European Commission policy on open access

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What is open access (OA)?

OA = online access at no charge to the user

- to peer-reviewed scientific publications
- to research data (includes re-use)

Why open access?

- To optimise the impact of publicly-funded research
- Expected benefits of open access:
  - Good for science: efficiency, verifiability, transparency
  - Good for the economy: access and take-up by industry
  - Good for society: broader, faster, transparent and equal access for citizens

Broader context: Open Science

- **The transformation and opening up of science and research through ICT**
- **Expected impacts:**
  - Make science more efficient, transparent, interdisciplinary
  - Enable broader societal impact and innovation.
- **Areas: open access, citizen engagement, e-infrastructure, research assessment and metrics, …**

Commissioner view

Carlos Moedas, Commissioner for Research, Science and Innovation

Günther Oettinger, Commissioner for Digital Economy and Society

"Open science is [...] about making sure that science serves innovation and growth. It guarantees open access to publicly-funded research results and the possibility of knowledge sharing [...]."

Blog post by Commissioners Oettinger and Moedas (22 June 2015): Open science for a knowledge and data-driven economy

https://ec.europa.eu/commission/2014-2019/oettinger/blog/open-science-knowledge-and-data-driven-economy_en

Priorities of Commissioner Moedas

- **Open Innovation**
- **Open Science**
- **Open to the world**

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Open access in Horizon 2020

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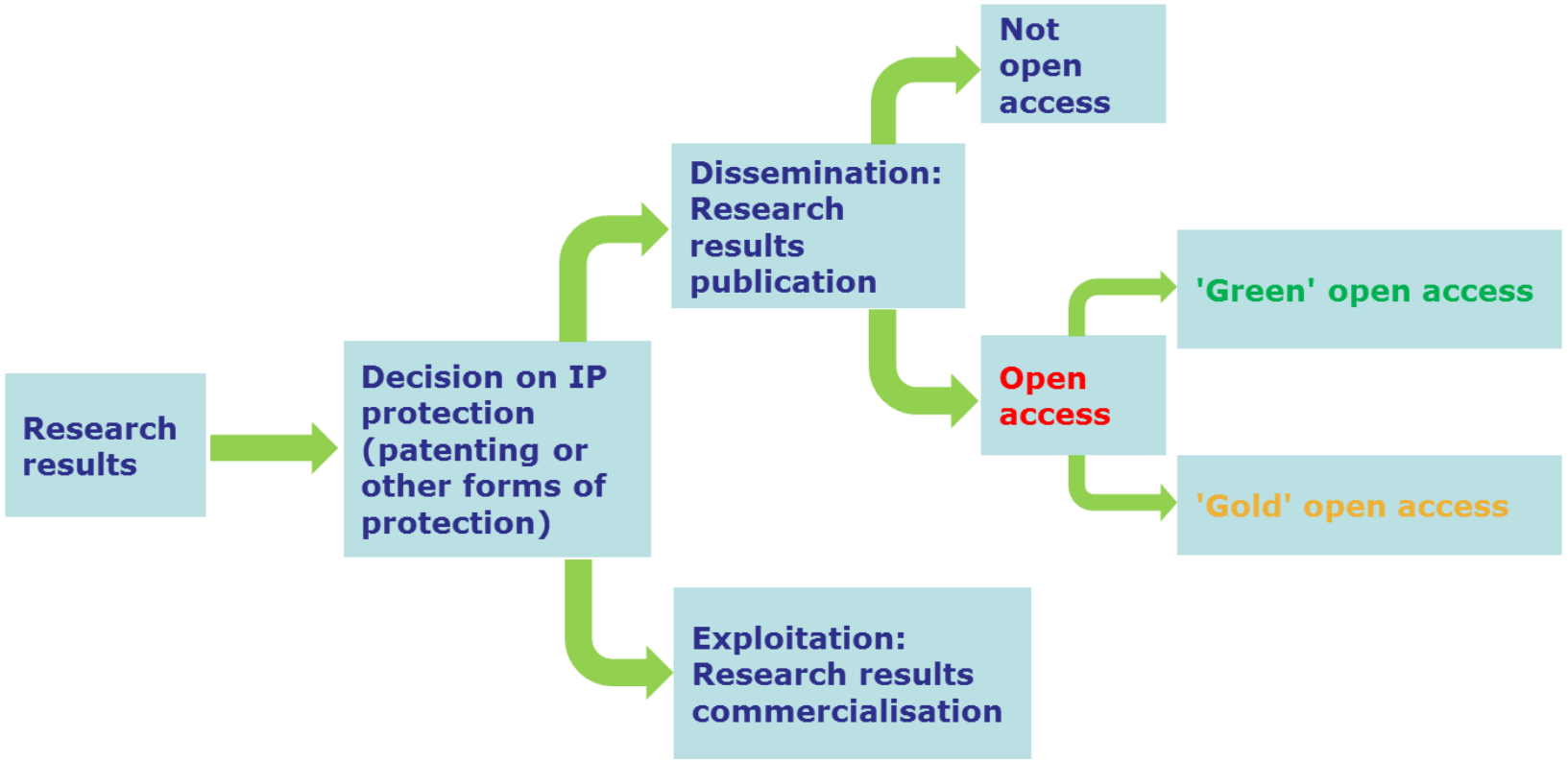
Open Access to Publications

