



Towards a data-driven economy in Europe

HEPTech Academia Meets Industry on Big Data

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European Commission

Why is data-driven economy important for Europe?

Estimated size of the Big Data market

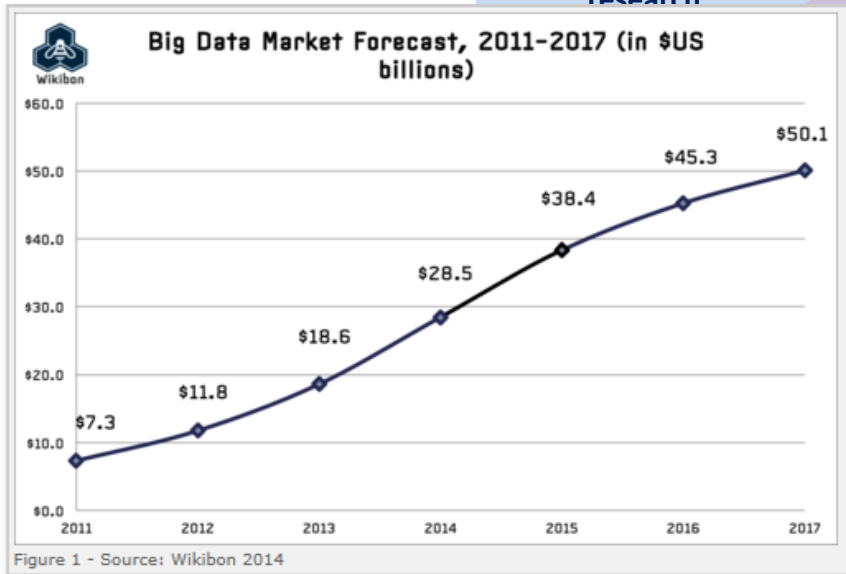


Figure 1 - Source: Wikibon 2014

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

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

Europe needs a "Data" strategy to benefit the whole economy and

better address societal challenges (health, energy, etc)

Opportunities in individual sectors

Sectors/Domains	Big Data Value	Source
Public administration	EUR 150 billion to EUR 300 billion in new value (Considering EU 23 larger governments)	OECD, 2013
Healthcare & Social Care	EUR 90 billion considering only the reduction of national healthcare expenditure in the EU	McKinsey Global Institute, 2011
Utilities	Reduce CO2 emissions by more than 2 gigatonnes, equivalent to EUR 79 billion (Global figure)	OECD, 2013
Transport and logistics	USD 500 billion in value worldwide in the form of time and fuel savings, or 380 megatonnes of CO2 emissions saved	OECD, 2013
Retail & Trade	60% potential increase in retailers' operating margins possible with Big Data	McKinsey Global Institute ² , 2011
Geospatial	USD 800 billion in revenue to service providers and value to consumer and business end users	McKinsey Global Institute ² , 2011
Research	Text and data mining (TDM) increases researcher productivity by 2% and adds billions to the economy	DG RTD Report on TDM, 2014

Data-driven applications ...



