

# PASTEUR4OA Case Study

## Institutional policy implementation at the University of Liège, Belgium

Author: Alma Swan (EOS)

Reviewers: Brigita Serafinavičiūtė (LMT) and András Holl (MTA)

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### Summary

This case study describes the development and implementation of the Open Access policy at the University of Liège, Belgium. A brief introduction to the University is provided, describing its size, scope of the research and teaching programmes of the institution and some historical notes. The establishment and development of the institutional repository, ORBi, is described and the steps taken to initiate and implement the institutional Open Access policy.

The policy came into effect in November 2008 and has become the most effective Open Access policy in the world at present, with 87% of the University's research articles currently being deposited in the repository. Practical support for the policy is provided by top management and by the Library. This, plus added-value author services built by the Library for ORBi and other advocacy activities, have helped to increase author engagement. This case study also provides some data about the operations of ORBi and the results of the policy in affecting levels of deposition of materials in the repository.

## 1. Introduction

The University of Liège<sup>1</sup>, located in the francophone Wallonia region of Belgium, was founded in 1817 on the initiative of King William I of The Netherlands. The reputation of the Schools of Liège, its forerunner through from the 16<sup>th</sup> century, earned the city the title 'Athens of the North'. The University's first charter actually dates back to 1808, at a time when Liège was part of the Napoleonic Empire, and university activities proper began on 25 September, 1811.

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<sup>1</sup> [www.ulg.ac.be](http://www.ulg.ac.be)

Nowadays, the University has its main sites in the centre of Liège and in Sart-Tilman, some 10 kilometres to the south. It also has small sites in Arlon and Mont-Rigi, an agro-biotech campus at Gembloux, and an oceanography facility at Calvi (Corsica). In total there are around 20,000 students and almost 3000 faculty members in 45 departments spread across 9 Faculties and 1 School as follows:

- Philosophy & Letters
- Law, Political Science & Criminology
- Science
- Medicine
- Applied Science
- Veterinary Medicine
- Psychology & Education
- Social Sciences
- Agro-Bio Technology
- Architecture
- School of Management

Currently, the University offers 38 bachelor's degrees, 190 master's degrees and 65 advanced master's degrees. Many of the programmes are bilingual or taught in English. There are around 2000 doctoral candidates in the University at any time.

In 2013, the University of Liège produced 2561 research papers (source: Web of Science, Thomson Reuters), some 4.5% of the total output from Belgium.

## 2. Repository

The University of Liège's institutional repository (IR), ORBi (Open Repository and Bibliography)<sup>2</sup> was begun in 2005 and has continued to be developed since then. Establishing the repository was the initiative of the then-Rector, Professor Bernard Rentier, and the University's Library service under the direction of Paul Thirion undertook the building and on-going responsibility for running ORBi. ORBi was also part of an inter-university project conducted and supported by the BICfB (Bibliothèque Interuniversitaire de la Communauté française de Belgique). The repository was built using the DSpace software and took around two years for a 2-FTE team (1 member of staff from the IT department and 1 from the Library) to complete.

The dual purpose of the repository was to (a) make the University's research outputs visible and accessible to the world and (b) collect together the full record of the University's research programme. Explaining what lay behind this latter reason, Professor Rentier said at the time, "I am asked how many

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<sup>2</sup> <https://orbi.ulg.ac.be/>

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articles my researchers publish each year, and I have to say ‘I have no idea!’ ”. The repository was to be the answer.

Though primarily designed to collect and disseminate journal articles, ORBi accepts all types of research output. Deliberately, in order to ensure that the mission to disseminate the University’s research openly is fulfilled, ORBi only accepts deposits of items published since 2002 when there is a full-text document included with the metadata. For documents published before 2002, metadata-only records are permitted, although the full-text is encouraged even for these older items.

From the outset in 2005, the Library heavily promoted ORBi through advocacy throughout the institution, training and demonstration of the practical advantages to authors of depositing their work. The Rector himself has also been very active throughout in promoting the repository and its advantages, both within the University and in the wider world.

A set of author services are also built upon ORBi, including tools that provide data on downloads of items, downloads for individual authors, and the number of citations that accrue to items deposited in the repository. All of these help to inform authors and enable them to see evidence of the benefits of depositing their work in ORBi.

