



# Open science – Access to results of scientific research

June 4, 2013

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Opetus- ja kulttuuriministeriö  
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# Knowledge and the development of society

- Knowledge as an enabler
  - science and research build up knowledge which increases competence via education and experience
- Impact on innovation
  - better access to knowledge and research results enhances innovation and supports economic growth and well-being in society
- Better decision-making in society
  - knowledge produced by scientific research enables better decision-making
- Open science
  - opening research results and data used creates possibilities for new research and commercial use

# Finnish view to ICT and open data

ICT-2015/  
Prime Minister's Office

OKM-ICT-2015

Open Knowledge Program/  
Ministry of Finance

TTA/AVOIN

Education, research, innovations

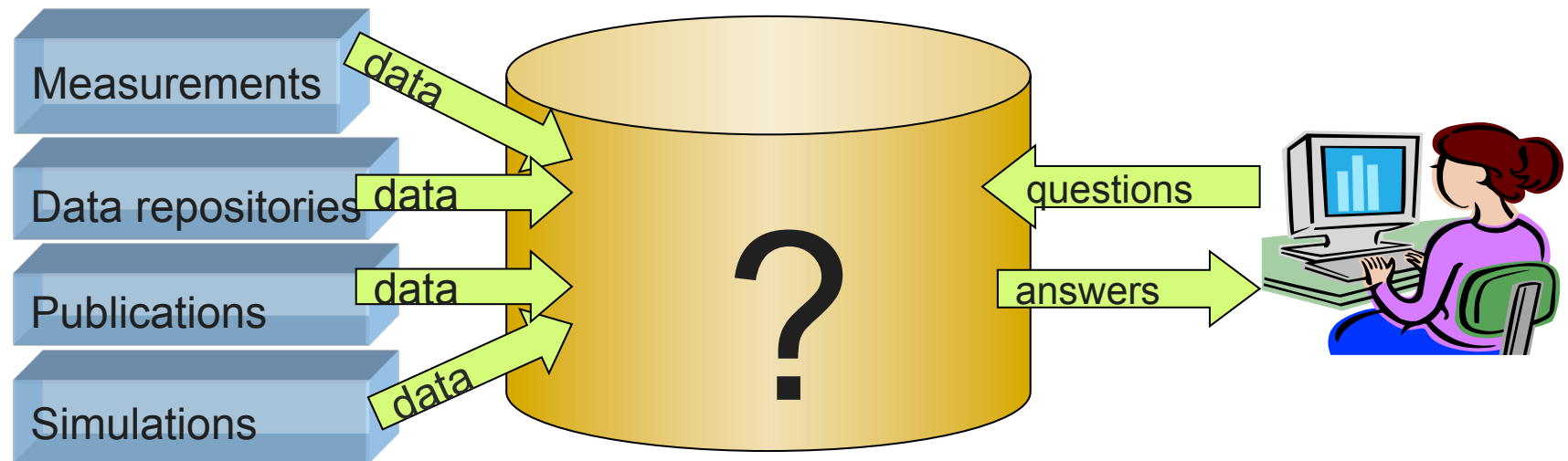
Ministries, funding agencies, universities and  
polytechnics, research institutes

# Opening the Data of the Public Sector – Open Knowledge Program 2013-2015

- Developing the practices, such as the general terms of use and licences (Public Administration Recommendation is in the making)
- The Public Sector agencies will be asked and guided to evaluate their information resources from the point of view of the Open Data as a part of their information architecture and the frame budget formulation procedure
- Developing structures and Information Architecture, Common Metadata model for Open Data, Common Public Sector data portal, Supporting services and training
- Developing methods to monitor the development and the impacts of Open Data

Source: Anne Kauhanen-Simanainen, Ministry of Finance, 3.6.2013

# The e-researcher's problem



# Finnish research data collaboration (TTA)

- TTA is appointed and coordinated by Ministry of Education and Culture
  - empower the national user communities
  - remove existing constraints
  - use national and international standards
- TTA services provided in 2013
  - storage solution IDA
  - metadata catalog KATA
  - long term preservation (by the end of 2013), jointly with cultural heritage and research data
- Architecting information infrastructure and metadata management
  - establishing roadmaps, improving interoperability

