

Recommendations for implementation of Open Access in Denmark

Report from the Open Access Committee



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Published in 2010 by
Denmark's Electronic Research Library
Danish Agency for Libraries and Media

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Summary of the Open Access Committee's recommendations

In the present publishing system the public sector pays for over 90% of the expenses¹ in connection with a scientific publication, but the publishing rights are as often as not handed over to commercial publishers. This means that institutions, companies etc. will subsequently have to pay commercial publishers on marketing conditions in order to gain access to the research publications again.

The present restrictive access form of publishing combined with steadily increasing publishing prices is far from optimal in a knowledge and research based world, where researchers in private companies, students and researchers in universities and other educational establishments as well as the ordinary citizen are considerably restricted in their possibilities for getting access to knowledge. Thereby you also lose a vital prerequisite for development and innovation. A conscious Open Access strategy would contribute significantly to the Government's Globalisation Strategy and Denmark's aspiration of being a leading knowledge and entrepreneurial society.

The Open Access Committee is of the opinion that as far as possible there should be free access to the results of publicly funded research. Publishing in Open Access should continue to be based on a publishing process with inbuilt quality assurance in the form of peer review, and securing access to Danish research publications and research data in the long term should be high on the agenda. It is furthermore the Committee's opinion that Open Access must not present a hindrance to results from Danish research being published in the most reputable periodicals.

The Committee has worked out recommendations associated with golden as well as green Open Access². It is the Committee's assessment that green Open Access is the most negotiable path which is also reflected in the Committee's recommendations.

Recommendation 1. National Open Access policy is established by the Ministry of Science, Technology and Innovation

The Open Access Committee recommends that a national Open Access policy be formulated which encompasses all institutions that do research and/or disseminate research based on total or partial public funding. The point of departure is that as far as possible there must be free access to the results of publicly funded research.

Recommendation 2. Research councils and foundations establish Open Access policies

The Open Access Committee recommends that all research councils and foundations implement Open Access policies that live up to the national Open Access policy.

Recommendation 3. Universities and other research institutions establish Open Access policies

The Open Access Committee recommends that all universities and research institutions establish Open Access policies that meet with the requirements of the national Open Access policy.

Recommendation 4. The bibliometric research indicator should be coordinated with the national Open Access policy

The Open Access Committee recommends that in connection with evaluation of the bibliometric indicator the Danish Agency for Science, Research and Innovation contemplate how the indicator can be coordinated with national Open Access Policy.

Recommendation 5. Establishment of common Internet access to Danish research results

The Open Access Committee recommends that public research grants demand that all Danish publicly funded research be made available in the universities' research databases and via a new common

¹ Access – The weak link in the value chain of research: Jakob Heide Petersen. DF Revy, no. 7, November 2009, p. 7.

² Green Open Access refers to parallel publishing in a repository. Golden Open Access refers to periodicals where one pays a lump sum for publishing an article, which then via the periodical becomes available online.

Source: <https://www.open-access.dk>

Internet portal that disseminates the collective research results with clear indication/crediting of the individual university.

Recommendation 6. Danish scientific publishers prepare discussion paper on transition to Open Access

The Open Access Committee recommends that Danish scientific publishers be invited to prepare suggestions as to how Danish periodicals and Danish monographs can be converted to Open Access.

Recommendation 7. DEFF coordinates the implementation of the recommendations by the Open Access Committee

The Open Access Committee recommends that Denmark's Electronic Research Library (DEFF) be responsible for the continuing coordination of the Open Access Committee's work and the implementation of the Open Access Committee's approved recommendations for a project period of four years. Included in this is also the role as national support for the universities' local advisers (competence development, knowledge-sharing, international cooperation etc.).

Recommendation 8. Professional implementation of information, debate and dialogue

The Open Access Committee recommends that contracting be carried out with a media and communication agency to plan how the public can be involved in the debate, including the daily press, events etc.

Recommendation 9. Coordination of the Danish Open Access initiative in international fora

The Open Access Committee recommends that the research councils' Danish representatives in international research fora such as EUROHORCS and European Science Foundation secure coordination of Open Access policies between the councils.

Recommendation 10. Increased focus on Open Access in DEFF consortia licenses

The Open Access Committee recommends that in DEFF's work with licenses and in international partnerships, in which DEFF takes part, focus be directed at negotiation of writers' royalties in connection with e.g. golden Open Access, freedom to green Open Access, deduction for publication fees and transparent business models for Open Access publishing at a fee. It is moreover recommended that DEFF commit to working actively within this area and try to negotiate agreements on Open Access publishing at national level.

Recommendation 11. Danish membership of Confederation of Open Access Repositories

The Open Access Committee recommends that after the cessation of DRIVER international cooperation continue to be supported through membership of Confederation of Open Access Repositories (COAR).

Recommendation 12. Establishment of a comprehensive long-term preservation service for the universities' publications

The Open Access Committee recommends that in connection with the common portal for the universities' research results (recommendation 5) a long-term preservation service be established which ensures that the universities' digital publications can be read and used over a long period of time.

Recommendation 13. National planning of free access to as well as long-term preservation of primary research data

The Open Access Committee recommends that a cross-disciplinary cooperation organisation be established which gathers together stakeholders within the field of primary research data. This organisation will plan how Danish research data can be archived in order that present and future access be secured. In the planning the economic consequences must be accounted for.

Recommendation 14. Danish membership of central international cooperation fora for handling and long-term preservation of scientific information in the broader sense

The Open Access Committee recommends Danish membership of and active participation in the two important international cooperation fora within the area, The Alliance for Permanent Access and DataCite. Hereby Danish exploitation of the global experiences and solutions will be secured as well as Danish influence on these.

Introduction

Through the Minister of Science, Technology and Innovation the Government has approved the Council of the European Union' conclusions on scientific information in the digital age³. The conclusions deal with:

- 1) Reinforce national strategies and structures for access to and dissemination of scientific information
- 2) Enhancing coordination between the member states of policies and practice regarding access and dissemination
- 3) Ensure long-term preservation of scientific information, including publications and data as well as paying due regard to scientific information in national information preservation strategies.

Denmark has thereby committed herself to ensure that the Council of the European Union' conclusions are implemented in Denmark. With a view to living up to the conclusions the Ministry of Science, Technology and Innovation has appointed an Open Access Committee and placed this under the steering committee for Denmark's Electronic Research Library (DEFF).

Members of the Open Access Committee

Bo Öhrström, Deputy Director, DEFF, Danish Agency for Libraries and Media (Chairman)
Birte Christensen-Dalsgaard, Deputy Director, The Royal Library
Niels-Henrik Gylstorff, Head Librarian, Aalborg University Library
Carsten Riis, Dean, Aarhus University, Faculty of Theology
Mogens Sandfær, Director, Technical Information Centre of Denmark
Grete M. Kladakis, Head of Department, Danish Agency for Science, Technology and Innovation
Anders Bjerneboe, Chief Consultant, Danish University and Property Agency
Morten Rosenmeier, Chairman of the Committee for the Protection of Scientific Work
Nikolaj Borg Burmeister, Chief consultant, Danish Universities (Observer)
Lise Mikkelsen, Special Consultant, DEFF, Danish Agency for Libraries and Media (Secretary).

The Open Access Committee's assignments

In the mandate⁴ for the national work with Open Access the following assignments are stated:

- 1) Planning the implementation of the Council of the European Union' conclusions
- 2) In connection with the planning the committee must clarify:
 - a) How publicly funded research can be made publicly available online
 - b) The economic consequences associated with this
 - c) How support from Danish researchers can be secured for the implementation
 - d) What kind of role the research-funding bodies should have in connection with the implementation
 - e) How to allow for clarification of copyright issues
- 3) Accomplishing the planning of the Council of the European Union' conclusions
- 4) Preparing an approach to the EU Commissioner for Research and Innovation and the EU Commissioner for the Information Society and the Media with a request for the commissioners to work out a common European initiative in relation to the publishers about Open Access publishing.

³ Council of the European Union; Council conclusions on scientific information in the digital age: access, dissemination and preservation. URL: <http://www.consilium.europa.eu/ueDocs/newsWord/en/intm/97236.doc> (see also appendix 2)

⁴ Mandate for the national work with Open Access; URL: [http://www.deff.dk/content.aspx?catguid=\(432C8A5B-1EFC-47A5-8378-0339EAED4267%7d](http://www.deff.dk/content.aspx?catguid=(432C8A5B-1EFC-47A5-8378-0339EAED4267%7d)

The Open Access Committee's approach

The Open Access Committee has based its work on the Berlin Declaration's⁵ definition of Open Access:

"Open Access contributions must satisfy two conditions:

1. The author(s) and right holder(s) of such contributions grant(s) to all users a free, irrevocable, worldwide, right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship (community standards, will continue to provide the mechanism for enforcement of proper attribution and responsible use of the published work, as they do now), as well as the right to make small numbers of printed copies for their personal use.
2. A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in an appropriate standard electronic format is deposited (and thus published) in at least one online repository using suitable technical standards (such as the Open Archive definitions) that is supported and maintained by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, inter operability, and long-term archiving."

Open Access to scientific publications means unimpeded and gratis access (from now on termed free access) for the whole world to read and use the results, and that you will be able to store copies in repositories⁶. Free access can be created through green or golden Open Access:

- (i) "Authors can make their own peer reviewed journal articles free for all online by depositing their final revised drafts in their own institution's OA repository or in a central OA repository immediately upon acceptance for publication. (This is also called "Green OA.") All the costs of publication continue to be paid through institutional journal subscription fees.
- (ii) Journals can convert to the OA publication model: The journal itself makes its published articles free for all online and all publication costs are paid by the author (or the author's institution or funder) through individual publication fees, per article published, instead of through multiple institutional subscription fees, per journal subscribed to. (This is called "Gold OA")."

The Open Access Committee has prepared recommendations that use golden as well as green Open Access. However, the Committee stresses the fact that green Open Access at the moment seems to be the most practicable path as the necessary infrastructure is readily available in Denmark. At the same time 90% of the periodicals already allow the kind of parallel publishing which green Open Access represents.

Golden Open Access in greater measure presupposes that the publishers have reorganised their periodicals to the Open Access business model, and the total costs for Denmark are not increasing as a result. Today some publishers offer the authors an Open Access fee for the individual article, while at the same time the institution pays for subscribing to the identical periodical. This kind of double payment is regarded as quite unrealistic and unacceptable, which is why the publishers must be induced to convert to Open Access at a price that does not exceed the present one.

The Open Access Committee furthermore places emphasis on distinguishing between the perspectives within the field of periodicals and within the field of books. This applies particularly to the conditions

⁵ Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities.
URL: <http://oa.mpg.de/openaccess-berlin/berlindeclaration.html>

⁶ A repository is an archive for research publications and research data (often without the necessary technique for long-term preservation)

⁷ The immediate practical implication of the Houghton Report: Provide Green Open Access now/ Harnard Steven. Preprint of article submitted for consideration in the Prometheus. <http://www.informaworld.com/smpp/>

and possibilities in relation to monographs in Danish. Consequently these should be subjected to an independent, focused analysis and consideration.

Whatever the method, Open Access means free access to research results, increased visibility and consequently increased possibilities for application of the research results – as opposed to the present system where access is limited to those organisations that can afford to pay for it. Moreover, the economic consequences for the implementation of Open Access at a socio-economic level could be discussed. In 2009 DEFF arranged for a cost benefit analysis to be prepared of the economic consequences of introducing various forms for Open Access publishing in Denmark⁸. Via DEFF's partners in Knowledge Exchange corresponding analyses have been prepared for Great Britain and the Netherlands.

The conclusion of the present report is that depending on investment the total profit of introducing Open Access globally would for Denmark be about DKK 300 mil. annually as well as considerable savings in the value chain that produces scientific articles. The savings derive from less time spent by the researchers and a more well-functioning system of research communication. The socio-economic benefit is primarily due to more institutions, businesses and citizens getting quicker and better access to research publications.

The Open Access Committee has chosen to organize its report as an implementation plan based on the Council of the European Union' conclusions: *Council Conclusions on scientific information in the digital age: access, dissemination and preservation*. The implementation plan consists of a number of recommendations indicating process, actors and economy.

Some of the recommendations are of a political and strategic nature, while others are practically orientated and can contribute with new and necessary knowledge about establishing and securing free access to data and publications – also seen in a long-term perspective.

According to its mandate the Open Access Committee will subsequently, in connection with implementation of the approved plan, be obliged to follow the implementation and ensure energy and drive.

⁸ Costs and benefits of Alternative Publishing Models: Denmark / Professor John Houghton, Centre for Strategic Economic Studies, Victoria University, Melbourne. Kilde: <http://www.deff.dk/content.aspx?catguid={79A0643A-7E30-417A-A184-18F422A6B86C%7d>

The Open Access Committee's recommendations

The Open Access Committee has chosen to base their work on the Council of the European Union's conclusions (appendix 2) and has prepared 14 recommendations within the three main areas where the EU countries are expected to work with Open Access. The main areas are:

- 1) Reinforce national strategies and structures for access to and dissemination of scientific information
- 2) Enhance co-ordination between the member states of policies and practice regarding access and dissemination
- 3) Ensure long-term preservation of scientific information, including publications and data as well as paying due regard to scientific information in national preservation strategies.

