



# Towards a data-driven economy in Europe

**Budapest Information Day  
20 February 2015**

**Dr. Márta NAGY-ROTHENGASS  
Head of Unit CNECT.G3 (Data Value Chain)**



European Commission

# Why is data-driven economy important for Europe?

## Estimated size of the Big Data market

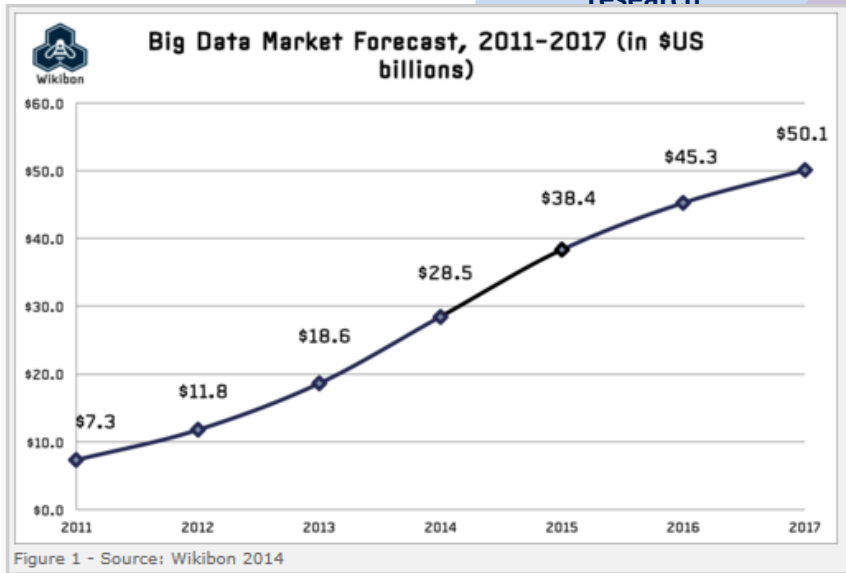


Figure 1 - Source: Wikibon 2014

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

improve research

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

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

better address societal challenges (health, energy, etc)

# 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!**

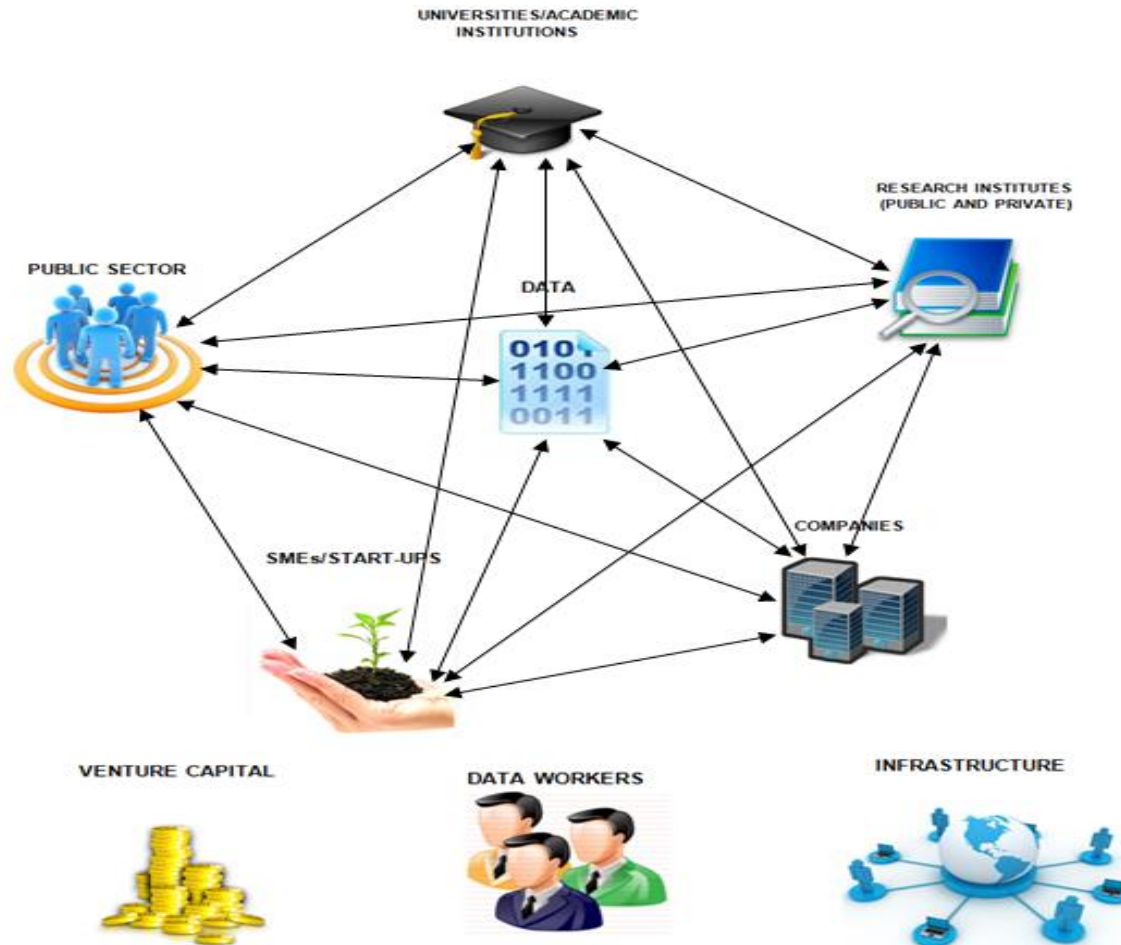
# Opportunities in individual sectors

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



European  
Commission

# 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'

## 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-culturalism...)

# '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)* <sup>9</sup>

## 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 PPP: history

- **Data manifesto: Call from Industry** to COM for joint action during ICT Conference in November 2013
- Core group of PPP drivers, supported by ETP NESSI
- **Broad stakeholder consultation:** e.g. series of workshops, presentations at industry events (EDF & NESSI Summit), online stakeholder consultation of SRIA, exchange with Member States representatives in workshops
- Positive **external assessment** by neutral experts from different MS
- Positive **internal approval** through Inter-Service Consultation
- Launch of the Big Data Value PPP on **13 October 2014**

# PPP: funding leveraged by industry

- **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
  - **January 2015: Member States Workshop on data strategies**
  - **February 2015: Finance and banking sector workshop**
  - **March-Nov: Workshops on health, telecoms, manufacturing...**
- **Adoption of a detailed Action Plan:** By the end of 2015, possibly during the European Data Forum (EDF) held in Luxembourg in 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](mailto:cnect-G3@ec.europa.eu)  
Follow us on Twitter: @EUDataEcosystem

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