Background
In June 2007, Blekinge Institute of Technology, as the first Swedish education institution, introduced an OA mandate which not only "recommended" researchers to publish in Open Access journals but that actually emphasized the word "shall". The policy is short and is quoted here:

"The Vice-Chancellor decides that each scientific article (journal-, conference article or other referee-reviewed documents) published by personnel employed at BTH shall be deposited as a copy in electronic form, with bibliographic data, in the BTH research database. Free access to the documents will be given via the database when copyright- or secrecy regulations do not prevent this. Researchers at BTH should, as a first choice, aim at publishing their research articles in freely accessible scientific journals when an appropriate journal of this kind exists, and, as a second choice, with the publishing firms that permit self-archiving of post-print documents."

After BTH made the decision about this policy, quite a few things have happened in the area of OA in Europe: Within EU new discussions around Open Access and policy matters have been initiated. The Seventh Framework Programme (FP7) has at its disposal over ca. 55 billion euros from 2007 to 2013. In 20% of the entire framework programme, a pilot study has been opened with the requirement that documents produced within the programme must be published OA. In the document "A digital Agenda for Europe," the European Commission lays down that:

"Knowledge transfer activities should be managed effectively and supported by suitable financial instruments and publicly funded research should be widely disseminated through Open Access publication of scientific data and papers [...] To this end the Commission will appropriately extend current Open Access publication requirements…”

In the vision document "Europe 2020 Flagship Initiative Innovation Union," the Commission says the following:

“The Commission will promote open access to the results of publicly funded research. It will aim to make open access to publications the general principle for projects funded by the EU research Framework Programmes”.

These formulations, together with the launching of network- and infrastructure strengthening OA projects such as DRIVER and OpenAIRE, contribute to the increase of interest in reviewing and upgrading local publishing systems that work in the same directions. Sweden has, also, nationally and in the recent years, experienced fewer words and more deeds. Major Swedish research funders, as for example the Research Council and the independent foundation RJ [Riksbankens Jubileumsfond], have introduced regulations requiring that research documents published with the assistance of their money must be freely accessible; information work about OA has been carried out at most universities and higher education institutions; Chalmers introduced a forceful OA policy 2010 as did Malmö University the same year. At the same time, the publishing units at the university libraries receive increasingly more inquiries from researchers who are at a loss and who practically drown in more or less serious offers to publish from an increasing amount of publishing firms. This
circumstance, combined with the pressure to produce and publish and pressure locally and nationally to publish in journals indexed in ISI Web of Science, results in the researchers’ need for a descriptive manual that practically describes how to go about fulfilling all the conditions that funders, university managements and research leaders make.

BTH is not alone in the world of Swedish universities and higher education institutions in trying to, with different means, motivate researchers to publish in ISI-indexed journals as an adjustment to the resource distribution- and evaluation system of Swedish research policy. This means that we have to stimulate ISI publishing at the same time as we want to comply with the research funders’ requirements and make use of the advantages that open access to the BTH research publications give in the form of increased exposure and accessibility. With the creation of our publishing rules, we believe that we have found a tool that meets both goals.

One-sided categorical imperatives from the top down usually present difficulties when it comes to reaching out, and especially if the instructions and prerequisites of meeting the requirements are insufficient. The BTH OA policy is a good example of this. Not until you offer the researchers tools, clear instructions and an active support will you see the beginning of respect for and compliance with the policy.

**Before and after**

BTH has ca. 250 researchers and doctoral candidates and has had its in-house developed publishing database running since the end of the 90’s. Ever since then we have, at the library, tried to influence researchers to enter bibliographic information about their documents and, if possible, also self publish\(^8\) full-text documents.

To answer the question on how the BTH OA policy, and the library’s OA activities in relation to it, have affected the self publishing of full-text articles, the BTH institutional repository\(^9\) was used to retrieve reviewed journal articles and conference articles that had been published between 2005 and 2010. In this way we could compare the three-year production of articles before the OA policy to the three-year production after the OA policy.

The questions that were asked were: How many articles were published in OA journals and how many were self-archived? Could you see a difference before and after the policy?

The services SHERPA/RoMEO\(^{10}\) and DOAJ\(^{11}\) were used to see which of the relevant journals used OA as a business model.

Between 2005 and 2010 there are 412 reviewed journal articles registered in the institutional repository. Of these 107 are self archived in the institutional repository. 31 of the 412 articles are published in OA journals. Slightly more than every fourth journal article was self archived and barely 8% of the articles during the period were published in OA journals. The dominating way to freely make articles accessible is thus self archiving. Through self archiving in local institutional repositories, the libraries in the simplest and most efficient way can support researchers in making their documents freely accessible.