ORBi currently (October 2015) has 127,000 items, 80000 of which are full-text articles, books or book chapters and conference proceedings. Approximately 44000 of these are fully Open Access and 36000 are Restricted Access (accessible by University members and available to people outside the University through the repository’s request-a-print service). The deposit rate has remained largely steady since the launch of ORBi and the implementation of the Open Access policy (see below). The pattern of deposits is shown in Figure 1.

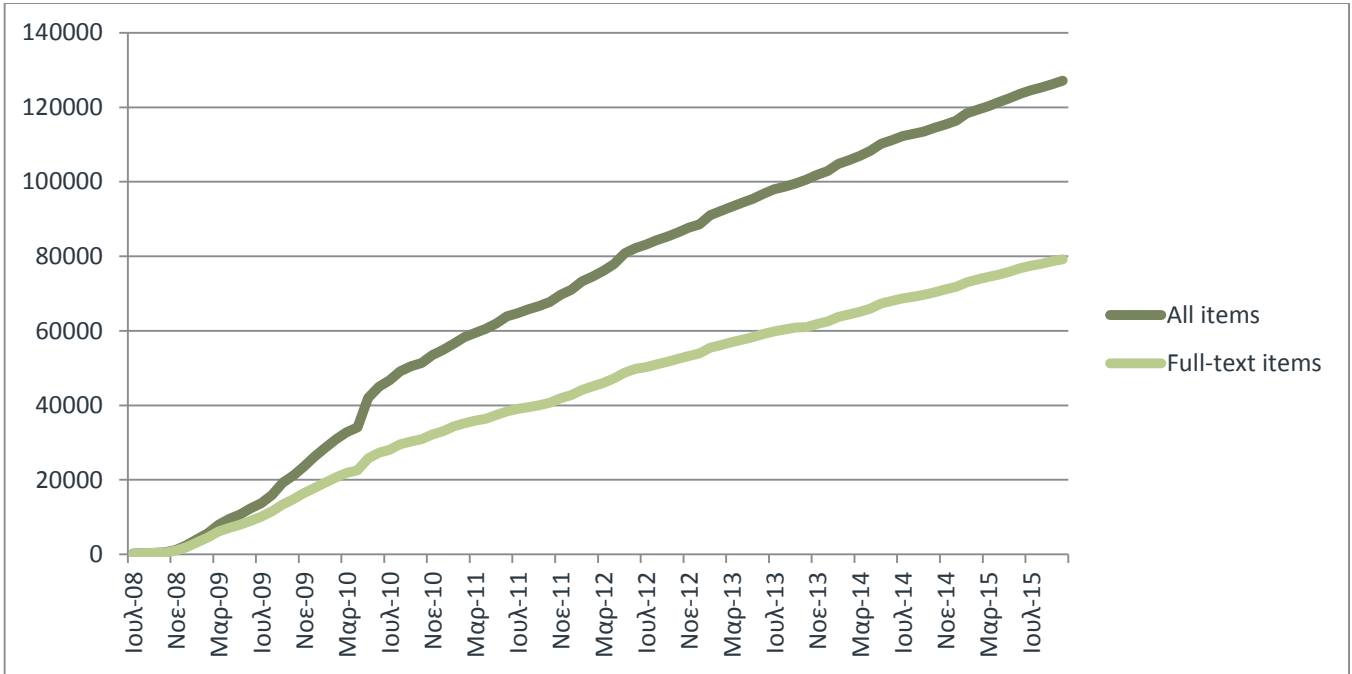


Figure 1: The number of items deposited in ORBi over time. The light green curve shows Open Access full-text items; the dark green curve shows items that are only showing metadata

The types of item deposited in ORBi are shown in Figure 2.

