BITS Seminar – University Foundation in Brussels
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ENHANCED ACCESS TO AND SHARING OF DATA (EASD)

Maximising the social and economic value of data re-use

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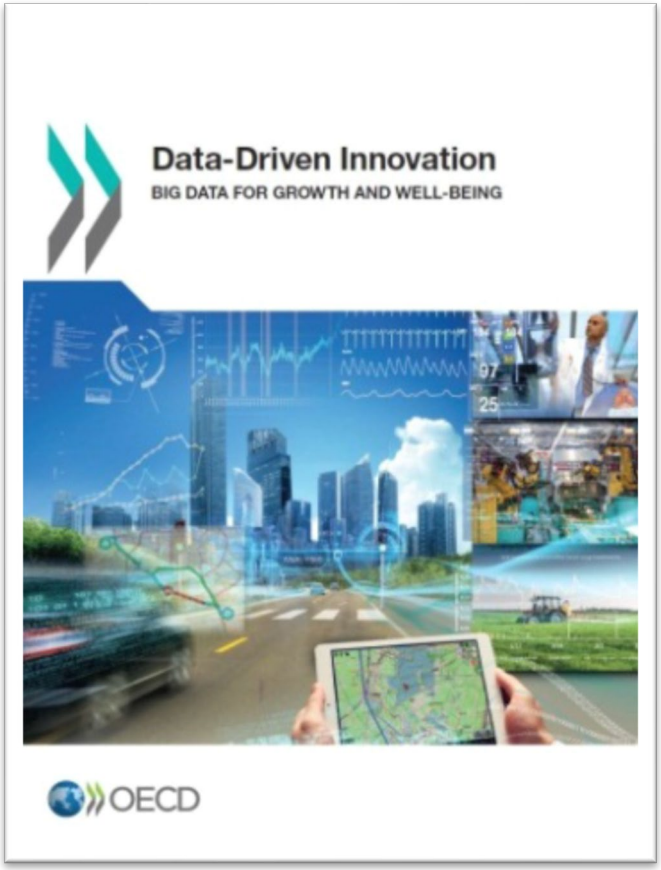
BETTER POLICIES FOR BETTER LIVES

OECD report on Data-driven Innovation



- **Ch.1** The Phenomenon of data-driven innovation
- **Ch.2** Mapping the global data ecosystem and its points of control
- **Ch.3** How data now drive innovation

- **Ch.4** Drawing value from data as an infrastructure
- **Ch.5** Building trust for data-driven innovation
- **Ch.6** Skills and employment for a data-driven economy