Main area 1

Reinforce national strategies and structures for access to and dissemination of scientific information

The first main area has to do with determination of national strategies and structures for access to and dissemination of scientific information. Clear policies for scientific publishing must be prepared, information secured, researchers' copyrights handled, technical infrastructure must be established and the main stakeholders must be included in the debate about strategy. All subjects are necessary prerequisites for Denmark being able to ensure that publicly funded scientific results are made available as far as at all possible.

Assignment 1.1

Defining clear policies for dissemination and access to scientific information, including the associated financial planning

In the Council of the European Union's conclusions the membership countries are first of all encouraged to develop national strategies for dissemination and access to scientific information. It is vital that the state has a very definite attitude to and policy regarding Open Access. That is due to the challenges associated with a new national publishing strategy, the importance of free access to scientific publishing and the need for European and international cooperation. A national Open Access policy ought as a minimum to deal with the subjects Open Access, copyright, investment in the dissemination of research results, repositories and interoperability, long-term preservation as well as address the questions of stakeholders and cooperation with these. These reflections are the basis for the Open Access Committee's recommendation number 1: National Open Access policy is established by the Ministry of Science, Technology and Innovation.

Universities and research councils have a crucial role in ensuring demand for free access to research results across all subject areas. It is therefore necessary that The Danish Council for Independent Research, The Danish Council for Strategic Research, The Danish National Research Foundation, The Danish National Advanced Technology Foundation and The Danish Council for Technology and Innovation develop Open Access policies which are coordinated with the national policy and strategy. The strategy must be implemented in such a way as to consider the interests of researchers and research. This is the basis for recommendation number 2: Research Councils and foundations establish Open Access policies.

The universities must ensure local Open Access policies and the necessary technical solutions. This is the basis for recommendation number 3: Universities and other research institutions establish Open Access policies.

The bibliometric research indicator stems from the Globalisation Strategy's aim that the quality of public research should measure up to the best in the world. The bibliometric research indicator aims to further publishing in the most distinguished publishing channels and strengthen the quality of

Danish research.⁹ The indicator brings increasing influence to bear on the universities' initiatives as to registration of their research publications. The continued development of the bibliometric research indicator ought to be coordinated with the national Open Access policy. This is the basis for recommendation number 4: The bibliometric research indicator is coordinated with the national Open Access policy.

Recommendation 1	National Open Access policy is established by the Ministry of Science, Technology and Innovation The Open Access Committee recommends that a national Open Access policy be formulated, which includes all institutions that do research and/or disseminate research based on total or partial public funding. The basic view is that as far as possible there should be free access to the results of publicly funded research.
Process	<ol style="list-style-type: none"> 1. The Open Access Committee submits a suggestion for a national Open Access policy to the Ministry of Science, Technology and Innovation 2. The Ministry is in charge of the appropriate hearing and subsequent decision 3. Implementation of national Open Access policy.
Financing	
Recommendation 2	Research Councils and foundations establish Open Access policies The Open Access Committee recommends that all research councils and foundations implement Open Access policies that live up to the national Open Access policy.
Process	<ol style="list-style-type: none"> 1. Establishment of Open Access policy 2. Implementation of Open Access policy.
Financing	
Recommendation 3	Universities and other research institutions establish Open Access policies The Open Access Committee recommends that all universities and research institutions establish Open Access policies that meet the requirements of the national Open Access policy.
Process	<ol style="list-style-type: none"> 1. Establishment of Open Access policy 2. Implementation of the policy, including the necessary systems and procedures and advice from the researchers.
Financing	
Recommendation 4	The bibliometric research indicator should be coordinated with the national Open Access policy The Open Access Committee recommends that the National Agency for Research and Innovation in connection with evaluation of the bibliometric indicator consider how the indicator can be coordinated with the national Open Access policy.
Process	<ol style="list-style-type: none"> 1. The National Agency for Research and Innovation considers how the indicator can be coordinated with the national Open Access policy 2. Implementation of the chosen adaptation.
Financing	

⁹ Source: <http://www.fi.dk/forskning/den-bibliometriske-forskningsindikator>

Assignment 1.2

Promoting through these policies, access through the Internet to the results of publicly financed research at no cost to the reader, taking into consideration economically sustainable ways of doing this including delayed Open Access

All universities have local research databases where the university's research publications are registered and disseminated. At national level all universities' data are harvested to The Danish Research Database, which is a common access point to dissemination of Danish research. Via The Danish Research Database Danish research results also become visible to the international public, e.g. via Google Scholar and DRIVER.¹⁰

By building on this existing technical infrastructure it can in a simple way be guaranteed that publicly funded research becomes freely and easily available to all users. This requires a further development of the common national portal and a strengthened dissemination initiative. This is the background for recommendation number 5: Establishment of common Internet access to Danish research results.

As the universities to a greater extent begin to store the research publications in full text in the local repositories, the need increases for the universities to be able to draw on long-term preservation services. In Denmark such services are provided by the two legal deposit libraries, the State and University Library and The Royal Library. To ensure access over a long period of time there is thus a connection with recommendation 12 under main area 3 concerning long-term preservation.

The point of departure is that all results of public funded research must be freely available. It should be examined more closely what this means for the Danish scientific publishers, and how to help them convert to Open Access.

Danish publishers deal mainly with the publishing of monographs in Danish within humanistic and social disciplines. Such publications present a specific economic challenge, as they, as a rule, are dependent on direct grants. This is the background for recommendation number 6: Danish scientific publishers prepare discussion paper on a transition to Open Access.

Recommendation 5	Establishment of common Internet access to Danish research results The Open Access Committee recommends that demands be made in public research grants for all Danish publicly funded research to be made available in the universities' research databases and via a new common Internet portal, which disseminates the collective research results with clear indication/ accrediting of the individual university.
Process	<ol style="list-style-type: none">1. The Ministry of Science, Technology and Innovation and the Danish Agency for Research and Innovation implement the requirements in research grants2. DEFF and the Open Access Committee prepare a draft for a common portal which can also facilitate the interaction with the national long-term preservation services3. A new common portal is created and established as a service.
Funding	<ol style="list-style-type: none">1. Development of a new common portal: DKK 1 mil.2. Operation, support and dissemination annually: DKK 1 mil.

