



# EU Insight - Open access initiatives

## Status quo and EU initiatives in Horizon 2020

One of the key principles to be implemented in the European Research Area is “[to guarantee access to and uptake of knowledge by all](#)” – or the so-called “open access” (OA). Open access refers to the practice of providing on-line access to scientific information that is free of charge to the end-user.

### Open access

requirements are based on a balanced support to both 'Green open access' (immediate or delayed open access that is provided through self-archiving) and 'Gold open access' (immediate open access that is provided by a publisher).

### The EU's open access initiatives

The European Commission (EC) has long possessed the view that as all research and innovation builds on earlier achievements, an efficient system for broad dissemination of and access to research data and publications can accelerate scientific progress. Máire Geoghegan-Qunn, European Commissioner for Research, Innovation and Science stresses that “[w]e need to ensure that scientists have access to the best and latest results of research.” That is why new publications based on EU-funded research will be freely available to all. In addition, as part of a pilot open access to some of the scientific data resulting from Horizon 2020, the new EU Framework Programme for Research and Innovation, will also be opened up.

### Open Access to EU-funded scientific research

The EC aims to optimise the impact of publicly-funded scientific research, both at European level (under the EU Research Framework Programmes FP7 and Horizon 2020) and at Member State level. This is essential for Europe's ability to enhance its economic performance and improve the capacity to compete through knowledge. Open access to results of publicly-funded research could facilitate the dissemination process to the benefit of researchers, innovative industry and citizens. It can also boost the visibility of European research, and in particular offer small and medium-sized enterprises (SMEs) access to the latest research for utilisation.

The **Pilot** involves the following **key areas** of Horizon 2020:

- (1) Future and Emerging Technologies,
- (2) Research infrastructures – part e-Infrastructures,
- (3) Leadership in enabling and industrial technologies – Information and Communication Technologies,
- (4) Societal Challenge: Secure, Clean and Efficient Energy – part Smart cities and communities,
- (5) Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – with the exception of topics in the area of raw materials,
- (6) Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies, and
- (7) Science with and for Society.



Therefore, the Commission's strategy is to develop and implement open access to research results from projects funded under FP7 and Horizon 2020 (H2020).

### **Pilot on Open Research Data in Horizon 2020**

A novelty in H2020 is the 'Pilot on Open Research Data in Horizon 2020'. Launched on December 16<sup>th</sup>, 2013, researchers in projects participating in the pilot are asked to make the underlying data needed to validate the results presented in scientific publications and other scientific information available for use by other researchers, innovative industries and citizens. For 2014-2015, topic areas participating in the Open Research Data Pilot will receive funding of around €3 billion.

### **The EC's guidelines on open access**

Two sets of guidelines were published in December going hand-in-hand with the launch of the above-mentioned pilot and open access initiatives under H2020:

1. The "[Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020](#)" provide context and explanation for the rules on open access applicable to beneficiaries in projects funded or co-funded under Horizon 2020.
2. The "[Guidelines on Data Management in Horizon 2020](#)" published by the EC are addressed to applicants and beneficiaries of projects under the Framework Programme. These guidelines are intended to give them indications on how they can comply with their responsibilities regarding research data quality, sharing and security.

### **Measuring the status quo of open access on European and world level**

In August 2013, three [reports](#) were published as part of a study conducted for the European Commission (EC) to develop a set of indicators for measuring open access in the European Research Area (ERA) countries, as well as Brazil, Canada, Japan, and the US. The reports came to several interesting conclusions. First of all, compared to [open access repositories](#) of theses and scientific articles, institutional repositories that support the archiving of *scientific datasets* remain marginal.

Second of all, in regard to [the availability of open access scholarly publications](#), the tipping point for OA (more than 50% of the papers available for free) has been reached in several countries according to the authors. Of the countries in question Brazil leads with 63%, followed by the US with the proportion of open access peer-reviewed papers being 56% while Canada is about to reach the tipping point (currently at around 49%). The ERA has roughly



the same proportion of OA articles as that observed at the world level (43% for 2008-2011, a figure which is not recalibrated for precision and recall), though there are noticeable differences among the countries with the Netherlands, Portugal, Lithuania, Estonia, Denmark, Malta, Ireland, and Belgium having already reached the tipping point.

And third of all, the authors argue that most national governments have not proposed or implemented direct [legislation on OA](#) (the major exceptions being the US and Brazil who also lead in regard to OA availability) and instead, OA is often addressed through less formal means, such as the production of guidelines for research funding agencies. The development of an OA culture among researchers can be fostered – the authors conclude – by institutions, funding bodies, and governments through initiatives that enable or provide incentive for the OA dissemination of peer-reviewed publications.

The European Commission sees the implementation of open access is a major challenge given the uneven state of advancement of Member State policies in this area. Therefore, the EC encourages national initiatives at Member State level and contributes to their co-ordination within the ERA. Continuing the engagement with stakeholders and encouraging a culture of sharing scientific publications and, with due respect to the rights of all concerned, research data are major concerns over the course of [Horizon 2020](#).

#### Sources and further information

- [1] European Commission: [Fact sheet: Open Access in Horizon 2020](#), 9 December 2013.
- [2] European Commission: *ERA Newsletter, 1<sup>st</sup> Edition*, [Foreword: The EU as a leader on wider access to research results](#), January 2014.
- [3] European Commission: [Science in Society portal](#).
- [4] European Commission, Press Release: [Commission launches pilot to open up publicly funded research data](#), 16 December 2013.
- [5] KoWi (European Liaison Office of the German Research Organisations), news article: [European Commission publishes Guidelines on Open Access in Horizon 2020](#), 20 December 2013.
- [6] Science-Metrix Inc. (Authors: Eric Archambault, Didier Amyot, Philippe Deschamps, Aurore Nicol, Lise Rebout & Guillaume Roberge): [Proportion of Open Access Peer-Reviewed Papers at the European and World Levels—2004-2011](#), August 2013.
- [7] Science-Metrix Inc. (Authors: Julie Caruso, Aurore Nicol & Eric Archambault): [Open Access Strategies in the European Research Area](#), August 2013.
- [8] Science-Metrix Inc. (Authors: Aurore Nicol, Julie Caruso & Éric Archambault): [Open Data Access Policies and Strategies in the European Research Area and Beyond](#), August 2013.

A list of relevant EU-funded projects can be accessed [here](#).