EU-wide responses to data boom

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OUTLINE

1. Why the "data boom" matters?
2. EU policies and actions
3. Open Data
4. Conclusions
Data has become a resource

- **Types in the public sector:** Publicly funded data (like statistics, environmental and geographical data, meteorological data, business information, legal information), institutional and private data

- **Data offers new opportunities:** Combination of different types of data (e.g. geo, traffic and tourism; business and open)

- Data activities generate **externalities**, positive (reuse, new business models and services) and **negative** (privacy, data overflow)

- **Competitive advantage is** to offer the right data to the right people at the right time
Why is data-driven economy important for Europe?

Estimated size of the Big Data market

Europe needs a "Data" strategy to benefit the whole economy and have a higher share for the EU in the global data market growing by 40% per year.

improve research

increase by 5-6% the productivity of companies through data-driven business intelligence

better address societal challenges (health, energy, etc)

have a higher share for the EU in the global data market growing by 40% per year

Estimated size of the Big Data market

Source: McKInsey, IDC, E. Brynjolfsson, L. M. Hitt, H. H. Kim

Figure 1 - Source: Wikibon 2014

The EU Data Market today (2014)

Data Market:
- €50 Billion
- CAGR 6.4%

Data Companies:
- 243,600
- CAGR 1.6%

Data Users:
- 642,300
- CAGR 1.4%

Data Revenues:
- €51 Billion
- CAGR 7.1%

Data Economy:
- €255 Billion
- 3.5% EU GDP

Data Workers:
- 6.1 Million
- CAGR 5.7%

Data Workers' Skills Gap:
- 509,000
- CAGR 0.8%

Source: European Data Market Monitoring Tool, IDC 2015
The EU Data Market may follow different growth paths:

- **2014 Actual**: ~€B 50
- **2020 Baseline Scenario**: ~€B 83
- **2020 Challenge Scenario**: ~€B 68
- **2020 High-Growth Scenario**: ~€B 112

Source: European Data Market Monitoring Tool, IDC 2015
More info: [http://www.datalandscape.eu](http://www.datalandscape.eu)

Blog entries

Video of the sixth webinar: How innovative are European businesses with big data? Key statistics on the demand side 2014 - 2020. (26.11.2015)

Submitted 1 month 2 weeks ago by Federica Porcu.
Hi there! Here you can see the full video of our

Incoming events

VOXXED Days Berlin 2016
28th January 2016 to 30th January 2016
VOXXED Days is a series of tech events organised by local community groups and supported by the Voxxed team.

Event Location:
Kosmos Berlin, Karl-Marx-Allee 131a, 10243
http://tanyrd.com/2016/voxxed-days-berlin/

Workshop: Deep Dive Data

Post categories

- Webinars
- Studies
- Stories

Twitter stream
Data-driven applications ...

lifecycle management

home automation

health

market research

information marketplaces

traffic management

water management

telecom

... are revolutionising decision making

... have great economic potential

energy management
Materialise the opportunities in individual sectors

<table>
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<tr>
<th>Sectors/Domains</th>
<th>Big Data Value</th>
<th>Source</th>
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<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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<td>Research</td>
<td>Text and data mining (TDM) increases researcher productivity by 2% and adds billions to the economy</td>
<td>DG RTD Report on TDM, 2014</td>
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Main data challenges for organisations?

- Growth of organisational information, large and growing data quantity; quality? liability
- Multimodal information and Internet of Things
- Unstructured data
- Heterogeneity of data and data sources
- Complexity
- Interoperability
- Enriching business data with open data
- External shocks, e.g. financial crisis
What are the challenges for the EU:

- Seize the **opportunities** provided by the data economy: **higher growth**, more and better **jobs**, better-**quality** and more **personalised** products and services;

- Boost Europe's **capabilities** with to embrace the potential of the data economy;

- **Preserve European values** (e.g. personal information protection, multilingualism)
Europe needs an efficient data ecosystem
'Towards a data driven economy'
Communication – July 2014

