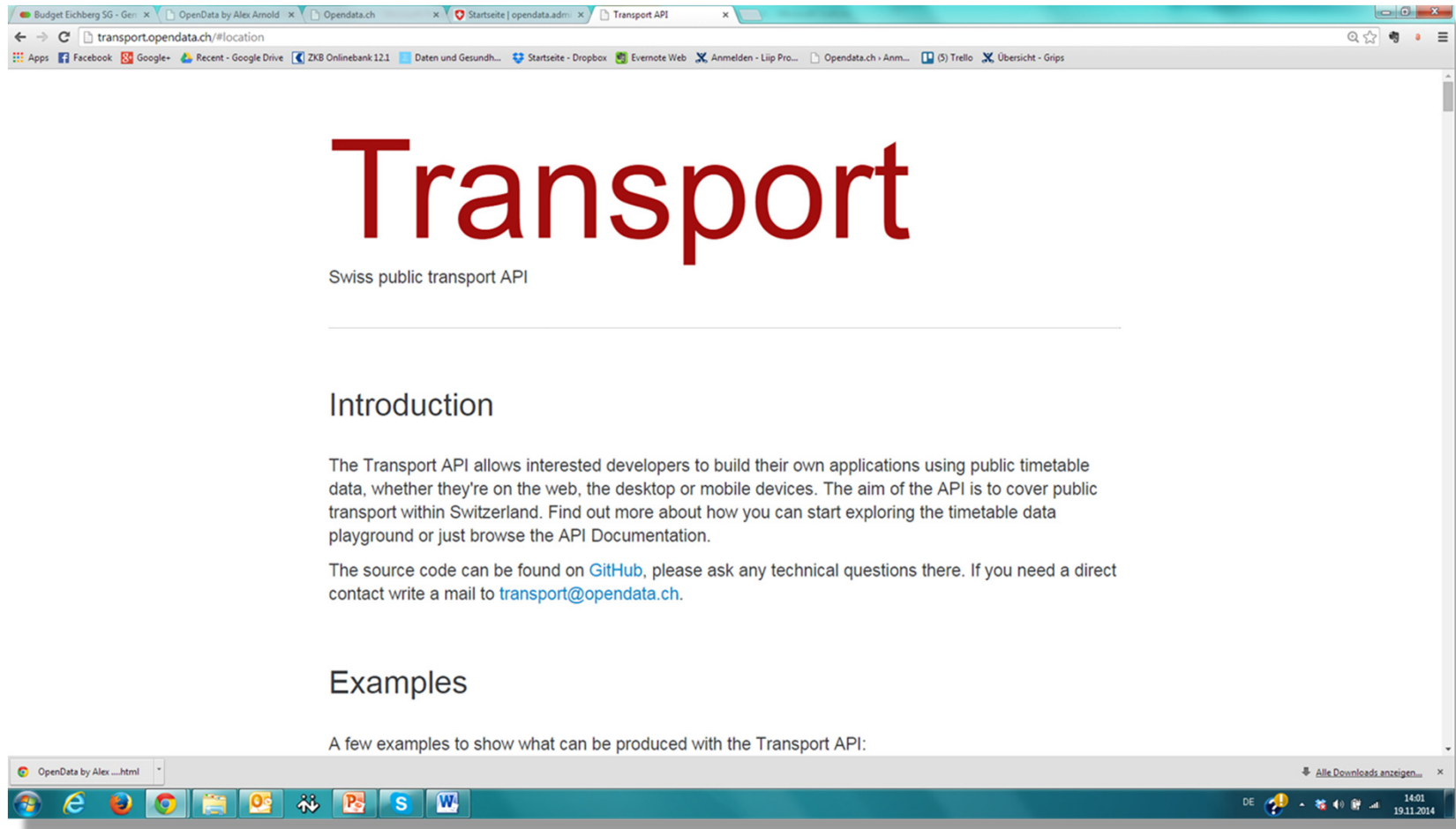
MAKE Open Data!



Hackdays:

- Bisher 7 nationale Durchführungen (an je zwei Standorten)
- ca. 800 Teilnehmende (Entwickler, Designer, Journalisten...)
- Über 60 publizierte Projekte (make.opendata.ch)
- Themen : Mobilität, Gesundheit, öffentliche Finanzen...

