

INSPIRATION – Spatial Data Infrastructure in the Western Balkans



inspiration
Spatial Data Infrastructure in the Western Balkans

Benefits of Data Sharing

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Data Sharing



What is data sharing?

The practice to make data available to others who might take advantage of it?



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Data Sharing



Why sharing data from research point of view?

- **Encourages scientific enquiry** and debate
- Promotes **innovation and potential** new data uses
- Leads to new collaborations between data users and data creators
- **Maximises transparency** and accountability
- Enables scrutiny of research findings
- Encourages the improvement and validation of research methods
- **Reduces the cost** of duplicating data collection
- Increases the **impact and visibility** of research
- Provides credit to the researcher as a research output in its own right
- Provides great resources for education and training



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UK Data Archive
con terra

Data Sharing



Why sharing data from government point of view?



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Data sharing



What are the benefits?

- For provider
- For the society
- For the political system



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Cost-Benefit Framework



PSI Producers

PSI Users

Economy / Society



**PSI Producing Agency
annual costs & savings**



**PSI Users annual
costs & savings**



**Increase in Returns to
annual expenditure
on PSI production**

Houghton, 2011



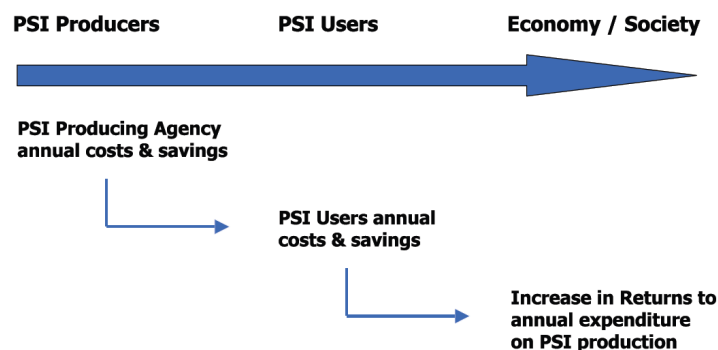
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Cost-Benefit Framework



$$\text{Benefit/Cost} = \frac{\text{Agency \& Users Savings} + \text{Increased Returns to expenditure on PSI production}}{\text{Agency \& Users Costs}}$$

Common good



- Information is a “public good”
 - Non-excludable and non-rival
 - It good is considered as non-excludable “when it isn’t possible to prevent people who have not paid for it from having access to it”
 - The use of the good doesn’t degrade the value of the good itself
 - “a good is considered non-rival (non-subtractable) if, for any level of production, the cost of providing it to a marginal (additional) individual is zero.”
 - Multiple consumable, infinitely expandible
 - Spreading and distribution of information is difficult to restrict
- Information as a distributable good is under-produced by the private sector
- Important role of the information from the public sector





Costs of Open Data

- Technology costs
 - Implementation set-up costs (e.g. design, hardware, software development)
 - Management costs
 - Maintenance costs
- Technology costs strongly depends on technical approaches and organisational issues



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Costs of Data Sharing

- Processes costs
 - Changes in organisational models
 - Training
 - Coordination
 - Consultation
 - Promotion and user integration
- Some of the costs for processes affect only dedicated levels of governmental system



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Benefits



- **Shared Information as business case**
 - For decision makers
 - For the economy and education
 - For the public

“A business model describes the rational of how an organization creates, delivers and captures value.”

