



Finnish National Perspective on Open Science

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Finland is the world's...

- **Best in Press Freedom** (Reporters without Borders, World Press Freedom Index 2015)
- **Least Fragile State** (Fund for Peace, Fragile States Index 2014)
- **Best in Wireless Networks per Capita** (OECD, Broadband Portal 2014)
- **Second Best Place to be a Mother** (Save the Children, State of the World's Mothers Report 2015)
- **Second Best in Gender Equality** (World Economic Forum, Global Gender Gap Report 2014)
- **Third Least Corrupt Country** (Transparency International, Corruption Perceptions Index 2014)
- **Fourth Most Competitive Country** (World Economic Forum, Global Competitiveness Report 2014)
- **Fifth Best in Education** (Economist Intelligence Unit for Pearson 2014)
- **Sixth Happiest country** (Sustainable Development Solutions Network, World Happiness Report 2015)
- **Best Country** (Newsweek 2010)
- **Top-ranking Country in PISA**

Government on Knowledge and Education



Ten-year objective:

- *To encourage people to continuously learn*
- *Risen skills promote the renewal of the society and equal opportunities*
- *Finland as the vanguard of education, skills and modern learning techniques*

Some of the objectives for 2015-2019:

- **Learning environments** have been **modernised** and the opportunities offered by **digitalisation** and new pedagogical approaches are **grasped** in learning
- **Dialogue** between **educational institutions** and **working life** is more **active**
- The **quality** and **effectiveness** of **research** and **innovation** have begun to **improve**
- Education and research have become **more international**

Cooperation between HEIs and business life strengthened to bring innovations to the market



The **impact** and **utilisation** of research results will be **strengthened**.

The profiles and respective responsibilities of HEIs and research institutes will be clarified and cooperation between them will be increased.

- Collaboration intensified between ministries in steering and funding of HEI's and research institutes to enhance closer cooperation (KOTUMO)
- **Open Science and Research Initiative 2014-2017**
- OECD review of Finnish STI system, first results 1/2017
- State of Finnish Scientific Research by Academy of Finland (AoF) 12/2016
- Additional competitive funding by AoF for profiling for universities and for utilisation

Open Science and Research 2009-2017



ATT Target

2017

Open Science and
Research Initiative
ATT

2014

Finnish Research
Data Initiative
TTA

2011- 2013

Research Data
Survey Initiative
TUTA

2009-2011

To make Finland
a leading
country for
openness in
science and
research by 2017

Open Science and Research Initiative 2014-2017

- **The whole research process open** → Visibility and **impact** of science and research improved
- More transparent, collaborative and inspirational research process to be promoted → Research **system's competitiveness quality** improved
- Measures
 - open publications, open research data, open research methods and tools
 - skills and knowledge and support services
- All research system actors to change the culture towards openness
- International collaboration to promote open science and research