Open Data Showcase Switzerland: Swiss Public Transport API



OGD-(Pilot)-Portal Schweiz



The screenshot shows the website **opendata.admin.ch**, the pilot portal for open government data in Switzerland. The page features the Swiss federal government logo and the text "Schweizerische Eidgenossenschaft / Confédération suisse / Confederazione Svizzera / Confederaziun svizra". The main heading is "Offene Behördendaten der Schweiz" (Open Government Data of Switzerland), followed by the text: "Auf dem Open Government Data-Pilotportal stehen Ihnen **1854 Datensätze** zur Verfügung – für einfache Auswertungen, Kombinationen oder die Entwicklung von Applikationen und Visualisierungen." Below this is a search bar with the placeholder text "Suchen Sie z.B. Wetter, Volksinitiativen, Familien ...". The page is divided into two main sections: "Kategorien" (Categories) and "Anwendungen" (Applications). The "Kategorien" section lists: Politik (1507), Raum und Umwelt (119), Gesundheit (119), Bevölkerung (83), and Finanzen (8). The "Anwendungen" section features a featured application: "citymobile - die App für Schweizer Gemeinden" (citymobile - the app for Swiss municipalities), with a small image of the app interface and a description of its features.

OGD-Strategie Schweiz 2014 - 2018



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Projekt „OGD Schweiz“

Bern, 11. Dezember 2013

Open Government Data-Strategie Schweiz 2014 – 2018

Vom Bundesrat am ... verabschiedet

Versionen

Version 0.1 (15.1.2014)	Version für die erste Lesung mit Fachausschuss (20.1.2014) und Projektausschuss des Projektes OGD Schweiz (22.1.2014)
Version 0.2 (31.1.2014)	Version für die Anhörung interessierter Kreise
Version 0.3 (TT.2.2014)	Version für Ämterkonsultation

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

KoK
CONFÉRENZ DER KANTONSREGIERUNGEN
CONFÉRENCE DES GOUVERNEMENTS CANTONAUX
CONFÉRENZA DEI GOVERNI CANTONALI
CONFÉRENZA DA LAS REGENZAS CHANTUNALAS

Ein priorisierte
Vorhaben von
egovernment
SCHWEIZ · SUISSE · SVIZZERA

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Die Massnahmen der Open Government Data Strategie Schweiz



- **Freigabe der Behördendaten**
 - M1 Überprüfung und Anpassung der rechtlichen Rahmenbedingungen
 - M2 Datenfreigabeprozess
 - M3 Datenfreigabeplanung
 - M4 Inventarisierung der Datenbestände des Bundes
 - M5 Überprüfung der Gebührenpolitik
- **Koordinierte Publikation und Bereitstellung der Behördendaten**
 - M6 Aufbau des OGD-Portals
 - M7 Bereitstellung von Hilfsmitteln und Instrumenten für die Datenpublikation und -bereitstellung
 - M8 Auswahl und Definition der OGD-Standards
 - M9 Erarbeitung einheitlicher Nutzungsbedingungen
 - M10 Erarbeitung eines OGD-Kooperationsmodells
- **Etablierung einer Open-Data-Kultur**
 - M11 Dialog mit den OGD-Anwendern
 - M12 Bekanntmachung des Datenangebots in der Öffentlichkeit
 - M13 Evaluation der Wirkung von OGD

OGD-Strategie Schweiz 2014 - 2018



«Freigabe der Behördendaten

Der Bund stellt der Öffentlichkeit seine für OGD geeigneten Daten in maschinenlesbaren und offenen Formaten zur freien Wiederverwendung zur Verfügung. Die rechtlichen, organisatorischen, finanziellen und technischen Rahmenbedingungen der Datenproduktion in den einzelnen Verwaltungseinheiten sind an die Erfordernisse von OGD angepasst und erlauben, wo dies sinnvoll ist, die öffentliche Bereitstellung der Daten ohne speziellen Zusatzaufwand («**open data by default**»).