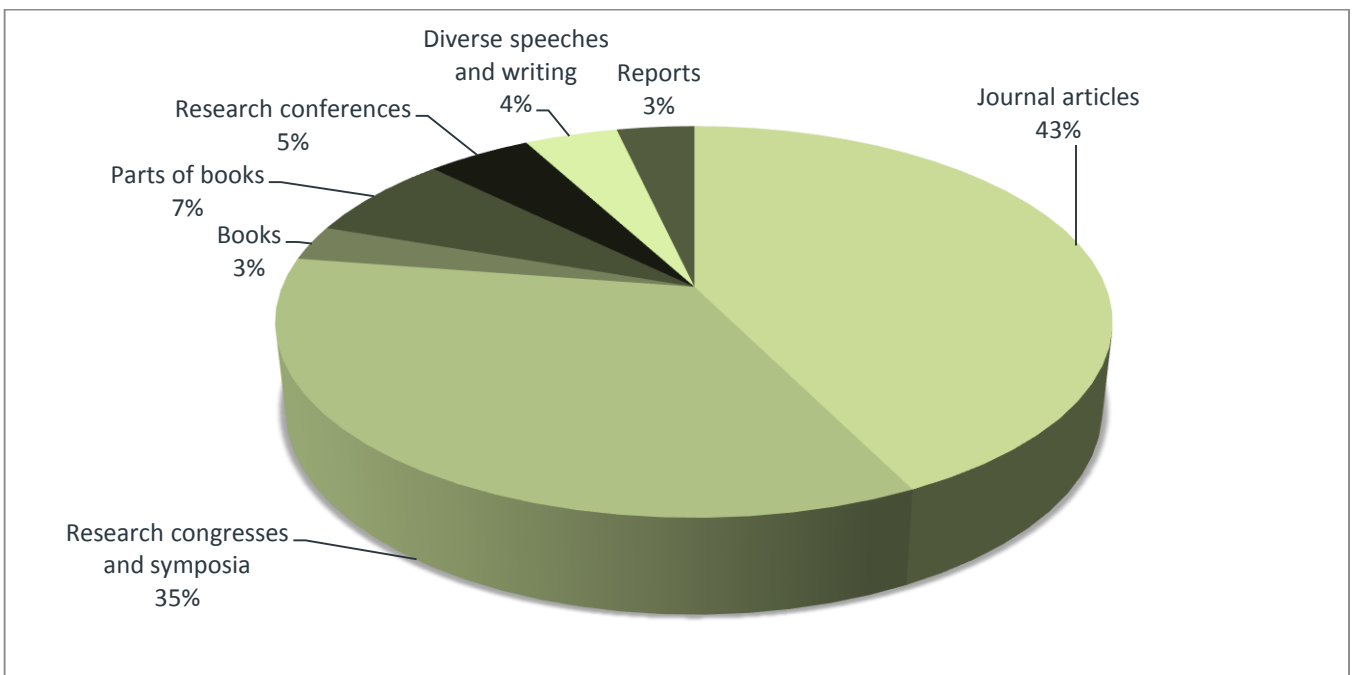


Figure 2: Content types in ORBi (percentages of total)

## Summary

- The University of Liège's institutional repository, ORBi, was developed over two years (2005-6)
- A pilot using volunteers was run for a further two years until the repository was officially launched in November 2008
- ORBi collects all types of research output with peer-reviewed journal articles and conference papers comprising nearly 80% of the total
- For articles published from 2002 onwards, the full-text must be deposited to accompany the descriptive metadata: for earlier articles it is permitted to make metadata-only deposits
- A set of author services (e.g. download statistics) has been built on the repository to help authors understand the benefits of making their work Open Access
- The deposit pattern has remained steady over time and levels of deposit are consistently high

## 3. Policy

The mandatory policy at the University of Liège<sup>3</sup> was passed by the Board of Administrators in May 2007, preceding the official launch of the repository and policy in November 2008.

The policy was innovative at the time (though it has been copied many times since), requiring deposit of research articles *immediately upon acceptance for publication*: where a publisher requires an embargo, the full-text of the item remains restricted until the end of the embargo period. Restricted items are fully accessible for University members, but people outside the University need to use the request-a-print button to ask authors to email the item to them: items that are Restricted Access are usually ones under a temporary embargo.

The descriptive metadata, which cannot be embargoed, are open from the point of deposit. The metadata include the article title, author names, affiliations, and so forth are not under publisher 'ownership', and having them open from the time of deposit enables search engines to index an item and make it discoverable by would-be users. These users can then contact the author to obtain a copy of the article during the embargo period.

