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PASTEUR4OA



UK OPEN ACCESS CASE STUDY

PASTEUR4OA PROJECT
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Summary

Recent Open Access (OA) policy developments in the United Kingdom (UK) have caused stakeholders such as universities and academic libraries to have to consider how to adapt to distinct funders OA policies and to ensure compliance with those policies. Following an independent study on 'how to expand access to research publications', also referred to as the Finch Report, the UK Government adopted a new OA policy and the Research Councils UK (RCUK) revised their OA policy. The newly adopted OA policies require research findings to be made OA through publication in open access or hybrid journals (Gold OA). More recently, the Higher Education Funding Council for England (HEFCE) announced that its OA policy for the next Research Evaluation Framework (REF) – the system that assesses UK universities research – will require the deposit of research findings in institutional or subject repositories (Green OA). By and large, the two distinct paths being currently promoted by the UK Government and RCUK (Gold OA) and the Funding Councils (Green OA) require that continued efforts be made to ensure that advice and support are provided to universities, academic libraries and researchers. They also require that coordinated efforts endure so that progress towards making research findings freely available online continues. Despite the distinct OA policies adopted by policymakers and national research funders, the UK's movement towards OA has been a result of stakeholders coordinated efforts and is considered a case of good practice.

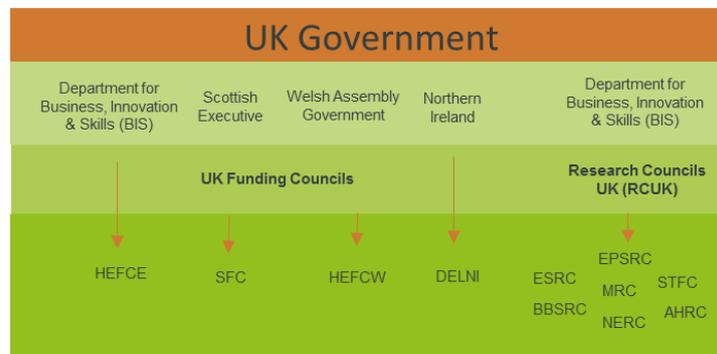
The research and scholarly communication system of the country

The UK is acclaimed for its world leading teaching and research. Research performed in the UK Higher Education Institutions (HEIs) is of intrinsic value to advance economic, social and technological progress. The dissemination and transfer of knowledge from the academic to the public and private sectors plays a key role in ensuring the UK's role as a competitive knowledge-based economy¹.

UK HEIs are legally independent and self-governing bodies – with the exception of the Scottish universities – and their income derives from various streams. In particular, from UK funding bodies grants, tuition fees, endowments and investments, and research grants and contracts. In 2012/2013, the HEIs total income was of £29.1 billion of which the total income for research grants and contracts was of £4.7 billion². The HEIs research income is mostly funded by the UK Government Research Councils, the Royal Society, British Academy and the Royal Society of Edinburgh.

The funding bodies grants and research grants and contracts income that the UK Government makes available to HEIs is delivered through a **dual support system**³. The **Funding Councils**⁴ for England, Scotland, Wales and Northern Ireland allocate 'core funding block grants to HEIs for research infrastructure and to support their strategic research priorities'⁵. Conversely, the UK **Research Councils**⁶ 'provide grants for specific projects and programmes'⁷ through a system of peer review of the research grants applications. Figure 1 illustrates how funding is allocated.

Figure 1: Research Funding in Higher Education



Source: RIN (2010) *Making Sense of Research Funding in UK Higher Education*. London: RIN

The UK's renowned 'world-class research base'⁸ means that it is also 'a global centre for the publishing of research'⁹. The high-level and high-quality research performed in HEIs contributed to the development of a complex and highly dynamic **scholarly communications system**. Multiple stakeholders – researchers, publishers, research funders, libraries and not-for-profit organisations – play an important role in the scholarly communications system¹⁰.

UK **researchers** are both producers and users of research outputs and the most commonly used route to disseminate their research findings is by publishing peer-reviewed articles. UK HEIs researchers represent 4.1% of the global total researchers. They account for 6.4% of the global article share, 9.5% of the total article downloads, 11.6% of the total citation share, and 15.9% of the total highly-cited articles. The UK's field-weighted citation impact is 1.61 – the world average by definition is 1.0 – and ranks in first position in the G8, sixth position in the EU27, eight position in the OECD, and ninth position globally.

UK based academic publishers account for an estimated 5,000 journal titles. The main publishers are commercial but there is also a significant representation of not-for-profit publishers. Traditionally, the **commercial and not-for-profit publishing model** is based on a subscription model where academic libraries pay for and subscribe to journals on behalf of their readers and researchers. In the last decade, **alternative publishing models**¹¹ – open access publishing and open access self-archiving – have been explored and the UK Government, Jisc, funding bodies and HEIs have supported the implementation of these models. In 2012, a study demonstrated that the uptake of OA publishing was of 5.5% at the global level and 5.9% in the UK. Publication in hybrid journals¹² was of 0.5% at the global level (2011-2013) and 2.7% in the UK (2011-2013). The UK performed above the global average in OA publishing because Jisc supported publishers in experimenting with OA publishing¹³ and research funders 'provided [direct] funding to grantees for the payment of Article Processing Charges'¹⁴. In 2011-2013, the global uptake of self-archiving for the manuscript version was of 5.0% globally and 11.6% in the UK. Similarly, the UK's performance above the average results from the fact that Jisc supported the development of a large network of institutional repositories¹⁵ and research funders implemented mandatory policies for their researchers to make accepted manuscript versions of published articles immediately available in institutional or subject repositories.

The UK's scholarly communications system has been faced with numerous challenges that are a result of the changing ways in which society accesses information and of the increasing interconnectedness between economic agents, researchers, funders and the society in general. The emergence of the World Wide Web brought people closer and enabled a speedier sharing of information with fewer barriers and constraints. Traditional publishing models have consequently been challenged and scope for alternative publishing models has been considered. An important factor also contributing to this paradigm shift have been the challenges that UK academic **libraries** have been facing as a result of increasing costs of journal subscriptions above inflation levels and of decreasing or static libraries budgets. Furthermore, the journal subscription models have been

ties to pre-determined subscription packages (big deals¹⁶), leaving libraries with limited scope and resources to negotiate different subscription models and to subscribe to journals that are not included in the big deals. **Funding bodies** and tax payers, on the other hand, observed that research supported by public funds was often not accessible to them. This issue raised a consensus among the research and funding communities as well as the society in general that publicly funded research should be made freely available online. As a result **alternative publishing models** have been promoted by multiple stakeholders which not only increase authors options in terms of how and where to publish their research findings but also increase the scope for a wider access those findings.

Current Open Access Policy Landscape

a) Brief history of development of OA policies in the UK

In the 1990s, discussions started in the UK on how to improve access to academic publications. Professor Stevan Harnad argued in his **'Subversive Proposal'** that researchers should archive their works in electronic format so that they would be available for their peers to read and to 'build on one another's work'¹⁷. At the time, academic librarians were becoming increasingly concerned about the libraries limited budgets and the growing costs of subscribing to academic journals. As a result, various stakeholders began to explore the feasibility of implementing alternative publishing models¹⁸. For instance, Jisc financed the eLib Programme which started in 1994 and looked for 'innovative approaches to electronic journals, incorporating data and multimedia content and using new business models'. The programme sought to 'transform the use and storage of knowledge in higher education institutions'¹⁹.

In the early 2000s, the growing support for the implementation of alternative publishing models at home and abroad, placed OA at the centre of the national scholarly communications debate led by senior researchers, research funders, libraries, publishers and policymakers. In 2004, the House of Commons Science and Technology published the report **'Scientific Publications: Free for All?'**. The report considered that in light with the pricing policies practiced by publishers and the constrained academic libraries budgets, the UK Government should take a leading role in setting an agenda that would improve access to scientific publications. It recommended that HEIs developed institutional repositories, the Government financed the institution 'of an interlinked network of institutional repositories'²⁰, and Research Councils implemented mandates for researchers to deposit research findings in repositories (Green OA). In 2005 **RCUK** issued a **position statement on access to research findings**, declaring 'that both e-print repositories and open access journals can help improve access to the results of publicly funded research'²¹. In 2006, six of the UK Research Councils (AHRC, BBSRC, MRC, ESRC, NERC and STFC) issued their first OA mandates requiring peer-reviewed publications to be deposited in OA repositories²².

In 2011, the Department for Business, Innovation & Skills (BIS) Minister David Willetts held a round table discussion on transparency with academic representatives, research funders, scholarly publishers and libraries. As a result of the discussion, a working group led by Dame Janet Finch was formed to investigate how to expand access to published research findings. In June 2012, the working group published the report **'Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications'**. The report recommended that 'a clear policy direction should be set towards support for publication in open access or hybrid journals, funded by APCs, as the main vehicle for the publication of research, especially when it is publicly funded'. It recommended Research Councils to adopt mechanisms to cover for publications costs and to monitor progress and impact. It also recommended that licensing arrangements be revised, that VAT costs be reduced, and that embargo periods should not be inferior to 12 months if funds were not available to cover for publication costs. On **research data**, it recommended that institutional and subject repositories 'develop their roles in preserving and providing access to research data'²³. In July 2012, the **Minister David Willetts** officially expressed the Government's support for the majority of the Finch Report recommendations including the implementation of a policy that promotes publications in open access or hybrid journals²⁴. At the same time, **RCUK** announced its new OA policy determining that findings resultant from RCUK funded research must be

published in open access or hybrid journals (Gold OA). RCUK' policy also required that research papers must 'include a statement on how underlying research materials such as **data** [...] can be accessed'²⁵.

In February 2013, the House of Lords Science and Technology Select Committee published the report '**The Implementation of Open Access**' to evaluate RCUK's OA policy implementation plan and the Finch Report recommendations. Overall, the report recommended RCUK to provide further instructions on its 'incremental approach to compliance' during the five-year implementation phase of the policy. It also recommended RCUK to provide further clarification on embargo periods and to monitor international developments on OA policy adoption and preferred policy routes. It recommended the Government to conduct a cost-benefit analysis on OA publishing and to review the effectiveness of RCUK's consultation on its change of policy direction²⁶. In March 2013, **RCUK's OA policy** was revised in order to provide further clarification on the five-year transition plan and on embargo periods (see Table 1)²⁷.

In September 2013, the House of Commons BIS Committee published the '**Open Access**' report that resulted from an inquiry conducted with stakeholders to review the Finch report recommendations and RCUK's new OA policy. The report criticised the newly adopted OA policies, their preference for OA publishing, the length of embargo periods, the implications of CC BY licensing, the costs and implications of APCs, and the capacity for HEIs to remain internationally competitive under the new publishing model. It indicated that a considerable number of HEIs and funders already had Green OA mandates in place and that extensive investment had been made by the Government to develop OA institutional and subject repositories. As a result, the Committee strongly advocated for 'author freedom of choice between Green and Gold open access'. It recommended that HEFCE developed a policy supporting 'immediate deposit mandate as a requirement for eligibility' and that RCUK revised its policy 'by reinstating and strengthening the immediate deposit mandate in its original policy and improving the monitoring and enforcement of mandated deposit'²⁸. The **Government** issued an **official letter** in response to the House of Commons report. The letter emphasised the Government's vision on how to lead the transition to OA, reiterating its preference for the Gold OA route. However, it also acknowledged that 'decisions by researchers and the responsiveness of the publishing industry will determine whether Gold OA proves to be the prime route'²⁹.

In November 2013, the Finch group published the first '**Review of Progress in Implementing the Recommendations of the Finch Report**'. The group collected information from stakeholders to assess progress towards the implementation of the OA agenda. The report recognised that various challenges had been observed that hindered the effective implementation of the policy and that progress results were mixed. In particular, few HEIs had made funds available from other sources than the RCUK block grants to cover for APCs and that several HEIs continued to favour Green over Gold OA. It emphasised the need to 'improve interoperability and effective flows of data between different systems', to coordinate communications between stakeholders, to set a 'formal structure to ensure active co-ordination of efforts', to disseminate information about best practices and to continue to explore sustainable economic models. An important recommendation was the support for a mixed economy where preference is given to Gold OA but where nonetheless both models 'play important roles in a transition period'³⁰.