OGD-Strategie Schweiz 2014 – 2018, Seite 3499



Rechtsgrundlagen für OGD fehlen

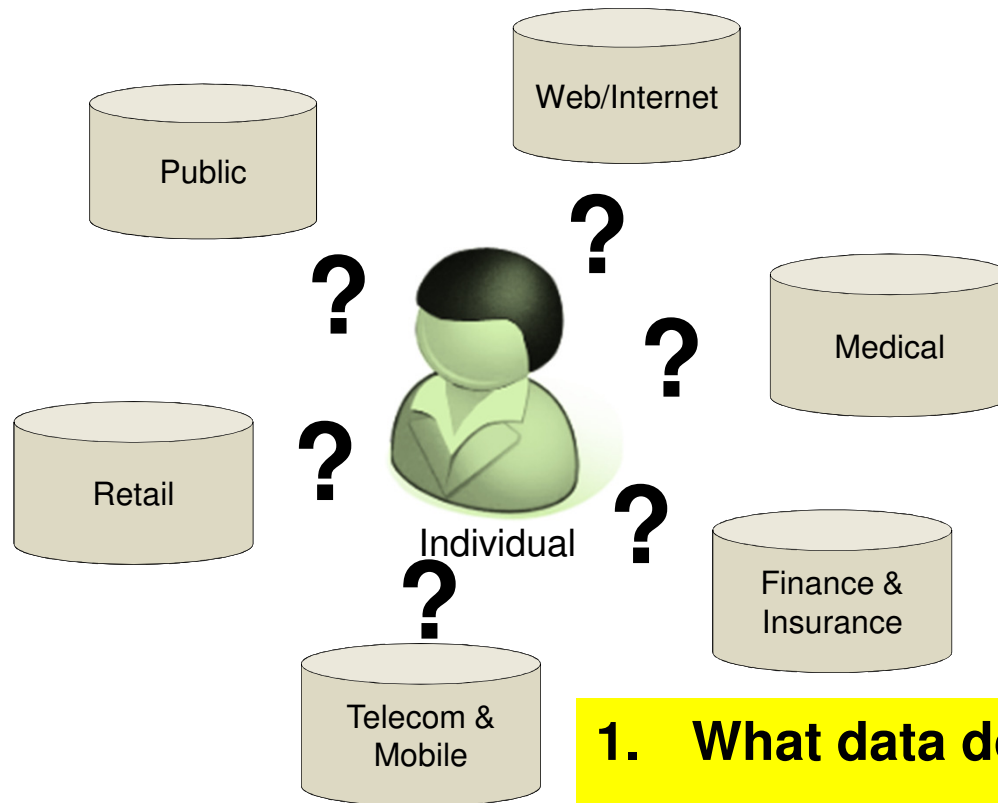
Erkenntnisse des Projektes OGD Schweiz (AG Recht):

- Legalitätsprinzip der Leistungserbringung auch für die Publikation von OGD verbindlich
- Rechtsgrundlagen für OGD nur partiell vorhanden (deckt im besten Fall 15 - 20% der Daten ab)

Fazit und Forderungen Opendata.ch:

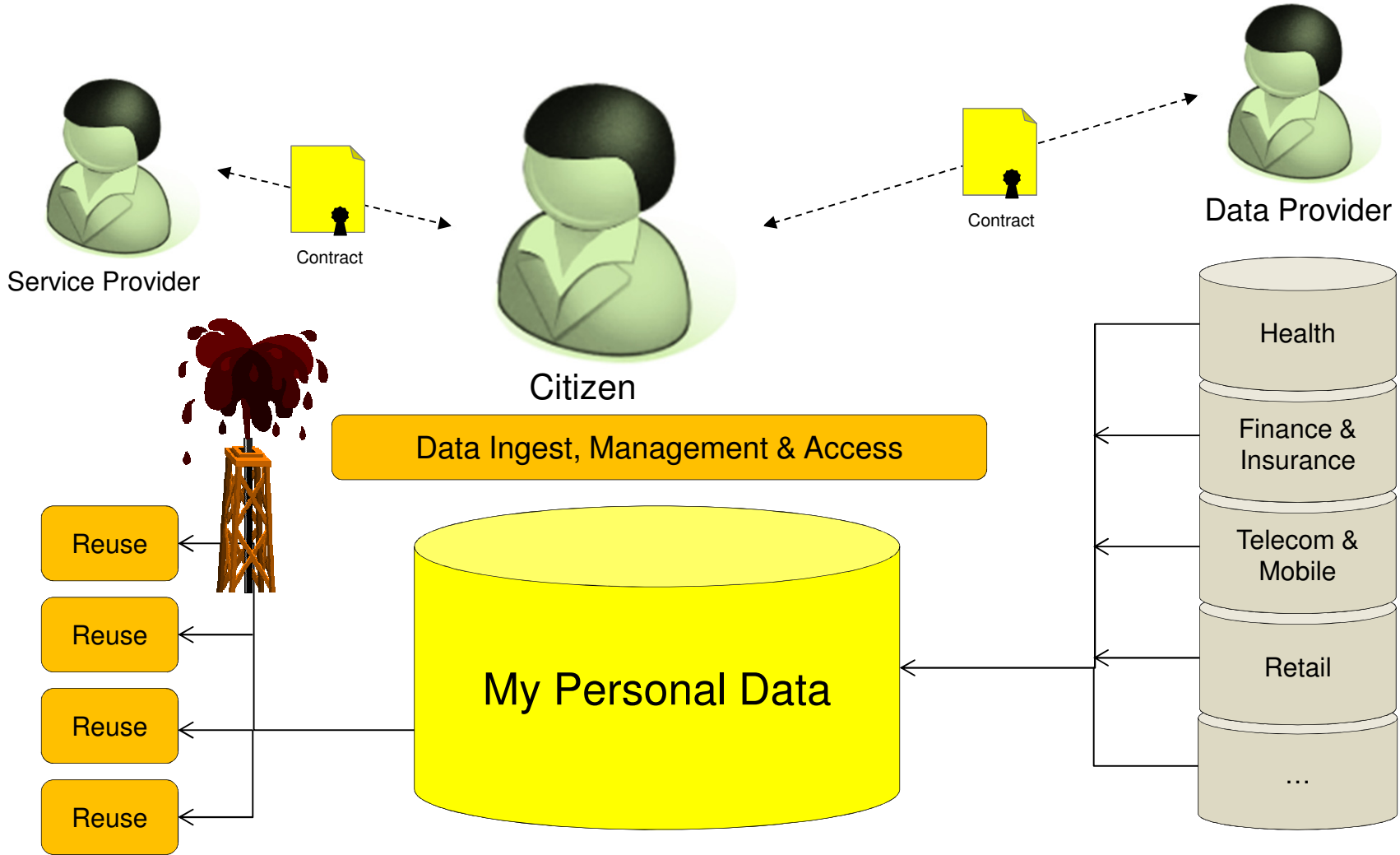
- «open data by default» (siehe OGD-Strategie) muss praktische Leitlinie für die Verwaltung sein!
- **Es braucht ein übergeordnetes OGD-Gesetz!**

Persönliche Daten – meine Daten?