¹⁰ Digital Repository Infrastructure Vision for European Research (DRIVER). DRIVER is financed of the EC and is a collaboration to build a network between repositories with freely available content.
Source: <http://www.driver-community.eu>

Recommendation 6	Danish scientific publishers prepare discussion paper on transition to Open Access The Open Access Committee recommends that Danish scientific publishers be invited to prepare proposals as to how Danish periodicals and Danish monographs respectively can be converted to Open Access.
Process	<ol style="list-style-type: none"> 1. The Open Access Committee prepares mandate 2. The Danish Publishers Association is invited to put forward proposals on the basis of the mandate 3. The Danish Publishers Association prepares proposals as to how Danish scientific periodicals and Danish scientific monographs can be converted to Open Access.
Financing	

Assignment 1.3

Assessing in a systematic way conditions affecting access to scientific information, including – the way in which researchers exercise their copyright to scientific articles, - the level of investments in dissemination of scientific information as compared to the total investments in research, - the use of financial mechanisms to improve the access, such as refunding VAT for digital journal subscriptions to libraries

Basically it is the individual researcher who holds the copyright to his own publications. The researchers' copyrights must be handled in a way that is consistent with an Open Access policy. A targeted effort and counselling in relation to the individual researcher is therefore necessary in order to ensure that all rights are not being relinquished at publication.

This counselling should be taken into consideration in the local implementation of the universities' Open Access policies. Each university should thus facilitate the researchers' opportunity to get guidance and counselling in relation to Open Access, copyright, depositing of publications in the local repositories etc. This is included as an element in recommendation number 3 above.

Assignment 1.4

Ensuring that repositories of scientific information are sustainable and interoperable

In Denmark all the universities have research information systems and repositories run and financed like other parts of the local digital infrastructure.

These systems meet both national and international requirements in terms of interoperability. On the national level it concerns protocols for data exchange (OAI-PMH) and for data formats (DDF-MXD) to be used for i.a. the bibliometric research indicator and the federated portal for the dissemination of Danish research results.

On the international level the same protocol for data exchange (OAI-PMH) is being used and Danish databases are incorporated in the European DRIVER portal and thus meet the requirements stated in the DRIVER guidelines.

It is therefore the Open Access Committee's assessment that there is no need for further initiatives in order to ensure that Danish repositories are viable and interoperable. The need for playing an active part in international cooperation is mentioned under Assignment 2.3.

Assignment 1.5

Bringing together main stakeholders in the debate on scientific information (researchers, research councils, libraries and scientific publishers)

It is recommended that Denmark's Electronic Research Library (DEFF) become responsible for the continued coordination of the Open Access Committee's tasks and the implementation of the committee's recommendations. Several recommendations require project management and administration. It is, moreover, vital for the success of the implementation that the necessary resources are available to ensure progress and coordinate tasks. This is the background for the Open Access Committee's recommendation number 7: DEFF coordinates the implementation of the Open Access Committee's recommendations.

The need exists for information being given to stakeholders who play a role in scientific publishing and dissemination and consequently have an interest in a publishing model, which to a greater degree is Open Access-based. In the first instance the challenge is to work out and plan how best to tackle the task in relation to various stakeholders with a view to obtain the best possible information, dialogue and debate. This is the background for the Open Access Committee's recommendation number 8: Professional implementation of information, debate and dialogue.

Recommendation 7	DEFF coordinates the implementation of the recommendations by the Open Access Committee The Open Access Committee recommends that DEFF be responsible for the continued coordination of the Open Access Committee's work and the implementation of the Committee's approved recommendations for a project period of 4 years. Included in this is also the role as national support for the universities' local advisers (competence development, knowledge sharing, international cooperation etc.).
Process	DEFF will be responsible for: 1. The practical management of the Open Access Committee's recommendations 2. The central support to the universities' local advisers within the field of copyright and Open Access.
Financing	DKK 800,000 annually for 4 years.
Recommendation 8	Professional implementation of information, debate and dialogue The Open Access Committee recommends the contracting with a media and communication bureau to plan how the public can be involved in the debate, including via the daily newspapers, events, etc.
Process	1. Agreement is entered into with a media and communication bureau 2. The campaign is launched.
Funding	A total of DKK 1.3 mil. for campaign and follow-up.

Main area 2

Enhance the coordination between the member states on access and dissemination policies and practices

The economic and societal useful effects of free access to scientific research results increase along with many countries introducing an active policy and strategy for Open Access. It is by nature a task which can only be solved satisfactorily by way of broad international collaboration. Coordination between countries at all levels and in all kinds of fora is therefore relevant and necessary in order to obtain useful and lasting results.

Assignment 2.1

Exploring the possibility of national funding bodies to define common basic principles on Open Access

The international coordination between the national research councils is central with a view to ensure the widest possible dissemination, but also in relation to levelling uniform demands by the research councils across borderlines. This assignment must necessarily be solved in the fora in question. This is the background for recommendation number 9: Coordination of the Danish Open Access initiative in international fora.

Recommendation 9	Coordination of the Danish Open Access initiative in international fora The Open Access Committee recommends that the Danish representatives of the research councils in international research fora such as EUROHORCs and European Science Foundation ensure coordination of Open Access policies between the councils.
Process	1. The recommendation is implemented by The Danish Council for Independent Research, The Danish Council for Strategic Research, The Danish National Research Foundation, The Danish National Advanced Technology Foundation and the Danish Council for Technology and Innovation.
Financing	

Assignment 2.2

Improving the transparency of the contractual terms of "big deals" financed with public money – assessing the possibilities to achieve "economies of scale" by demand aggregation

DEFF has for a number of years negotiated license agreements for electronic periodicals, e-books, databases etc. on behalf of all academic libraries under the Ministry of Culture and the Ministry of Education, i.e. all library types from university libraries to upper-secondary education libraries.

DEFF participates in various Nordic and international coordination initiatives e.g. International Coalition of Library Consortia (ICOLC) and Knowledge Exchange. There is a need for a strengthened effort in this work about Open Access issues such as author remunerations in connection with golden Open Access, transparent business models, freedom to green Open Access (parallel publishing in repositories), deduction for publication fees for articles and national agreements on free access to Danish produced research). This has happened in the Netherlands where at national level an agreement has been entered into with Springer about free access to all research publications published on behalf of Dutch university researchers by Springer. This is the background for the Open Access Committee's recommendation number 10: Increased focus on Open Access in DEFF consortia licenses.

Recommendation 10	Increased focus on Open Access in DEFF consortia licenses The Open Access Committee recommends that in DEFF's license work and in the international cooperations, in which DEFF is involved, focus be directed on negotiation of author remunerations in connection with golden Open Access, freedom to green Open Access, deduction for publication fees and transparent business models for Open Access publishing at a fee. It is, moreover, recommended that DEFF commits itself to working actively within this field and try to negotiate agreements on Open Access publishing at national level. It should be stressed that the aim is for the expenses in connection with licenses at no rising as a consequence of Open Access.
Process	1. DEFF works out a plan for Open Access activities for the license area 2. The plan is approved by the Open Access Committee 3. The plan is put into action.
Financing	

Assignment 2.3

Working towards the interoperability of national repositories for scientific information in order to furthering accessibility and searchability of scientific information beyond national boundaries

If research results are to be shared across systems, it is necessary that systems and exchange formats support this. DEFF has participated actively in the international cooperation concerning repositories via projects in Knowledge Exchange and via The Danish Research Database's collaboration with DRIVER.

