



Open Research Data in Horizon 2020

**European Research Infrastructures (including e-
Infrastructures)**

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Open Access

- Online access at no charge to the *user*
 - to peer-reviewed scientific publications
 - to research data

Open Science

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

Open **Research** Data (ORD)

ORD refers to making research data freely available for reuse beyond the purpose for which they were originally collected

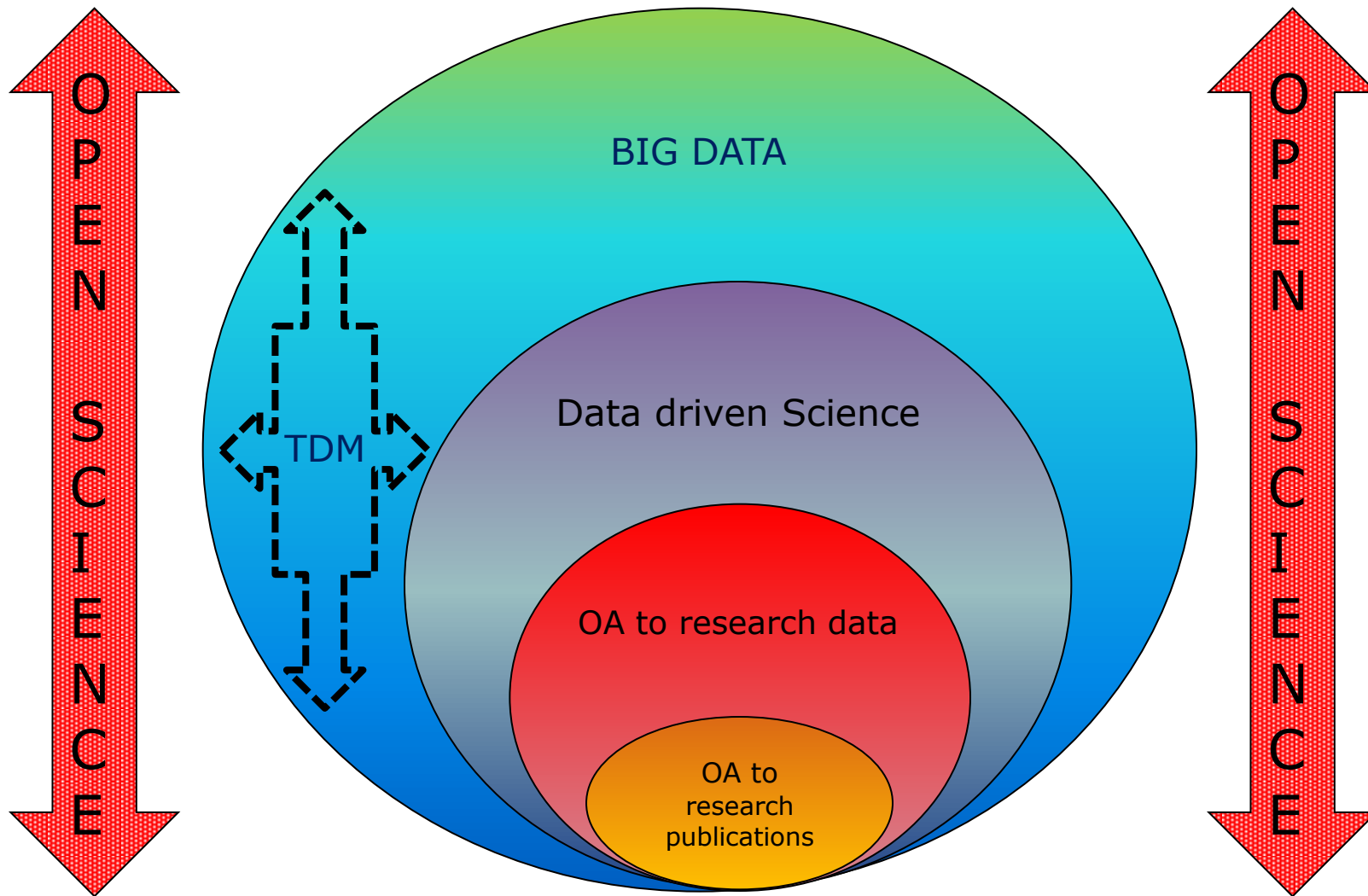
Making Research data freely available aid further discovery, make scientific process more cost efficient and reliable

ORD is part of a broader change: data driven science underpinning Open Science

ORD "small" part of Open Data



European
Commission



Research and
Innovation

What do we understand by OA?