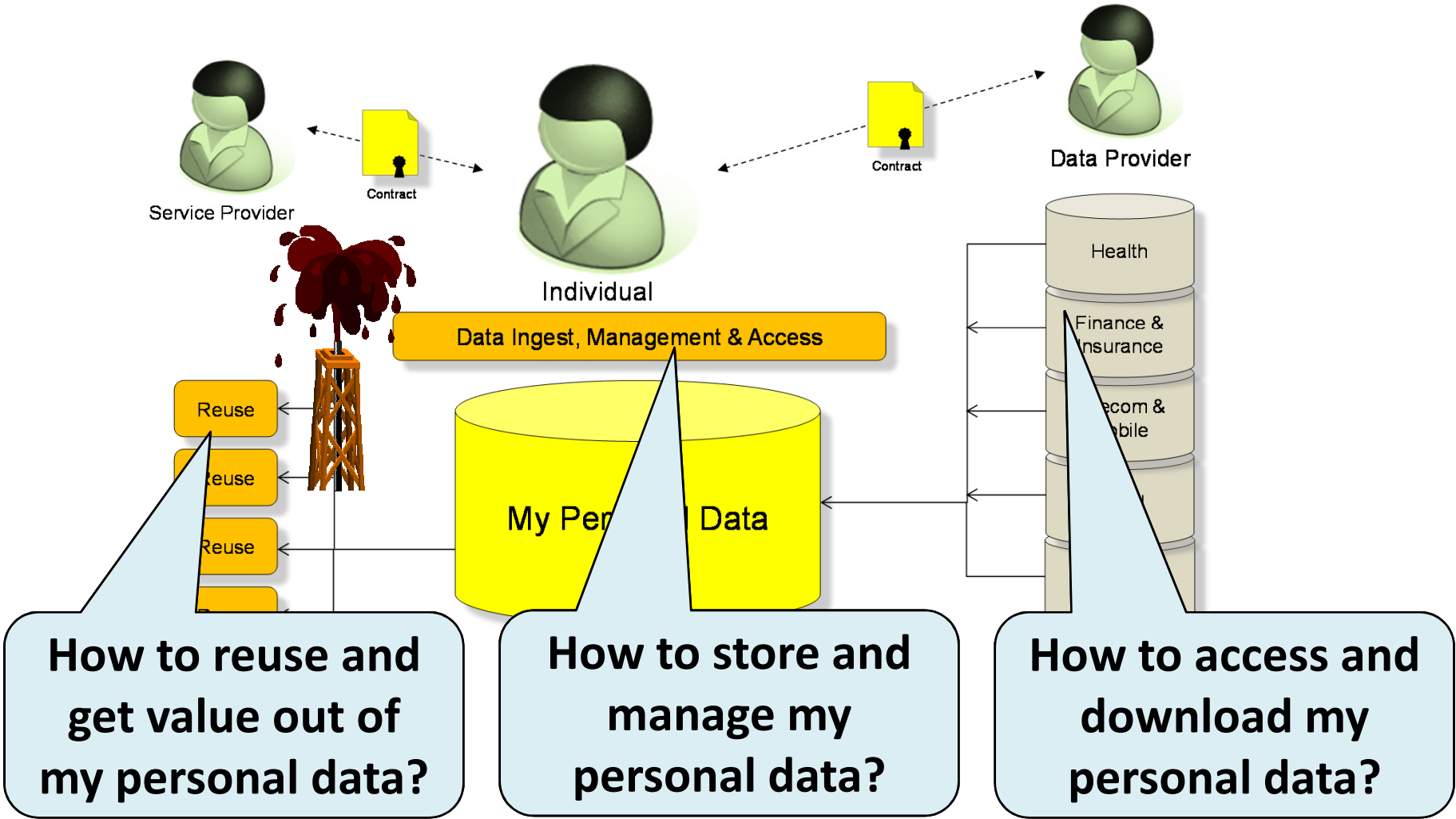


- 1. What data do «they» collect about me?**
- 2. What are «they» doing with my data?**
- 3. How can I access and use «my data»?**

Die «MIDATA»-Vision: Persönliche Daten unter Kontrolle des Bürgers



My personal data: 3 main challenges



MIDATA und Smart Disclosure: eine globale Bewegung für digitale Selbstbestimmung



MIDATA Showcase #1: Blue Button (US)



HealthIT.gov

Providers & Professionals Patients & Families Policy Researchers & Implementers

Basics of Health IT E-Health Benefits of Health IT Protecting Your Privacy & Security Health IT Stories Your Health Records

HealthIT.gov > For Patients & Families > Your Health Data

Blue Button

Blue Button is a way to get your health records electronically. Find out more!