In contrast to the OA policies adopted by the Government and RCUK, the **UK Funding Councils** announced that their OA policy required that research findings must be 'deposited in an institutional or subject repository on acceptance for publication, and made open-access within a specified time period'³¹. The policy requires that compliance must begin from 1 April 2016, however, it recommends that HEIs start implementing it before this date. Despite promoting a Green OA route, the Funding Councils expressed their support for the UK Government and RCUK mixed model approach and for a dual publication model where publishers offer OA options and where new OA journals are created.

b) National strategies and policies for OA

The UK Government OA policy was stated in **Minister David Willetts' letter** responding to the Finch Report in July 2012. Following the publication of the report, the Minister announced his extensive support for the recommendations and his commitment to promote their implementation via the Research Councils and the

Funding Councils and in consultation with HEIs, publishers, learned societies and other³². The Government's policy is aligned with the Finch Report recommendations and RCUK's OA policy. Specifically, it favours Gold OA over Green OA, it promotes publishing in hybrid journals, it supports the principle that publicly funding should be made available to cover for APCs, it allows longer embargo periods for Green OA when APC funds are not available (12 months for STEM /24 months for HASS), and it requires CC BY licence for Gold OA but it is flexible on Green OA.

In January 2014, Minister David Willetts', on behalf of the Government, welcomed the recommendations made on the **Finch Report Progress Review**. The Government reaffirmed its position on open access by restating its 'strong preference for Gold and acceptance of Green OA'³³. It welcomed the recommendations made on cost and sustainability restating its support for allocation of funds for APCs, the provision of assistance to HEIs in the transition to Gold OA, the development of sustainable funding models, and the support for research on full cost benefit analysis. It also welcomed the recommendations made on governance and the proposal for Universities UK (UUK) to take the lead in promoting and supporting HEIs in the transition to OA. In November 2014, a new Innovation and Research Strategy for Growth will be released by the UK Government which will make reference to OA but it is not envisaged that the Government's position on OA will change.

c) Institutional OA policies

The first institutional and sub-institutional OA policies were implemented in the early 2000s. The School of Electronics and Computer Science of the University of Southampton was the first to adopt a self-archiving mandate in 2003. According to the information available in ROARMAP³⁴, there are 51 self-archiving mandates in the UK which include 36 institutional, 4 sub-institutional and 11 thesis mandates³⁵. Forty-nine mandates require deposit of research outputs in institutional repositories (Green OA) and two require deposit in repositories whilst also recommending publication in open access journals (Gold OA). The PASTEUR4OA project has recently collected up-to-date information on mandatory sub-institutional and institutional mandates. Accordingly, it has been observed that there are now 54 OA institutional and sub-institutional mandates that require deposit in repositories. Institutions that have recently adopted OA mandates include the Bangor University, Lancaster University, Nottingham Trent University, University of Cambridge, University of Kent and University of Leeds. On **research data**, a total of 23 HEIs have adopted open access to research data policies³⁶.

The UK Government and RCUK's new OA policy, which supports publications in open access and hybrid journals, has not resulted in HEIs changing their mandates to Gold OA. One reason for institutions to continue to favour self-archiving is that over the years significant investments were made in developing sound institutional repositories that institutions are not willing to discard. Another reason is that a shift in policy imposes new burdens to HEIs and academic libraries. For instance, they have to consider how to manage the payments of APCs and RCUK block grants, how to comply with distinct funders policies, and how to search for and plan alternative funding mechanisms when funders grants are not available to cover for APCs.

d) Funders OA policies

In 2003, the Wellcome Trust was the first UK research funder to issue a position statement on OA. Its first OA policy was implemented in 2005³⁷. Other research funders such as Arthritis Research UK, British Heart Foundation, Cancer Research UK and RCUK have soon after implemented OA policies. Overall, the research funders OA policies required deposit of peer-reviewed articles in OA repositories (Green OA) and some encouraged publication in open access or hybrid journals (Gold OA)³⁸.

Currently, **RCUK's new OA policy** gives preference for publication in open access or hybrid journals³⁹. On **research data**, the seven research councils promote the sharing of research data, require that information about how to access data be provided in research papers, and require that researchers consider developing a data management plan when applying to research funding⁴⁰. The **Wellcome Trust's new OA policy** requires authors to publish in OA and to self-archive the author manuscript in Europe PubMed Central⁴¹. The Wellcome Trust's policy on **research data** requires researchers to maximise access to data with as little restrictions as

possible and that at a minimum access to data is provided to researchers on request. In similitude to the RCUK, the Trust requires researchers that apply for funding to consider developing and implementing a data management plan⁴².