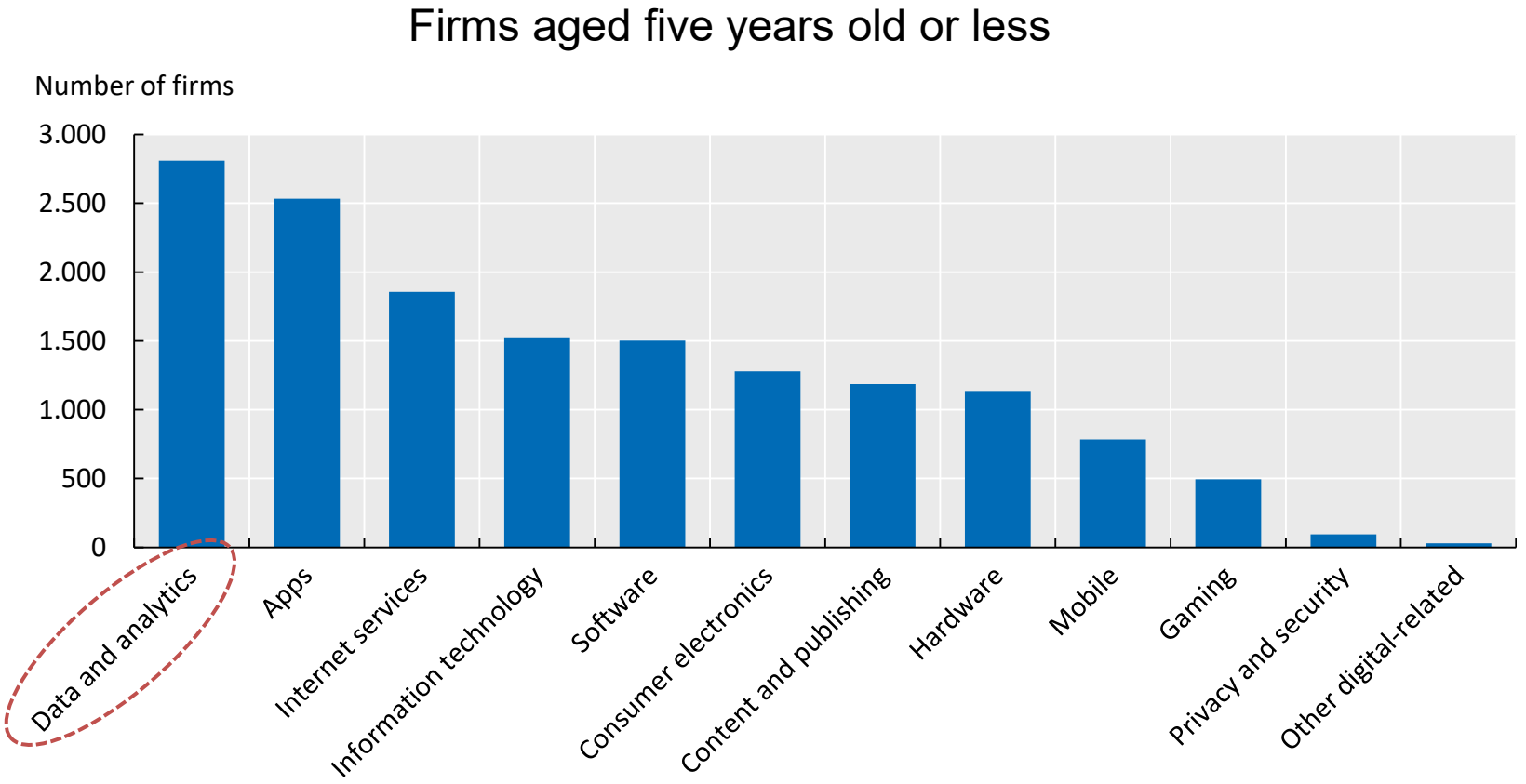
- **Ch.7** Promoting data-driven scientific research
- **Ch.8** The evolution of health care in a data-rich environment
- **Ch.9** Cities as hubs of data-driven innovation
- **Ch.10** Governments leading by example with public sector data

Find out more about our work at http://oe.cd/bigdata

What is data-driven innovation (DDI)?

DDI refers to the **use of data and analytics** to improve or foster new products, processes, organisational methods and markets

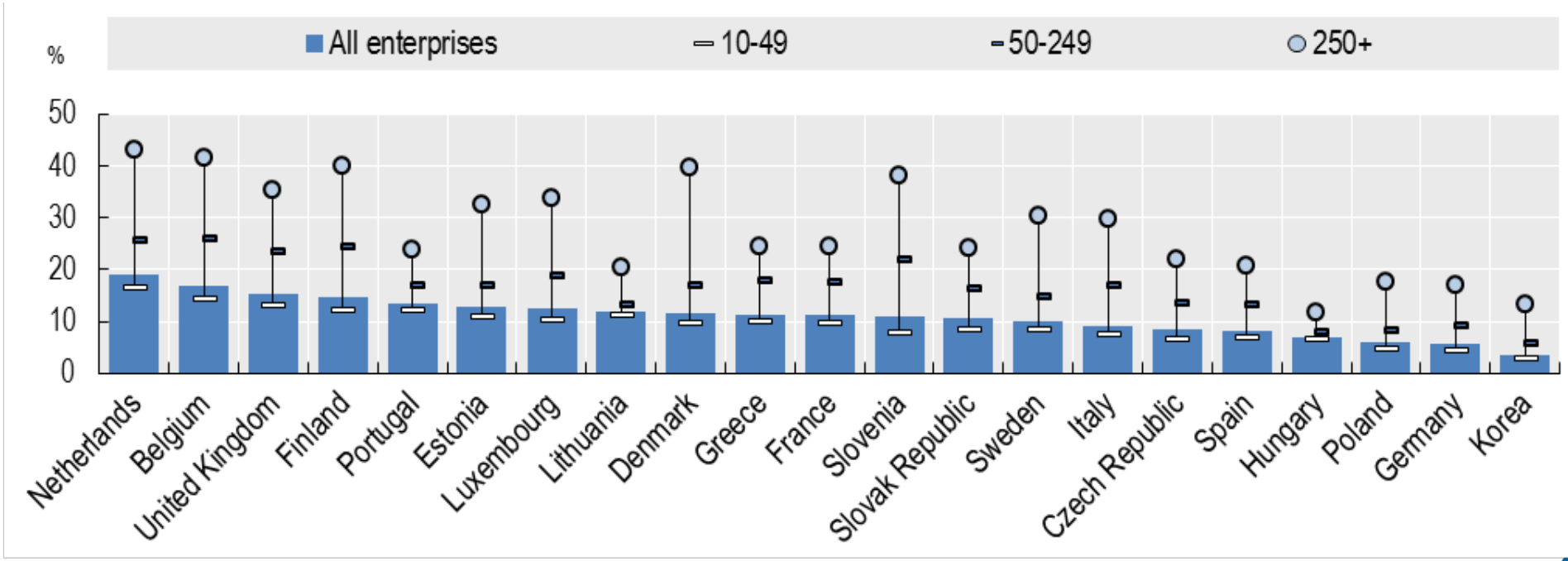
Start-ups in digital-related sectors that attracted equity funding, 2011-16



