

Open Science and Research in Finland 2009-2017

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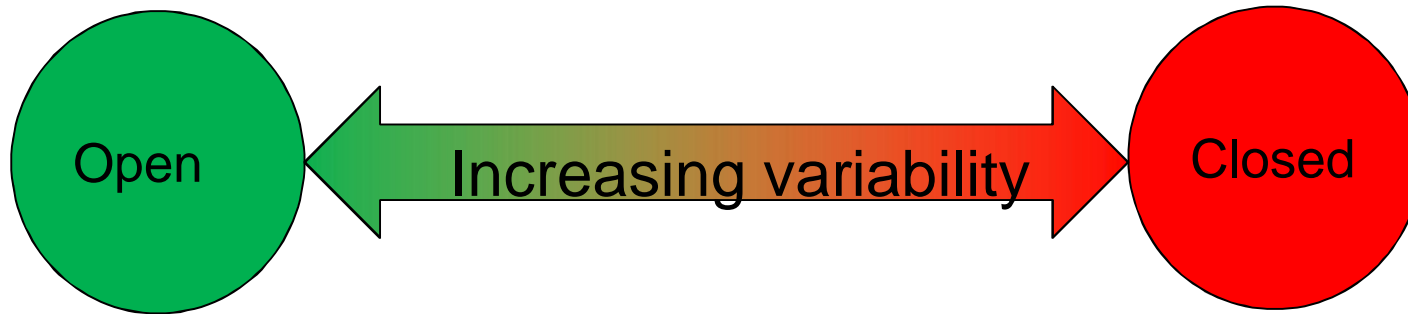
Research data and services workshop - EUDAT – OPENAIRE - RDA – ATT
Tuesday 20th May 2014, 11:00 – 17:30

Ministry of Education and Culture
Ministère de l'Éducation et de la culture

On the openness of science and research

- Open science is an **internationally** significant way of promoting science and the **impact** of science in society.
- Openness is a core principle of science and research, through which new possibilities for **engaging** in science and research are created for scientists, decision-makers and the citizens.
- It requires the wide-scale **availability** of the publications, data, methods, know-how and support services produced and required by research.
- Digitalising and opening research processes creates **new opportunities** for cooperation and communication for researchers and stakeholders. Increases credibility of science and promotion of innovation.