The Funding Councils OA policy, as opposed to the RCUK policy, determines that research findings accepted for publication after 1 April 2016 must be deposited in an institutional or subject repository⁴³. The policy accepts that research findings are published in open access or hybrid journals and requires that publications are deposited in a repository at the point of acceptance. Table 1 summarises the most important UK research funders OA policies and the European Union's funding programme Horizon 2020 OA policy to illustrate the differences between funders preferred routes to OA.

Table 1: Overview of Research Funders OA Policies

	RCUK	HEFCE	Wellcome Trust	EU Horizon 2020
Green OA	Green OA is accepted	Green is required	Green OA is accepted	Green OA is required
· Deposit date	By end of policy specific embargo	As soon as possible after the point of acceptance and no later than 3 months after	As soon as possible or not later than six months after the journal publisher's official date of final publication	Upon acceptance of the publication by the journal, at the date of publication or after embargo period
· Embargo period	6 months (BBSRC, EPSRC, MRC, NERC, STFC)/ 12 months (AHRC, ESRC)	12 months (STEM)/24 months (HASS)	6 months	6 months (STM)/12 months (SSH)
· Licence	CC BY NC	CC BY NC ND	[no information expressed in policy]	CC BY
Gold OA	Gold OA is preferred	Gold is accepted	Gold OA is preferred	Gold OA is accepted
· APCs	APC payments available	[no information expressed in policy]	APC payments available	APC payments available
· Fund to pay APCs	Block grants made available to institutions	[no information expressed in policy]	Individual grants made available to grant holders	APC payments eligible for reimbursement during the duration of the project
· Embargo period	Embargo periods can apply if there are no funds to cover for APCs: 12 months (BBSRC, EPSRC, MRC, NERC, STFC)/ 24 months (AHRC, ESRC)	[no information expressed in policy]	Non applicable	Non applicable
· Licence	CC BY	[no information expressed in policy]	CC BY	CC BY

e) Infrastructural support for OA

The UK has advanced and integrated repository infrastructure that have resulted in over 15 years of research, development, and investment led by Jisc. Such infrastructure have been developed to support researchers, libraries and HEIs. Jisc has also been developing projects to promote open access to other content formats, in particular monographs and research data⁴⁴.

On the **deposit** of research outputs in repositories, Jisc supported the start-up and enhancement of institutional repositories through a series of programmes from 2002 to 2011⁴⁵. The majority of the UK HEIs currently have institutional repositories and they are listed in the Directory of Open Access Repositories (OpenDOAR). Some funders require that research findings are deposited in specific repositories. For instance, BBSRC, MRC and the Wellcome Trust require the deposit of research outputs in Europe PubMed Central and ESRC requires the deposit of outputs in the ESRC Research Catalogue. A few initiatives have also been promoted to enhance the dissemination of research outputs. For instance, the Gateway to Research was developed by RCUK to provide users with information about publicly funded research. Access to Research is an initiative developed to provide free access to academic articles in the UK public libraries.

On the **publishing lifecycle**⁴⁶, at the stage of **submission of peer-reviewed articles** in journals, researchers and libraries have services at their disposal that provide information on publishers copyright policies and self-archiving (**SHERPA/RoMEO**), research funders' open access policies (**SHERPA/JULIET**), and tools to verify if journals comply with research funders OA policies (**SHERPA/FACT**). These services were built in the UK and are run by Jisc. At the stage when the **article is accepted by the journal**, Jisc Publications Router is currently being developed to provide an automatic notification and deposit of the article in the author's institutional repository. For the **payment of APCs**, Jisc Collections negotiations is a service that offsets arrangements to save costs for HEIs. Furthermore, the Total Costs of Ownership APC project has collected data on expenditure on journal subscriptions and expenditure on APC payments to support Jisc Collections in the negotiations with publishers. On the **publication of the article**, CORE is a service developed by Jisc that raises the visibility, reach and impact of the published article on the internet and makes the article available in library discovery services. On **monitoring and reporting compliance** with funder policies, Jisc Monitor is a project currently being run which focuses on collating data to allow librarians and research managers to monitor publication outputs and compliance with OA policies. Furthermore, the Jisc-ARMA ORCID pilot project will, among other, enable institutions to keep track of their researchers publications by using the ORCID unique digital identifier. The development of metadata standards – for instance via projects such as RIOXX, V4OA and CASRAI – which improve interoperability and flow of data also support libraries to ensure efficient information flow that feed into monitoring and reporting compliance. Finally, on the **download of articles**, IRUS-UK provides information on usage reports for articles authored in a given institution and which can be used as a benchmark on usage for all the participating institutions.