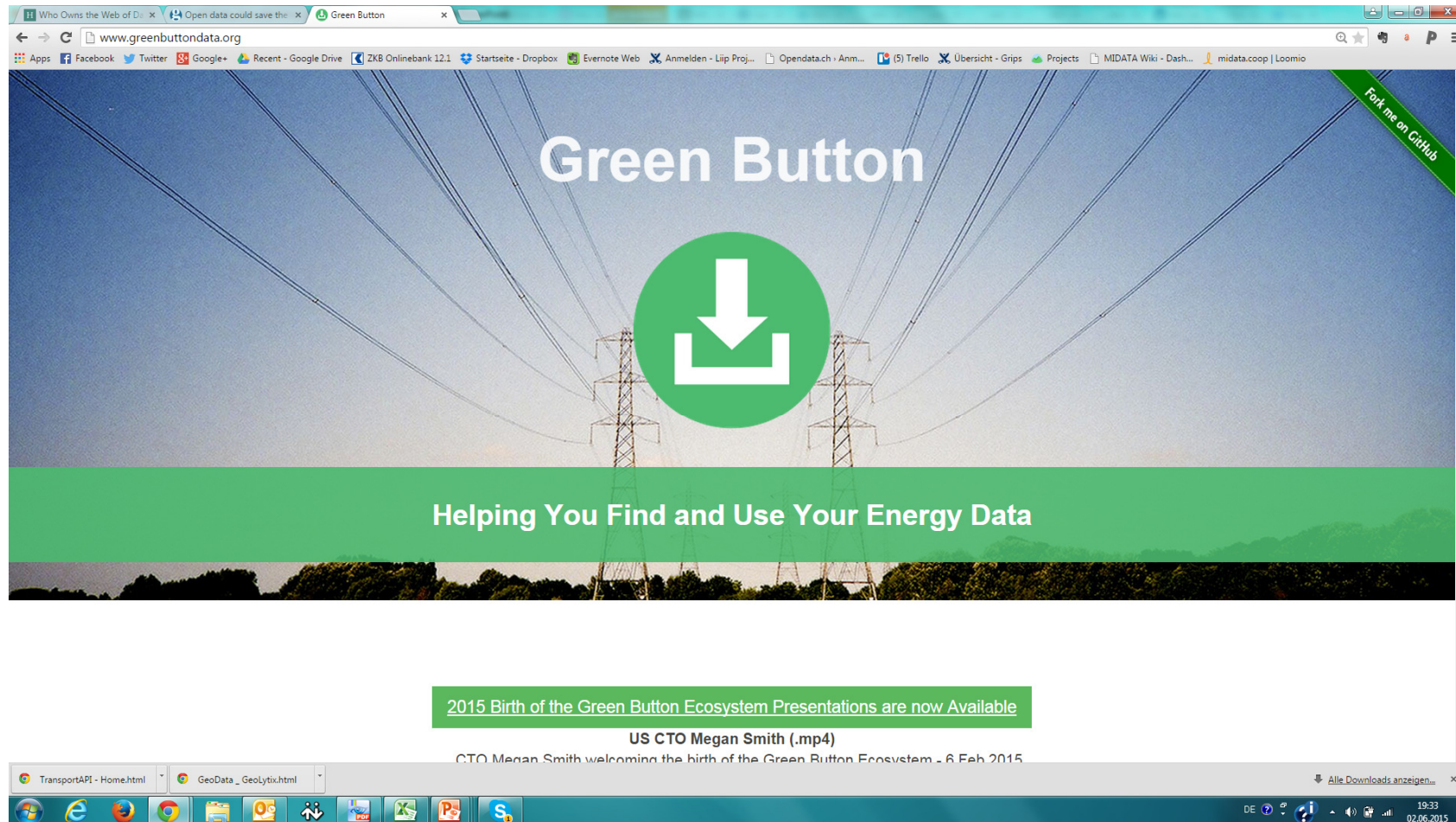
Video

Get It
Find out what kinds of health information are available via Blue Button and which providers offer it.

Check It
Get advice about what to look for in your health record, and your right to correct it.

Use It

MIDATA Showcase #2: Green Button (US)



MIDATA Showcase #3: gocompare.com (UK)



