

Making (Big) Data work for Europe

Towards a Data Value Chain Partership in Europe (cPPP)

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What do we mean by Big Data?

Big Data means high-volume, high-velocity and high-variety information assets that demand increased technological capacity to be handled

Big Data can either be created by people or generated by machines/sensors (such as satellites, tablets, smartphones, GPSs, motion sensors, etc.)

Big Data can refer to geographical information, statistics, weather data, research data, transport data, energy consumption data, health data, etc.



Why is data important?

Data is a **social asset** with an enormous economic value. The value of data as an **economic asset** has exponentially increased in the last decades.

Europe needs to develop a sustainable data economy by developing and supporting a functioning data ecosystem.



Why is Big Data important?

Big Data is fuelling the growth of the knowledge economy

improve research and speed up innovation have a higher share for the EU in the global data market growing by 40% per year

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

increase by 5-6% the productivity of companies through databased decisionmaking

get more
European
companies in the
Big Data top 20
(now only 2)

better address societal challenges based on data analysis



Decision makers rely on countless heterogeneous complex ICT systems ...

Finance EIS DSS

Accounting

Taxes GI Marketing

Cash-flow



Stock

markets

Risk analysis

Human resources

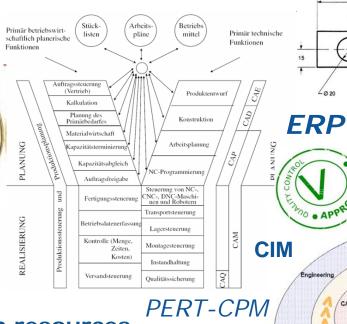
MTM

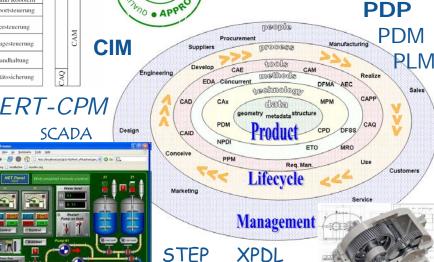
Assets management

CRM DRM

Services

Bank accounts





OEE CMMS

JIT

SPC

TQM

Industry

MPS

MRP

BOM



... but structured information represents only a small fraction of the whole picture

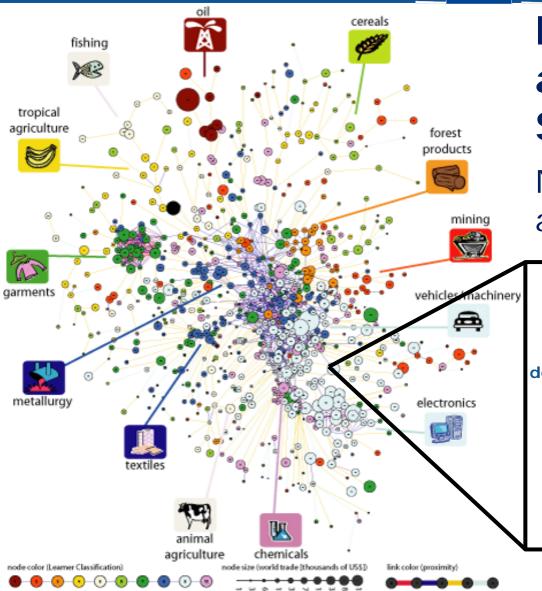
15%



More than 85% of all business valuable information exists in the form of e-mails, memos, notes from call-centres, news, user groups, chats, reports, web-pages, presentations, image-files, video-files, marketing material and news.

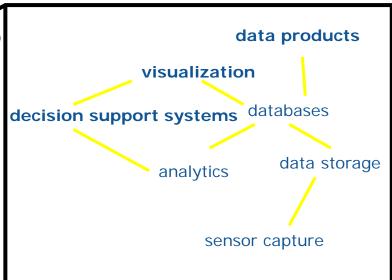
Source: Merrill Lynch





Data Supply Chain and Product Spaces

Need a high value added data cluster





Data in the EU policy context



- > A strategy <u>for smart,</u> <u>sustainable and</u> <u>inclusive growth</u>
- ➤ A vision to achieve high levels of employment, a low carbon economy, productivity and social cohesion, to be implemented through concrete actions at EU and national levels.



