



# Open Research Data (ORD) in a European Policy Context and Horizon 2020

# THE NEED TO BE OPEN



# The Need to be Open



# Open Science

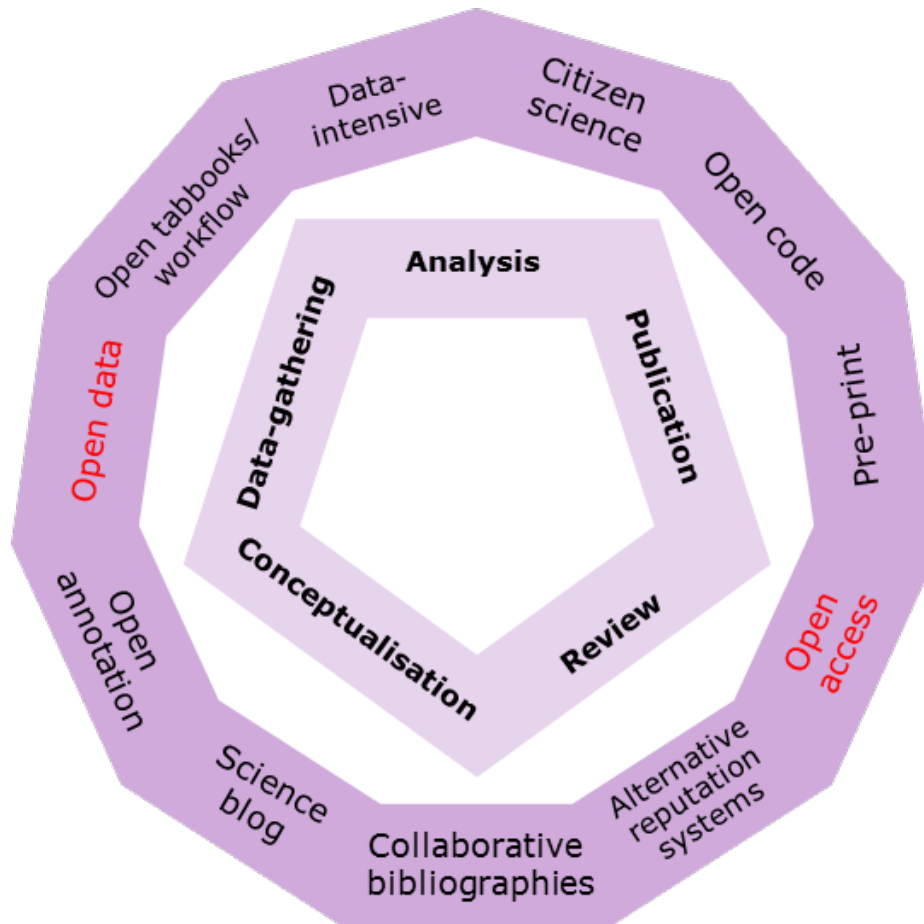
*A systemic change in  
the modus operandi of  
science and research*

*Affecting the whole  
research cycle and its  
stakeholders*



Commissioner Carlos Moedas  
Open Science Presidency Conference  
Amsterdam, 4 April 2016

## Open Science – opening up the research process



# The Need to be Open



# Great opportunities for all Europeans



**Better value for money** by strengthening the productivity of the European science and research system through the uptake of results by businesses, in particular SMEs that may not have the resources to pay for access to research results



**More transparency**, openness and networked collaboration leading to a higher degree of responsiveness of the research community to societal challenges



**A sound science and society relationship:** more openness may also lead to more trustworthy science from the point of view of the citizen and civil society organisations (NGOs)



Big and open data are estimated to add 1.9% of EU-28 GDP by 2020.



Brussels, 29 & 30 September 2016

European  
Commission

# EU and EC POLICIES ON OPEN RESEARCH DATA





## ORD in the EU MS

ORD policies less developed across EU countries than for OA to publications. However, general acknowledgement of the importance of open research data

**little or no open access to research data policies in place and no plan for a more developed policy in the near future:**

Cyprus, Latvia, Luxembourg, Malta, Poland.

**little or no open access to research data policies in place, but some plans in place or under development:**

Austria, Belgium, Croatia, Czech Republic, Estonia, Hungary, Italy, Portugal, Romania, Slovakia, Sweden,

**Open access policies/institutional strategies or subject-based initiatives for research data already in place:**

Denmark, Finland, France, Germany, Ireland, Lithuania, the Netherlands, Slovenia, the United Kingdom.



