Progress in Open Access to European research data

The case of Horizon 2020

Data Sharing Working Group Side Event during the GEO Summit Week
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• One of the biggest research and innovation programme publicly funded worldwide: nearly €80 billion of funding available over 7 years: 2014-2020


• Emphasis on three pillars: (i) excellent science, (ii) industrial leadership and (iii) tackling societal challenges

• The public research and innovation programme that is most open to international collaboration

• Streamlined research and innovation activities: taking great ideas from the lab to the market to produce world-class science and remove barriers to innovation

• Provides research continuity in Europe notably to support GEOSS activities

• Promotes Open Access to scientific publications and research data
Why Open Access?

Increased impact of publicly-funded research and innovation

• Better science (build on previous results)
• More efficient science (avoid duplication & promote re-use)
• Economic growth (accelerated and open innovation)
• Improved transparency (involving citizens & society)

What meaning?

Open access (OA) = online access at no charge to any user

• To peer-reviewed scientific publications (new requirement !)
  - OA obligation (article 29.2 of the Model Grant Agreement)
  - Following a pilot experiment in the period 2006-2013 (FP7)
• To research data (new experiment !)
  - Open Research Data Pilot (optional article 29.3 of the Model Grant Agreement), monitored throughout Horizon 2020 in view of an EU policy on open research.
Pilot on Open Research Data in H2020

Types of data concerned:

- Data (including associated metadata) needed to validate the results presented in scientific publications ("underlying data").
- Other curated and/or raw data (including associated metadata) generated by the project.

Data Management Plans (new !):

As specified in the Data Management Plan (DMP), a mandatory ‘living’ deliverable by all projects participating in the Pilot:

- What data will be collected / generated in the course of the project?
- What data will be exploited? What data will be shared/made open?
- What standards will be used / how will metadata be generated?
- How will data be curated / preserved including after project completion
Pilot on Open Research Data in H2020

Beneficiaries participating in the Pilot will:

• Deposit their data in a research data repository of their choice (see also listings of research data repositories such as: www.re3data.org or www.databib.org).

• Take measures to make it possible to access, mine, exploit, reproduce and disseminate free of charge (using e.g. ‘Creative Commons’ licences).

• Provide information about tools and instruments at the disposal of the beneficiaries and necessary for validating the results.

Cases exist for opting out of the Pilot

• Conflict with obligations mainly related to the protection of results, confidentiality or security issues, the protection of personal data, the achievement of the action’s main objective.
Pilot on Open Research Data in H2020

Horizon 2020 areas participating in the Pilot in 2014-2015:

- Future and Emerging Technologies
- Research infrastructures (eInfrastructures part)
- Leadership in enabling and industrial technologies – Information and Communication Technologies
- Societal Challenges: 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

Together these areas corresponds to 20 % of the overall Horizon 2020 budget in the period 2014-2015 (about €3 billion)

Projects in other areas can participate on a voluntary basis.
Horizon 2020 Work Programme 2014-2015

Section on ‘Climate action, environment, resource efficiency and raw materials’

Open Access and GEOSS

- Many actions funded under this Societal Challenge will participate in the Pilot on Open Research Data in Horizon 2020.

- Moreover, “Beneficiaries in projects participating in the Pilot on Open Research Data shall adhere to the GEOSS Data Sharing Principles and undertake to register in GEOSS all geospatial data, metadata and information generated as foreground of the project.”

- “All activities (...) should as far as possible use data resulting from or made available through different initiatives of the European Commission. In particular, the utilisation of GEOSS (Global Earth Observation System of Systems) and Copernicus data, products and information should be privileged. (…)”
Policy Background

- Communication: Towards better access to scientific information: Boosting the benefits of public investments in research COM(2012) 401 final
- Recommendation to the Member States on access to and preservation of Scientific Information C(2012) 4890 final
- ERA Communication: A Reinforced European Research Area Partnership for Excellence and Growth (COM(2012) 392 final
- G8 Science Ministers Statement, London UK, June 2013
  - Open scientific research data: commitment to openness in scientific research data that should be easily discoverable, accessible, assessable, intelligible, useable, ...
  - Policy environment recognising researchers fulfilling these principles and appropriate digital infrastructures
  - Increased access to peer-reviewed results of scientific research
Thank you for your attention