Keen to maximise compliance with the policy, the Board of Administrators made it clear that only items that were in ORBi would be taken into account in any individual and collective assessment processes within the University. This includes assessments for promotion, tenure and the like.

The policy's main conditions are as follows:

- Peer-reviewed research outputs must be deposited in ORBi
- Deposit must be at acceptance for publication

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<sup>3</sup> [http://orbi.ulg.ac.be/files/extrait\\_moniteur\\_CA.pdf](http://orbi.ulg.ac.be/files/extrait_moniteur_CA.pdf)

- This deposit step cannot be waived
- Items should be made Open Access but publisher embargoes may be respected (the full-text is opened up at the end of the embargo period)
- Deposit of outputs is a precondition for research evaluation or assessment

The effectiveness of this element of the policy is illustrated in Figure 3 by the enhanced numbers of deposits in the month of May in even-numbered years, when promotions are considered in the University, and in January of each year when the deadline occurs for applications to the Belgian national research funder (FNRS<sup>4</sup>). This funder’s Open Access policy mirrors that of the University of Liège. These peaks in deposit are seen most clearly in the earlier years of the policy, before the habit of depositing had been fully adopted by the University’s researchers. Now that deposit has become a natural part of University of Liège authors’ workflow, these peaks are much diminished as most authors deposit routinely when each article is accepted for publication. The policy’s effectiveness is so pronounced that the policy’s conditions have been imitated by other institutions and funders around the world.