# Political Support

## Council Conclusions 27 May 2016

*WELCOMES OA to scientific publications as the default. Target of 100% OA by 2020*

*SUPPORTs optimal re-use of data with the underlying principle of "as open as possible as closed as necessary"*

*WELCOMES the intention of the Commission to make research data produced by Horizon 2020 open by default, whilst recognising the right of opting out*

*CALLS on the Commission to promote data stewardship, including DMPs – importance of making data findable, accessible, interoperable and re-usable (FAIR)*



# Open access in Horizon 2020

## *Regulation establishing Horizon 2020*

*"To increase the circulation and exploitation of knowledge, open access to scientific publications should be ensured. Furthermore, open access to research data resulting from publicly funded research under Horizon 2020 should be promoted, taking into account constraints pertaining to privacy, national security and intellectual property rights*

- Open access to scientific publications resulting from publicly funded research under Horizon 2020 shall be ensured [...].
- Open access to research data resulting from publicly funded research under Horizon 2020 shall be promoted. [...]."



# From FP7 to H2020: OA to publications from pilot to underlying principle

- Obligation to provide OA, either through the Green or Gold way in all areas (deposition mandatory either way)
- Allowed embargoes: 6/12m
- Gold open access costs eligible for reimbursement as part of the project budget while the project runs & post-grant support being piloted through OpenAIRE
- Authors encouraged to retain copyright and grant licences instead



European  
Commission



# OPEN RESEARCH DATA IN HORIZON 2020



# Research data: open by default

The Open Research Data Pilot (2014-2016) has been extended to cover all thematic areas of Horizon 2020 as of the Work Programme 2017.

## 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

## FAIR data

- Findable + Accessible + Interoperable + Re-usable

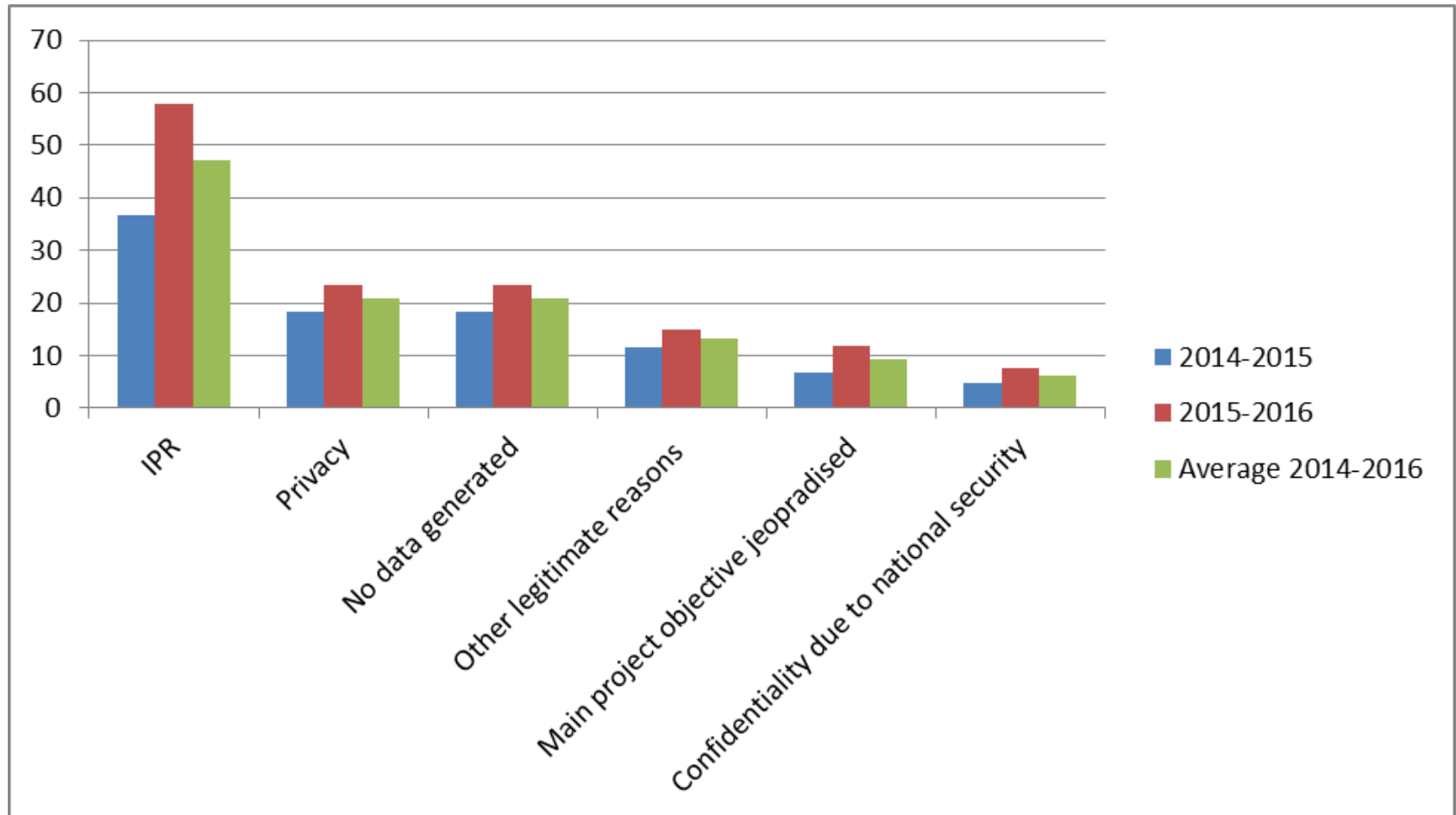
# Open Research Data Pilot in H2020

Projects may **opt out** in a series of cases, at any stage

- If the project will not generate / collect any data
- Conflict with obligation to protect results
- Conflict with confidentiality obligations
- Conflict with security obligations
- Conflict with rules on protection of personal data
- If the achievement of the action's main objective would be jeopardised by making specific parts of the research data openly accessible (to be explained in data management plan)