Vision

Vision 2017:
Open research leads to surprising
discoveries and creative insights

Reinforcing the
intrinsic nature
of science and
research

Strengthening
openness-
related
expertise

Ensuring a
stable
foundation for
the research
process

Increasing the
social impact of
research

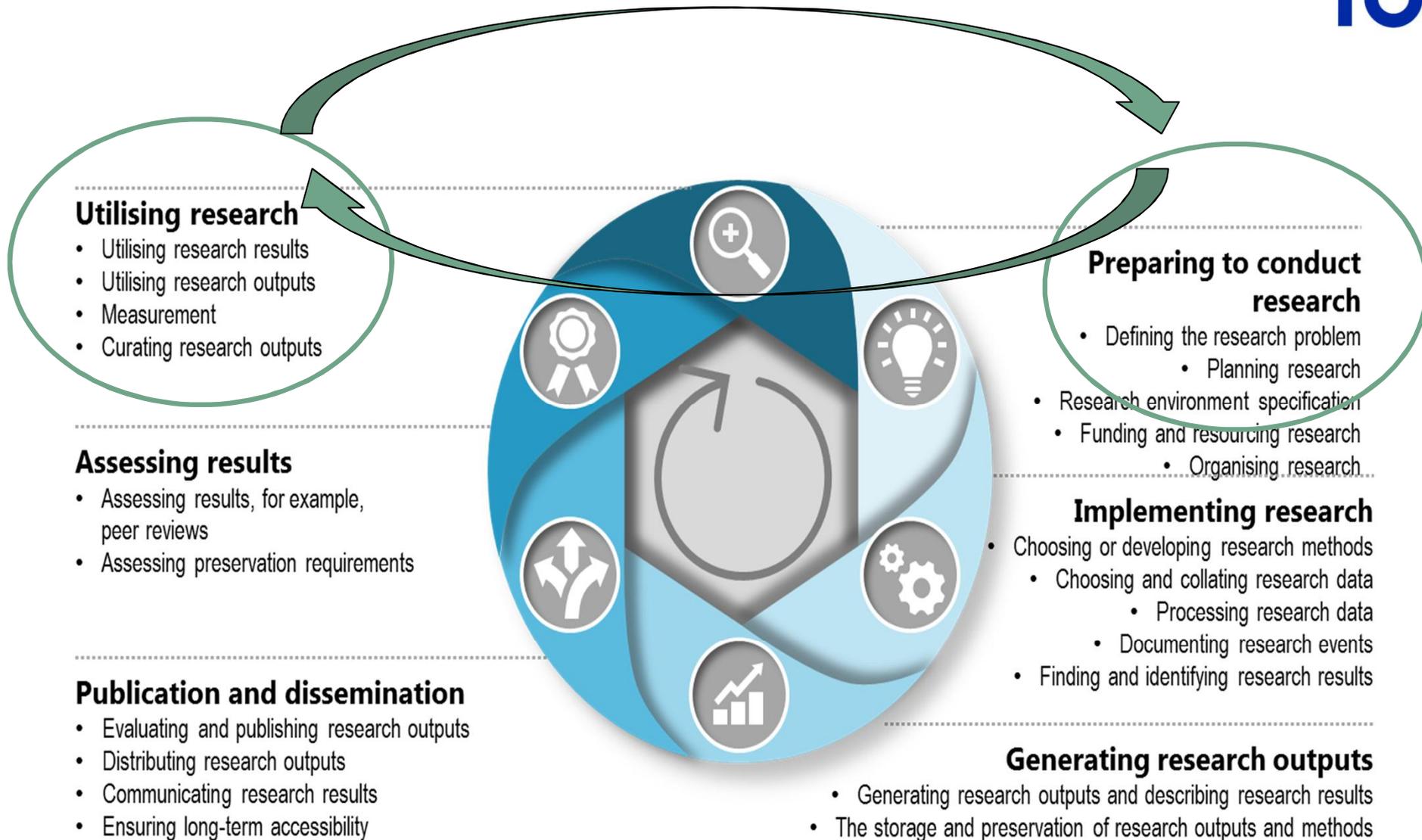
Enabling Factors for Finnish Model

- Active cooperation among different stakeholders
 - Close collaboration between research institutions and universities
 - Finnish library network and scientific libraries active and appreciated
- Special features supporting openness in research
 - High investments in R&D&I
 - High educational level and science and research appreciated
 - High quality research infrastructures and environments
- Success in previous and still ongoing projects fostering openness
 - Shared vision enables breakthroughs in open science

Openness as a Means to an End

- **Skills and capabilities**
 - Knowledge hubs and knowledge transfer
 - Disruptive innovations
- **Reproducibility and excellent quality of research**
 - Involving all stakeholders
- **Re-usability of results in different and new contexts**
 - Discovery of results as input for new studies and innovation
 - Maximum impact from financial inputs
- **Interoperability**
 - Building interoperability on metadata level
 - Federation of existing resources, infrastructures and data
 - Understanding that there is no one-size fit all –solution, leave room for diversity and new ideas

Open Research Process



Suomi
Finland
100



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Photo: Sara Djupsund