The sample is restricted to firms founded after 2010 (i.e. five years old or less in 2016) that attracted equity funding over the 2011-16 period.

Large firms are more likely to adopt big data …

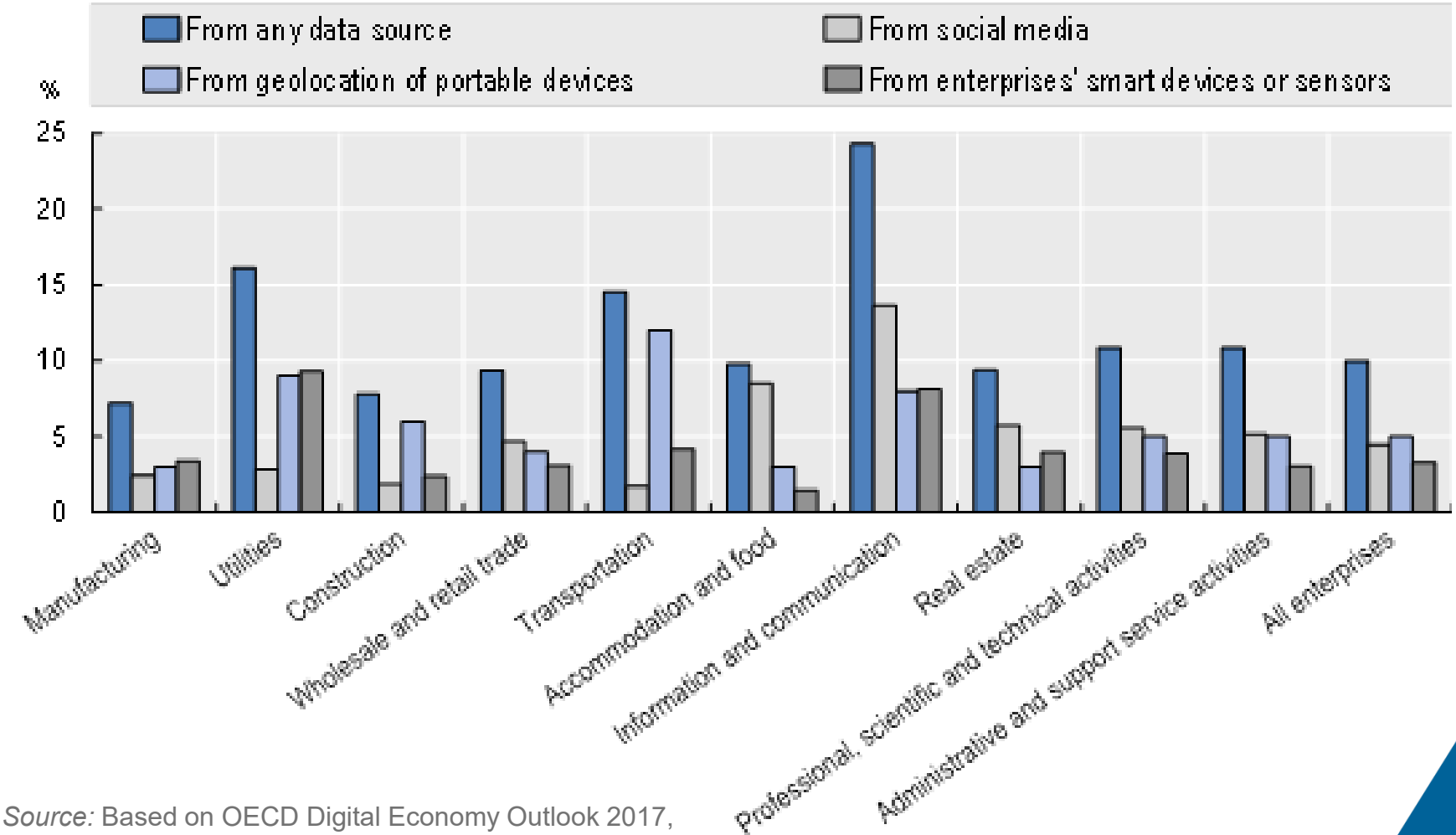
Use of big data analytics as a percentage of enterprises, by size, 2016