The Knowledge Exchange cooperation is well-established under the auspices of DEFF and includes several international working groups and occasional project within areas like repository interoperability, Open Access, eScience and primary data, support to the researchers' management of copyright etc. DEFF is encouraged to continue this commitment and to ensure that activities and results are anchored broadly in the university sector.

DRIVER, which for a number of years has been financed by the EU Commission, now has to be replaced by a common structure, financed directly by the universities and/or their national cooperation organisations within the area. One such global Confederation of Open Access Repositories (COAR) has just been established, and Denmark ought to join in order that the universities as well as DEFF can benefit from the collaboration and its common infrastructures. This is the background for recommendation number 11: Danish membership of Confederation of Open Access Repositories.¹¹

Recommendation 11	Danish membership of Confederation of Open Access Repositories The Open Access Committee recommends that after the cessation of DRIVER international collaboration via membership of Confederation of Open Access Repositories (COAR) continue to be supported.
Process	1. DEFF becomes a member on behalf of the Danish repositories 3. DEFF ensures that activities and results are anchored widely.
Financing	Annual membership: DKK 50,000,-.

Assignment 2.4

Contributing to an affective overview of progress at European level by informing the Commission of results and experiences with alternative models for the dissemination of scientific information

Various alternative publishing models are being tested internationally and any Danish experiences should be disseminated and reported on to the EU Commission.

¹¹ Source: <http://www.coar-repositories.org/>

Main area 3

Ensure the long-term preservation of scientific information - including publications and data – and pay due attention to the scientific information in national preservation strategies

Long-term preservation of scientific information and data are important issues when wanting to ensure that knowledge does not get lost due to technological obsolescence or lack of structured collection and preservation. In Denmark the *Act on Legal Deposit of published material* ensures long-term preservation of publications, but when it is a question of research data the situation is different, although Danish Data Archive has a formal obligation within a number of primarily social science areas.

Assignment 3.1

Defining structured approach to long-term preservation of scientific information and incorporating this approach in the national plans for digital preservation established in line with the Commission Recommendation of 24. August 2006 and Council Conclusions of 13. November 2006 on online accessibility of cultural material and digital preservation

In Denmark the *Act on Legal Deposit of published material* ensures that Danish works and material are deposited with the State and University Library and The Royal Library who are responsible for long-term preservation of the documents. This applies to physical as well as digital material published on the Internet. In accordance with the legal deposit act revised in 2005, the State and University Library and The Royal Library conduct web harvestings in order to collect Danish material published on the net.

As mentioned under assignment 1.2 the universities' need for being able to draw on long-term preservation services grows as they, to an ever-increasing degree, store the research publications in full text in their local repositories. In Denmark the two legal deposit libraries have established the PIN-DAR archive, into which the universities' publications are collected via OAI-harvesting. There is, however, a need for developing this solution further into a fully comprehensive long-term preservation service for the universities' publications which would receive and actively long-term preserve all the publications. In this way the universities can keep their repositories up-to-date with technically migrated versions of their digital publications which in technical terms become obsolete and lose their applicability in the course of relatively few years.

As mentioned under recommendation 5 the new portal for the universities' repositories will facilitate the transfer of publications to the national long-term preservation service, which would then be able to focus more on the actual technical preservation of the publications. This is the background for the Open Access Committee's recommendation number 12: Establishment of a comprehensive long-term preservation service for the universities' publications.

Digital preservation is in fact a very large area where solutions are being sought via international collaborations. The State and University Library and The Royal Library participate in the EU project Preservation and Long-term Access through Networked Services (PLANETS), where the challenges in relation to long-term preservation are addressed by a number of national libraries, national archives and universities. Focus is on preservation of document-like objects.

As regards preservation of data (primary data, research data) the situation is different, and the need is great for financial means as well as a joint effort and planning among the relevant actors such as the universities, Danish Data Archive, national libraries, research libraries and researcher groups. Part of the joint effort will consist of also looking at activities at NordForsk and EU.

In the long term Open Access policies must also include data, but the situation being what it is at the present there is not sufficient coordination and infrastructure to make this requirement. Contrary to an article, research data do not by themselves provide a lot of meaning. There will be a need to experiment with methods for structured collection and automatic retrieval of information which are necessary for future use, including also judicial matters.

Behind research data often lie many implicit suppositions, which are known at the time, but for data to be useful for others than the group who produced them, they have to be documented. This is the background for the Open Access Committee's recommendation number 13: National planning of free access to as well as long-term preservation of primary research data.

Recommendation 12	<p>Establishment of a comprehensive long-term preservation service for the universities' publications</p> <p>The Open Access Committee recommends that in connection with the common portal for the universities' research results (recommendation 5) a long-term preservation service be established which ensures that the universities' digital publications can be read and used over a long period of time.</p>
Process	<ol style="list-style-type: none"> 1. DEFF and the Open Access Committee work out a proposal for the long-term preservation service's functionality and interaction with the common portal and the universities' repositories 2. The long-term preservation service is developed 3. The service is put into operation.
Financing	<ol style="list-style-type: none"> 1. Development of the long-term preservation service: DKK 2 mil. 2. Operation and support of the service annually: DKK 1 mil.

Recommendation 13	<p>National planning of free access to as well as long-time preservation of primary research data</p> <p>The Open Access Committee recommends that an inter-disciplinary cooperation organisation be established that gathers together stakeholders within the field primary research data. This organisation must work out plans for how Danish research data can be archived so that present and future access is secured. The planning must include an account of the economic consequences.</p> <p>With the purpose of achieving the best possible basis for assessing the economic situation, the work should be divided into a phase 1 and a phase 2. Phase 1 is the planning phase where the review work begins and where an assessment project must be conducted with a view to collecting experiences and knowledge in order to estimate the prospective financial basis for a common national solution for archiving and long-term preservation of Danish scientific data. Phase 1 produces input for phase 2 where the assessment project is continued, and a report including a budget is prepared.</p> <p>Via DEFF the international collaboration on primary research data continues in Knowledge Exchange.</p>
Process	<ol style="list-style-type: none"> 1. The Ministry of Research, Technology and Innovation prepares the mandate for a cooperation organisation on the basis of a discussion paper from the Open Access Committee 2. The Ministry appoints interdisciplinary cooperation organisation. 3. Phase 1 is launched 4. Phase 2 is launched 5. The cooperation organisation submits proposals as to how Danish research data can be archived and long-term preserved.
Financing	A total of DKK 2.2 mil. over 2 years.