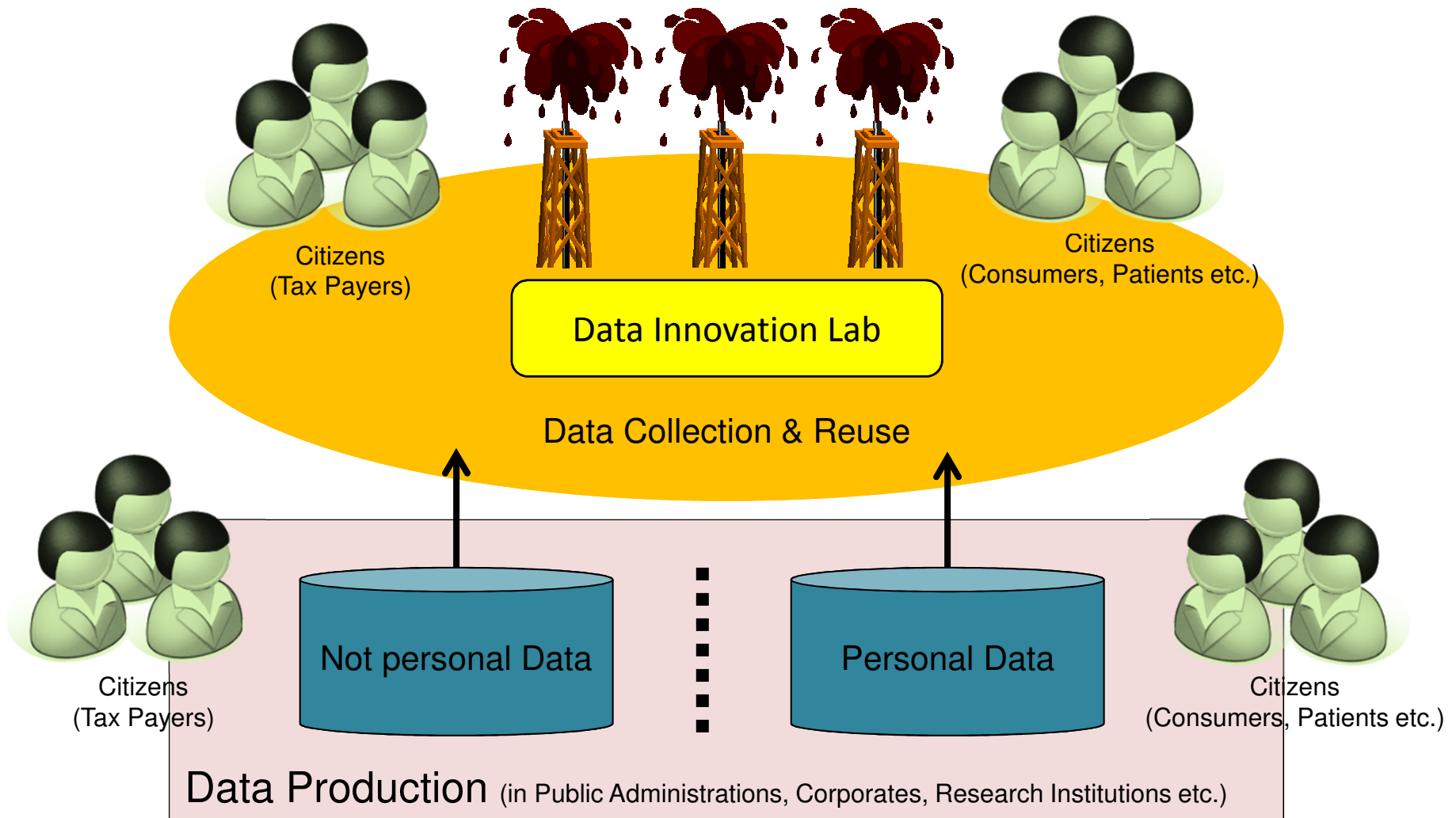
The screenshot shows the website www.gocompare.com/money/midata/. The main heading is "Midata - making comparison better". Below the heading, it states: "Midata empowers personal finance comparison choices by giving consumers easier access to their data and helping them use it to choose the right deal." A banner image features the word "MIDATA" in large green letters with "MAKING COMPARISON BETTER" below it, set against a background of gold coins and binary code. A sidebar on the right lists "Useful links" including "Current accounts", "Credit cards", and "Credit reports". At the bottom, a cookie consent banner reads: "By using the Gocompare.com website you agree to our use of cookies as described in our cookie policy. OK Learn more »".



Personal Data Cooperative

- Personal data are sensitive and part of one's digital identity
- The value of personal data lies in its aggregation
- This value should be returned to the individuals and the community and not third parties (e.g. shareholders)
- The cooperative is owned and controlled by its members and not by shareholders (of Google, Facebook, etc). Profits are invested according to the member's needs
- Cooperatives cannot be bought
- The ideal corporate form for a sharing economy since all people have similar amounts of personal data