To support HEIs compliance with funders OA mandates, the OA Good Practice Project is being run by Jisc to capture and share lessons learnt. The Pathfinder projects are a collection of 9 case studies that are currently being undertaken and that seek to demonstrate HEIs good practices when implementing funders OA mandates.

Social infrastructures that promote discussion and research on OA and that provide support on OA implementation related issues include the UK Council of Research Repositories (UKCoRR), the Society of College, National and University Libraries (SCONUL), Research Libraries UK (RLUK) and the Association of Research Managers and Administrators (ARMA).

Challenges and ongoing developments

The road to open access has raised numerous challenges to universities, libraries, publishers, funders and not-for-profit organisations. The most commonly identified challenges include: determining the feasibility of financial models, ensuring compliance with distinct funders OA policies, applying appropriate licensing models, establishing mechanisms to manage APCs grants and mass payments of APCs efficiently, developing institutional funds to cover for APCs, setting processes to avoid double payment for articles subscriptions and APCs for the same journal, managing research data effectively and sharing the software needed to use the data. Notwithstanding, multiple stakeholders are working towards finding ways to tackle the challenges faced.

Conclusions

In the last decade, the UK has reached significant milestones in promoting free online access to research findings. This has largely been the result of a comprehensive approach and coordinated efforts to develop and implement OA policies, to develop infrastructure and shared services, and to make funds available to ensure the transition to OA. Despite HEIs, research funders and policymakers having followed different routes towards OA – which reflect that a 'one size fits all' approach is not always feasible because different stakeholders have divergent priorities and views on how to implement the same agenda – significant progress is being made. In the near future, it is envisaged that the research findings made available on OA will continue to grow. The levels of success will depend on the continuous coordination of strategies between stakeholders, on the continuous improvement and development of infrastructure and services that support the Green and Gold OA models, on funds continuing to be made available to finance the two OA models, on continued efforts being made to raise

researchers awareness about OA, and on funders and institutions monitoring compliance and promoting strategies that incentive compliance.

Useful links

- » **Digital Curation Centre** (<http://www.dcc.ac.uk/resources/policy-and-legal>)
- » **HEFCE** (<http://www.hefce.ac.uk/whatwedo/rsrch/rinfrastruct/oa>)
- » **Jisc** (<http://www.jisc.ac.uk/open-access>)
- » **Publishing Research Consortium (RRC)**
(http://publishingresearch.net/index.php?option=com_content&view=article&id=126%3Aopen-access&catid=104&Itemid=804)
- » **RCUK** (<http://www.rcuk.ac.uk/research/openaccess>)
- » **Research Information Network (RIN)** (<http://www.rin.ac.uk/category/tags/open-access>)
- » **Research Libraries UK (RLUK) Open Access** (<http://www.rluk.ac.uk/search/?search=open+access>)
- » **Society of College, National and University Libraries (SCONUL)**
(http://www.sconul.ac.uk/search?searchBox=open%20access&sort_by=score&sort_order=DESC)
- » **Universities UK (UUK)**
([http://www.universitiesuk.ac.uk/highereducation/Pages/default.aspx?ks=open access&ws=wsk](http://www.universitiesuk.ac.uk/highereducation/Pages/default.aspx?ks=open%20access&ws=wsk))
- » **Wellcome Trust** (<http://www.wellcome.ac.uk/about-us/policy/spotlight-issues/Open-access/index.htm>)