telecom

home automation

health

lifecycle management



market research



information
marketplaces



traffic
management



water management



energy management

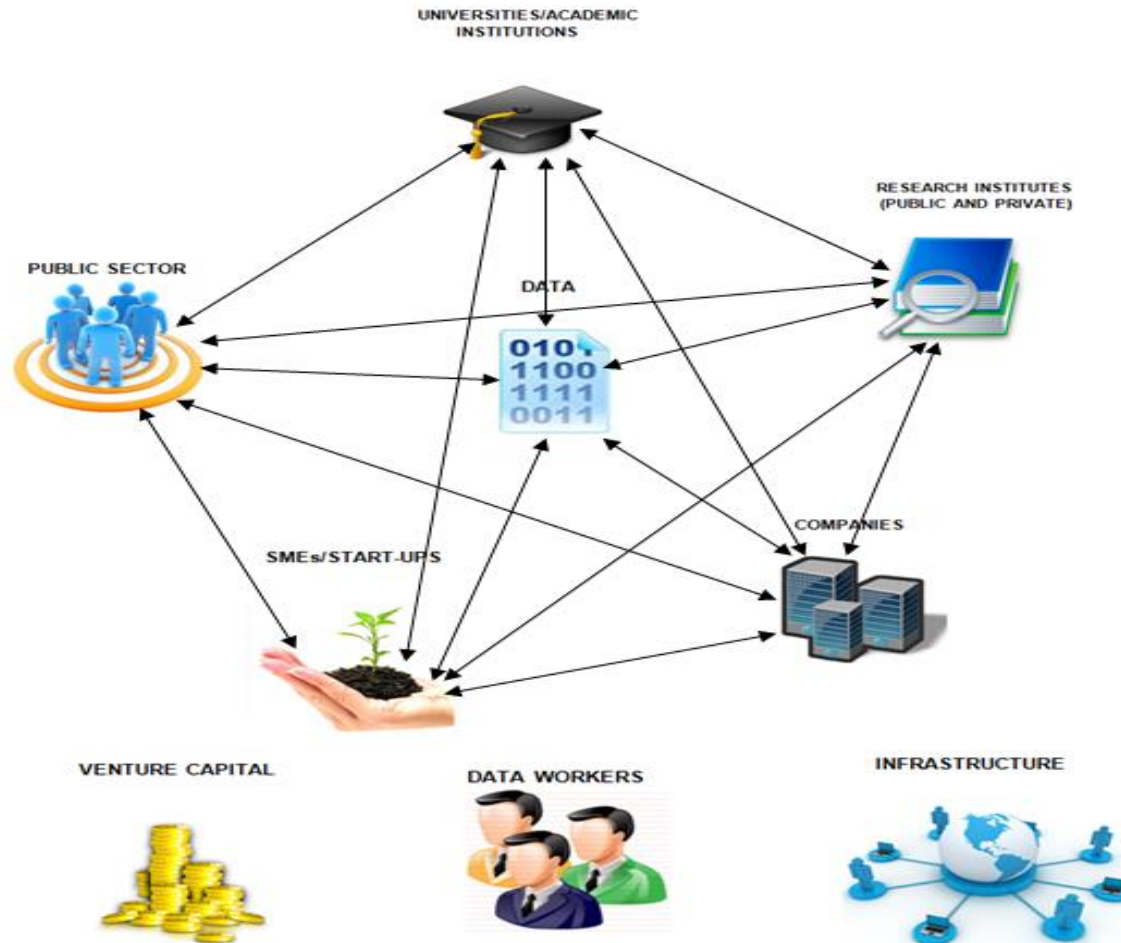
... will revolutionise decision making!

... have great economic potential!



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Europe needs an efficient data ecosystem