Ein Data Innovation Lab (DILAB) als Katalysator für die CH-Datenwirtschaft

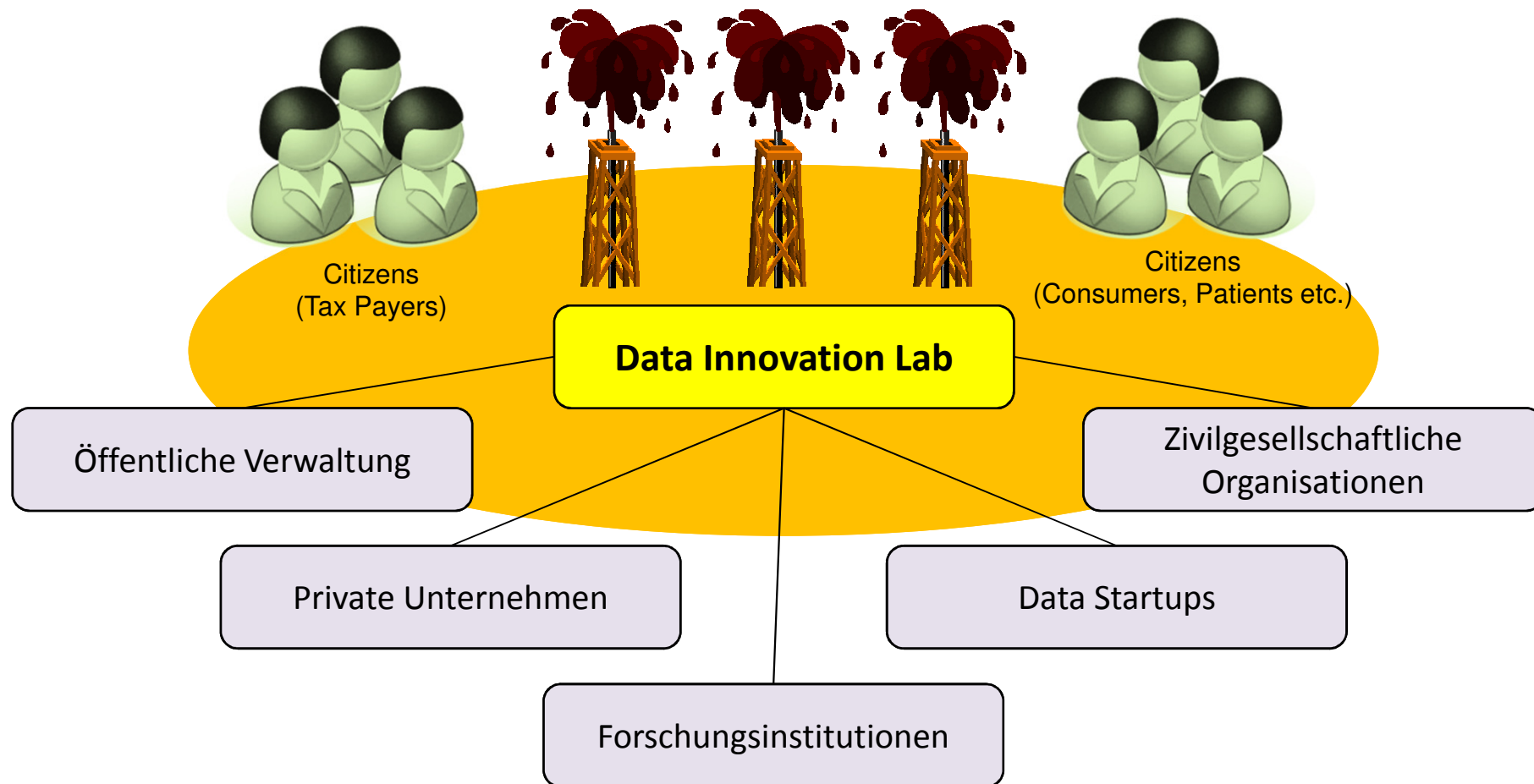


Data Innovation heisst...



- ... Erschliessung offener und persönlicher Daten
- ... Nutzbarmachung offener und persönlicher Daten
- ... Plattformen für die Publikation offener Daten
- ... semantische Vernetzung der Daten
- ... Plattformen für die Verwaltung persönlicher Daten
- ... Bereinigung und Veredelung der Daten
- ... Kombination verschiedener Daten («Mash-up»)
- ... Visualisierung und Analyse der Daten
- ... und vieles, vieles mehr!

Partner des Data Innovation Lab



Vielen Dank für die Aufmerksamkeit!



**Und nicht vergessen:
am 1. Juli die Konferenz Opendata.ch 2015
an der Universität Bern!**