Source: Based on OECD Digital Economy Outlook 2017
OECD, ICT Database; Eurostat, Information Society Statistics and national sources, March 2017.

… in particular if they are ICT firms

Use of big data analytics by sector as a percentage of enterprises, by size, 2016



Source: Based on OECD Digital Economy Outlook 2017,
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Data is the “new R&D” for innovation

Public Administration

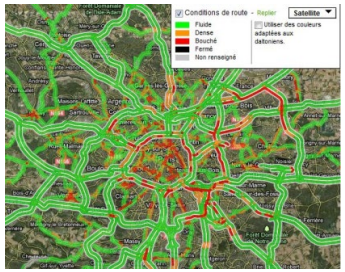
Health

Retail

Data

Agriculture

Science and Education



Transportation

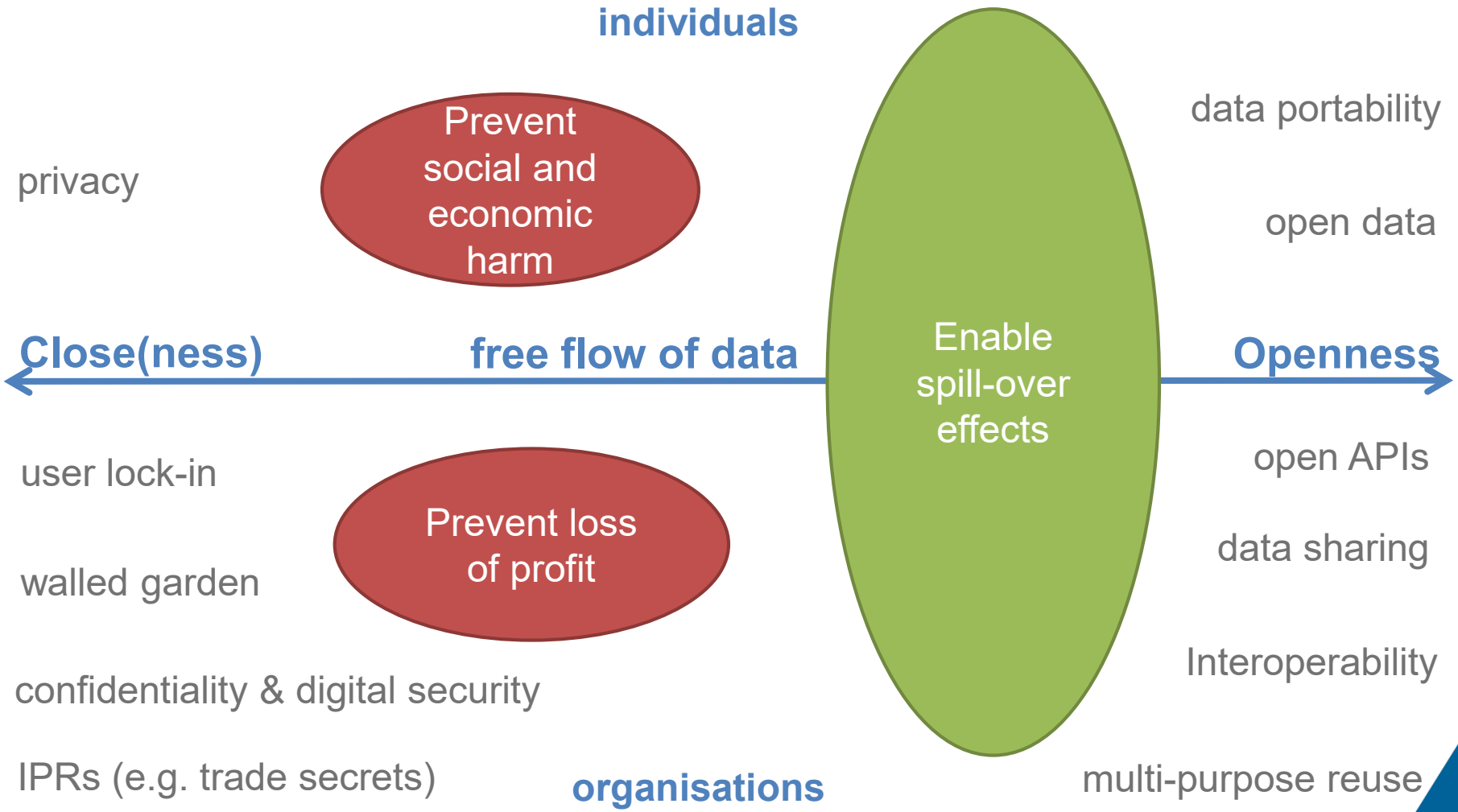
Rationale: Data re-use generates spill-over benefits across society

- The benefits of public sector data re-use across society have motivated a wide range of **open data** initiatives:
  - OECD, 2015, PSI study estimates that the value of PSI was ~ USD 111 billion in 2010.
- **Enhanced access to scientific data** has accelerated and facilitated scientific discovery and co-operation (see OECD, 2015, Daejeon Declaration)
- Economic impact studies also suggest that **the potential of EASD for the private sector is significant**: e.g.
  - IDC and The Lisbon Council (2018) estimate that the direct economic effects of EASD through data markets was around EUR 65 million in 2017, resulting in overall effects of EUR 336 billion (or 2.4% of GDP) in 2017.
  - Mitsubishi Research Institute (2017) concludes that by removing barriers to data sharing in the private sector, data sharing platforms could have generated up to JPY 1 445 billion (EUR 11 billion) in gross value added in Japan in FY 2014.

Data is not oil, but an infrastructural resource with large spill-overs

- **Data is non-rivalrous (but excludable)**
  - Data re-use and non-discriminatory access can maximize its value
  - Data enables multi-sided markets
- **Data is a capital with increasing returns**
  - Data can be re-used as input for further production
  - Data linkage is a key source for super-additive insights
- **Data is a general purpose input with no intrinsic value**
  - Data are an input for multiple purposes
  - Its value depends on complementary factors related to the capacity to extract information (e.g. skills, software)

Key Dilemma: Striking the right balance between “openness” and “closeness”