Degrees of openness

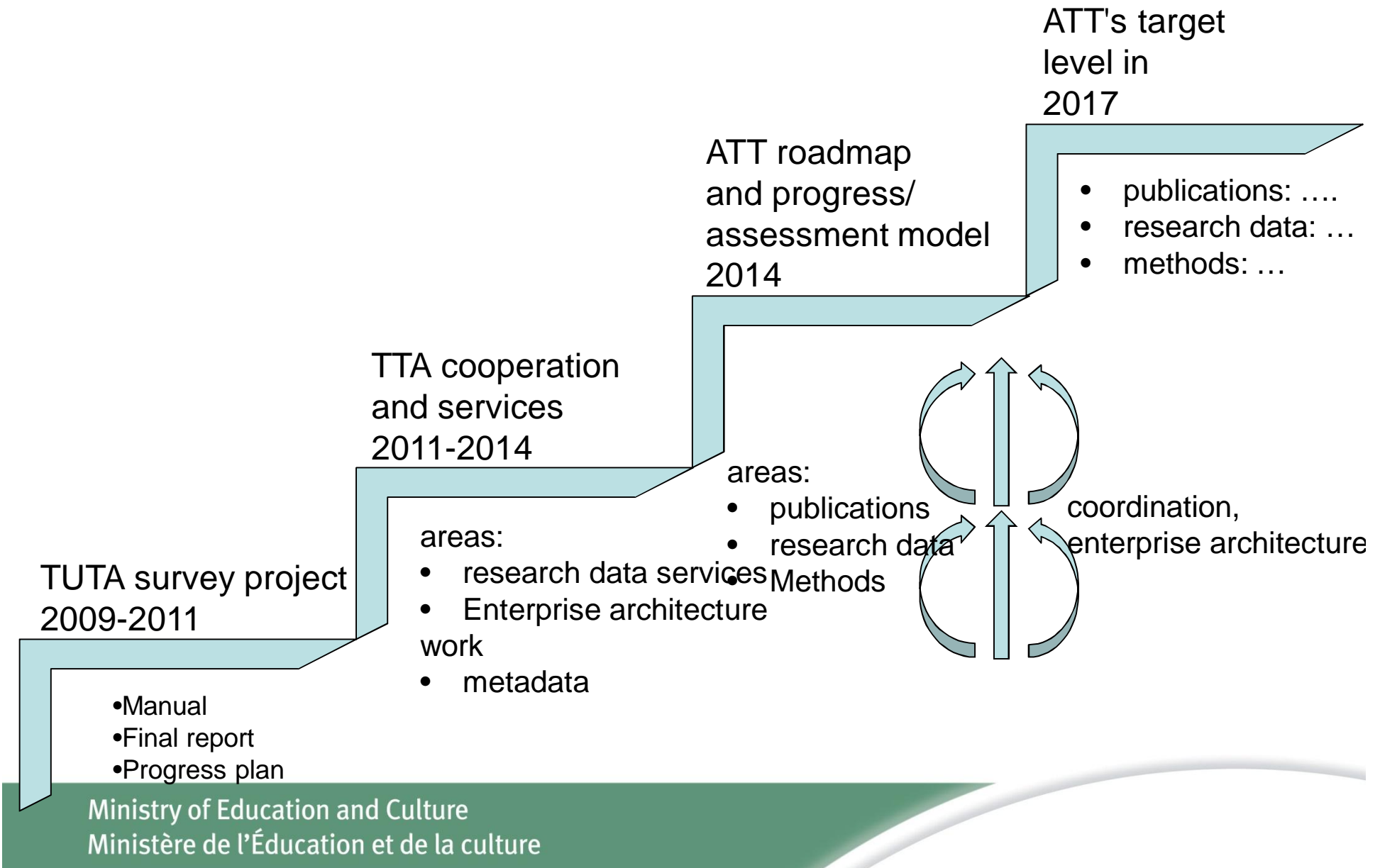


Tools: access control, identity management, rights management

Degree of availability	Available to everyone		Available subject to permission
Machine readability	Available in machine-readable format		Data is not structured or well defined with metadata
Price	Free of charge		Usage fees
Rights	No limitations on use		Use prevented

Adapted from: http://www.mckinsey.com/insights/business_technology/open_data_unlocking_innovation_and_performance_with_liquid_information

Open science and research 2009-2017



The Open Science and Research Initiative

- **The Ministry of Education and Culture has launched the Open Science and Research Initiative, for the promotion of information availability and open science for years 2014–2017.**
- The Initiative will implement the national political agenda in a way that increases the competitiveness and quality of the Finnish research system.
- The Initiative will promote the reliability, openness and societal impact of science and research.
- The aim is to provide researchers with practical knowledge in how they as individuals can implement open science.
- Promoting open science promotes also innovations.
- **The goal is that by 2017, Finland will become a leading country in the openness of science and research.**

Open Science and Research Initiative: National background in the field of Ministry of education and culture

- The Ministry of Education and Culture: Strategy 2020
- Competent and creative Finland. A report by the Ministry of Education and Culture, 2010
- Education and research development plan 2011 – 2016
- Research and innovation policy guidelines 2011–2015 (Research and Innovation Council, 2011)
- Finland elevated by know-how. Research and innovation policy agenda 2012 (Ministry of Education and Culture, Ministry of Employment and Economy, 2012)
- The Ministry of Education and Culture's intelligent strategy (OKM-GIDE) 2013

Open Science and Research Initiative: National background – government level

- Competitive and Creative Finland – Future Overview, Ministry of Culture and Education (2010)
- Government white paper on improving the availability of public sector digital data and promoting reuse (2011)
- The enterprise architecture of public administration
- 21 paths to a Frictionless Finland. Report of the ICT 2015 working group. Ministry of Employment and the Economy
- Services and data in use. Public administration's shared ICT utilisation strategy 2012–2020
- Government white paper on the reform of state research institutes and research funding 2013