OPEN ACCESS

What OA is NOT

- Not an obligation to publish
- Not at odds with patenting (see graph)
- Not of lower quality (peer review process)



OA to publications mandate in H2020

Each beneficiary must ensure OA to all peer-reviewed scientific publications relating to its results:

- **Deposit** a machine-readable copy of the published version or final peer-reviewed manuscript accepted for publication in a repository of the researchers choice (possibly OpenAIRE compliant)
- **Ensure** OA on publication or at the latest within 6/12 months
- **Ensure** OA to the bibliographic metadata that identify the deposited publication, via the repository
- **Aim to deposit** at the same time the research data needed to validate the results ("underlying data")

OA to publications mandate in H2020

Routes towards OA:

- OA publishing/gold and self-archiving/green considered valid and complementary routes
- **Self-archiving**: 'traditional' publication plus deposit of manuscripts in a repository ('Green OA')

  Both versions contain the same peer-reviewed content, but may be differently formatted
- **OA publishing**: immediate OA provided by publisher ('Gold OA')

  usually, but not always, 'Author-pay' model (APC)

  some journals offer both subscriptions and open access publishing to selected on-line articles (hybrid journals)
- Deposit into a repository also in the case of OA publishing

OA to publications mandate in H2020

Licencing:

- Encouragement to authors to retain their copyright and grant adequate licences to publishers (e.g. Creative Commons)

Costs for OA publishing:

- Eligibility of OA publishing costs during the grant (as in FP7)
- FP7 post-grant Open Access publishing funds pilot

FP7 post-grant Open Access publishing funds pilot

- 24 month-subproject of OpenAIRE 2020

(https://www.openaire.eu/goldoa/fp7-post-grant/pilot)

- Mechanism to support gold open access after end of grant
- Budget: €4 million
- FP7 publications
- For publications published up to two years after project end
- Up to three peer-reviewed publications per project
- OA monographs are eligible
- 2000 euros per publication; No hybrids
- The pilot started its operation on June 1, 2015. It is therefore too early for a statistically significant analysis.

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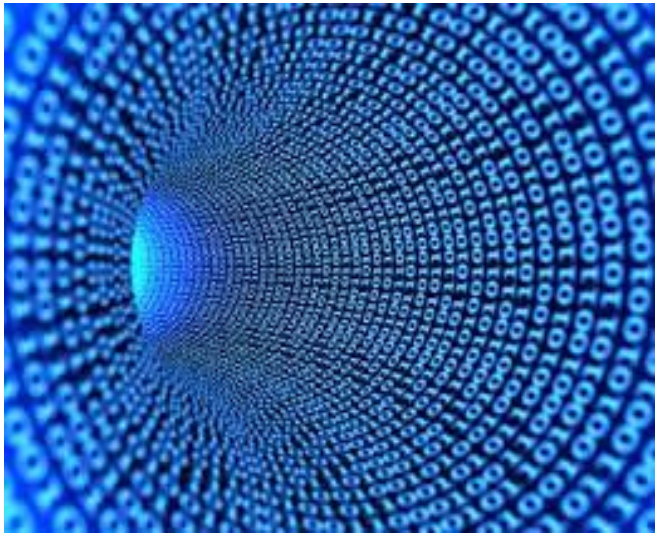
Open Access to Research Data



Pilot on Open Research Data in H2020

Key questions:

- Which thematic areas are covered?
- What data is covered?
- What are the requirements?
- What about data management?

Pilot on Open Research Data: Scope(1)

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)

Pilot on Open Research Data: Scope(2)

Continued

- 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

Pilot on Open Research Data: Opt-out

Projects may opt out of the Pilot on Open Research Data in Horizon 2020 in a series of cases (submission 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)

Participation in the Pilot is not part of the project evaluation

Opting out during project also possible

Being in the Pilot does not mean opening all data

Pilot on Open Research Data: requirements

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)

Approach: as open as possible, as closed as necessary

Data management 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
  - To be generated within first 6 months of project, updates as needed
- DMP questions (EC template):
  - 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 / opened?
  - How will data be curated and preserved?
- **DMP: tool to determine what datasets can/cannot be open**