“Data ownership” is a fuzzy concept and therefore a source of uncertainty

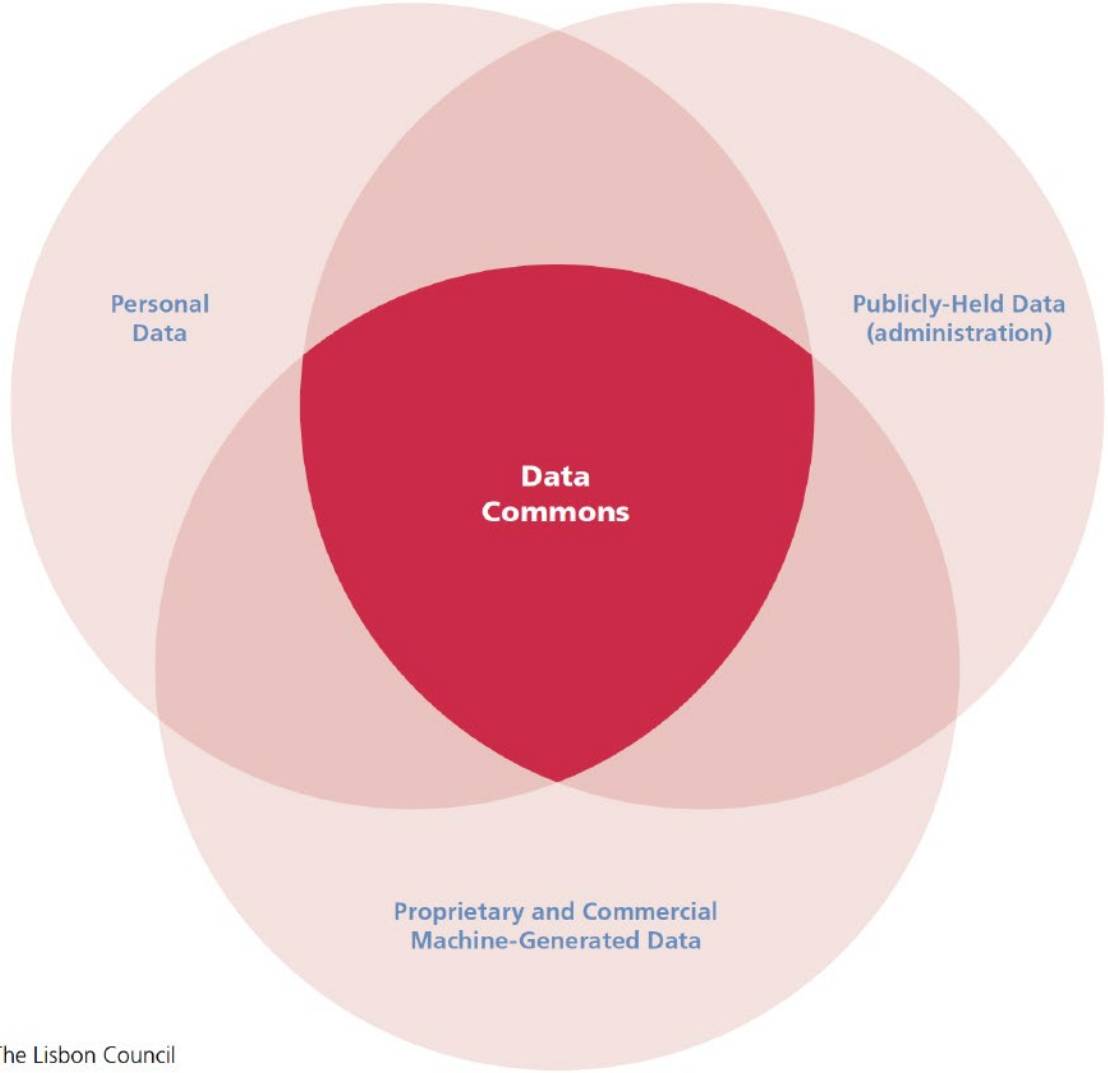
- “Data ownership” means different things, it is often used as synonym for “data stewardship”;
- Current IPR regimes are only to a limited extent applicable to data (e.g. EU Database Directive);
- In cases of “personal data”, data control rights of the data subject cannot be waived;
- Data often involve multiple stakeholders (co-) creating and (co-) using the data;
- It is mainly about **data control** (usage rights).

Current IPR regimes are only to a limited extent applicable to data

- **Algorithms (software):**
  - Copyright
  - Patents (application and granting may vary significantly between countries however)

