



SUMMARY: HEARING ON QUESTION 21 OF THE GREEN PAPER ON "THE EUROPEAN RESEARCH AREA: NEW PERSPECTIVES" – BRUSSELS, 24 SEPTEMBER 2007

1. Background: European Commission activities on access to scientific information and context

On 24 September, the European Commission (EC) held a hearing on the question of open access to raw data and publications. The objective of this event was to hear the opinions of a select group of experts, representing all concerned stakeholders, on access to scientific information.

Several Commission activities on access to and preservation of scientific information in the digital age had led up to this hearing. A first contribution to this debate was the EC-commissioned "Study on the economic and technical evolution of the scientific publication markets in Europe"¹. This Study, published in January 2006, provides an economic analysis of European scientific publication markets and makes a series of policy recommendations. A public consultation on this Study was held from 31 March to 15 June 2006².

Based on the Study, consultation and discussions with stakeholders and on the initiative of Commissioners J. Potočník (Science and Research) and V. Reding (Information Society and Media), the Commission adopted a Communication on "Scientific information in the digital age: access, dissemination and preservation" (COM(2007)57) on 14 February 2007³. In this Communication, announced during an international conference entitled "Scientific Publishing in the European Research Area", the Commission states that: "Initiatives leading to wider access to and dissemination of scientific information are necessary, especially with regard to journal articles and research data produced on the basis of public funding".

During the run-up to the conference announcing this Communication, the research community launched a petition "for guaranteed public access to publicly-funded research results" based on one of the recommendations of the 2006 Study on publishing markets. This petition was signed by over 20.000 individuals before the Communication was announced (over 26.000 as of October 2007). The publishing community responded to this petition by the Brussels Declaration on STM (scientific, technical and medical) Publishing, signed by 45 publishers and 13 publishers' associations as of May 2007.

¹ http://ec.europa.eu/research/science-society/pdf/scientific-publication-study_en.pdf

² <http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=358>.

³ http://ec.europa.eu/research/science-society/document_library/pdf_06/communication-022007_en.pdf

2. The Green Paper on the ERA and hearing objective

On 4 April 2007, the European Commission adopted a Green Paper on "The European Research Area: New Perspectives"⁴. Building on the policy developments outlined above, the Green Paper identifies "effective knowledge-sharing" as one of six key areas that need attention to ensure the success of the European Research Area (ERA). It stresses that "[r]eliable, affordable and permanent access to, and widespread dissemination of, scientific research results should [...] become defining principles for Europe's research landscape" and that "Europe should stimulate the development of a 'continuum' of accessible and interlinked scientific information from raw data to publications, within and across different communities and countries".

Based on these considerations, question 21 of the Green Paper is formulated as follows: *"Is there a need for EU-level policies and practices to improve and ensure open access to and dissemination of raw data and peer-reviewed publications from publicly funded research results?"*. The Green Paper on the ERA was subject to a public consultation (in the form of a questionnaire) conducted between 1 May and 31 August 2007. One of the questions was *"How should data and publications resulting from publicly funded research be shared?"* (question KSH2). The main focus of the 24 September 2007 meeting was for the Commission to hear the opinions of experts on question 21 of the Green Paper on the ERA on KSH2 of the questionnaire.

3. Summary of the hearing

The meeting was opened by Jean-Michel Baer, Director of the Science, Economy and Society Directorate within the Research Directorate-General (DG Research). He introduced the day's agenda and speakers (see annexe), and emphasised the importance of the hearing as a source of input for the 8-10 October 2007 Portuguese Presidency of the European Union conference on "the Future of Science and Technology in Europe", and for the next policy steps to be taken in the area of "knowledge-sharing". This introduction was followed by a round of introductions.

Celina Ramjoué (DG Research) then gave an overview of the Commission's activities to date on access to scientific information. Points covered included the Commission's basic approach to questions of access to scientific information, the EC-commissioned "Study on the economic and technical evolution of the scientific publication markets in Europe" (and public consultation), the "Communication on scientific information in the digital age", and the Green Paper on the European Research Area (ERA) (see links above).

Jan Velterop, Director of Open Access at Springer, followed with an analysis of responses to question KSH2 of the public consultation on the Green Paper on the ERA. His full report will soon be available here: <http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=122>. Findings and tentative conclusions include the following:

- 86% of questionnaire respondents (692) responded to the section on knowledge sharing.
- 70% of respondents are in favour of making raw data more readily available, whereas 15% disagree with the notion that this would be necessary.
- 70% of respondents favour data storage at the EU-level.

⁴ http://ec.europa.eu/research/era/consultation-era_en.html#greenpaper.

- 65% of all respondents favour free access (for the reader) to publicly funded scientific publications; 26% disagree with this type of access.
- About two thirds of all respondents state that research publications resulting from publicly funded research should be available immediately; some 25% favour a 6-month embargo period, and 15% a 12-month embargo period.
- 76% of the respondents state that articles should be available in an EU-level repository.
- Question KSH2 of the consultation should probably have been designed to allow opinions on alternatives to preservation in repositories.
- The distinction between repository levels (local, national, EU-level) is largely irrelevant in a digital world. The question is not where scientific information is located, but how it can be accessed.