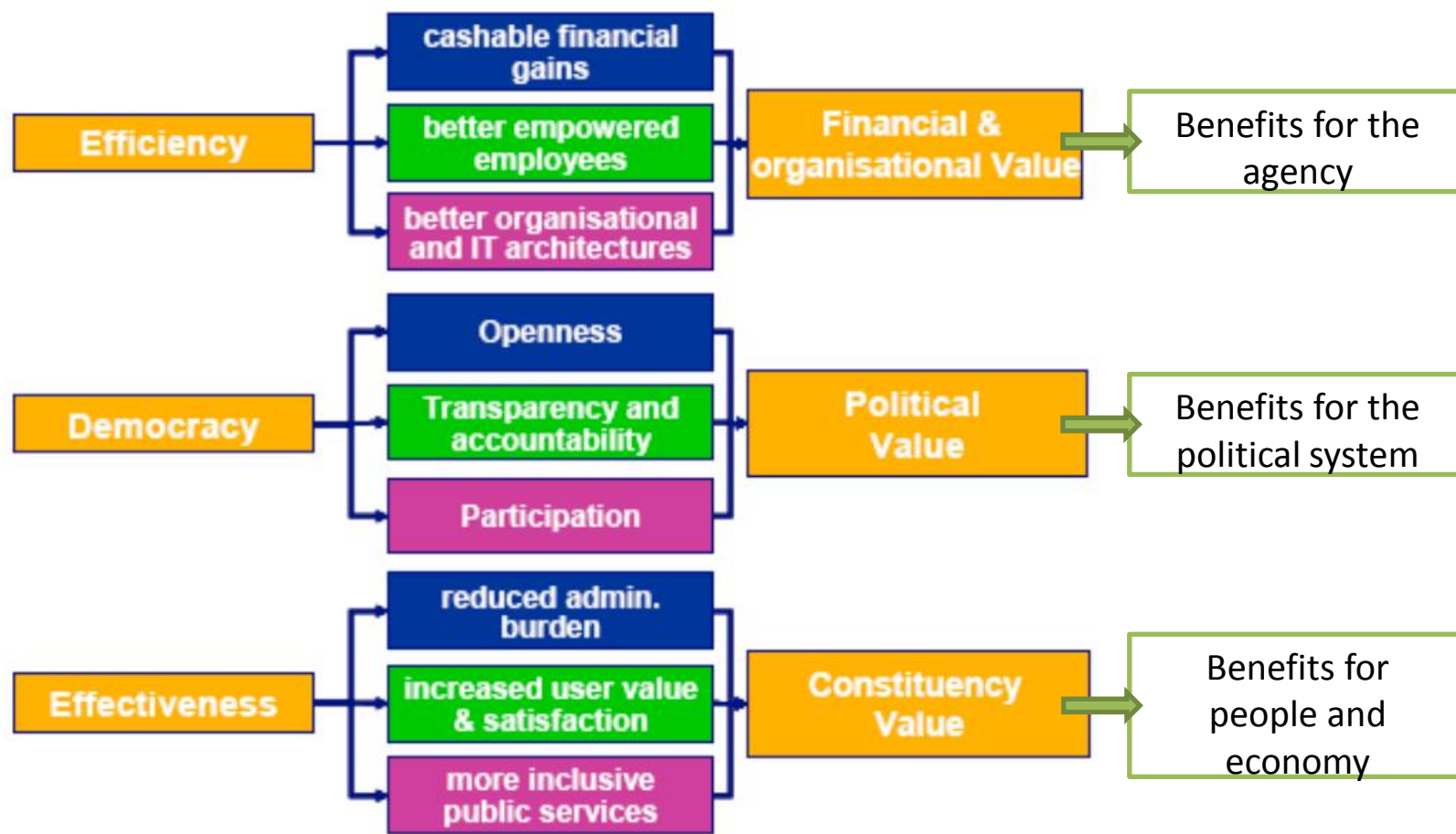


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Efficiency



- Efficiency → **Financial and organisational value**
 - Monetary gains and cost savings (Agency & User)
 - Savings in time
 - Saving in consumables
 - Distribution with no marginal costs
 - Personal and staff
 - More motivated and higher qualified staff
 - Organisational improvements
 - Streamlining of processes and information flows
 - Time savings by redesigned processes)
 - New processes (eCommerce)
 - Interdepartmental data sharing
 - New synergies and communication channels



Effectiveness



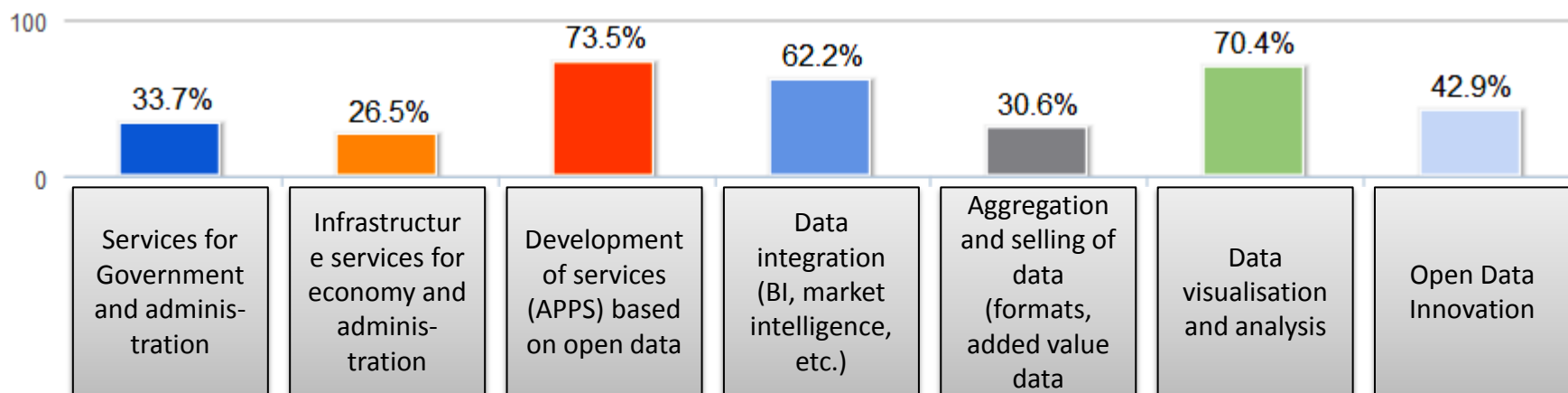
- Effectiveness → **Constituency Value**
 - Benefits for residents
 - Time savings and increased efficiency of citizen and economy
 - User satisfaction
 - Reduced administrative burden
 - Increased usage of governmental data
 - Increased value of governmental services
 - Extension of services and innovation
 - Information infrastructure (SDI) as common knowledge and basis for innovation
 - Development of new services based on data available
 - New data will be available from public and private sources
 - Increased productivity on national level