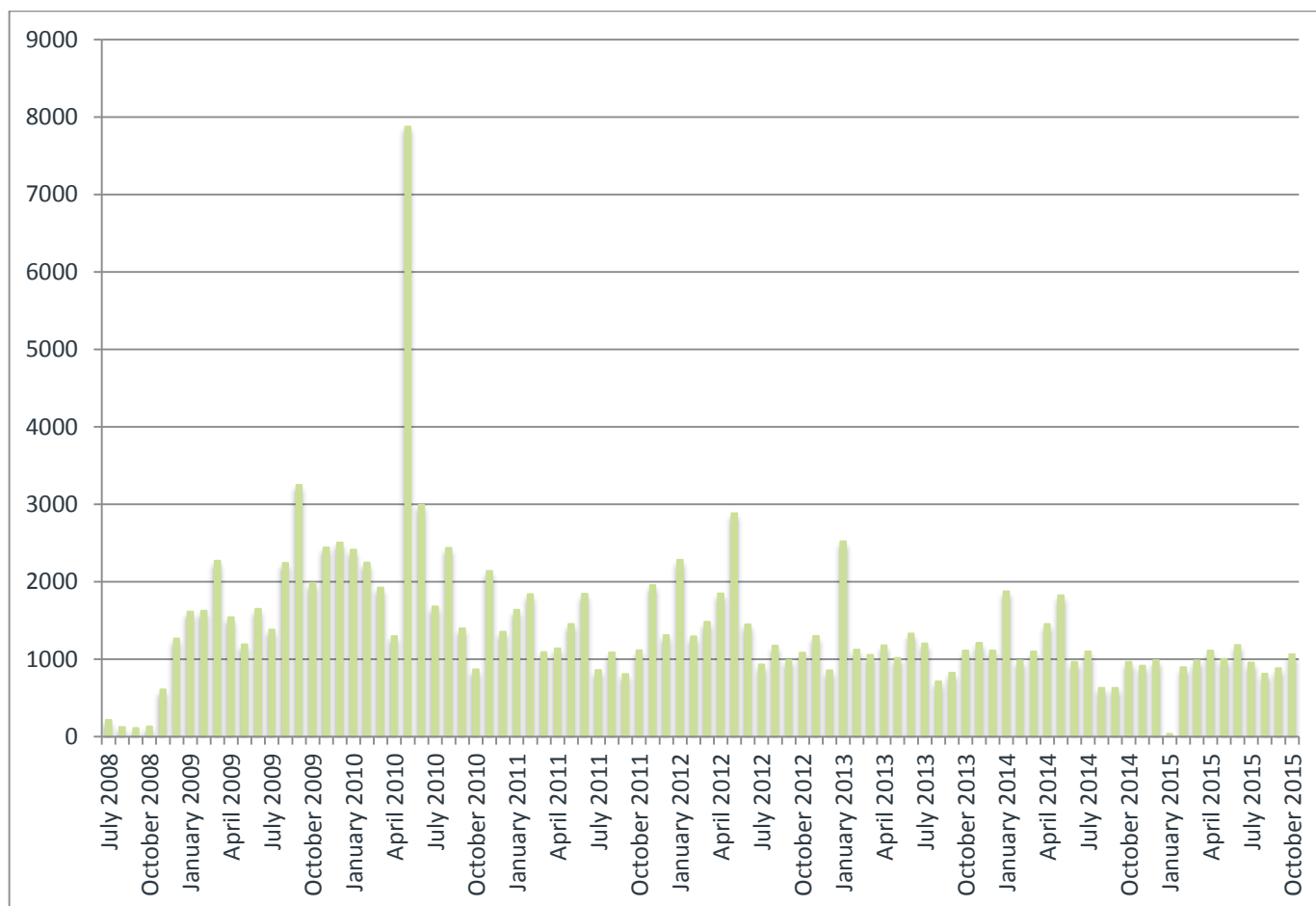


Figure 3: Deposit pattern over time in ORBi

4 <http://www.fnrs.be/>

The proportion of these deposits that are full-texts is shown in Figure 4. There was an initial decrease in the proportion of full-texts, probably explained by the fact that this period was not covered by the policy and deposits were being voluntarily made by early adopters (enthusiasts). Once the policy really started to bite the proportion of full-texts started to grow. It is currently 70% of the total. Note that the non-full-text deposits include articles where the full-text is under temporary embargo, pre-2002 articles which the policy allows to be deposited without the full-text, or other types of item (learning materials, patents, software, etc).