**Approach: as open as possible, as closed as necessary**

# ORD Pilot: opt-out reasons among proposals



# ORD Pilot: take-up in H2020 (2014-2016)

Calls in core-areas: 65% stay in, opt out 35%

Other areas: voluntary opt in 14%

# 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)



# FAIR Data Management DMP (1/3)

*Template DMP (Annex to Guidelines on FAIR Data Management)*

- **Provided as a service, its use is currently optional**

*Standard DMP template is light and flexible*

- **Set of questions + summary table**

*One DMP per project not per dataset*

- **but mention if there are specific issues for a particular dataset)**

*DMP as a living document*

- **Updated as part of periodic evaluation and/or at least at the end of the project for final reporting**

# FAIR Data Management DMP (2/3)

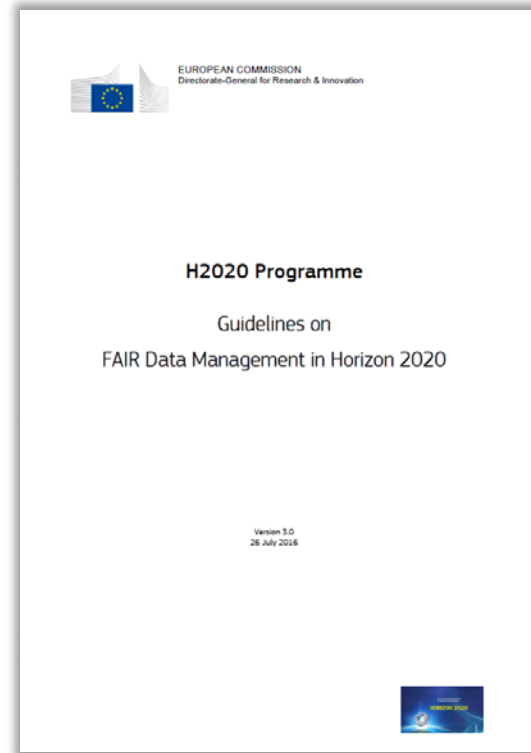
- 1. *Data summary*
  - **General questions about data collection/generation and the project**
- 2.1 *Making data Findable (incl. provisions for metadata)*
  - **Persistent unique identifiers, conventions followed, metadata standards, keywords...**
- 2.2 *Making data openly Accessible*
  - **Sharing (or not), restrictions on use, software, repository...**
- 2.3 *Making data Interoperable*
  - **Data exchange, ontologies (types and properties of data)...**
- 2.4 *Increasing data Re-use*
  - **Licensing issues, embargo, third parties...**

# FAIR Data Management DMP (3/3)

- *3. Allocation of resources*
  - **Costs (for making FAIR), personal etc. (including long term preservation)**
- *4. Data security*
  - **Sensitive data, certification of repositories...**
- *5. Ethical aspects*
  - **Ethical or legal issues (also in context of ethics reviews)**
- *6. Other*
  - **Other non-H2020 procedures for data management?**
- *The DMP template contains pointers as to what to address under each section*

# Guidelines on FAIR Data Management

Available [here](#) on  
the Participant  
Portal!



**Read it!!!**  
**ONLY 12 pages!!!**



# Ressources

*Open innovation, open science, open to the world. A vision for Europe*

<http://bookshop.europa.eu/en/open-innovation-open-science-open-to-the-world-pbKI0416263/>

*NPR report*

[https://ec.europa.eu/research/openscience/pdf/openaccess/npr\\_report.pdf#view=fit&pagemode=none](https://ec.europa.eu/research/openscience/pdf/openaccess/npr_report.pdf#view=fit&pagemode=none)

*H2020 guidance*

[http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm)

*May 2016 Council Conclusions*

<http://data.consilium.europa.eu/doc/document/ST-9526-2016-INIT/en/pdf>

**NEW** *Uptake of ORD pilot (dataset updated with 2016 data)*

<https://data.europa.eu/euodp/data/dataset/open-research-data-the-uptake-of-the-pilot-in-the-first-calls-of-horizon-2020>

# We welcome your input!

## Contact us

Mail: [RTD-open-access@ec.europa.eu](mailto:RTD-open-access@ec.europa.eu)

Web: <http://ec.europa.eu/research/openscience/index.cfm>

Twitter: [@OpenAccessEC](https://twitter.com/OpenAccessEC)

