

Web Science MSc course

University of Southampton, School of Electronics & Computer Science

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Open Access: getting it taken seriously

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SPARC Europe

Key Perspectives Ltd

Enabling Open Scholarship



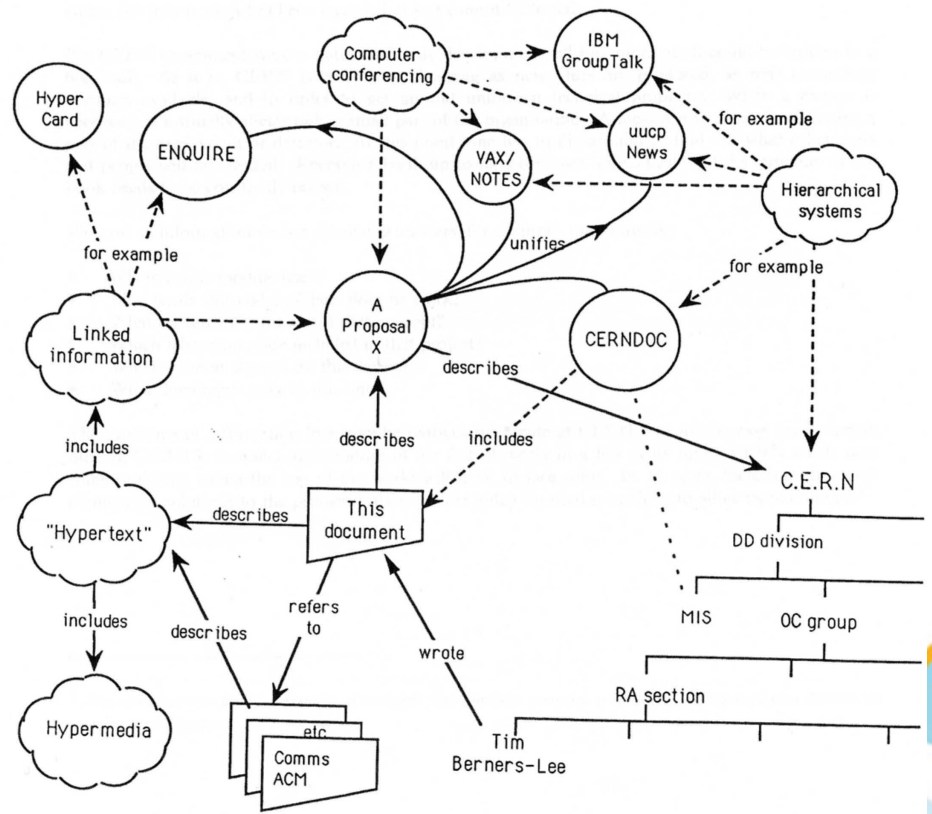
Vague but exciting ...

Information Management: A Proposal

Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control



Vague but exciting ...

Tim Berners-Lee, CERN/DD

Proposal

March 1989

Management: A Proposal

What was it like then?

- Timescales in accessing information were very different
- Journals were all in print
- Posted to libraries around the world
- Reprints
- A&I services
- A world very different from now:
 - Slower
 - Hard work to access literature

What was new with the Web?