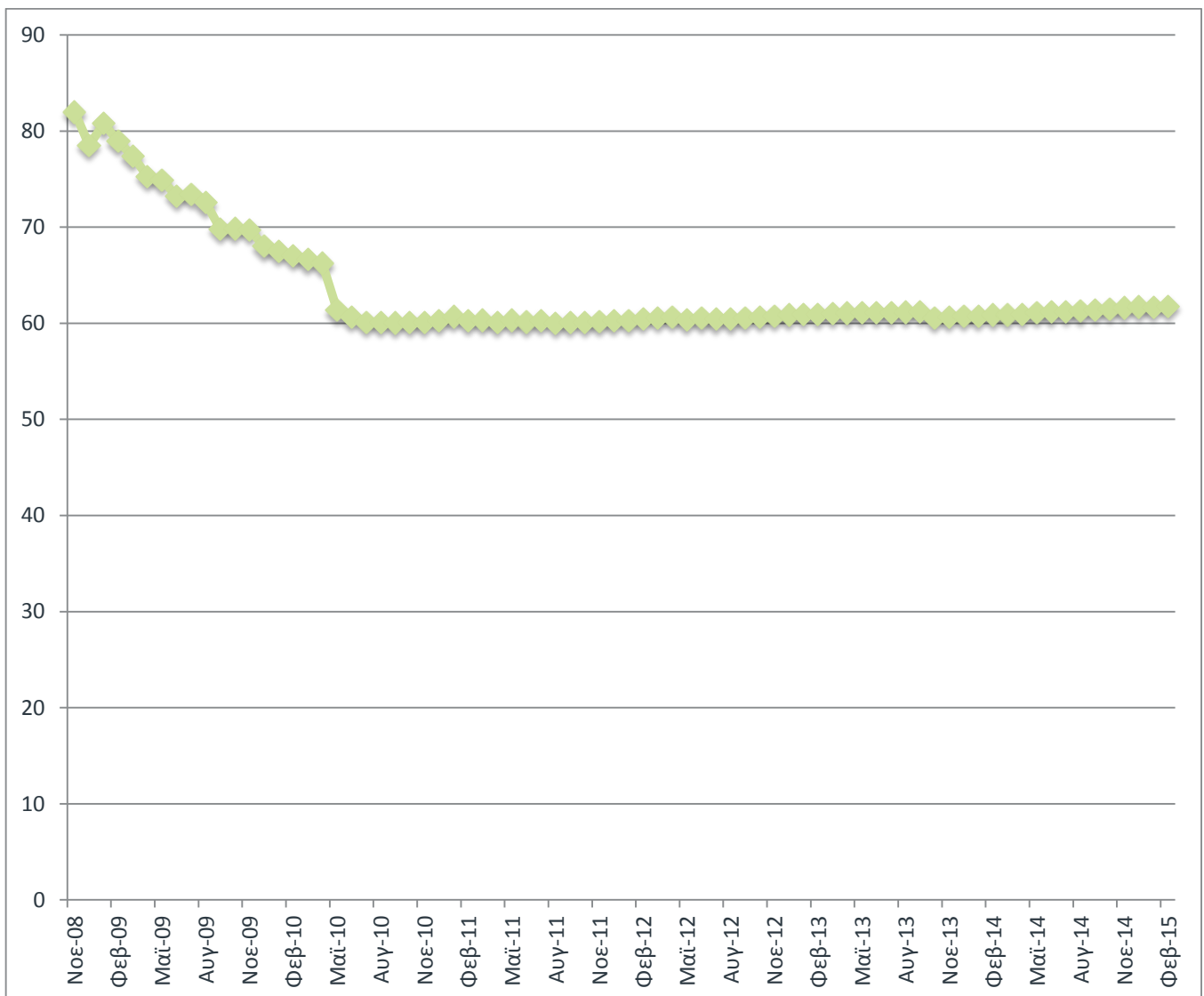


Figure 4: Percentage of total items in ORBi that are full-text items

## Summary

- The University's Open Access policy was agreed by the Board of Administrators in May 2007 and officially came into force in November 2008 when ORBi was launched
- The policy requires deposit of peer-reviewed outputs at acceptance for publication (and permits an embargo on Open Access to the full-text)
- Deposit cannot be waived
- Deposit is a precondition for research evaluation or assessment
- The University of Liège Open Access policy has been imitated by other institutions and funders around the world

## 4. Policy support

Since the policy was implemented at the University of Liège it has been heavily supported in practical ways by both the Library and the Rector himself.

The Rector has promoted the policy strongly within the University, blogging about it<sup>5</sup>, giving presentations, and engaging with researchers on the topic of Open Access wherever possible. He is very active internationally on this issue, too, which has helped to raise its profile within the University.

The Library has also supported the policy in many ways, including the following:

- Technical developments on ORBi to minimise barriers for authors and maximise the benefits of the repository system:
  - Assistance with the deposit process
  - Automatic links and integration with other systems in the University
  - Import facility
  - Deduplication facility
  - Facility to generate publication lists in different formats according to disciplinary norms
  - Facility to integrate publication lists automatically in author web pages
  - Request-a-print facility
  - Subject classification
  - Usage data
  - Indexing by Google, Yahoo, OAI-PMH harvesters and other widely-used discovery tools (such as Ebsco Discovery Systems and the like)
- Open Access advocacy and support from ORBi:
  - Promotion of the benefits of OA
  - Help-line available 24/7 for authors
  - Large-scale mailings to University researchers explaining Open Access, the policy and ORBi's development
  - Use of early adopters and very influential researchers to help promote the system

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<sup>5</sup> <http://recteur.blogs.ulg.ac.be/?cat=10>



- Presentations, demonstrations and training sessions in every department of the University
- Distribution of flyers, brochures and posters advocating ORBi and Open Access, especially targeting young researchers
- OA Week activities every year
- Presentations at conferences inside and outside the University
- Explanations and promotion of Open Access and ORBi at meetings within the University
- Promotional videos