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8 A majority of scientific publishing firms permit parallel publishing or so-called self-archiving, i.e., that researchers in their local publication database to the bibliographic post add an author’s version of the article, i.e., the last reviewed version that the author submitted to the publishing firm.

9 [http://www.bth.se/foa/](http://www.bth.se/foa/)

10 [http://www.sherpa.ac.uk/romeo/](http://www.sherpa.ac.uk/romeo/)


12 Parallellpublicering av vetenskapliga artiklar – slutrapport
The following recommendations were among those given in the study:

- Automatic generation of front endpaper in the local systems.
- Simplified registration in the local systems.
- Increased work of assistance from the library, both in terms of information work and in terms of support to researchers who self archive.
- Clear requirements and guiding principles for self archiving from research funders and higher education institutions.

All these recommendations have been carried out at BTH which has contributed to an increase of ca. 50% between 2009 and 2010 of the number of self archived articles; from 30% to 45% of all published journal- and conference articles.

Reward system and research strategy
At the same time as the number of self archived publications has increased, the number of published journal articles in ISI has also increased substantially in the last years. On the part of the institute it was important to find an incentive structure to increase the number of journal articles indexed in ISI Web of Science. The reason was that part of the research resources from the Ministry of Education and Research (internal funding/basic funding) was allocated on the basis of how many journal articles respective university and higher education institution has indexed in ISI Web of Science. The Faculty Board has, since the end of 2009, allocated a pool of their strategic funds to reward the researchers who publish in journals indexed in ISI Web of Science. For each journal article, the researchers at BTH can credit themselves and their school 30.000 SEK.

If you look at the publishing of BTH researchers’ journal articles and conference articles listed in the ISI index during the period 2005-2010, the increase is evident. The number of journal articles in ISI has increased by over 100% from 24 in 2005 to 58 in 2010. In other words, the initiative taken by the Faculty Board to allocate strategic funds has been very successful. For conference articles the tendency is that slightly more than every third conference article ends up in ISI. This pattern is irregular if you study year by year which may depend on the fact that the indexation of conferences is under development and significantly less stable in ISI than the journal indexation.

Publishing rules
In order to further facilitate to the researchers the acceptance and affirmation of a collected idea around research publishing, the Faculty Board and the Library took the common initiative to a document that would contain rules, ideas behind the rules and explanations on how to meet the requirements of the rules. The guidelines for visibility that the management took the initiative to in 2009, together with the core of the BTH OA policy, form the basis of this document.

The ambition is to at the same time build on the terms descriptive and constructive and to construe a document of three parts: 1 Principles. 2. Background/Explanation and 3. A manual with instructions on how to live up to the principles and the support that exists to accomplish this.

The suggestion was referred to the schools for consideration during the spring of 2011 and a decision was made by the Faculty Board in the summer of 2011. The nine publishing principles are:

1. Publish, if possible, as a first choice in channels that are perceived as leading and that publish the most significant publications from researchers in different countries. Publish, if possible, in journals that are indexed in ISI.
2. Publish journal articles as a first choice in journals whose business model is Open Access or with publishing firms that permit parallel publishing.
3. All published documents must be entered as bibliographic references in the BTH institutional repository.
4. All referee-reviewed publications must be entered as full-text files in the BTH institutional repository if copyright or secrecy rules permit this.
5. All publications must have the affiliation: Blekinge Institute of Technology.

PAVA-projektet (Parallel publishing of scientific articles – final report of the PAVA project).
http://www.kb.se/Dokument/Om/projekt/open_access/pava_slutr apport_090402.pdf

13 Publication rules for researchers at Blekinge Institute of Technology.
http://www.bth.se/fou/Forskinfo.nsf/Sok/8389c16f85eb733c125 78f90412adb0OpenDocument
6. Avoid, if possible, transfer of copyright.
7. Licentiate- and doctoral dissertations are designed with a standard cover and front endpaper.
8. Material that is not published via customary channels should use the BTH report series.
9. The Library yearly provides the Faculty Board with analyses of the schools’ scientific publications in regard to publishing activity and impact. The analysis builds on the method produced at Stockholm University which is based on the so-called Norwegian model.

The publishing rules are each tied to one background/explanation and to one instruction. As an example of this we may have a closer look at rule #2 “Publish journal articles as a first choice in journals whose business model is Open Access or with publishing firms that permit parallel publishing.”

To this rule the following background/explanation is given: “There is a growing requirement of making scientific publications freely accessible on the net. In Sweden, research funders such as the Research Council, Formas, and the independent foundation RJ (Riksbankens jubileumsfond) require this. The Association of Swedish Higher Education recommends Open Access as does the Royal Swedish Academy of Sciences. The Ministry of Education and Research advocates the shaping of a national OA policy. Outside of Sweden, the National Institute of Health (USA), the European Research Council, the Seventh Framework Programme etc. have made far-reaching decisions in the same direction. We can expect an increase in the requirements for accessibility. At the same time, research indicates that documents that are freely accessible are cited more. This increases the visibility for research and researchers at BTH at the same time as it may have a positive effect on our research grants (see item 2.1).”

