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**House of Commons Business, Innovation, and Skills Committee
Inquiry into the Government's Open Access Policy**

Submission by Reed Elsevier

1. Reed Elsevier is a FTSE 50 company which employs more than 30,500 people worldwide (4,600 in the UK). It is also a major investor in digital technology, with 86% of its science and technology revenues and 74% of its legal and professional information revenues derived from electronic products and services. It is a world leading provider of professional information solutions in the Science, Medical, Legal, Risk, and Business sectors. In 2011 its UK exports totalled £526 million and its UK tax contribution for 2011 was £154 million. Products include academic journals, books and databases, legal texts and analyses, business to business magazines and websites, information products for academic researchers and medical practitioners, and trade exhibitions. Professional customers use Reed Elsevier products every day to advance science, improve medical outcomes, enable better decisions, enhance productivity, evaluate risk and gain insight.
2. Reed Elsevier's subsidiary, Elsevier, is a world-leading provider of scientific, technical and medical information products and services. The company publishes more than 2,000 journals, including *The Lancet* and *Cell*, including a growing portfolio of open access titles. It also publishes close to 20,000 book titles, including major reference works such as *Gray's Anatomy* and titles from Mosby and Saunders. Elsevier's online solutions include ScienceDirect, Scopus, Reaxys, ClinicalKey and Mosby's Nursing Suite, which enhance the productivity of science and health professionals by providing quick and efficient access to published research, and the SciVal suite and MEDai's Pinpoint Review, which help research and health care institutions deliver better outcomes more cost-effectively.
3. The people we work with in the research community strive to advance essential knowledge, save lives, and improve the way we all live. Our role is to help them accomplish this. We work closely with researchers to support them as they develop content that others use and rely on. We launch new journals that serve new, groundbreaking areas of science, helping to create communities of practice. High quality, well-recognized journals provide a trusted, respected place to publish researchers' work. Time is a researcher's most precious commodity. Our automated editorial systems help editors and reviewers turn an author's work into a peer reviewed article, quickly. We invest substantially in products and tools that help researchers get the most out of their time. We develop trustworthy tools and applications that help researchers quickly find research in their fields. We also help academic institutions measure research outcomes.
4. This publisher role is important, often challenging, and not always visible. Our substantial and continuing investments make essential content accessible to the world's researchers, with added tools that enhance efficiency and productivity of both researchers and research institutions. We invest heavily to ensure

research information is widely available and efficient for researchers to use. Over the past 12 years, Elsevier has invested hundreds of millions in new systems to increase access to scientific information.

5. We are committed to universal access to information, to maintaining the quality and integrity of the scholarly record, and to sustainability for all stakeholders in the system. Here are 3 examples of our universal access initiatives:
 - The general public wants access to scientific information, especially people with health concerns. We provide free or very low cost access to the public in a variety of ways. We have flexible agreements with academic institutions to allow access by individuals who are not members of that institution. Since 2006 we have also provided access to hundreds of medical journals via patient information services such as Patient Inform.
 - Developing countries need access to published research but often can't afford it. We provide free or very low cost access to developing countries through the Research4Life programs. Through Research4Life more than 6,000 institutions in more than 100 developing countries now have free or low-cost access to c. 30,000 peer-reviewed journals, books and databases, including 2,000 journals and 7,000 ebooks from Elsevier.
 - Our journal platform, ScienceDirect, has 10 million active users on a monthly basis from more than 120 different countries. In 2011, 600+ million articles were downloaded from ScienceDirect. Digitization of our journals means historical publications back to the 1800s can now be accessed. Researchers are also able to access this content from any location on a variety of mobile devices.
6. The principle of ensuring access to published research by means of open access is therefore entirely one that we support. What is at issue is not the principle of open access, but the form that it should take in order to make it work in a sustainable fashion. Publishing costs money, so there have to be revenues somewhere to cover these costs. Overall, we support the position taken by the Finch Group Report and by the Government in its stated position in response to the Finch Group Report.
7. We welcome this opportunity to submit evidence to the Committee Inquiry into Open Access Publishing and support the comments made in the Publishers Association submission. Our submission seeks to add additional information based on our own practical experience.
8. To the four key points raised by the Committee:

The Government's acceptance of the recommendations of the Finch Group Report 'Accessibility, sustainability, excellence: how to expand access to research publications', including its preference for the 'gold' over the 'green' open access model

9. The Government's policy is based on a rigorous review, by a very expert panel, drawn from a wide array of stakeholder groups. The Finch recommendations were supported by all stakeholders represented on Finch: the Higher Education Funding Council for England (HEFCE), Research Councils UK (RCUK), Research Libraries, Wellcome Trust, Learned Societies, and Publishers.

Gold Open Access

10. Elsevier is in principle happy with any approach to sustainable open access and, in line with Government Policy and the Finch Group, we believe that gold is generally preferable to green, because it gives immediate

access to the published version of record and reflects a demonstrably sustainable business model. That said, for a gold open access publishing system to work well, it needs to be properly funded and kept simple.