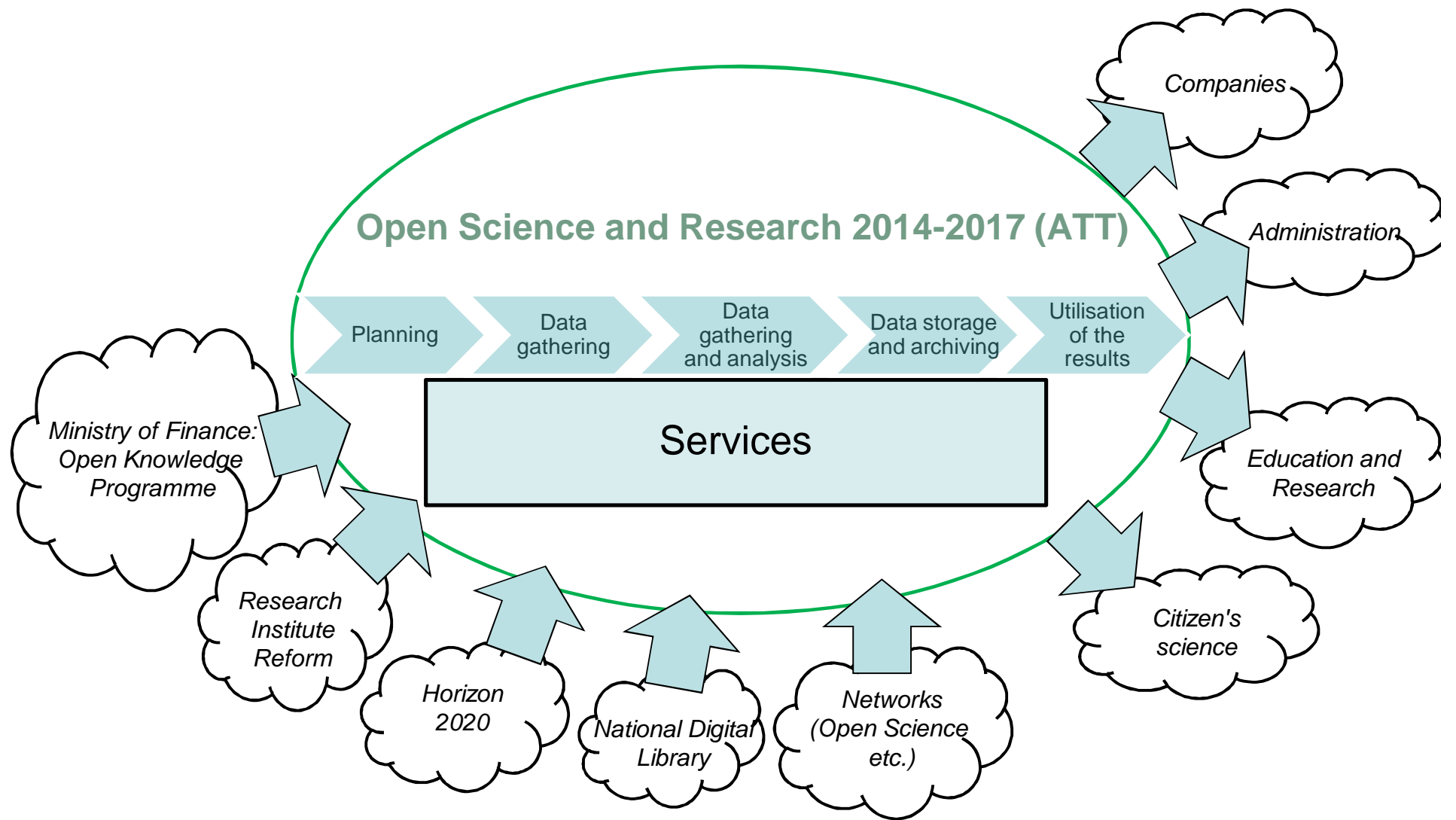
Open Science and Research Initiative: EU foundation

- The EU Digital Agenda (August 2010)
- The EU open data strategy (December 2011)
- Europe 2020 strategy. Finland's national programme (April 2012)
- Commission recommendation on the availability and storage of scientific information (July 2012)
- The EU framework programme Horizon 2020
 - Digital science in Horizon 2020. March 2013.
 - Guidelines on Data Management in Horizon 2020. Version 1.0. 11 December 2013.
 - Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020. Version 1.0. 11 December 2013.

Open Science and Research Initiative: EU foundation...

- Targets:
 - By 2014, policies for open access to scientific articles and data will have been established in all Member States at all relevant levels.
 - By 2016, the share of publicly-funded scientific articles available under open access EU-wide will have increased from 20% to 60%.
 - 100% of scientific publications resulting from Horizon 2020 will be available under open access.

Source: *Towards better access to scientific information: Boosting the benefits of public investments in research*. Commission 17.7.2012.