Assignment 3.2

Taking into account the specific characteristics of scientific information when setting up the legislative framework (including legal deposit) or practical set-up for digital preservation

As mentioned under assignment 3.1 Denmark has a comprehensive legal deposit act for material published on the net, regardless of the form of the material. The act is adhered to through web-archiving of published material and via harvesting to PINDAR. The whole discussion about scientific primary data does, however, present new challenges as these data have to be handled in a structured way if they are to be used in the future.

At European and global level central fora have been established for collaboration on handling and long-term preservation of scientific information in the broader sense. Here Danish participation should be secured with a view to exchange of experience and in order to establish solutions which are applicable in a global context. This is the background for recommendation number 14: Danish membership of central international cooperation fora for handling and long-term preservation of scientific information in the broader sense.

Recommendation 14	Danish membership of central international cooperation fora for handling and long-term preservation of scientific information in the broader sense The Open Access Committee recommends membership of and active participation in the two important international cooperation fora within the field: <ol style="list-style-type: none">1. The Alliance for Permanent Access which gathers together large European universities, research laboratories, foundations, national libraries, publishers etc. with a view to creating a common vision and framework for a long-term secured digital infrastructure which will allow permanent access to scientific data2. DataCite – International Initiative to Improve Access to Research Data on the Internet – a global initiative that gathers together prominent players from the USA, Canada, Europe, Australia and Asia.
Process	<ol style="list-style-type: none">1. DEFF becomes a member of the two fora on behalf of Denmark and the Danish stakeholders3. DEFF ensures that activities and results are anchored widely.
Financing	Annual memberships in total: DKK 400,000.

Appendix

Appendix 1: Mandate for the national work with Open Access

Background and objective

The government has – via the Minister for Science, Technology and Innovation – approved the Council of the European Union’ conclusions on scientific information in the digital age. With the objective of meeting the government’s obligations the implementation of the conclusions is anchored in a project group with basis in the Steering Committee for Denmark’s Electronic Research Library (DEFF). The Steering Committee works to further DEFF’s objectives and interests. The members are appointed in their personal capacity and do not consider institutional specific interests, neither do they represent specific organisations. The Steering Committee’s area of responsibility includes i.a. the preparation of a strategy and comprehensive action plans. The Steering Committee is placed organisationally under the Coordination Committee which handles the overall management of DEFF.

The work with implementation of the Council of the European Union’ conclusions takes place in connection with the Steering Committee’s ordinary meetings and is handled by a project group based on the Steering Committee supplemented by representatives from The Danish University and Property Agency, The Danish Agency for Research and Innovation, Danish Universities and the Committee for the Protection of Scientific work.

The Council of the European Union’ conclusions in the main encourage Denmark:

- to strengthen national strategies and structures for access to and dissemination of scientific information
- to strengthen coordination between the member states of policies and practice concerning access and dissemination
- to ensure long-term preservation of scientific information, including publications and data as well as paying due regard to scientific information in national preservation strategies.

The purpose of the new committee is to ensure that the work is implemented by a competent forum, and that the initiatives launched are coordinated with the relevant stakeholders.

Mandate

The project group’s task is to plan and carry out the implementation of the Council of Minister’s conclusions. In the planning of the implementation the committee is urged to clarify how publicly funded research can be made publicly available online and also which economic consequences are associated with this. The plan may contain deliberations as to how the implementation can secure support from Danish researchers, as well as what kind of role the research-funded bodies should have in connection with the implementation. The plan must take into account the clarification of copyright issues. Inclusion of the scientific publishers’ organisation in Europe is important in connection with dissemination of research results.

The project group prepares an approach on behalf of the Minister for Science, Technology and Innovation and the Minister for Culture to the EU Commissioner for Research and Innovation as well as the EU Commissioner for the Information Society and the Media, who are behind the Council of the European Union’ recommendations with the request that the commissioners prepare a common European proposition to the publishing companies concerning Open Access publishing.

Secretariat

The project group is serviced by the DEFF secretariat. The costs in connection with the secretarial service are expected to be covered within the existing frame.

Time schedule and products

The project is asked to be in charge of the implementation of the Council of the European Union’ conclusions.

Tentative time schedule

Date	Activity
1. Feb.-1. Apr. 2009	Appointment of project group on the basis of DEFF's steering committee
1. Apr. 2009	Forwarding of the Minister for Science, Technology and Innovation and the Minister for Culture's letter to the EU commissioners
1. Apr.-1. Sept. 2009	Preparation of plan for implementation and economy
1. Sep.-1. Nov. 2009	The project group presents the plan to the Coordination Committee
1. Nov.-1. Feb. 2010	The implementation plan is heard in the ministries involved and the economic issues are clarified
1. Feb.-1. Apr. 2010	The project group works out a broad hearing of the plan
1. Apr.-31. Jun. 2010	Consultation phase
1. Jul.-1. Sep. 2010	The project group concludes on the consultation
1. Sep.-1. Nov. 2010	The relevant ministers approve the implementation plan
1. Nov. 2010	Implementation of Open Access is put into motion
Ult. 2011	The project concludes on the implementation process and informs the ministers.

Appendix 2: Council of the European Union’s conclusions on scientific information in the digital age



**COUNCIL OF
THE EUROPEAN UNION**



Council Conclusions on scientific information in the digital age: access, dissemination and preservation

*2832nd COMPETITIVENESS (Internal market, Industry and Research) Council meeting
Brussels, 22 and 23 November 2007*

The Council adopted the following conclusions:

"THE COUNCIL OF THE EUROPEAN UNION

RECALLING:

- the 24 August 2006 Commission Recommendation on "the digitisation and online accessibility of cultural material and digital preservation" (OJ 2006/L 236/28) and the related Council Conclusions of 13 November 2006 (OJ 2006/C 297/01);
- the 14 February 2007 Commission Communication on "scientific information in the digital age: access, dissemination and preservation" COM(2007)56;
- the 4 April 2007 Commission Green paper on "the European Research Area: New Perspectives" COM(2007)161;
- The OECD's Principles and Guidelines for Access to Research Data from Public Funding, agreed by all OECD Countries in 2007.

CONSIDERING that:

- access to and dissemination of scientific information – publications and data – are crucial for the development of the European Research Area, and can help accelerate innovation;

P R E S S

- the Internet has created unprecedented possibilities to disseminate, share and build on the outcome of research efforts;
- Information and Communication Technologies revolutionise the way scientists communicate, perform research and produce knowledge;
- in an era of high speed connectivity and high performance computing, data emerges as key for modern science;
- the systems by which scientific information is published are pivotal for its dissemination and quality control, in particular through peer review, and thus have a major impact on research funding policies and on the excellence of European research;
- universities, libraries, research performing and research funding organisations, scientific publishers and other stakeholders have in recent years made considerable investments in information technologies for online accessibility;
- effective and long-lasting digital preservation of scientific information is fundamental for the current and future development of European research;

1) WELCOMES

- the Communication COM(2007)56 on "scientific information in the digital age: access, dissemination and preservation" as a basis for further work at the European level on the accessibility and preservation of scientific information.