Data is a top political priority since the European Council of October 2013



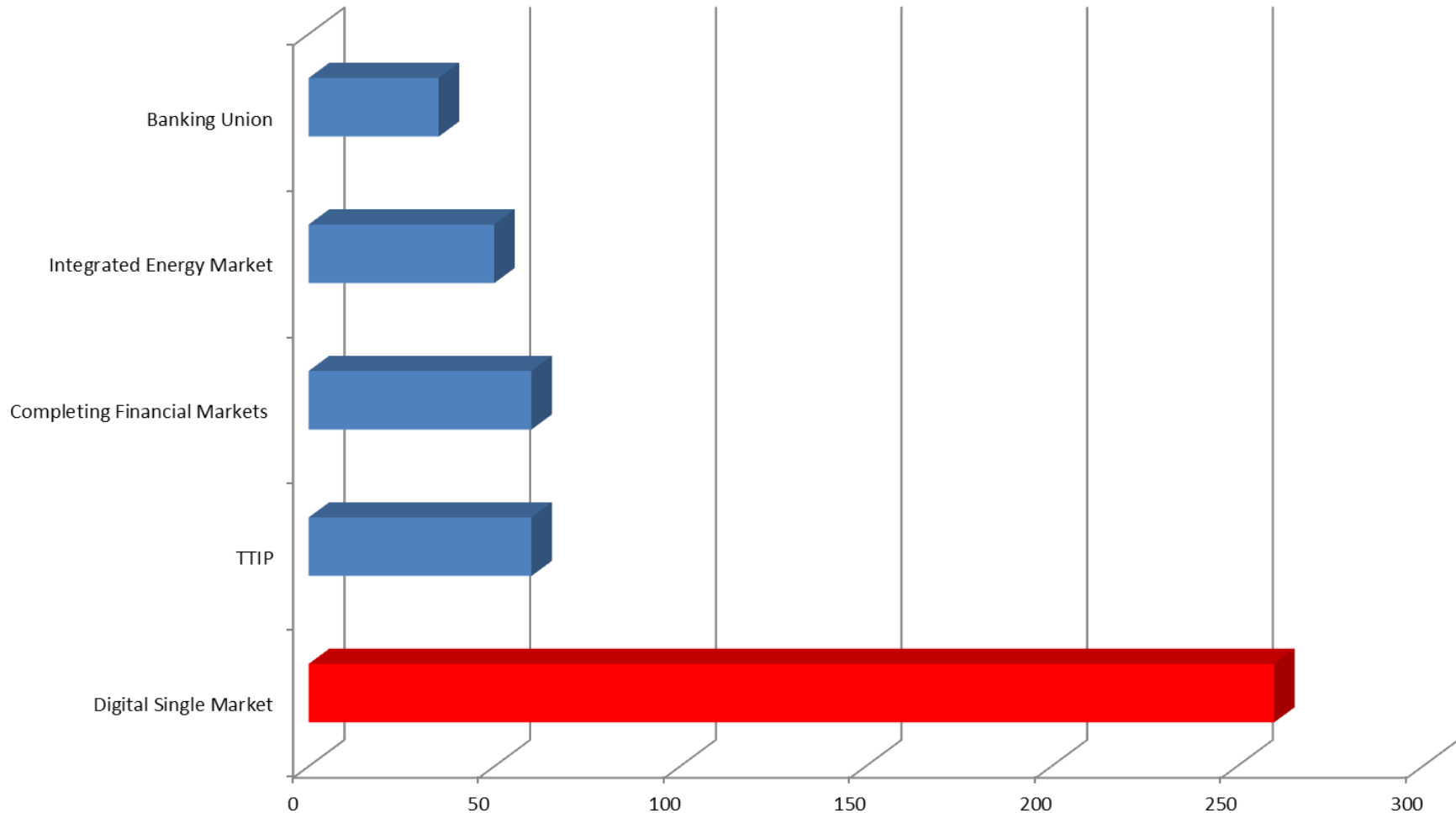
- Need to enhance the **potential of 'Big Data'** and **'data-driven innovation'**: 'technologies building on 'Big Data' are **'important enablers for productivity** and better services'

The Digital Single Market has the largest potential to create growth



European
Commission

Potential benefits in bn €



Source: Mapping The cost of non-Europe, European

Parliamentary Research Service, March 2014

Ambitions of the new Commission

President Juncker's Political Guidelines

=> Connected DSM – with growth and jobs - highest on political agenda:

"break down national silos in telecoms regulation, in copyright and data protection legislation, in the management of radio waves and in the application of competition law"

=> Letters to VP Ansip and Commissioner Oettinger and concept agreement of 25.03.15

=> Next delivery 06.05.15

Digital Single Market: Areas of actions

- 1. Better access for consumers and businesses to digital goods and services**
 - Facilitating cross-border **e-commerce**, especially for SMEs, with harmonised consumer and contract rules and with more efficient and affordable **parcel delivery**.
 - Tackling **geo-blocking**: enable using online services that are available in other EU countries.
 - Modernising **copyright** law to ensure the right balance between the interests of creators and those of users or consumers.
 - **Simplifying VAT arrangements** is important to boost the cross-border activities of businesses, especially SMEs.

Digital Single Market: Areas of actions 2.

2. Shaping the environment for digital networks and services to flourish

- Encouraging **investment in infrastructure** on high-speed internet and secure networks: the lifeblood of new, innovative digital services. The Commission will review the current **telecoms and media rules**
- European approach to **Spectrum** management and its coordination; Broad roll-out of the latest **4G technology**
- Growing importance of **online platforms** (search engines, social media, app stores, etc.) for a thriving internet-enabled economy including to strengthen **trust** in online services and **swift removal of illegal content**.
- The swift adoption of the **Data Protection Regulation** is key to boosting trust in using of **personal data** online.

