Open by default: the challenges of research data in Europe

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Challenges

Wider access to scientific facts and knowledge helps researchers, innovators and the public find and re-use data, and check research results

- Offers better value for research funds: a public benefit
- Encourages research across scientific fields: essential for solving today's complex societal challenges
It is for everyone
Solution

Horizon 2020 already mandates open access to all scientific publications

From 2017, research data is open by default, with possibilities to opt out
Then and now

**2008**
FP7  
OA **Green** or **Gold** + **Green Pilot**

**H2020**
OA **Green** or **Gold** + **Green obligation**
& ORD **Pilot**

**From 2017**
H2020  
OA **Green** or **Gold** + **Green obligation**
& ORD **by default**
Research data: open by default

Horizon 2020 grantees are required to

- **deposit** underlying research data and other research data of their choice in a repository
- **Take measures** to **grant open access** to this research data

Horizon 2020 grantees are encouraged to share datasets beyond publication

**FAIR data**

- **Findable** + **Accessible** + **Interoperable** + **Re-usable**
Projects must have a DMP

A Data Management Plan (DMP) provides information on:

- The data the research will generate
- How to ensure its curation, preservation and sustainability
- What parts of that data will be open (and how)

Data management costs

- Costs are **fully eligible for funding**

No repository imposed:

- Deposit data **where you want**
As open as possible, as closed as necessary

Grantees have the right to opt-out

- At any time
- But they need to say why

Top three reasons for opt-out

1. Intellectual property rights
2. Privacy
3. Might jeopardise project's main objective
The approach has been tested during the H2020 pilot action

The experience of 2015

- Out of 431 projects funded in core areas, 65.4% opted to share data
- Out of 3268 projects funded in other areas, 11.9% voluntary opted in

From 2017

- the current Open Research Data Pilot expands to cover all areas of Horizon 2020, with the same rules
How it works

- Get **funding**
- Write **DMP**
- Gather **data** during research
- ...

- Chose repository and **deposit** data
- **Publish** research
- Take measures to grant **open access** to this data
- **Inform** OpenAIRE (the EU-funded open access portal)
Extending the Pilot

The Pilot becomes the default option

- Rules for Participation refer to the Model Grant Agreement
- **Article 29.3** (open access to research data) is in all contracts
- **All key characteristics remain** e.g. robust opt-out options, DMP, target primarily towards data underlying publications...

The Work Programme 2017 is being updated

- Introduction, thematic Work Programmes...
- Whether projects opt-out or not does not affect the evaluation
Be part of a new era of Open Science

Reach more people
  • Have greater impact

Avoid duplication of efforts

Preserve data
  • For future researchers

Simplify final Horizon 2020 reporting
  • Thanks to an up-to-date DMP
One example of the gains arising from open research data

1.3 Billion EUR per year

- Benefits identified by the European Bioinformatics Institute to users and their funders just by making scientific information freely available to the global life science community

This is equivalent to more than 20 times the direct operational cost of the Institute

Source: Charles Beagrie Ltd. For EMBL-EBI
In Europe
Open Science

A systemic change in the modus operandi of science and research
Affecting the whole research cycle and its stakeholders

"As I see it, European success now lies in sharing as soon as possible, (...). The days of open science have arrived."

Commissioner Carlos Moedas
Open Science Presidency Conference
Amsterdam, 4 April 2016
Council Conclusions (27 May 2016)

The underlying principle for the optimal re-use of research data should be:
  • “as open as possible, as closed as necessary”

Welcomes H2020 Open Research Data extension
Calls on EC to promote data stewardship and to implement DMPs
Encourages action at Member State level
Emphasises the importance of FAIR principles
  • including long term preservation and curation

An important reference document for 28 European governments
  • Source: Competitiveness Council, 26-27 May 2016
Next
A few thoughts

Open Research Data in Horizon 2020

- It might have helped to name it 'DMP Pilot'
- Need to insist that **not everything must be open**
- 100% participation is not feasible or even desirable (e.g. not all projects generate data)
- Extension of the ORD Pilot: a strong political move

*Source*: Communication European Cloud Initiative (19 April 2016)
A few thoughts

Common issues

- **Explanation**: paramount
- **Money**: key (both a bad *and* a good excuse)
- **Tools and support**: needed
  Projects prove extremely useful: LEARN, RECODE etc.
- **Feedback**: important
  Also for co-shaping European policy

Overall aim

- kick-starting a **virtuous circle** and **change of culture**
Next steps

The Framework Programmes

- **Monitor** OA in FP7 and Horizon 2020
- **Provide 360° support**
  More training and guidance e.g. on Data Management Plan
- **2017: mid-term review of H2020 - adapt (or not) OA 'mandates'**

Working together

- Get more knowledge on open research data
- Mainstream Open Access and reach towards harmonised policies and common standards on a global scale
- Develop more and better interactions with stakeholders
- *And much more...*
Thank you!

We want to give European researchers and innovators the best conditions to do their job.

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