- ➤ One of the seven flagship initiatives of Europe 2020, set out to define the key enabling role that the use of ICTs will have to play if Europe wants to succeed in its ambitions for 2020.
- ➤ The overall aim [...] is to deliver sustainable economic and social benefits from a digital single market [...]
- > Action 3: <u>Open up public</u> data resources for re-use



Commission "The invited to make rapid progress in key areas of the digital economy to ensure the creation of the Digital Single Market by 2015. including Γ...1 the availability of public sector Information."

Conclusions of the European Council (4 February 2011)





Conclusions of the European Council of 24/25 October 2013

- Enhancing the potential of 'Big Data' and "datadriven innovation" (Digital innovation)
- Technologies building on 'Big Data' are "important enablers for productivity and better services"
- Need to complete the **Digital Single Market** by 2015
- Improve public services through e-government, eprocurement, e-health and e-invoicing services
- Importance of an integrated approach to R&I& market deployment through better coordination of grants, venture capital and pre-commercial procurement



Action items the European Council called for:

- Broadband: More investments needed
- Cloud computing: "European Cloud Partnership" to put Europe at the forefront of cloud adoption
- Create a European network of "national digital coordinators" for Cloud computing, Big Data and Open Data
- Use EU structural funds and other mechanisms to support education in the field of ICT so as to address the need for a more IT-savvy labour force
- Work on interoperability of platforms & data in order to facilitate data portability



Where are we now?

- Broad consultation on a draft European Data Value Chain Strategy in Dec 2012-Jan 2013
- VP Kroes unveiled the European Data Value Chain Strategy in the ICT2013 Conference in Nov 2013
- VP Kroes called for a European Public Partner
 Partnership and collaboration
- Data Value memorandum for stakeholder collaboration initiated by the ETP NESSI
- Hard work towards a Strategic Research and Innovation Agenda for Europe is ongoing
- Broad range of R+I funding (national, European),
 coordination and collaboration needed
- Across H2020 calls address the data challenges



A European strategy and partnership on the data value chain will

- foster a well-functioning European data ecosystem
- stimulate research and innovation around data as well as the <u>uptake of data services and products</u>
- will put in place a specific set of actions to improve the framework conditions for generating value out of data

This will lead to

- increased business intelligence and efficiency of private and public sectors
 - world class applications and services
 - new business opportunities involving SMEs
 - new ways of tackling societal challenges



What existing policy initiatives can we build on?

- Open Data Strategy/PSI Directive
- eScience
- eGovernment
- eHealth
- European Cloud Partnership
- High-Performance Computing
- Broadband
- 5G technology
- Backbone networks
- Future Internet
- Grand Coalition for skills

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What are the framework conditions to be addressed at EU level?

- Fostering a data-friendly policy and regulatory
 environment (especially on privacy, IPRs, security, ownership)
- Developing a well-functioning **European data ecosystem** supporting the Digital Single Market
- Supporting competence (skills) and infrastructure
- Enhancing interoperability
- Multilingualism



Next steps



- Panel discussion
- Networking session
- Consultation and agreement on the SRIA
- Setting up the partnership process

+

Workshop "Pioneers in Data driven innovation – Solutions & Visions from European Member States" Athens, March 21, 2014



Our Panel

- **Giuseppe Abbamonte**, Director at European Commission
- **Christian Lindemann**, COO at Wolters Kluwer Deutschland
- **Stefan Wrobel**, Institute Director at Fraunhofer IAIS / Board Member at BITKOM
- Josep Urban, Manager at Nokia Solutions and Networks
- Jan Reichelt, Co-founder and President at Mendeley



Thank you for your attention!

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Conclusions

- Big data creates fantastic opportunities for new business but also some threats (information overabundance, privacy)
- The business champions of the future will be the most successful companies in coping with data flood and DVC
- Yet technology solutions lags far behind the complexity of data problems
- Setting the right Framework conditions will need European and national actions
- Towards a better use of publicly funded data in Europe
- The EC is committed to force the improvement of data driven competitiveness