Digital Single Market: Areas of actions 3.

3. Creating a European Digital Economy and Society with long-term growth potential

- Integration of new technologies in all industrial sectors towards smart industrial systems ("**Industry 4.0**").
- Faster developed **Standards** ensuring interoperability for new technologies
- Materialise **the data economy**. **Big data** is a goldmine, but it also raises important challenges, from **ownership** to **data protection** to **standards**.
- **Cloud computing** need the right framework to flourish and be used by more people, companies, and public services across the EU
- Citizens 'centric interoperable **e-services** and offers to develop their **digital skills** to boost their chances of getting a job.

EU Challenge:

- Seize the **opportunities** provided by (big) data: **higher growth**, more and better **jobs**, better-**quality** and more **personalised** products and services;
- Boost Europe's **capabilities** with to embrace the potential of (big) data;
- **Preserve European values** (e.g. personal information, multi-lingualism...)

'Big data' 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 seeks to **initiate a debate** with the Parliament, Council and other stakeholders in order to prepare a more detailed action plan

Community building

- *Public-private partnership on data*
- *Open data incubator for SMEs*
- *Network of centres of excellence*

Framework conditions

- *Open data (incl. open research data)*
- *(Big) Data tools*
- *Standards and interoperability*
- *Infrastructures (cloud)*
- *Legal framework (privacy/data mining)*¹⁴

EU actions will 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 Public Private Partnership

- **Big Data Value Association:** legal entity representing the private side
- **Industry drivers:** e.g. ATOS (ES), Nokia Networks and Solutions (FI), Orange (FR), SIEMENS (DE), Thales (FR)
- **Research drivers:** e.g. Fraunhofer (DE), VTT Technical Research Centre Finland, Insight Centre – National University of Ireland
- Around **€500m** public funding, leveraged by **€2b** private investment
- Have defined a **Strategic Research & Innovation Agenda** (SRIA) for period 2016 – 2020 (regular updates during the running of the cPPP)

PPP: main elements of the SRIA

- **Lighthouse Projects:** Projects to demonstrate specific Big Data Value ecosystems and sustainable data marketplaces e.g. on health, logistics, energy
- **Innovation Spaces** will offer secure environments for cross-sector and cross-border experimenting with private and open data. Will also act as business incubators.
- Five **Technical Priorities:** Data Management, Optimized Architectures, Deep Analytics, Privacy and Anonymisation Mechanisms, Advanced Visualisation and User Experience
- **Non-Technical Priorities:** Skills Development, Ecosystems and Business Models, Standardisation

PPP: what happens in 2015?

- **Promotion** of the PPP towards industry, research, public sector, capital
- **Enlarge constituency** with all relevant players (data owners, data users, large industries, SMEs, Start-Ups, research, academia, Venture Capital)
- **Community Building**
- Identify **synergies** with other PPPs and initiatives
- Contribute to **WP 16-17** drafting
- **Contact and registration:** <http://www.bigdatavalue.eu/>

Action Plan towards a data economy

- **Consultation process:** Dialogue with the European Institutions, Member States and all relevant industry players from various sectors
 - Member States Workshop on data strategies
 - Thematic and sector specific workshops
 - Online Survey
- **Adoption of a detailed Action Plan:** at the European Data Forum (EDF) held in Luxembourg 16-17. November 2015

* **Hungarian version of the Communication:**

<http://eur-lex.europa.eu/legal-content/HU/TXT/PDF/?uri=CELEX:52014DC0442&from=EN>

We encourage you to:

- **Get actively involved** in the **Big Data Value PPP**
- **Collaborate with the Commission** to share your views on the data economy
- **Share with the Commission** both **challenges** and **best practice**
- **Join** our **sectoral workshops** and our **stakeholder consultation**
- **Engage in** the building of the EU **data-community**
- See you at **European Data Forum** on **16/17 November 2015**

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
- Current challenges and obstacles to a thriving data economy require an EU-wide **set of actions**
- **Broad involvement (public and private) is key** to ensure a successful data ecosystem in Europe



Thank you for your attention

Contact: cnect-G3@ec.europa.eu
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Further info: <http://ec.europa.eu/digital-agenda/en/big-data>