OA = online access at no charge to the user

- to peer-reviewed scientific publications
- to research data

OA to scientific peer reviewed publications

- An obligation in Horizon 2020 (gold/green)

OA to research data

- A limited and flexible pilot in Horizon 2020

Competitiveness Council 29 May 2015

Member States have expressed their wish for the development of a European Open Science Agenda

- CALLS for action to remove obstacles to wide access to publicly funded research publications and underlying data;
- **CALLS for actions addressing better data management and, in this context, WELCOMES the Pilot on Open Research Data under Horizon 2020;**
- In the context of the implementation of the European Research Area (ERA), LOOKS FORWARD to the possible development of action plans or strategies for open science

Open Research Data Pilot in H2020

Key questions:

Which thematic areas are covered?

What data is covered?

What are the requirements?

What about data management?

Open Research Data Pilot in H2020 (I)

Areas of the **2016-2017** Work Programme participating in the Open Research Data Pilot are:

- Future and Emerging Technologies
- Research infrastructures – (**new**: coverage of the whole area)
- Leadership in enabling and industrial technologies – Information and Communication Technologies
- Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology: ‘nanosafety’ and ‘modelling’ topics (**new**)
- Societal Challenge: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy - selected topics as specified in the work programme (**new**)

Open Research Data Pilot in H2020 (II)

Cont'

- Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – except raw materials
- Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies
- Science with and for Society
- Cross-cutting activities - focus areas – part Smart and Sustainable Cities (**moved from Energy WP**)

Projects in other areas are encouraged to participate on a voluntary basis!

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

Open Research Data Pilot in H2020

Types of data concerned:

- Data needed to validate the results presented in scientific publications ("underlying data")
- Other data as specified in Data Management Plan (=up to projects)

Beneficiaries participating in the Pilot will:

- Deposit this data in a research data repository of their choice
- Take measures to make it possible to access, mine, exploit, reproduce and disseminate free of charge
- Provide information about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (where possible, provide the tools and instruments themselves)

EC: Support & monitoring (Annotated MGA, guidance etc...)

Data Management Plans in Horizon 2020

Data Management Plans (DMPs) mandatory for all projects participating in the Pilot, optional for others

DMPs are NOT part of the proposal evaluation, they need to be generated within the first 6 months of the project and updated as needed

- All proposers to submit general information on data management - evaluated under criterion 'Impact'

DMP questions:

- *What data will be collected / generated?*
- *What standards will be used / how will metadata be generated?*
- *What data will be exploited? What data will be shared/made open?*
- *How will data be curated and preserved?*



ORD Pilot: a chance to co-shape policy

- **Opening up research data: the new frontier**
- **Ambitious, yet pragmatic design of the pilot: broad scope, opt-out, voluntary participation possible**
- **Pilot is flexible; numerous safeguards in place**
- **Aim: kick-starting a virtuous circle**
- **Uptake of and experiences with the Pilot need to be monitored during the complete life cycle of a project: from application, to grant preparation, execution and final reporting**

Participating in the Pilot means co-shaping European policy on opening up research data



ORD Pilot: take-up in first calls of Horizon 2020

Basis: 3699 Horizon 2020 **signed grant agreements**

Calls in core-areas: opt out 34,6% (149/431)