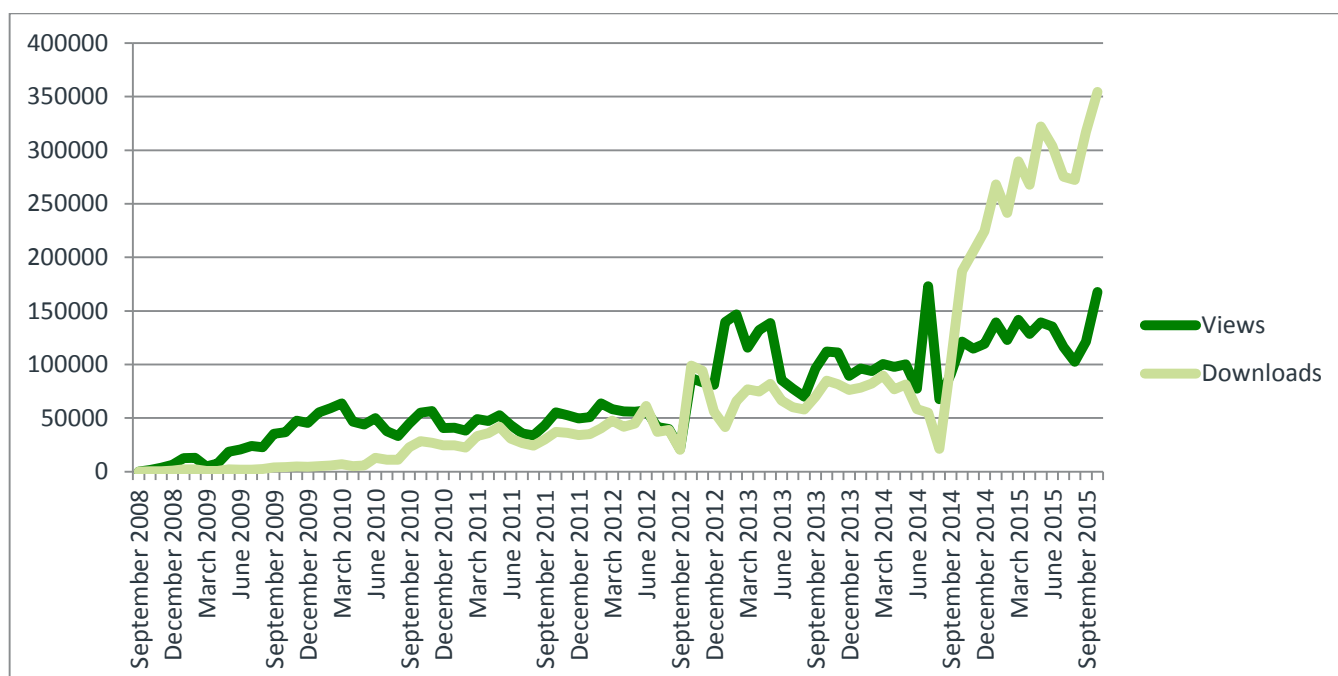


Figure 5: ORBi: numbers of views and downloads of items per month<sup>6</sup>

### Summary

- The University of Liège Open Access policy is supported by the energetic advocacy of top management and by activities and services from the Library
- A number of technical enhancements and features have been added to the repository, ORBi, to smooth the author experience when depositing items
- ORBi provides feedback to authors on the views and downloads of their outputs

<sup>6</sup> Explanation of the sudden increase in September 2014: In July and August a fall in the number of downloads was observed. This was traced to Google modifying its harvesting rules. With the help of Google engineers ORBi was adapted to comply with Google's new requirements. The result was immediate with a dramatic increase of downloads. Currently there are more than 10,000 downloads/day.

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## 5. Policy monitoring

The PASTEUR4OA project has undertaken an analysis of Open Access policies in institutions to ascertain which policy criteria are most significant in increasing a policy's effectiveness<sup>7</sup>. As part of that exercise the levels of Open Access materials being collected in institutional repositories were measured for institutions that have Open Access mandates.

The University of Liège was found to have the highest proportion of its research articles in its repository. The study found that 87% of the total articles published from the University of Liège are in ORBi.

The high level at the University of Liège makes this the most successful Open Access policy in the world and the evidence indicates that the key factor is that the policy requires deposit of research outputs into ORBi as a condition for evaluation and assessment. It is notable that the University of Minho, which is in second place with 69% of its total articles available in the repository, has in the last year adapted its policy to include this condition and has seen the level of deposits rise as a consequence.

### Summary

- The University of Liège policy is the most effective Open Access policy in the world, due to good policy conditions and to the sustained support of the policy within the University by top management and by the Library
- Currently, 87% of all peer-reviewed outputs are collected in the repository

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<sup>7</sup> <http://www.pasteur4oa.eu/news/109#.VjCgyljd6o>