



Open access in H2020

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What do we understand by OA?

OA = online access at no charge to the user

- to peer-reviewed scientific publications
- to research data

Two main OA publishing business models

- **Self-archiving**: deposit of manuscripts & immediate/delayed OA provided by author ("Green OA") - usually with embargo periods
- **OA publishing**: immediate OA provided by publisher ("Gold OA") usually, but not always, 'Author-pay' model (APC)

What OA is NOT

- Not an obligation to publish
- Not at odds with patenting
- OA publications go the same peer review process



The Commission objective

optimise the impact of publicly-funded scientific research

- At European level (FP7 & Horizon 2020)
- At Member State level

One way to get there: open access

Expected benefits:

- Better and more efficient science → *Science 2.0*
- Economic growth → *Innovation Union*
- Broader, faster, more transparent and equal access for the benefit of researchers, industry and citizens → *Responsible Research and Innovation*

... in the European Research Area and beyond

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

FP7

- **Green** open access pilot in 7 areas of FP7 with 'best effort' stipulation
- Allowed embargoes: 6/12 months
- **Gold** open access costs eligible for reimbursement as part of the project budget while the project runs

Horizon 2020

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

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")



Pilot on Open Research Data in H2020

Three key questions:

Which thematic areas should be covered?

What kind of data should be covered?

What about data management?



Pilot on Open Research Data in H2020

Areas of the 2014-2015 Work Programme participating in the Open Research Data Pilot are:

- Future and Emerging Technologies
- Research infrastructures – part e-Infrastructures
- Leadership in enabling and industrial technologies – Information and Communication Technologies
- Societal Challenge: Secure, Clean and Efficient Energy – part Smart cities and communities
- 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

Projects in other areas can participate on a voluntary basis.



NanoSafety in?

- ✧ Generic societal pressure on public funding bodies to have health and environmental research results more open.
- ✧ Supplementary data are nowadays common features in high impact journals. (eg PlosOne: raw data underlying the findings to be deposited in publicly available database.
- ✧ Open Access to Research Data: a tools to improve research quality, in particular the reproducibility issues. Access to raw underlying data allows to checking, reproducing and challenging studies.



NanoSafety in?

- ✧ Relevant for nanosafety research, a young emerging field, in which the complexity of handling and testing nanomaterials is critical (see [Nature Nanotech](#) discussions) and must be reported comprehensively and coherently.
- ✧ Research in nanosafety is now moving to high throughput, high content data and large data analysis. Must be supported by the availability of consistent, complete, and high quality datasets.
- ✧ The tools, databases and ontologies, are being developed worldwide, with good cooperation between different initiatives (eg the US NIH Nano WG with the EU Nanosafety cluster WG4, the EU-US CoR on databases and ontologies). eNanomapper (end date 31/01/17) is developing such tools for the scientific community.

Pilot on Open Research Data in H2020

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

- 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)

Pilot on Open Research Data 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, Specific guidance etc...)

Data management in Horizon 2020

- Data Management Plans (DMPs) mandatory for all projects participating in the Pilot, optional for others
 - DMPs are NOT (yet?) part of the proposal evaluation, they need to be generated within the first six months of the project and updated as needed
- 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?

In summary...

- Open access as part of a changing scientific system (Science 2.0)
- Open access as a means to improve knowledge circulation and provide value for the taxpayers' money
- Horizon 2020 ambitious yet pragmatic on aspects of open access
 - Open access to publications mandatory (green or gold)
 - Limited pilot for open access to research data (opt-in/opt out principle)
- Support from/for H2020: work programmes e-Infrastructure & Science with and for Society
- Open access must be effective, affordable, competitive and sustainable for researchers and innovative businesses

We welcome your input



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Links

EC OA website
http://ec.europa.eu/research/science-society/open_access

European Research Area (ERA)
http://ec.europa.eu/research/era/index_en.htm

Innovation Union
<http://ec.europa.eu/research/innovation-union/>

Study to measure growth of OA
http://europa.eu/rapid/press-release_IP-13-786_en.htm

H2020 guidance
http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf