

## Response from the European Organization for Nuclear Research (CERN) to the consultation on the European Commission study on scientific publishing

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**Scientific Information Policy Board**  
*CERN, Geneva, Switzerland, 19 June 2006*

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CERN welcomes the EC study on the economic and technical evolution of the scientific publication markets in Europe. In general the report accurately reflects the overall situation in scientific publishing. Most of the findings in the study accord with data collected and analyzed by our scientific information officers. The report has the potential to serve as a reference document for scientific information policy makers in the ongoing reform of the publishing model.

To ensure an efficient infrastructure for research and to guarantee long-term access to the scientific legacy, we would like to draw the Commission's attention to the following points:

### **1) Mandating EC-funded research to be made available in open access**

The scientific communication process must be designed in a way that permits all interested parties to participate, both as readers and as authors. Today this is not the case. More and more libraries, the CERN Library included, cannot afford to renew all their subscriptions. Moving towards open access publishing could be one way for science to solve this problem. We recognize that publishing has a cost, but consider it one that should be regarded as a part of the cost of the research. *We therefore recommend the Commission to mandate the results of EC-funded research to be made available in open access.* As there are still too few peer-reviewed open access journals on the market, such access will primarily have to be provided via institutional or subject repositories. Encouragement for publishing in open access journals should also be put in place. CERN implemented a similar policy in 2003; further details can be found at <http://open-access.web.cern.ch/Open-Access/pp.html>.

### **2) Ensuring peer-review – experimenting with different business models**

To ensure the continuation of the successful peer-review system, active measures must be taken to move to a sustainable model for bearing the costs. In the current subscription paradigm the system of quality assurance of scientific output is at stake due to the ever rising prices and the risk that too many libraries will cease to be able to afford to pay. As a consequence, fewer and fewer organizations will have to cover the publishing costs for the various journal titles. Again, moving towards open access publishing could be one way for science to solve this problem. However, the



transition to a fairer publishing model will be delicate. To avoid disruption to the scientific communication process it is of the highest importance that the model is sustainable. *We therefore recommend the Commission to stimulate the creation of frameworks offering funding agencies, authors and publishers the possibility to experiment with different business models for the publishing of scientific results.*

### **3) Embedding publishing costs in research grants**

In the modern world, producing a quality-assured record and disseminating the results of publicly funded research should be regarded as the responsibility of the researchers; it should not be a privilege that allows readers to read the results, but a right of access to information. It is an historical legacy that has led to potential readers, with little market influence on the publishing industry, being the ones to pay. While the authors, who have the ability to regulate the market by fully controlling where to submit their works, have mostly ignored the costs involved in publishing. Now that we are seeing that not all readers can afford to pay, the system needs to be turned around to better reflect reality. Once again, moving towards open access publishing could be one way for science to solve this problem. The current business model for scientific publishing must be changed towards a schema based on electronic dissemination where the publishing costs will be recovered from the author's side and readers can access the information free of charge. Publishers offering hybrid models must clearly commit to reducing subscription prices as the number of articles published as open access goes up. We recognize that the level of the publication charges will be subject to the market; publishers publishing journals with a high rejection rate and high impact will be entitled to request higher author-side charges than journals with lower scientific impact. The charges should though ultimately reflect the level and quality of the services offered by the publisher to the author. *We therefore recommend the Commission to stimulate funding agencies to embed publishing costs into the research grants. To facilitate the transition to a fairer pricing model for scientific publishing, subject-oriented funding consortia should be supported to ensure a smooth but rapid change.* In the field of particle physics the setting up of such a consortium is already being discussed. A task force report will shortly be made available; in the meantime further details can be found at [http://berlin4.aei.mpg.de/presentations/Voss\\_OA06.pdf](http://berlin4.aei.mpg.de/presentations/Voss_OA06.pdf)

### **4) Ensuring immediate deposit in repositories and encouraging interoperability**

Digital repositories for scientific information will constitute the corner-stones in the future eScience framework, providing the possibilities for exchanging and sharing information and knowledge. So far we have few examples of real eScience and in most subject fields electronic publishing is only a "digital clone" of the traditional way of publishing. This is among others due to that most publishers today would not permit even subscribing libraries to text-mine their articles collections in order to offer extra value services to their respective user communities. Again, moving towards open access publishing could be one way for science to solve this problem. Scientists should take advantage of new infrastructures as soon as possible and interlink their publications with corresponding datasets and the tools used to analyze these. *We therefore recommend the Commission to ensure that sufficient*

*repositories exist and to encourage funders to mandate authors to deposit their research output in those repositories, either before or immediately after publication. Furthermore we welcome the initiative from the Commission, to be addressed within FP7, relating to building a European infrastructure for repositories of scientific information.* CERN runs and develops its own repository software, CDSWare. The system is so far tuned to handle textual and multimedia documents. An emerging consortium supports the software development. Further details can be found at <http://cdsware.cern.ch/>

#### **5) Supporting long-term archiving and promoting access to collections**

Perennial access to scholarly information is essential and yet there is currently no long-term solution, nor guarantee of funds to ensure this. As paper journals, which have traditionally been easy to archive, may soon become obsolete, it is important that a solution to this problem is found. Major publishers today deposit their electronic material in national libraries. However, access to this material is limited, and they are often referred to as “dark archives”. Costly archiving solutions are of little value if the material is still inaccessible to the majority of people. We would like to express our concerns about this model for archiving – once more public money is spent without much return to the tax-payers. Yet again, moving towards open access publishing could be one way for science to solve this problem. In such a context the national libraries can continue to work at ensuring long-term accessibility in a more justifiable way. *We therefore recommend the Commission to support attempts at long-term archiving solutions and to promote cost-effective business models for legal-deposit libraries to allow remote online access to their digital collections.*

The recommendations presented by the authoring consortium of the study deserve the European Commission’s full attention. We support the recommendations made and we take the opportunity to encourage the Commission to take all appropriate steps to contribute to adapt the framework for scientific publishing to a fast changing world with new paradigms.