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- 1 OECD (2005) *Digital Broadband Content: Scientific Publishing*, Paris: OECD
- 2 Higher Education Statistics Agency (HESA) (2014) 'Income of UK HEIs by Source 2012/13', <https://www.hesa.ac.uk/pr201>
- 3 UK-IRC (2013) *The Dual Funding Structure for Research in the UK: Research Council and Funding Council Allocation Methods and the Pathways to Impact of UK Academics*, BIS: London
- 4 The four UK Funding Councils include the Higher Education Funding Council for England (HEFCE), the Scottish Funding Council (SFC), the Higher Education Funding Council for Wales (HEFCW), and the Northern Ireland Department for Employment and Learning (DELNI).
- 5 Research Information Network (RIN) (2010) *Making Sense of Research Funding in UK Higher Education*, London: RIN
- 6 RCUK's mission is 'to enhance the overall performance and impact of UK research, training and knowledge transfer'. RCUK's seven research councils include: the Arts and Humanities Research Council (AHRC), the Biotechnology and Biological Sciences Research Council (BBSRC), the Economic and Social Research Council (ESRC), Engineering and Physical Sciences Research Council (EPSRC), the Medical Research Council (MRC), the Natural Environment Research Council (NERC), and the Science and Technology Facilities Council (STFC).
- 7 HEFCE (2009) *A Guide to UK Higher Education*, Bristol: HEFCE
- 8 RIN (2007) *Research and the Scholarly Communications Process: Towards Strategic Goals for Public Policy, A Statement of Principles*, London: RIN
- 9 Finch, Janet (2012) *Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications: Report of the Working Group on Expanding Access to Published Research Findings: The Finch Report*, London: RIN
- 10 For more information see the 'Do research, communicate and apply the results' diagram, p.12, in Björk, Bo-Christer (2007) 'A Model of Scientific Communication as a Global Distributed Information System', *Information Research*, 12 (2)
- 11 Wellcome Trust (2003) *Economic Analysis of Scientific Research Publishing*, Histon: SQW Limited;
- Wellcome Trust (2004) *Costs and Business Models in Scientific Research Publishing*, Histon: SQW Limited;
- Jisc (2009) *Economic Implications of Alternative Scholarly Publishing Models: Exploring the Costs and Benefits*, London: Jisc;
- Björk, Bo-Christer and Solomon, David J (2014) Developing an Effective Market for Open Access Article Processing Charges, http://www.wellcome.ac.uk/stellent/groups/corporatesite/@policy_communications/documents/web_document/wtp055910.pdf
- 12 Hybrid journals are commercial journals, or subscription journals, which offer the possibility for authors to pay an APC and to make their articles immediately open access at the date of publication.
- 13 Jisc (2006) Evaluation of the JISC's Open Access Funding Initiative, http://www.jisc.ac.uk/uploaded_documents/OA_Funding_Initiative_Evaluation_Report.doc
- 14 Elsevier (2013) *International Comparative. Performance of the UK. Research Base – 2013*, BIS: London
- 15 Jisc (2010) Digital Repositories, <http://www.jisc.ac.uk/whatwedo/topics/digitalrepositories.aspx>
- 16 Big Deals designates the act of 'institutional subscribers pay[ing] for access to online aggregations (e.g. of journal titles) through consortia or site licensing arrangements'. Source: Jisc (2009) *Economic Implications of Alternative Scholarly Publishing Models: Exploring the Costs and Benefits*, London: Jisc
- 17 Harnad, Stevan (1995) 'A Subversive Proposal' In: Okerson, Ann and O'Donnell, James (Eds.) *Scholarly Journals at the Crossroads: A Subversive Proposal for Electronic Publishing*, Washington: Association of Research Libraries
- 18 Friend, Frederick J. (2006) 'Towards Open Access to UK Research' In: Jacobs, Neil (2006) (Ed.) *Open Access: Key Strategic, Technical and Economic Aspects*, Oxford: Chandos
- 19 Jisc (2010) *Open Access for UK Research: JISC's Contributions*, London: Jisc
- 20 House of Commons Science and Technology Committee (2004) *Scientific Publications: Free for All?* London: House of Commons
- 21 RCUK (2005) RCUK Position Statement on Access to Research Outputs, <http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/2005statement.pdf>
- 22 For more information on AHRC, BBSRC, ESRC, EPSRC, MRC, NERC and STFC open access policies from 2006-2012 and from 2013-onwards go to <http://www.sherpa.ac.uk/juliet/index.php?la=en&mode=simple&page=browse&la=en&sortby=country>
- 23 Finch, Janet (2012) *Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications*, <http://www.researchinfonet.org/wp-content/uploads/2012/06/Finch-Group-report-FINAL-VERSION.pdf>
- 24 BIS (2012) *Letter to Dame Janet Finch on the Government Response to the Finch Group Report: "Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications"*.
- 25 RCUK (2013) *RCUK Policy on Open Access and Supporting Guidance*, <http://webcache.googleusercontent.com/search?q=cache:9mcesRrkWHgJ:www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/RCUKOpenAccessPolicy.pdf+&cd=1&hl=en&ct=clnk&gl=uk>
- 26 House of Lords (2013) *The Implementation of Open Access*, <http://www.publications.parliament.uk/pa/ld201213/ldselect/ldsctech/122/122.pdf>
- 27 Times Higher Education (2013) 'RCUK Open-Access Guidance Revised', <http://www.timeshighereducation.co.uk/news/rcuk-open-access-guidance-revised/2002396.article>
- 28 House of Commons Business, Innovation and Skills Committee (2013) *Open Access*, <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmbis/99/9902.htm>
- 29 BIS (2013) *Open Access: Responses to the Committee's Fifth Report of Session 2013–14*, <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmbis/833/833.pdf>

