

# Data strategies for Research Infrastructures

*Formal aspects*

19 February 2015, ESO headquarters, Munich  
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# Relevant resources

- BMS RIs (2014) Principles of data management and sharing at European Research Infrastructure
  - [10.5281/zenodo.8304](https://doi.org/10.5281/zenodo.8304)
- e-IRG Best practices White Paper (draft)
  - <http://e-irg.eu/documents/10920/11271/Draft+e-IRG+White+Paper+2014>
- BioMedBridges E-infrastructure advisory board: 2<sup>nd</sup> periodic report on current developments in the ICT e-infrastructures
  - [10.5281/zenodo.14659](https://doi.org/10.5281/zenodo.14659)

# Factors: political

- Drivers e.g. from:
  - funding bodies
  - large organisations
  - national interests

# Factors: legal/ethical/formal

- Constraints for data storage/transfer/access may include e.g.
  - need to store patient data in country of origin
  - requirements from journal publishers
  - data management plans requirement from funders
  - Etc.

# Factors: formal – funding bodies

## ○ European Commission

- Prioritize the dissemination of data
- Improved policies on access to and re-use of scientific information and data

## ○ Horizon 2020 Open data pilot:

- Access to and re-use of research data generated by selected projects



PRESS RELEASE

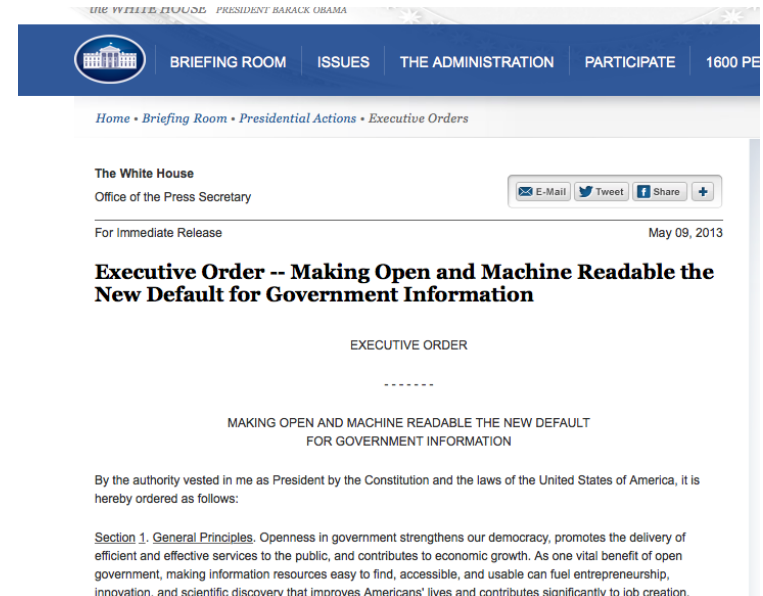
Brussels, 16 December 2013

### **Commission launches pilot to open up publicly funded research data**

Valuable information produced by researchers in many EU-funded projects will be shared freely as a result of a Pilot on Open Research Data in Horizon 2020. Researchers in projects participating in the pilot are asked to make the underlying data needed to validate the results presented in scientific publications and other scientific information available for use by other researchers, innovative industries and citizens. This will lead to better and more efficient science and improved transparency for citizens and society. It will also contribute to economic growth through open innovation. For 2014-2015, topic areas participating in the Open Research Data Pilot will receive funding of around €3 billion.

# Factors: formal – funding bodies

- Funders in several **EU Member States** (e.g. the UK, NL) have developed policies and requirements for data deposition and sharing
- **US funding bodies** require data generated with their funding to be made available under certain conditions



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**Executive Order -- Making Open and Machine Readable the New Default for Government Information**

EXECUTIVE ORDER

MAKING OPEN AND MACHINE READABLE THE NEW DEFAULT FOR GOVERNMENT INFORMATION

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. *General Principles.* Openness in government strengthens our democracy, promotes the delivery of efficient and effective services to the public, and contributes to economic growth. As one vital benefit of open government, making information resources easy to find, accessible, and usable can fuel entrepreneurship, innovation, and scientific discovery that improves Americans' lives and contributes significantly to job creation.

# Factors: formal – intellectual property

## ○ Four cases (+ combinations):

- Data generated within the BMS RI where the whole or part of the project is **funded through the RI** (e.g. through collaborative research projects)
- Data generated by a **publicly funded research** project carried out at the BMS RI and where the project covers the operating costs of the RI
- Data generated by **commercial/private entities** covering operating costs
- Data generated by **Public-Private Partnership** consortia

# Factors: formal - sensitive data

- Some data may only be shared under certain conditions and with appropriate safekeeping mechanisms in place, e.g.:
  - Data with **Ethical, Legal or Societal Implications** (ELSI), e.g. non-anonymised patient data including personally identifiable information, patient data with specific consent
  - Restrictions for **intellectual property** protection (see previous slide)
  - Specifics of software or data use **licenses**



# Factors: formal - sensitive data

## ○ RIs must:

- guarantee high standards of security and traceability
- administer data securely while ensuring that their origin is visible and acknowledged
- Ensure that the necessary legal framework is in place: licenses!
- Ensure that use of sensitive data is within the given restrictions: informed consent!

# Factors: Social

- Data sharing mentality of the community in question
  - how do they do science - e.g. standards, best practices

# Proposals for new ESFRI roadmap

- Questions on “e-infrastructure needs” that need to be addressed for new proposals, including:
  - Existence of a data policy
  - Existence of a data management plan and funding scheme
  - List of e-infrastructure resources and explanation of their provision
  - Assessment of RI relation to e-infrastructure commons
  - Training plan and target audiences

# Your own requirements!