ENHANCED ACCESS TO DATA

Maximising the social and economic value of data for data-driven innovation

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OECD - Organisation for Economic Co-operation and Development

• Like-minded
• Economic and social development
• Policy standard setter
• Inter-governmental
• Multi-stakeholder

Inter-governmental organisation with 34 members

Australia
Austria
Belgium
Canada
Czech Republic
Chile
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak republic
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States
+ European Union
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](http://oe.cd/bigdata)
Data enable opportunities for new business models across the economy

- Digitisation of physical assets
- Datafication of business processes
- Inter-connection of objects via the IoT
- (Re-)use and trade of data within and across industries
- Process automation via AI (software)
Data is not oil, but an infrastructure 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)
DDI is not only about big data, it is about the data value cycle.
Max. data value ⇔ max. data reuse

Open PermID enables Thomson Reuters’ client to better link their own data and thereby to contribute to enhancing the quality and value of Thomson Reuters’ own data.

Economic benefits of enhanced data access:

- Facilitation of joint production or co-operation
- Support of value-creating activities by users (customers);
- Maximisation of the option value of data and data-related products
- (Cross-)subsidising the production of public and social goods
Policies for facilitating data reuse across organisations and sectors are popular.

- Facilitate data (re-)use across organisations and sectors
- Promote e-health
- Promote e-commerce
- Digital content creation and/or diffusion
- Foster IoT and M2M communication
- Other

Governments are focusing on becoming more efficient through use of ICT.

<table>
<thead>
<tr>
<th>Type of Policy within Public Administration Initiatives</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Develop and/or promote e-government services for firms</td>
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<tr>
<td>Enhance access to and use of public sector information (PSI)</td>
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<tr>
<td>Develop and/or promote e-government services for individuals</td>
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<td>Usage of ICTs to improve the internal functioning of government/administration</td>
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<td>Other</td>
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Governments still tend to lack attention to data and business model innovation

Policy dilemma: Striking the right balance between “openness” and “closeness”

- Prevent social and economic harm
- Prevent loss of profit
- Enable spill-over effects
- Prevent loss of profit
- Prevent social and economic harm

Openness:
- Data portability
- Data sharing
- Open APIs
- Open standards
- Algorithmic transparency

Close(ness):
- Privacy
- Confidentiality
- User lock-in
- Walled garden
- Digital security
- IPRs (e.g. trade secrets)

Free flow of data:
- Individuals
- Organisations
Data openness is not a binary concept, but spans a continuum

Degrees of enhancing access to data

- **Level 0**: Access only by data controller (close data)
- **Level 1**: (Discriminatory) Access by stakeholders
- **Level 2**: Access by community members
- **Level 3**: Access by the public

More open

- **Data portability**
- **Community-based data sharing**
- **Open data Data markets**
Where we still need to deepen our understanding on enhanced access?

- **Social and economic cost and benefits of enhanced access to data for individuals, businesses and governments:**
  - What are the cost of implementing, and opportunity costs of not having, enhanced access?
  - What are promising and sustainable business models used today?

- **Data governance mechanisms to reconcile risks and benefits of enhanced access to data (the trade-offs in data utilization):**
  - How can trust (privacy and digital security risk management) and investment incentives (data “ownership” and IPR) be enhanced?
  - How are the rules to access governed? To what extent is access granted on equal or non-discriminatory terms?

- **Selection of most efficient approach to enhanced access to data:**
  - What are the conditions under which specific approaches strike as more appropriate?
  - What are sector specific variations that need to be taken into account? (e.g. public sector, health care, transportation)
The data source used can differ significantly across industries.

Use of big data source as a percentage of big data using enterprises, 2016

Macroeconomic impact assessment studies on enhanced data access

- **For OECD countries**, the PSI market is estimated to be USD 111 billion by 2010 => aggregate impact of USD 700 billion in 2010 (overall 1.5% of GDP; OECD, 2015b).

- **For the United Kingdom**, the PSI market is estimated to be GBP 1.8 billion per year => aggregate impact of GBP 5 billion per year (overall 0.5% of GDP; Shakespeare review, 2013).

- **For G20 countries**, open data policies could increase output by around USD 13 trillion over the next five years (overall 1% of GDP; Omidyar Network, 2014).

- **Including public and private sector data**, McKinsey Global Institute estimates that the reuse of open data in seven areas of the global economy could help create value worth USD 3 trillion a year worldwide (4% of GDP; MGI, 2013)

- **Mobile number portability (MNP)** can encourage switching, and as a result can reduce average prices in telecommunication services (by 6% to up to 12%).
Thank you for your interest!

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