An extensive general discussion followed, in which it was generally felt that the questionnaire design was not optimal. Potential statistical problems were raised, as well as the need to balance questions, i.e. of suggesting alternatives to repositories in the questionnaire.

The next presentation was given by Elina Zicmane (Directorate-General for the Information Society and Media, DG INFSO) on the project e-SciDR (“Towards a European e-Infrastructure for e-Science Digital Repositories”)⁵. The objectives of this 9-month study, commissioned by DG Information Society and running from January to September 2007, are to provide an overview of the e-science digital repository landscape in Europe and to develop policy options for e-science preservation. One of the elements of e-SciDR is a public consultation on repositories and preservation issues. Based on this, interviews and desk research, the study team is developing a series of draft recommended actions (to be published in the final report). These include “funding on a long-term or rolling basis”, “mandating submission of outputs of publicly funded activity”, “harmonisation of access, authorisation and authentication across Europe”, and “institute certification schemes for repositories”.

The meeting continued with a presentation by Deirdre Furlong (DG Research) on an internal information gathering exercise on how long embargo periods would need to be in the case of an open access mandate for publications resulting from Framework Programme-funded projects. An internal questionnaire was circulated to Directorates working within different areas of FP7 asking about potential embargo period lengths both by discipline and by Framework Programme area. Findings include the following:

- This exercise was useful as an internal awareness-raising exercise. Work in this direction must continue.
- As expected, there was considerable overlap between answers on embargo periods for thematically corresponding FP7 areas and scientific disciplines.
- The connections between open access and intellectual property rights issues (e.g. patenting) must be made explicit and clarified as there are frequent misunderstandings in this area.
- The length of embargo periods proposed varies between 0 months and 2 years. The message is that one size does not fit all.
- The importance of peer review was underlined across all thematic areas.

⁵ <http://www.e-scidr.eu/>.

A further presentation was given by Gillian McFadzean (Heriot-Watt University and Chairman of the Board of ProTon Europe) and Christine Reid (Northwood Reid), both Members of the Expert Group on Knowledge Sharing dealing with ERA Green Paper questions 22 and 23 (on transfer of knowledge to industry and specific IPR-related questions). They underlined that the concept of knowledge sharing must contain the notion of building sustainable partnerships with industry and that strong and effective knowledge sharing requires both capacity-building and a European-level solution. The links between open access and knowledge transfer and intellectual property rights questions must be clarified. For example, open access mandates with 12-month embargoes might require introducing a so-called grace period (during which a patent application can be filed despite previous disclosure, for example through publication), whereas 6-month embargo periods would pose problems for industry funders. Many public research organisations (e.g. universities) lack explicit and sound intellectual property management addressing these types of issues.

After these presentations, participants were invited to engage in debate on the information presented and to make individual statements. The debate was very lively. Individual statements and comments are not reported here, but the following list gives an overview of the issues raised:

- The digital age has radically changed the way in which research is done. The scholarly communications system is adjusting to this change, but the transition is far from completed. What are possible and desired outcomes of this process? What are the roles of individual stakeholders during this transition?
- All stakeholders seem to recognise that, in the field of access to scientific information, a lot of change has already taken place and that further change is inevitable. While publishers stress that access has improved considerably over the past years, the research community believes that it must be improved further.
- It is necessary to define more clearly what is meant by the terms used in this debate, for example the notion of "raw" data. Some of this "raw" data may in fact not be worth keeping, whereas data which has been subject to some form of preliminary analysis often is.
- There is a need to move beyond entrenched positions in order to help policymakers make sound decisions. Some form of Open Access is a direction supported by many, but not by all. In what direction should and will positions evolve? What compromises are possible?
- The debate persists on whether to move towards open access through repositories and funding body mandates ("green" open access) or through paid open access models / "reader pays" solutions ("gold" open access). Are there other paths towards open access? Can the two options coexist?
- The research system functions through the incentives of academic career advancement and recognition rather than financial reward. It traditionally places most emphasis on publication in journals with high impact factors. Effective dissemination or open access publication are not rewarded in themselves. How could the research incentive system be altered to improve access and dissemination?
- IPR and access/dissemination issues are often not addressed together or not sufficiently managed by public research organisations (e.g. universities). What are the issues that these types of policies need to pay attention to and how can

public research organisations be encouraged to develop policies on knowledge sharing?

- The focus on the open access debate is on scientific journals in the natural and applied sciences. The somewhat different issues raised by the social sciences and humanities and by the case of monographs must not be forgotten.
- The European Commission should make use of existing initiatives and principles such as the OECD principles on access to data, the 2003 Berlin Declaration, and the previous work done by national research funding bodies.

Arnoud de Kemp, the Chair of the hearing, closed the event by giving his insights on the day's discussions.

4. Next steps

The issues raised during the hearing will be discussed during a high-level conference on 8-10 October 2007 devoted to "The Future of Science and Technology in Europe". One of the conference sessions focuses on knowledge sharing and will discuss questions 21, 22, and 23 of the Green Paper on the ERA. The panel discussing knowledge sharing questions includes hearing participants (Gillian McFadzean, David Moorman, Christine Reid, Jan Velterop).