Efficiency

- Efficiency & Effectiveness
 - Economic potential of OGD



Quelle: OKFN/ Futurezone.at, 2012, S. 4. (translation from German done by C. Ansorge)



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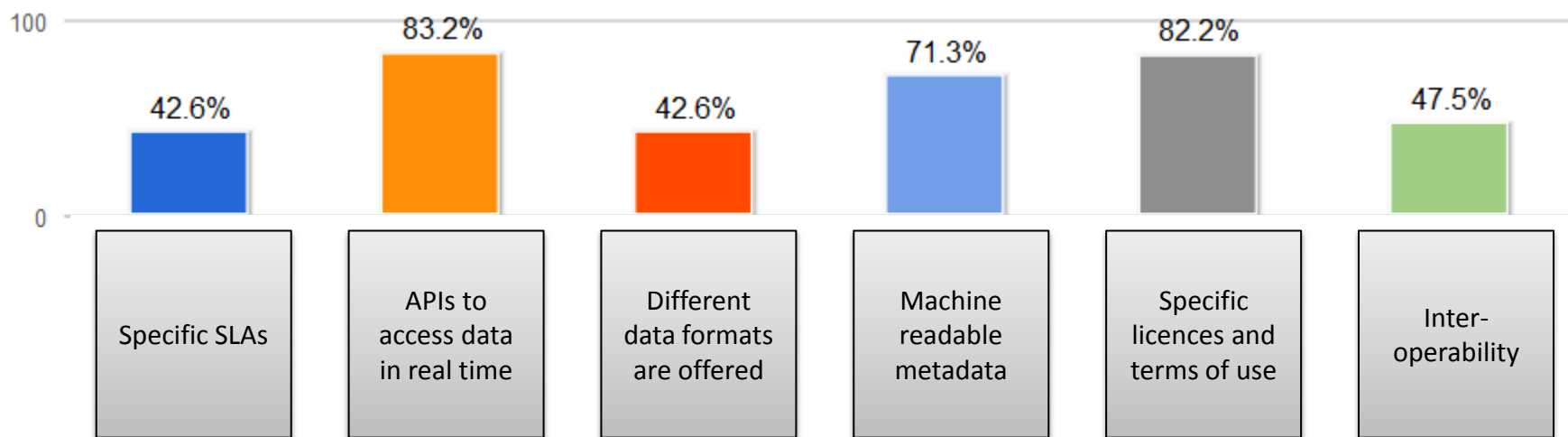
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Efficiency

- Efficiency & Effectiveness
 - Success criteria for specific business models



Quelle: OKFN/ Futurezone.at, 2012, S. 4. (translation from German done by C. Ansorge)



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Democracy & SDI



How can SDI lead to an increased political value?

- Openness
 - Interactive services and web access
 - Citizen and economy can discover data available
- Participation
 - Feedback from citizen and economy regarding needs or requirements
- Transparency and accountability
- Increased public awareness for the governmental activities and measures



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Opportunity costs



What are the costs if you act?



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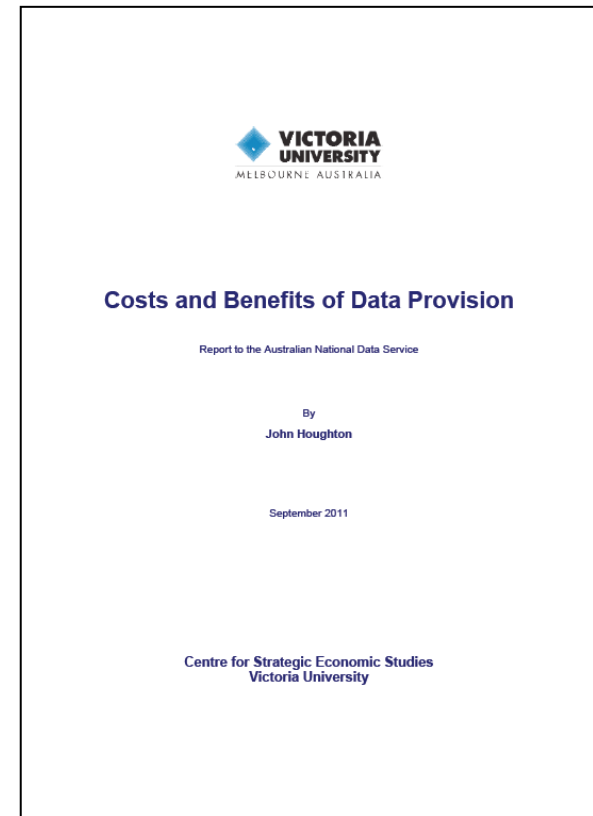
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Literature