Data management in Horizon 2020

- Which tool ?
  - DMPonline (developed by Data Curation Centre, UK): helps create a DMP based on the EC template
  - mid-term view: a EC DMP tool ? under discussion
- Costs for data management
  - eligible costs as part of Horizon 2020 research grants; no extra money assigned to them
  - art. 6.2.D.3 of the Annotated Model Grant Agreement refers to "costs of other goods and services"
  - including dissemination costs i.e. notably costs related to data maintenance or storage

ORD Pilot: take-up in first calls of H2020

- Basis: 3699 Horizon 2020 signed grant agreements
- Calls in core-areas: **opt out 34,6%** (149/431)

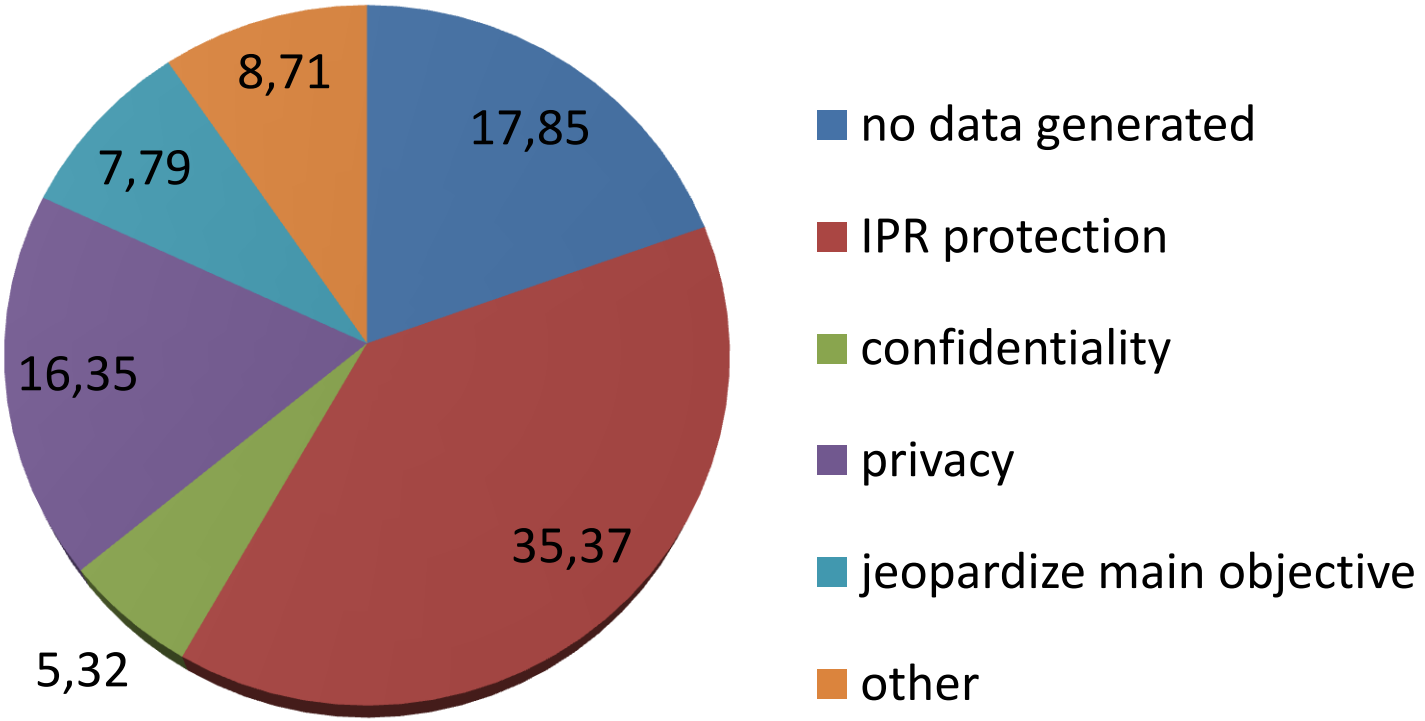
  → In other words 65,4% of projects in the core areas participate in the ORD pilot.

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

→ Limited divergence from 2014 proposal figures but larger dataset used

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

ORD Pilot: opt-out reasons among proposals



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**

Resources

H2020 Guidelines:

Open access:
http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

Data management:
http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Resources

Publications:

- List of publications repositories: http://www.opendoar.org/
- List of publisher policies: http://www.sherpa.ac.uk/romeo/
- Directory of OA journals: https://doaj.org/
- Zenodo http://zenodo.org/ (OpenAIRE)

Research Data:

- List of research data repositories: http://www.re3data.org/
- B2Share http://eudat.eu/services/b2share (EUDAT)
- Zenodo http://zenodo.org/ (OpenAIRE) – focus on link with publications, communities

Data Management Plan:

- Digital Curation Centre https://dmponline.dcc.ac.uk/, http://www.dcc.ac.uk/resources/data-management-plans. Other institutions developing tools. EC resources are being developed.

Thank you !