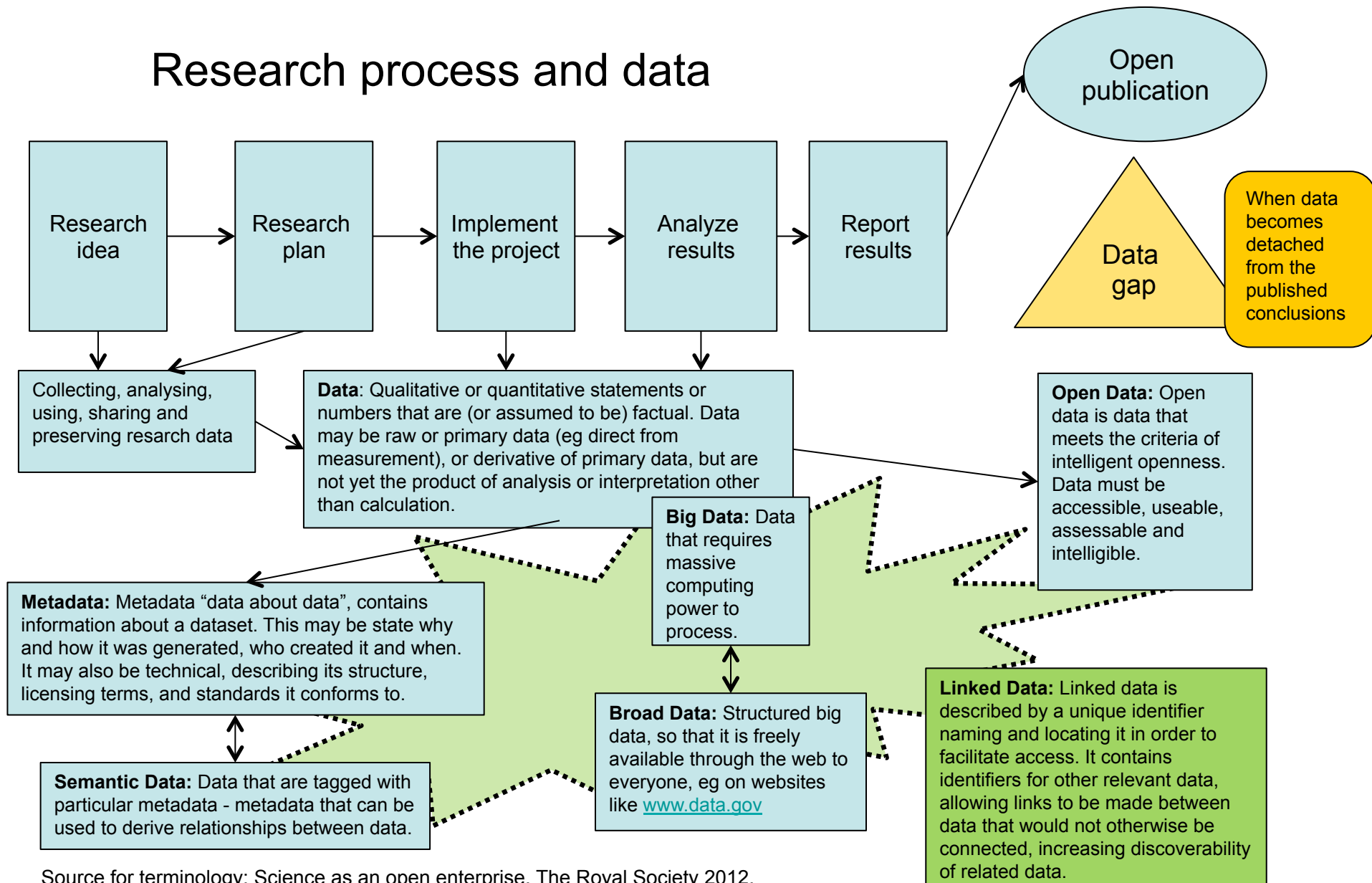


# Open science and open data

- AVOIN initiative (part of TTA)
  - develops tools for opening up research data and for using open data in research
- Improving access to results of scientific research (open access and open data)
  - a working group has been formed in 2013 to review the current status (part of TTA collaboration)
  - a review of current practises and suggestions to the Ministry are being prepared
- Ministry of Finance has established Open Knowledge Program
  - TTA and AVOIN are collaborating with the Ministry of Finance



# Research process and data



Source for terminology: Science as an open enterprise, The Royal Society 2012, [http://royalsociety.org/uploadedFiles/Royal\\_Society\\_Content/policy/projects/sape/2012-06-20-SAOE.pdf](http://royalsociety.org/uploadedFiles/Royal_Society_Content/policy/projects/sape/2012-06-20-SAOE.pdf)

“Data management should  
be woven into every course  
in science”

Attitudes to sharing!



*Nature* **461**, 145 (10 September 2009) | doi:10.1038/461145a

# Further information

- Open Knowledge Program (Ministry of Finance)
  - [https://www.vm.fi/vm/fi/05\\_hankkeet/02381\\_avoin\\_tieto/index.jsp](https://www.vm.fi/vm/fi/05_hankkeet/02381_avoin_tieto/index.jsp)
- Finnish research data collaboration (TTA and AVOIN)
  - <http://www.csc.fi/sivut/e-infra/tietoaineistot/>
- Contact
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