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- 30 RIN (2013) *Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications: A Review of Progress in Implementing the Recommendations of the Finch Report*, London: RIN
- 31 HEFCE (2014) *Policy for Open Access in the Post-2014 Research Excellence Framework*, <http://www.hefce.ac.uk/media/hefce/content/pubs/2014/cl072014/Print-friendly%20version.pdf>
- 32 BIS (2012) 'Letter to Dame Janet Finch on the Government Response to the Finch Group Report', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32493/12-975-letter-government-response-to-finch-report-research-publications.pdf
- 33 BIS (2014) 'Progress Review: Implementing Finch Report Recommendations', London: BIS
- 34 Registry of Open Access Repositories Mandatory Archiving Policies.
- 35 For more information filter results by Country > United Kingdom in <http://roarmap.eprints.org/>
- 36 Digital Curation Centre (2014) *UK Institutional Data Policies*, <http://www.dcc.ac.uk/resources/policy-and-legal/institutional-data-policies>
- 37 SHERPA/JULIET (2014) *Wellcome Trust [2006-2012]*, <http://www.sherpa.ac.uk/juliet/index.php?fPersistentID=12&la=en&mode=simple>
- 38 For more information on UK Research Funders' Open Access Policies go to <http://www.sherpa.ac.uk/juliet/index.php>
- 39 RCUK (2013) *RCUK Policy on Open Access and Supporting Guidance*, <http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/RCUKOpenAccessPolicy.pdf>
- 40 Digital Curation Centre (2014) *Overview of Funders' Data Policies*, <http://www.dcc.ac.uk/resources/policy-and-legal/overview-funders-data-policies>
- 41 Wellcome Trust (2013) *Open Access Policy*, <http://www.wellcome.ac.uk/About-us/Policy/Policy-and-position-statements/WTD002766.htm>
- 42 Digital Curation Centre (2014) *Wellcome Trust*, <http://www.dcc.ac.uk/resources/policy-and-legal/research-funding-policies/wellcome-trust>
- 43 HEFCE (2014) *Policy for Open Access in the Post-2014 Research Excellence Framework*, http://www.hefce.ac.uk/media/hefce/content/pubs/2014/201407/HEFCE2014_07.pdf
- 44 For more information on the work currently being developed by Jisc on research data please contact Rachel Bruce, Jisc's Deputy Chief Innovation Officer.
- 45 Jisc (2010) *Digital Repositories: Key Digital Repositories Activities*, <http://www.jisc.ac.uk/whatwedo/topics/digitalrepositories.aspx>
- 46 The information collected for the publishing lifecycle is based on Jisc's 'Services and Projects Schema' developed by Neil Jacobs, Head of Jisc's Scholarly Communications.