Structures of the Open Science and Research initiative

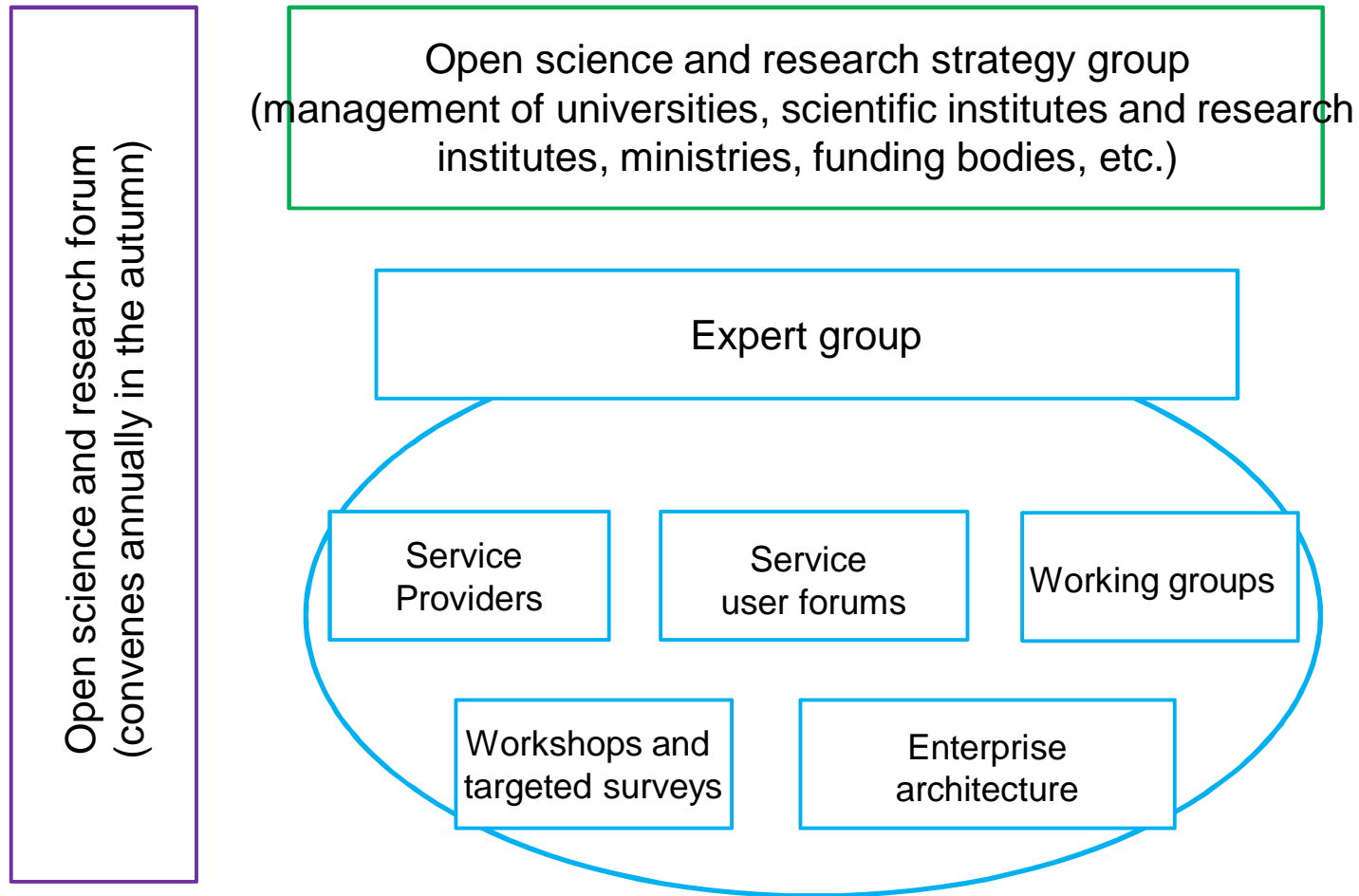
Three entities

1. Research publications
 - Publication storage
 - Publication metadata service
 - Publication access services
2. Research data
 - Data storage
 - Metadata service
 - Data access services
3. Research methods
 - Method storage
 - Metadata services
 - Method access service

Supporting change

4. Research environments
 - Research infrastructures
 - Test/development environments (e.g. JulkICTlab)
 - Environments requiring authorisation (sensitive data)
5. Tools
 - Access control, identity management and rights management
6. Competence
 - "Open science manual"
 - Courses and tutoring
 - Data management skills as part of university education

Collaboration structure of the Open Science and Research Initiative



Information on the Open Science and Research initiative

- Background information on the project: <http://openscience.fi/>
- Please contact
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Thank you



Photo: Sara Djupsund

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