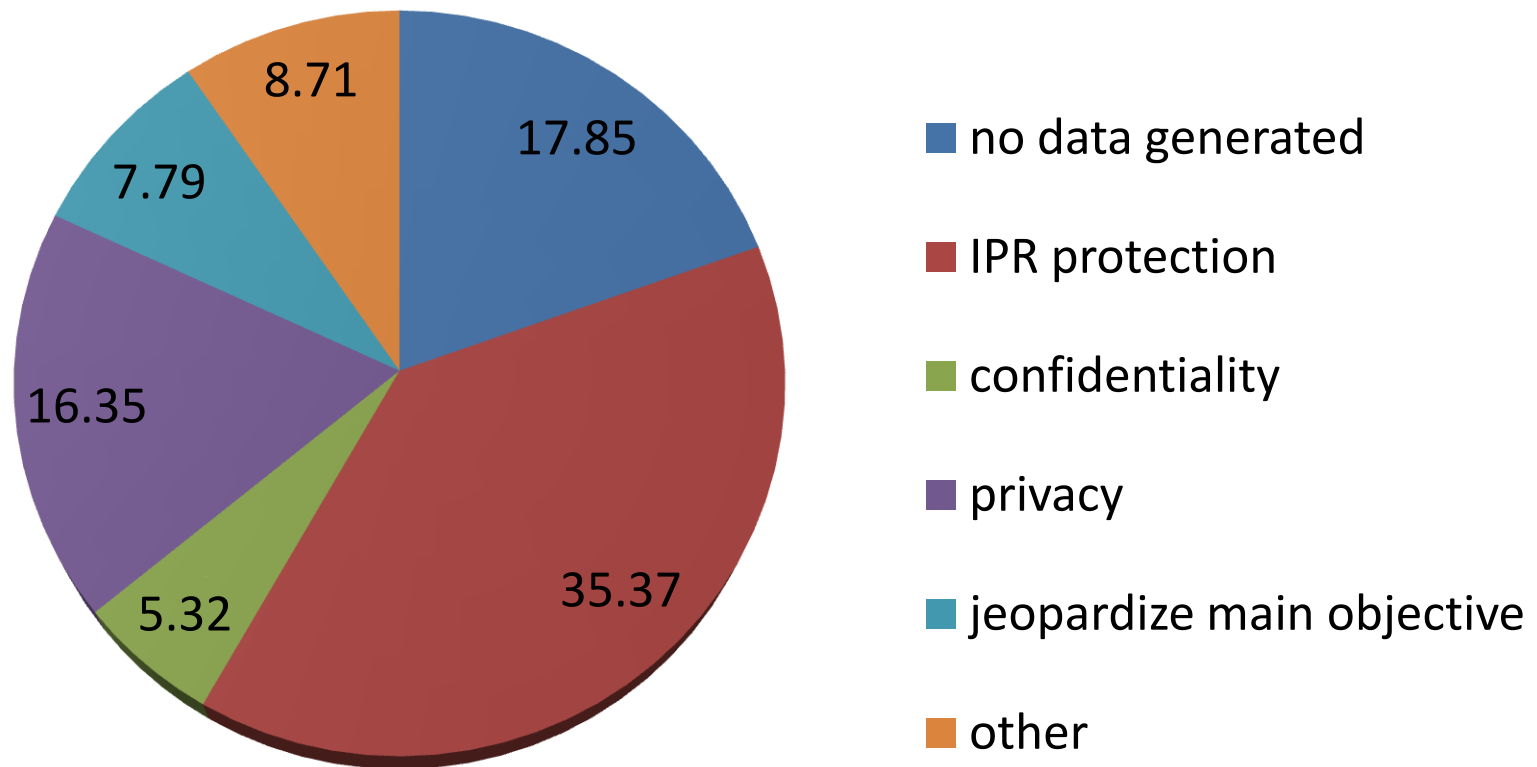
- In other words 65,4% of projects in the core areas participate in the ORD pilot.

Other areas: voluntary opt in 11,9% (409/3268)

Limited divergence from 2014 proposal figures but larger dataset used

Note: 100% participation is not feasible or even desirable (e.g. not all projects generate data)

ORD Pilot: opt-out reasons among proposals





For any questions related to Open Research Data

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CHARTER FOR ACCESS TO RESEARCH INFRASTRUCTURES

Context

- **Fragmentation and diversification of access procedures amongst MS.**
- **Lack of transparency of procedures enabling Access to Research Infrastructures**



legal and procedural barriers that prevent the best research teams from being able to access the best Research Infrastructures wherever these may be located

The Charter - Purpose

- **Promote Common terminology**
- **Promote Transparency**
- **Enable harmonisation of standards for Access Policies**
- **Recognise Access for:**
 - **Research**
 - **Education and training**
 - **Doctoral preparation**



2012 ERA Communication

Set the basis for initiating work:

"the Commission to in co-operation with the ESFRI, e-IRG and other stakeholders will develop a Charter of Access setting out common standards and harmonised access rules and conditions for the use by researchers of RI across ERA."

The Charter - Characteristics

- **Non-binding**
- **Reference for updating existing or defining new Access policies**
- **Encompassing all kinds of Research Infrastructures**
- **No distinction between Research Infrastructures and e-Infrastructures**

Main achievements

Promotion of the common understanding
of an Access Policy

Procedural transparency

The Charter – Considerations

- **Result of a true group effort**
- **Already assessed as relevant for the RI community**
- **De facto already used by RIs that are establishing/reviewing their Access policies.**
- **Briefed to the Research Working Party on 09 February**
- **Offered for consideration in the frame of a wider international context (GSF/GSO...)**

The Charter – Way Ahead

Need to inserted in the appropriate frame in order to provide suitable relevance.

- **Step 1: Publish on the RI section of the EC RTD Web portal encouraging dissemination and usage**
- **Step 2: collect any further feed-back and evaluate**
- **Step 3: Couple to the Policy Paper on Research Infrastructures in the process of being now launched.**

The European Charter of Access :

https://ec.europa.eu/research/infrastructures/pdf/2015_charterforaccessto-ris.pdf