11. In our experience, where adequate funding is available to authors for open access publishing and administrative processes are simple, it has been possible to achieve 100% compliance with open access policies. This has been the case, for example, with the Austrian Science Fund (FWF), for whose grant recipients we have been publishing on a gold open access basis since 2010. FWF cover all the costs of publication for their grant recipients and we invoice FWF directly for all articles published by their grant recipients. We are able to tailor our article submissions and other systems to ensure FWF grant recipients are aware of the policy and can opt-in. After publication Elsevier deposits the articles on behalf of FWF-funded authors with Europe PubMed Central (Europe PMC), the on-line archive and database of life sciences journal literature.
12. Where adequate funding is available, but the administrative process remains complicated, it is still possible to achieve high, if not complete, compliance. For example, Elsevier has operated an open access publishing agreement with the Wellcome Trust since 2006. We have found that Wellcome funded authors are generally happy to comply with the Wellcome Trust's open access policy, although they find the mechanics of payment and reimbursement somewhat onerous. This payment/reimbursement process is important to Wellcome Trust because it aims to increase authors' awareness of the cost of the scholarly communication system. We find that authors appreciate Elsevier's deposit of their articles to EuropePMC. In this way the open access agreement between the Wellcome Trust and Elsevier has operated efficiently since 2006, and we are committed to ensuring that it will continue to do so through 2012 and beyond.
13. By contrast, when the provision of funding is a barrier, then in our experience compliance with open access policies is low. We believe this explains why author compliance with our current open access agreements with UK Research Councils is disappointing: our data indicate compliance with the Medical Research Council (MRC) gold open access mandate is 14%; compliance with the Biotechnology & Biological Sciences Research Council (BBSRC) gold open access mandate is 4%, and there have been no gold open access articles published with us at all under the Economic and Social Research Council (ESRC) mandate.
14. We believe that a recent amendment to the RCUK policy on open access to no longer limit the use of funds for open access publishing during the lifetime of the grant will be a positive step, as most papers are published after expiry of the grant period. This has been a significant barrier for authors and the change should now improve author compliance rates with RCUK's policy.
15. However we are concerned about two remaining barriers: the funding shortfall in meeting the costs of Gold Open Access, as publicly stated by RCUK in their announcement on 8 November 2012 (which announced RCUK's intention to provide funding to enable around 45% of Research Council funded research papers to be published using Gold Open Access, growing to over 50% in the second year, with funding levels only specified for an two year period); and the added complication of a funding split between UK Research Councils and Universities which will create uncertainty for our authors and additional administrative costs and challenges for all stakeholders.

Green Open Access

16. Green open access is not a business model and therefore has no revenue stream associated with it. Author self-archiving is only sustainable if the costs of publication are covered by a supporting business model. If the business model is gold open access, with funding in place for the costs of publication, then self-archiving

can happen immediately and be sustainable. If the aim is to graft green open access on to the existing reader-pays subscription business model, then this requires time to work - and sustainable embargo periods are essential if green open access is not to undermine the journals in which academics choose to publish.

17. Green open access for subscription content adds additional costs of managing institutional repositories, involves duplication of hosting effort by stakeholders, is operationally complex, and if not done well could undermine the integrity of the scientific record by disseminating draft/multiple versions of articles. Some proponents of green open access have even suggested that articles could be published without any peer review at all, in order to try and minimize or eliminate the costs of publication. We do not believe that any such approach would be sensible if the UK is to maintain its reputation for credible scientific research. There are different forms of pre-publication and post-publication peer review, but overall we would agree with the views of the House of Commons Select Committee on Science & Technology, in its report on 'Peer Review in Scientific Publications' (July 2011) that "Peer review in scholarly publishing, in one form or another, is crucial to the reputation and reliability of scientific research."
18. For these reasons we view green open access as a second best to gold open access, although we are not opposed to green open access in principle – particularly if it can be made to work in a properly sustainable fashion.
19. Although we offer gold open access options for all articles published in Elsevier owned journals, it would appear that the UK Government's objective for immediate open access to work by UK funded authors will not be met in the medium term, due to limited funding for Article Publication Charges (APCs). In this situation, clarification of interim implementation arrangements for green open access policy as an alternative to gold open access is essential, because many journals will still rely heavily on subscription income to meet their costs.
20. Elsevier has entered into a number of agreements with funders and research universities and institutions for the operation of green open access mandates. These are structured in ways which ensure sustainability for the underlying journals. These agreements, such as the one with the World Bank, enable access to accepted manuscripts via institutional repositories after a title-specific embargo period. Our embargo periods are set on the basis of the evidence provided by comprehensive analysis of article usage data. We calculate a usage half-life and position our embargo periods at the time when 50% of the predicted lifetime usage of a typical article within the journal title has passed. Our embargo periods are generally 12-24 months, although they vary across subject and title as one size does not fit all.
21. The Finch Group Report concluded that: "Where an appropriate level of dedicated funding is not provided to meet the costs of open access publishing, we believe that it would be unreasonable to require embargo periods of less than twelve months" (Finch Group Report - Executive Summary, section 4, xviii - p.10).
22. Recognising the need to maintain sustainability of the scholarly publishing system, in his letter to Dame Janet Finch of 16th July 2012, David Willetts commented further:

"Embargo periods allowed by funding bodies for publishers should be short where publishers have chosen not to take up the preferred option of their receiving an Article Processing Charge (which provides payment in full for immediate publication by the 'gold OA' route). Where APC funds are not available to the publisher or learned society, for the publication of publicly-funded research, then publishers could reasonably insist on a longer more equitable embargo period. This could be up to 12 months for science, technology and

engineering publications and longer for publications in those disciplines which require more time to secure payback.”

23. At present the RCUK policy is not consistent with either the Finch Group Report or Government policy as it mandates embargos of as short as 6 months. For the vast majority of publications this would be unsustainable. The costs of publishing journals not funded by means of APCs for gold open access is met instead by selling subscriptions, for example to UK and overseas libraries, research institutions and businesses – so to have a sustainable business model, adequate time is needed to collect subscriptions that will cover the publishing costs.
24. We therefore very much welcomed the RCUK statement in January during evidence to the House of Lords Science and Technology Committee that it would waive their previously stated requirement, and instead of insisting that research made available via a green open access route be accessible after six months RCUK will now allow embargoes of at least 12 months where a publisher has offered a gold option but this is not taken up. It would be regrettable if they now backtrack on this commitment.

Rights of use and re-use in relation to open access research publications, including the implications of Creative Commons ‘CC-BY’ licences

25. In discussions about the license terms for content published under open access arrangements, some organisations in the UK state firmly that the right of funders ‘trumps’ the right of authors. While it is true that contract law can vary aspects of copyright law, the rights of authors – and the choices they make about how to deploy these – should be taken into account. We would also draw attention to the importance to most authors of their freedom to publish where they choose.
26. There are two important types of licenses which are defined during the publication process: the agreement between author and publisher and the agreement between author/publisher and those who use the publication.
27. In order for us to do our job of publishing and disseminating research articles we need publishing rights from the author. For subscription articles Elsevier request a *transfer of copyright* with authors retaining important rights to use their own article for scholarly purposes. For open access articles we are moving to an *exclusive licensing agreement* in which authors retain their copyright.
28. For open access articles we have experimented with offering a range of end user licenses, both bespoke licenses and different versions of [CC license](#). We are moving to offer authors a selection of user agreements depending on the journal in which they choose to publish. Generally we will offer authors a choice of CC-BY (attribution alone), CC-BY-NC-SA (attribution + non-commercial + share alike) and CC-BY-NC-ND (attribution + non-commercial + no derivatives) licenses.
29. We have adopted a test-and-learn approach because there are a number of uncertainties including author preferences, clarity of some terms in the Creative Commons licenses, an absence of case law, and the influence on revenue streams of different forms of license.
30. To resolve some of these uncertainties the International Association of Scientific, Technical, and Medical Publishers is developing a CC+ license. It is designed to:

- add clarity to the Creative Commons definition of ‘non-commercial’ to make it more clear that associating content with advertising is classified as a commercial use and requires extra permissions;
- more explicitly permit text and data mining by enabling automated searching, sorting, parsing, addition or removal of linguistic structures; and
- to use NC-ND (non-commercial + no derivatives) provisions to ensure the integrity of the scientific record, and enable publishers to take action to protect authors’ rights.

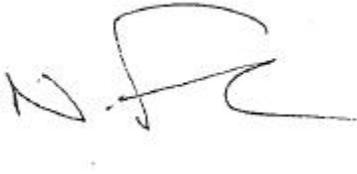
31. This is an issue that was not closely evaluated by the Finch Group, and where further reflection and discussion between stakeholders in an implementation forum would be welcome.

The costs of article processing charges (APCs) and the implications for research funding and for the taxpayer. The level of ‘gold’ open access uptake in the rest of the world versus the UK, and the ability of UK higher education institutions to remain competitive.

32. The costs to produce properly edited and peer reviewed journals do not change as a result of a payment shift from reader to author. The only change is the way in which the money flows.

33. There is a well-recognised gap between the growth of global research & development investment and resulting growth in published articles on the one hand - and the budgets currently available to libraries to pay for access to this content on the other hand. The principle of coupling growth in research output to publication funding is a sound one so that budgets and research outputs stay in tandem. However for this very reason it is conceivable that more research intensive countries will prefer the subscription model or will support open access with a mix of gold and green.

34. We thank the Committee for this opportunity to provide input to this review and will be pleased to provide further assistance if required.



Submitted on behalf of Reed Elsevier by
Dr Nick Fowler, Director of Strategy, Elsevier