- <http://ands.org.au/resource/houghton-cost-benefit-study.pdf>
 - The costs and cost savings experienced by PSI producing agencies involved in the provision of free and open access to information;
 - The costs and cost savings experienced by the users of PSI in accessing, using and reusing the information; and
 - The potential wider economic and social impacts of freely accessible PSI



Literature



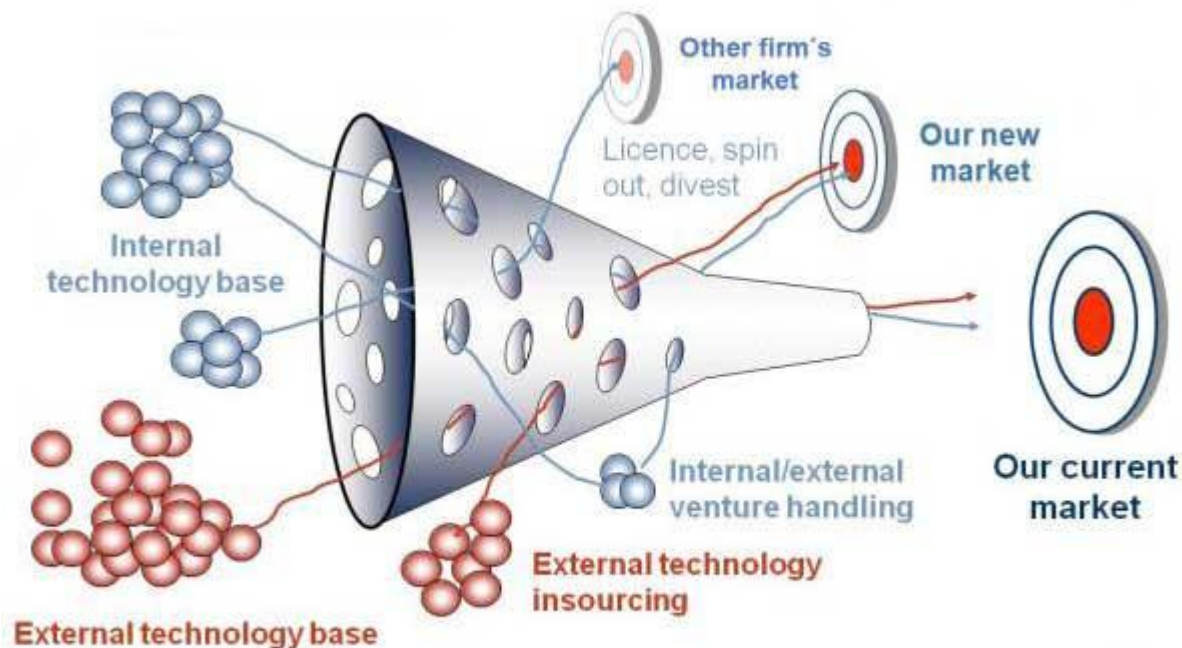
- http://www.unic.pt/images/stories/publicacoes200709/D.2.4_Measurement_Framework_final_version.pdf
- eGovernment Economics Project
 - Benefit Model used by Catalonia Study (JRC)
 - Indicators for measuring, penetration and success of SDI



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Open Innovation



Stolen with pride from Prof Henry Chesbrough UC Berkeley, Open Innovation: Renewing Growth from Industrial R&D, 10th Annual Innovation Convergence, Minneapolis Sept 27, 2004

Thank you very much!



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References



- J. Houghton, Costs and Benefits of Data Provision, 2011
 - <http://ands.org.au/resource/houghton-cost-benefit-study.pdf>
- R. Longhorn, Cost-Benefit Indicators to Assess SDI Impact, 2007
 - http://webdocs.dow.wur.nl/internet/grs/Workshops/AssessSDI/Longhorn_CBA_Indicators.pdf
- M. Craglia, M. Campagna, Advanced Regional SDI in Europe: Advanced comparative cost-benefit evaluation and impact assessment perspectives, 2010
 - <http://ijsdir.jrc.ec.europa.eu/index.php/ijsdir/article/viewFile/166/282>
- INSPIRE Materials
 - <http://inspire.jrc.ec.europa.eu/>





References

- Open Data Handbook
 - <http://opendatahandbook.org>
- Open Definition
 - <http://opendefinition.org/>



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