The Manual then describes how the researcher needs to proceed to practically comply with the rule: “Most journals in ISI use a traditional subscription model. But increasingly more pass over to offering complete or partial Open Access. The idea behind one of these new business models is, upon acceptance of the article, to have the author pay a publishing fee to cover the costs up to publication when the article becomes freely accessible. Usually this cost is 1500-3000 USD. Some journals allow all articles to be accessible without restrictions. Other subscription-based journals may choose a so-called hybrid solution. Hybrid journals are journals that are based on the traditional subscription-based access but where the author has the possibility make an individual article freely accessible by paying a publishing fee. Most of the major publishing firms offer this possibility for a part of or all of their journals. You will find a list of Open Access journals and hybrid journals at DOAJ (Directory of Open Access & Hybrid Journals): http://www.doaj.org/.

A full-text version of your article can, in most cases, be added to the bibliographic item that you enter in the BTH publishing database. This is called “parallel publishing” or so-called “self archiving”. Most publishing firms permit researchers to parallel publish an author version of the article, i.e., the last reviewed version that the author sent to the publishing firm. Information about the OA policies of most publishing firms and journals, and about their possible permission to parallel publish, can be found through the service Sherpa/RoMEO, which is run by the University in Nottingham: http://www.sherpa.ac.uk/romeo/ Guidance to Sherpa/RoMEO can be found here: http://www.bth.se/fou/Forskinfo.nsf/textpages/d943e3o0f5a2b0ec12577ed004fb43c?OpenDocument

Read more about Open Access and different business models here: http://www.bth.se/fou/forskinfo.nsf/textpages/about-open-access

The ninth and last paragraph is about the fact that the BTH Library provides the Faculty Board with regular statistics to, in some way, indicate how the publishing strategy works in reality – does publication increase in high-qualitative publications?; what does the relation between different publishing channels look like? Etc. The idea is to have the analysis results offer an overview of production and quality at BTH and in addition support strategic decisions concerning research publishing.

The analysis is done once a year. The basic data for the statistics are retrieved from the BTH institutional repository. The statistics that are produced are based on the so-called “Norwegian model” that can be said to combine productivity and quality but instead of measuring citations the emphasis is given to the extent

at which publications appear in channels of great scientific weight.

At BTH, our point of departure has been the working method elaborated at Stockholm University\textsuperscript{15} with its basis in the Norwegian model. The model has since 2008 been used at Stockholm University but also at the universities of Lund and Uppsala.

**Summary and discussion**

It is evident that researchers at BTH need support and advice to comply with the OA policy of BTHs, the visibility requirements from the management, not to mention the policy regulations of different research funders. The results of the intensified work the last two years when it comes to supporting OA publishing indicate this. To have a well-anchored document that shows the direction of travel, that explains why it has been marked out and how we need to act to get ahead feels like a welcome support, above all to us who work with the matters and to doctoral candidates and junior researchers.

There is, certainly, a problem when it comes to indicating a special group of journals in a specific index as the most desirable publishing channel, particularly if this index is unbalanced in terms of subjects\textsuperscript{16}. The basis of the strategy is, however, above all to raise the level of awareness and point out the importance of long-term publishing in journals of high quality and extensive circulation radius.

To advocate Open Access at the same time as you encourage publishing in journals with a traditional subscription-based business model may seem contradictory, but a full-text version of a journal/article published in a channel locked by subscription, may, in most cases, be added to the bibliographic item that is entered into the BTH institutional repository. By supporting this so-called parallel publishing we can, at the same time, promote openness and adjust to national and international bibliometric measurement mechanisms based on, among other things, citation counts.

It is, ultimately, a matter of making visible the publications of the organization at the same time as trying to make researchers aware of the different evaluation systems that are applied to the research and that are of importance for the funding and the understanding of the surrounding world in regard to the work done. One cannot any longer overlook the fact that research work is exposed to competition and to keep as high a production and quality as possible is more important than ever. To succeed you have to sharpen your arms, which, among other things, means being visible, giving free access to your publications and being cited in the most prestigious channels as often as possible. Well-anchored publishing rules constitute an important tool in a strategic plan towards this goal.

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\textsuperscript{15} Ahlgren, Per. Vikt på forskningspublikationer (Weight on research publications).
http://www.sub.su.se/omsub/doc/bibliometri/no_modellen_intro.pdf