2) RECOGNISES

- the major contribution of universities, international research organisations, research bodies, libraries and other public organisations, as well as of scientific publishers, to the scientific dissemination process;
- that new, Internet-based dissemination models have triggered a major debate involving all concerned stakeholders on access to and dissemination of scientific information and in particular on access to peer-reviewed scientific articles;
- that over the past years scientific libraries' capacity to provide researchers with access to a wide range of publications has been affected by rising overall prices of scientific journals (including electronic distribution of publications);
- the strategic importance for Europe's scientific development of current initiatives to develop sustainable models for open access to scientific information.

3) UNDERLINES

- the need to ensure rapid and wide access to publicly funded research results;
- that Member States have a strong interest in an efficient scientific information system that maximises the socio-economic impact of public investments in research and technological development;
- the importance of scientific output resulting from publicly funded research being available on the Internet at no cost to the reader under economically viable circumstances, including delayed open access;
- the cross-border nature of many research endeavours, of their funding sources, and of their dissemination channels;
- the importance of better access to unprocessed data and repository resources for data and material that allows fresh analysis and utilisation beyond what the originator of the data had envisaged;
- that new forms of electronic communication have the potential to enable open access to data and scientific publications, and provide a unique opportunity for the open development of specific data mining, analysis and integration tools, possibly enhanced by common format standards;
- that policies and practices in the Member States on access to and preservation of scientific publications and research data are developing at different speeds;
- the importance of effective collaboration between different actors, including funding agencies, researchers, research institutions and scientific publishers, in relation to access, dissemination and preservation of scientific publications and research data;

4) TAKES NOTE

- of recent reports calling on the Commission to improve access to results stemming from the research it funds, including reports of the European Research Advisory Board and the European Research Council's Scientific Council supporting open access to Community funded research results;
- of the intention of the Commission to support further research on the scientific publication system, and to carry out a study on the economic aspects of digital preservation.

5) INVITES THE MEMBER STATES

As first steps and in line with the annex, to

- reinforce national strategies and structures for access to and preservation and dissemination of scientific information, tackling organisational, legal, technical and financial issues;
- enhance the co-ordination between Member States, large research institutions and funding bodies on access, preservation and dissemination policies and practices;
- maximise access for researchers and students to scientific publications, in particular by improving public procurement practices in relation to scientific information; this could include exchanging information on these practices and increasing the transparency of the contractual terms of "big deals", and exploring the possibilities for funding bodies, research institutions and scientific publishers from different Member States to work together in order to achieve economies of scale and efficient use of public funds by demand aggregation;
- ensure the long term preservation of scientific information - including publications and data - and pay due attention to scientific information in national information preservation strategies;

6) INVITES THE COMMISSION TO

As first steps and in line with the annex, to

- monitor good practices in relation to open access to European scientific production, including those arising from large scale experiments by scientific communities and large research institutions, and encourage the development of new models that could improve access to European scientific research results;
- monitor the current situation of public virtual scientific libraries in the EU and other ongoing developments across Europe relating to access of students and researchers to scientific information and to its digital preservation, as well as the relevant legal framework conditions that may have an impact on access to this information;
- experiment with open access to scientific data and publications resulting from projects funded by the EU Research Framework Programmes in order to assess the appropriateness of adopting specific contractual requirements;
- encourage research into digital preservation, as well as experiments on and wide deployment of scientific data infrastructures with cross-border, cross-institution and cross-discipline added-value for open access to and preservation of scientific information;
- support and contribute to improving policy co-ordination and to fostering a constructive debate and exchange of information between stakeholders.

A. Invitation to the Member States to:

1. Reinforce national strategies and structures for access to and dissemination of scientific information by:	
defining clear policies for dissemination of and access to scientific information, including the associated financial planning;	2008
promoting, through these policies, access through the internet to the results of publicly financed research, at no cost to the reader, taking into consideration economically sustainable ways of doing this, including delayed open access	2008 onwards
<p>assessing in a systematic way conditions affecting access to scientific information, including:</p> <ul style="list-style-type: none"> - the way in which researchers exercise their copyrights on scientific articles; - the level of investments in the dissemination of scientific information as compared to total investments in research; - the use of financial mechanisms to improve access, such as refunding VAT for digital journal subscriptions to libraries; 	2008
ensuring that repositories of scientific information are sustainable and interoperable;	2010
bringing together main stakeholders in the debate on scientific information (scientists, funding bodies, libraries, scientific publishers)	2008

2. Enhance the co-ordination between Member States on access and dissemination policies and practices by:	
exploring the possibility for national funding bodies to define common basic principles on open access;	2008
improving transparency of the contractual terms of 'big deals' financed with public money and assessing the possibilities to achieve economies of scale by demand aggregation;	2008
working towards the interoperability of national repositories of scientific information in order to facilitate accessibility and searchability of scientific information beyond national borders;	2009
contributing to an effective overview of progress at European level, informing the Commission of results and experiences with alternative models for the dissemination of scientific information.	2008

3. Ensure the long term preservation of scientific information - including publications and data - and pay due attention to scientific information in national preservation strategies by:	
defining a structured approach to the long term preservation of scientific information and incorporating this approach in national plans for digital preservation established in line with the Commission Recommendation of 24 August 2006 and Council Conclusions of 13 November 2006 on online accessibility to cultural material and digital preservation;	Mid-2008
taking into account the specific characteristics of scientific information when setting up the legislative framework (including legal deposit) or practical set-up for digital preservation.	2009

B. Invitation to the Commission to implement the measures announced in the Communication on "scientific information in the digital age: access, dissemination and preservation", and in particular to:

1. Experiment with open access to scientific publications resulting from projects funded by the EU Research Framework Programmes by:	
defining and implementing concrete experiments with open access to scientific publications resulting from Community funded research, including with delayed open access.	2008 onwards
2. Support experiments and infrastructures with a cross-border added-value for access to and preservation of scientific information by:	
co-funding of research infrastructures, in particular by linking digital repositories at European level and co-funding research on digital preservation within FP7; supporting experiments with open access with a clear cross-border added value.	2007 onwards
3. Contribute to improved policy co-ordination between Member States and to a constructive debate between stakeholders by:	
bringing together, at the European level, concerned stakeholders in the debate on scientific information	2007 onwards
monitoring good practices in relation to open access to European scientific production.	2008 onwards