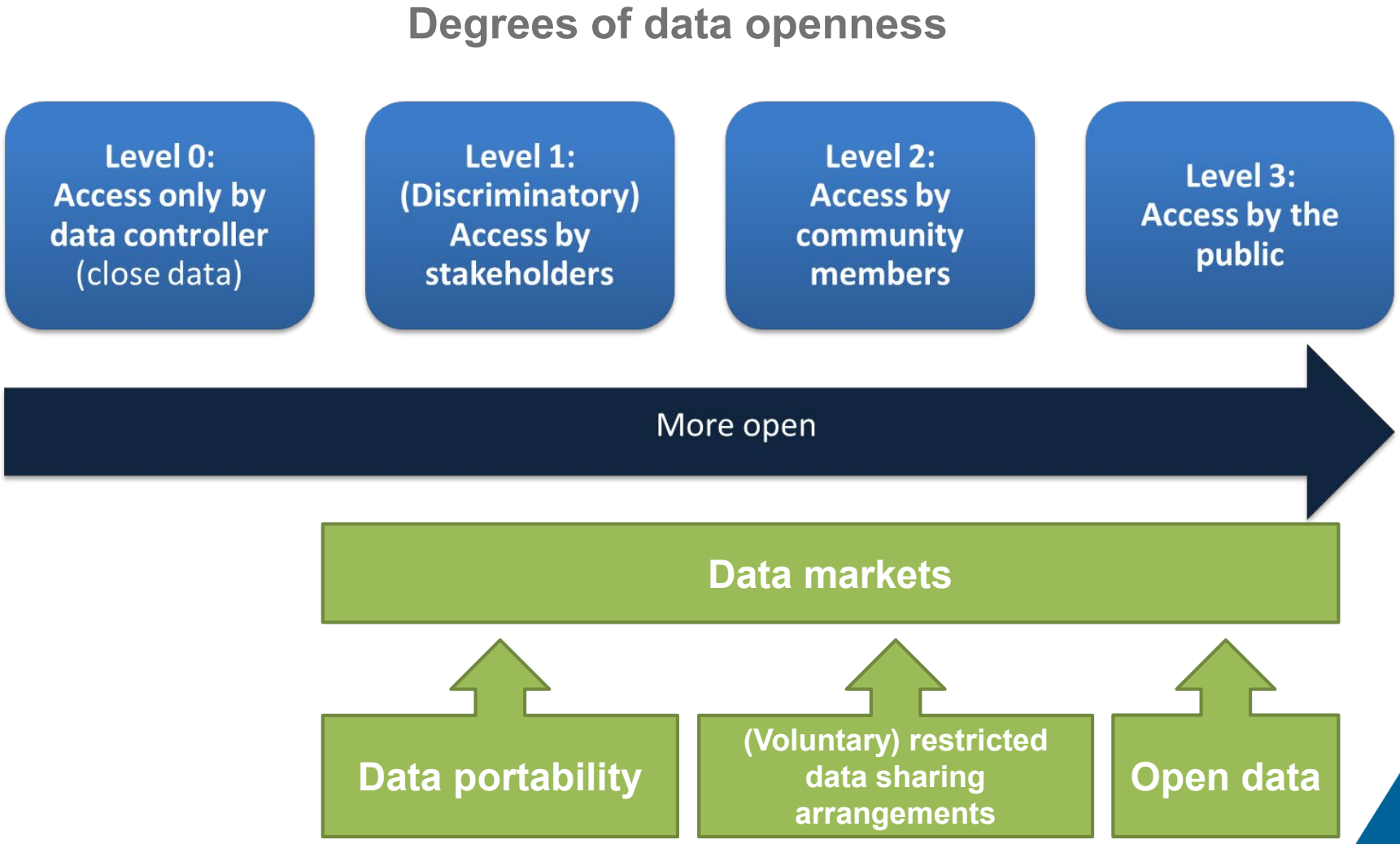
- **Data:**
  - Copyright (Text, Video, APIs, Databases)
  - Trade secret (e.g. confidentiality agreements)
  - **Single data points (and non-substantial parts of databases) are not protected by copyright**
  - **No exclusive control rights on personal data for data controllers**

Data involve multiple stakeholders (co-)creating and (co-)using the data



Source: The Lisbon Council

Good news: Data openness is not a binary concept, but spans a continuum



Defining Enhanced Access to and Sharing of Data (EASD)

EASD include any practical and lawful means through which

- (digital) data can be effectively accessed by, and shared with, an entity other than a data holder,
- for the purpose of fostering data re-use by the entity or a third-party chosen by the entity,
- while, at the same time, taking into account
  - the private interests of individuals and organisations concerned as well as public interests, and
  - the context of data re-use

Policy challenges raised by EASD

1. Balancing the benefits of EASD with the risks, while taking into account legitimate private, national, and public interests
2. Reinforcing trust and empowering users through pro-active stakeholder engagements and community building
3. Addressing uncertainties about “data ownership” while clarifying the role of privacy, IPR and other ownership-like rights
4. Encouraging data provision through incentive mechanisms and business models while acknowledging the limitations of markets
5. Building the capacity needed for the effective re-use of data across society
6. Encouraging the development and adoption of standards including data quality standards
7. Reducing unjustified barriers to cross-border data flows
8. Assuring the coherence of data governance frameworks through a strategic and flexible approach with focus on societal objectives

Thank you for your attention!

The OECD's Going Digital project will give policy-makers the tools they need to help their economies and societies prosper in a world that is increasingly digital and data-driven.

Find out more about our work at http://oe.cd/bigdata and http://www.oecd.org/going-digital #GoingDigital

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