Open Data and its economic impacts

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Towards a data-driven economy for the EU

... open data is significant part of it
Why is data-driven economy important for Europe?

Estimated size of the Big Data market

- Improve research efficiency and speed up innovation
- Jobs and companies in the data economy (SMEs and big data companies) be better addressed societal challenges (health, energy, etc)
- Increase by 5-6% the productivity of companies through data-driven business intelligence
- Have a higher share for the EU in the global data market growing by 40% per year

Source: McKInsey, IDC, E. Brynjolfsson, L. M. Hitt, H. H. Kim
Data-driven applications ...

- lifecycle management
- home automation
- health
- telecom
- market research
- information marketplaces
- traffic management
- water management
- energy management

... will revolutionise decision making!

... have great economic potential!
## Opportunities in individual sectors

<table>
<thead>
<tr>
<th>Sectors/Domains</th>
<th>Big Data Value</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Public administration</td>
<td>EUR 150 billion to EUR 300 billion in new value (Considering EU 23 larger governments)</td>
<td>OECD, 2013</td>
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<td>Healthcare &amp; Social Care</td>
<td>EUR 90 billion considering only the reduction of national healthcare expenditure in the EU</td>
<td>McKinsey Global Institute, 2011</td>
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<td>Utilities</td>
<td>Reduce CO2 emissions by more than 2 gigatonnes, equivalent to EUR 79 billion (Global figure)</td>
<td>OECD, 2013</td>
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<td>Transport and logistics</td>
<td>USD 500 billion in value worldwide in the form of time and fuel savings, or 380 megatonnes of CO2 emissions saved</td>
<td>OECD, 2013</td>
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<td>Retail &amp; Trade</td>
<td>60% potential increase in retailers’ operating margins possible with Big Data</td>
<td>McKinsey Global Institute², 2011</td>
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<td>Geospatial</td>
<td>USD 800 billion in revenue to service providers and value to consumer and business end users</td>
<td>McKinsey Global Institute², 2011</td>
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<tr>
<td>Applications &amp; Services</td>
<td>USD 51 billion worldwide directly associated to Big Data market (Services and applications)</td>
<td>Various·</td>
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</table>
Data is a top political priority: European Council of October 2013

Need to enhance the potential of 'Open Data' and 'data-driven innovation': 'technologies building on 'Big Data' are "important enablers for productivity and better services'
EU Challenges:

- Seize the **opportunities** provided by (open) data:
  - higher **growth**, more and better **jobs**,  
  - **better-quality** and **efficiency**  
  - more **personalised products** and **innovative services**;

- Boost Europe's **capabilities** with to embrace the potential of (big) data;

- **Preserve European values** (e.g. personal information, multilingualism...)
EU Response: current initiatives (examples)

- Open data
- eScience
- Cloud partnership
- GEO/SS
- Copernicus
- eGovernment
- Galileo
- Intelligent Transport Systems/Connected cars
- Digital entrepreneurship
EC Communication – July 2014
"Towards a thriving data-driven economy"

• **First ever EU-wide initiative** addressing data in a holistic manner

• The Communication sketches the necessary features of the **data-driven economy** (vision)

• It sets out a number of operational conclusions to support and accelerate the transition towards it (**actions**) including in the area of cloud computing

• It seeks to **initiate a debate** with the Parliament, Council and other stakeholders in order to prepare a detailed action plan
## Data Communication – main elements

### Community building
- Public-private partnership on data
- Open data incubator for SMEs
- Network of centres of excellence

### Framework conditions
- Open data
- Standards and interoperability
- Infrastructures (cloud)
- Legal framework (privacy/data mining)
- Skills
The European Open data strategy
Open (government) data: Why does it matter for Europe?

1. **Untapped business and economic opportunities:** data is the new gold; possible direct and indirect gains of €140bln across the EU28; Dutch geo-sector in 2008: 15,000 jobs

2. **Better governance and citizen empowerment:** open data increases transparency, citizen participation and administrative efficiency and accountability

3. **Addressing societal challenges:** data can enhance sustainability of health care systems; essential for tackling environmental challenges

4. **Accelerating scientific progress:** e-science essential for meeting the challenges of the 21st century in scientific discovery and learning.
Open data strategy

- **Communication** on Open Data ([COM(2011)882](#))
- A revision of the **Decision** governing the re-use of Commission's own information ([2011/833/EU](#))
- **Revision** of the **Directive** on the re-use of public sector information ([2013/37/EU](#))
- Commission Notice: **guidelines on PSI re-use** ([2014/C 240/01](#))
- **EU Open data infrastructure**
- **R+I funding** for fostering the **cross-sectoral re-use and combination of different types of data**
Revision of the PSI Directive: main changes

- Creation of a **genuine right to re-use** public information: all generally accessible information will become re-usable.

- New default **charging rule based on the marginal cost** for reproduction, provision and dissemination of the information. (In exceptional cases, full cost recovery will remain possible.)

- **Cultural institutions** brought within the scope of the Directive.

- **Increased transparency** requirements with regard to charges and conditions applied by public sector bodies.

- **New rules on digitisation agreements**, which protect the cultural sector and the interests of the general public.
Guidelines on PSI re-use – 17.07.2014

• Focus on three topics: licensing, datasets and charging
• Adoption by the College as Commission Communication in form of a Notice
• Non-binding document
• Gives guidance and best practice examples
• Useful for the Member States during the transposition phase and afterwards
Towards a pan-European infrastructure for (open) data

- **One single gateway** to reusable information with the aim of enabling combination of information held by various open data portals at various levels throughout the EU
- **Services** around open data
- Additional dedicated service infrastructure for language resources in order facilitate multi-lingual access to online services
G8 Open Data Charter

18 June 2013: the Lough Erne G8 Summit adopted an Open Data Charter

• very progressive and forward-looking approach to Open Data

• G8 members commit to a number of actions, namely that as a general rule all data they hold should be made openly available, also for reuse

• particular efforts to make available for reuse data belonging to areas of high value, both for improving democracies and encouraging innovative re-use of data
We encourage the GI industry to:

- **Materialize** the business and innovation potential of open data
- Identify and develop **ecosystem/s** for geo-data-driven innovation
- **Collaborate with** other stakeholders to share best practice and identify cross-border and cross-sector synergies
- **Contribute to the definition of educational needs** to match future demand for data skills
- **Engaging in** the building of the EU **data-community**
Conclusions

• Data has become an **economic and societal asset** creating fantastic **opportunities** for new business but also some **threats** (information overabundance, privacy)

• An **enabling framework** and a dynamic **data community** are **pre-conditions** for a data-driven economy

• Open data offers great opportunities to **develop ecosystems across economy and society**

• **Industry involvement is key** to ensure a successful data ecosystem in Europe

• The **PPP is open and inclusive – join the community!**
Thank you for your attention

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