Appendix 3: Economy overview and economic calculations

	1 year	2 year	3 year	4 year
Development of Internet portal	1.000.000			
Operation and project management of Internet portal	1.000.000	1.000.000	1.000.000	1.000.000
Development of long-term preservation service for publications	2.000.000			
Operation of long-term preservation service for publications	1.000.000	1.000.000	1.000.000	1.000.000
Overall coordination	800.000	800.000	800.000	800.000
Information, debate and dialogue	500.000	500.000	200.000	100.000
Planning of free access and long-term preservation of data	1.100.000	1.100.000		
Memberships	450.000	450.000	450.000	450.000
TOTAL	7.850.000	4.850.000	3.450.000	3.350.000
TOTAL for all 4 years	19.500.000			

Economic calculations

No.	Recommendation	Calculation	DKK
1	National Open Access policy is established by the Ministry of Science, Technology and Innovation		
2	Research councils and foundations establish Open Access policies		
3	Universities and other research institutions establish Open Access policies		
4	The bibliometric research indicator should be coordinated with the national Open Access policy		
5	Establishment of common Internet access to Danish research results	1) Basic modernisation from minimum functionality today corresponding to 20 months academic development initiative 2) Operational costs as today plus running update of functionality	1) Development of an aggregated portal: DKK 1.000.000 annually 2) Operation and project management of common portal: DKK 1.000,000 an.
6	Danish scientific publishers prepare discussion paper on transition to Open Access		
7	DEFF coordinates the implementation of the recommendations by the Open Access Committee	One staff full time: DKK 600,000 annually Funds for arrangements etc.: DKK 200,000 annually	DKK 800,000 for 4 years
8	Professional implementation of information, debate and dialogue	Planning and design: DKK 300,000 Campaigns and conference: DKK 1.000,000	DKK 1.300,000
9.	Coordination of the Danish Open Access initiative in international fora		
10	Increased focus on Open Access in DEFF consortia licenses		
11	Danish membership of Confederation of Open Access Repositories	Membership: DKK 25,000 Travelling and participation in meetings: DKK 25,000	DKK 50,000 annually
12	Establishment of a comprehensive long-term preservation service for the universities' publications	Development corresponding to 40 months academic initiative: DKK 2.000,000 Operation: Salary DKK 600,000 Operation other annually: DKK 400,000	Development: DKK 2.000,000 Operation annually: DKK 1.000,000
13	National planning of free access to as well as long-term preservation of primary research data	One full-time staff for 2 years: DKK 1.200,000 Development costs: DKK 1.000,000	Staff: DKK 1.200,000 Development: DKK 1.000,000
14	Danish membership of central international cooperation fora for handling and long-term preservation of scientific information in the broader sense	Membership The Alliance for Permanent Access: DKK 200,000 Membership DataCite: DKK 200,000	DKK 400,000 annually

Appendix 4: Time schedule for implementation

		2011	2012	2013	2014		
		1. half-year	2. half-year	1. half-year	2. half-year	1. half-year	2. half-year
Recommendation 1. National Open Access policy is established by the Ministry of Science, Technology and Innovation							
Process	1. The Open Access Committee submits a proposal for national Open Access policy to the Ministry of Science, Technology and Innovation and the Ministry of Culture						
	2. The Ministry of Science, Technology and Innovation is responsible for necessary hearing and decision						
Recommendation 2. Research councils and foundations establish Open Access policies							
Process	1. Research councils and foundations establish and implement Open Access policy						
Recommendation 3. Universities and other research institutions establish Open Access policies							
Process	1. Discussion and decision by the universities						
Recommendation 4. The bibliometric research indicator should be coordinated with the national Open Access policy							
Process	1. The Danish Agency for Research and Innovation considers how the indicator can be coordinated with the national Open Access policy						
Recommendation 5. Establishment of common Internet access to Danish research results							
Process	1. The Ministry of Science, Technology and Innovation and the Danish Agency for Research and Innovation implement the necessary demands in research grants						
	2. DEFF and the Open Access Committee prepare a proposal for a common portal which can also facilitate the interaction with national long-term preservation services						
	3. A common portal is established and starts operating						

		2011	2012	2013	2014		
		1. half-year	2. half-year	1. half-year	2. half-year	1. half-year	2. half-year
Recommendation 6. Danish scientific publishers prepare discussion paper on transition to Open Access							
Process	1. The Open Access Committee prepares mandate						
	2. The Danish Publishers Association is invited to put forward proposals on the basis of the mandate						
	3. The Danish Publishers Association submits proposals as to how Danish periodicals and monographs can be converted to Open Access						
Recommendation 7. DEFF coordinates the implementation of the recommendations by the Open Access Committee							
Process	1. DEFF is made responsible for the practical project management of the Open Access Committee's recommendations as well as the central support to the universities' local advisers in the field of copyright and Open Access						
Recommendation 8. Professional implementation of information, debate and dialogue							
Process	1. Agreement is entered into with a media and communication bureau						
	2. Campaign is launched						
Recommendation 9. Coordination of the Danish Open Access initiative in international fora							
Process	1. The recommendation is implemented by The Danish Council for Independent Research, The Danish Council for Strategic Research, Danish National Research Foundation, the Danish National Advanced Technology Foundation and the Danish Council for Technology and Innovation						
Recommendation 10. Increased focus on Open Access in DEFF consortia licenses							
Process	1. DEFF prepares a plan for Open Access activities within the license area						
	2. The plan is approved by the Open Access Committee						
	3. The plan is put into motion						

		2011	2012	2013	2014		
		1. half-year	2. half-year	1. half-year	2. half-year	1. half-year	2. half-year
Recommendation 11. Danish membership of Confederation of Open Access Repositories							
Process	1. DEFF becomes a member on behalf of the Danish repositories						
	2. DEFF ensures that activities and results are widely anchored						
Recommendation 12. Establishment of comprehensive long-term preservation service for the universities' publications							
Process	1. DEFF and the Open Access Committee prepare a proposal for the long-term preservation service's comprehensive functionality and interaction with the common portal and the universities' repositories						
	2. The long-term preservation service is developed						
	3. The service is launched						
Recommendation 13. National planning of free access to as well as long-term preservation of primary research data							
Process	1. The Ministry of Science, Technology and Innovation and the Ministry of Culture prepare mandate for cooperation organisation on the basis of discussion paper from the Open Access Committee						
	2. The Ministry of Science, Technology and Innovation appoints interdisciplinary cooperation organisation						
	3. Phase 1 starts						
	4. Phase 2 starts						
	5. The cooperation organisation submits discussion paper concerning how Danish research data can be archived and long-term preserved						
Recommendation 14. Danish membership of central international cooperation fora for handling and long-term preservation of scientific information in the broader sense							
Process	1. DEFF becomes a member						
	2. DEFF ensures that activities and results are widely anchored						

**Recommendations for implementation of
Open Access in Denmark**

Report from the Open Access Committee

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