• **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 has **initiated a debate** with the Parliament, Council and other stakeholders in order to prepare a more detailed action plan
EU actions aim at:

- Ensuring a data-friendly **policy and regulatory environment** (e.g. privacy, IPRs, security, ownership)
- Developing a well-functioning **European data ecosystem** for a Digital Single Market
- Supporting **competence** (skills)
- Building of secure and reliable **infrastructure**
- Enhancing data **availability** and **interoperability**
- Promoting **multilingual** solutions
- Building EU-wide **data-community**
Big Data Value PPP

- More than **130 members** since October 2014
- **Strategic Research & Innovation Agenda** (SRIA) for 2016-2020
- Investments to reach **EUR 2.5 billion**
- **Lighthouse Projects**, e.g. on health, logistics, energy
- **Innovation Spaces** offering secure environments for experiments with private and open data
- **Technology and methodology transfer** across sectors
- 1st H2020 calls launched
Data economy and privacy

- The fundamental **right to personal data protection** applies to big data **wherever the data is personal**.

- Trust in data privacy and data security is a **necessary pre-condition** for citizens to continue sharing their personal information, a key ingredient **in the data-driven economy**.
The Digital Single Market Strategy

- Announced in President Juncker's policy guidelines:

  "The Digital Single Market means an area where the free movement of goods, persons, services and capital is ensured and where citizens and businesses can therefore seamlessly access and exercise online activities under conditions of fair competition, irrespective of their nationality or place of residence."

- One of the main priorities for this Commission

- Strengthens the leading EU priority: Growth and Jobs
Digital Single Market pillars

Better access for consumers and businesses
- Geo-blocking
- Copyright
- E-commerce and Parcel delivery
- Reducing VAT burden

Advanced digital networks and innovative services
- Telecoms market
- Media services
- Platforms and intermediaries
- Trust and security

Enhance the digital economy
- Data economy
- Inclusive digital economy and society
- Interoperability and standardisation
Digital Single Market Strategy – Free Flow of Data

- Pillar III of the DSM: Maximising the growth potential of the digital economy

- Building a data economy – **Free flow of data initiative**
  - Tackling **data location restrictions**
  - Clarifying **emerging issues** of data ownership, access and liability
  - Launching a **European Cloud initiative**
  - Encouraging access to public data
Open (public) 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 EU27; 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.
Access to re-usable Public Sector Information (PSI)

- Information produced and collected by the public sector can benefit EU citizens and businesses when made available as open data

- PSI Directive 2013/37/EU (under transposition in Member States):
  - creation of a genuine right to re-use public information
  - new default charging rule based on the marginal cost
Pan-European Public Data infrastructure

- A pan-European portal as a one-stop shop

- It provides access to datasets created and managed by public bodies in the Member States (incl. the national, regional and local levels)

- Increasing open data capabilities across the EU

- With advanced visualization capabilities, tools for data aggregation and linking, browsing and search, user interfaces and support material

- Beta version: November 2015, Version 1.0 1st quarter 2016
Fostering the reuse of public data resources

Four complementary work streams are focused on open data reuse in CEF:

- Leveraging community engagement to make the most out of Open Data
- Communicating and raising awareness about the Portal
- Preparing for the future and working on the sustainability
- Studying the economic impact of the reuse of public data resources

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<th>Economic Benefits of Open Data</th>
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<td>Metrics to measure economic impact</td>
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<td>Market Size</td>
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http://www.europeandataportal.eu/en/content/creating-value-through-open-data
Conclusion

- Data innovation creates fantastic **opportunities** for new business but also some **threats** (Information overabundance, privacy)
- The business champions of the future will be the most successful organisations in **coping with data flood and DVC**
- Yet **technology solutions lags far behind** the complexity of information problems
- **Legal issues** (privacy, licensing, reuse) needs European actions
- Towards a **better use of publicly funded data** in Europe
- The **EC is committed to support** to improve European data driven competitiveness
THANK YOU FOR YOUR ATTENTION!

http://ec.europa.eu/priorities/digital-single-market/