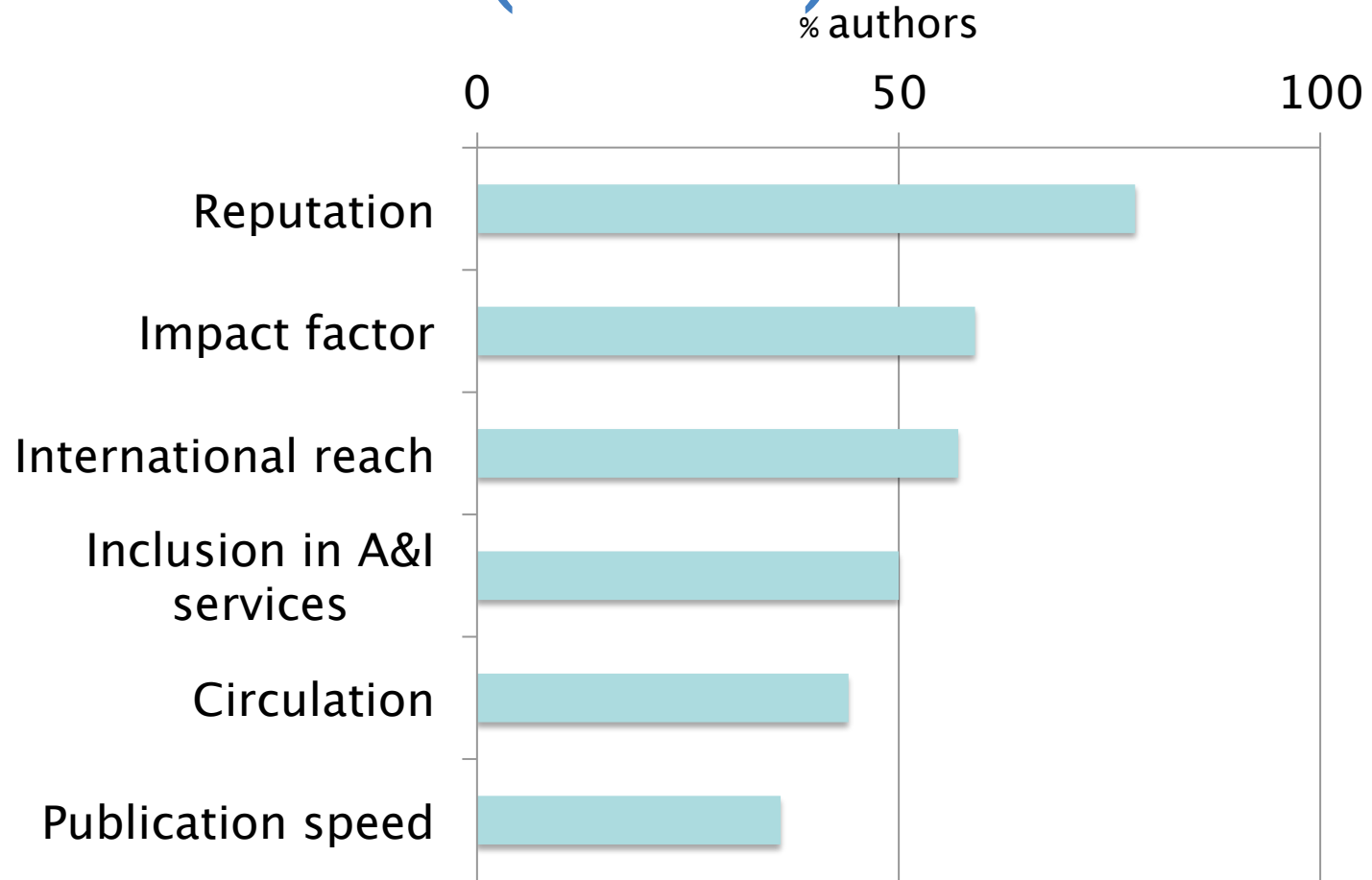
- e-journals
- Access by article (IAS)



What was new?

- e-journals
- Access by article (IAS)
- The value of journals changed
- Used to be more focused on audience and reach

Submission decision factors (1993)



What was new?

- Then the Web
- e-journals
- Access by article (IAS)
- Result: the value of journals changed
- Used to be more focused on audience and reach
- **Now Impact Factor is everything**



The 'Subversive Proposal'

- 27 June 1994: the *Subversive Proposal* (Stevan Harnad)
- Recommended that authors post their research papers on 'anonymous ftp' sites
- Free access to their peers
- Was this subversive? How, and how radically?

How could a case be made?

- Moral: publicly-funded research creates knowledge that belongs to the public
- Scientific benefits
- Societal benefits
- And what/where/who would the barriers be?

The stakeholders

- Researchers
- Research institutions
- Research funders
- Publishers
- Governments (economic and societal benefit interests)
- Society at large



Research-based arguments

- Visibility
- Usage
- Impact
- Speeds up research
- Makes life easier for them
- Exploits the Web optimally
- ‘Big’ science needs Openness





RECENT NEWS

- [Iceland in Ithaca](#)
- [Iceland president honors Fiske Collection curator](#)
- [Titan arum, then and now](#)
- [Conversations with Kluge](#)
- [Cornellians can get library cards at 11 other universities](#)
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- [Japanese alum's 1886 notebook returns to Ithaca](#)
- [Eureka!](#)

arXiv Hits 1 Million Submissions

ITHACA, N.Y. (Jan. 12, 2015) – It all started with an electronic bulletin board — one computer on one scientist's desk.

Now, more than two decades later, arXiv is a driving force in scientific communication. It draws in thousands of researchers every day, operating with a permanent staff and a \$1M budget. As an open-access service, it allows scientists — from diverse disciplines encompassing physics, mathematics, statistics, computer science and more — to share research before it's formally published. A million papers have now been uploaded to the repository.

"arXiv accelerates the pace of science by allowing researchers to get their material out there for others to see and build upon right away," said Chris Myers, arXiv's interim scientific director. "It's the



Cornell University Library

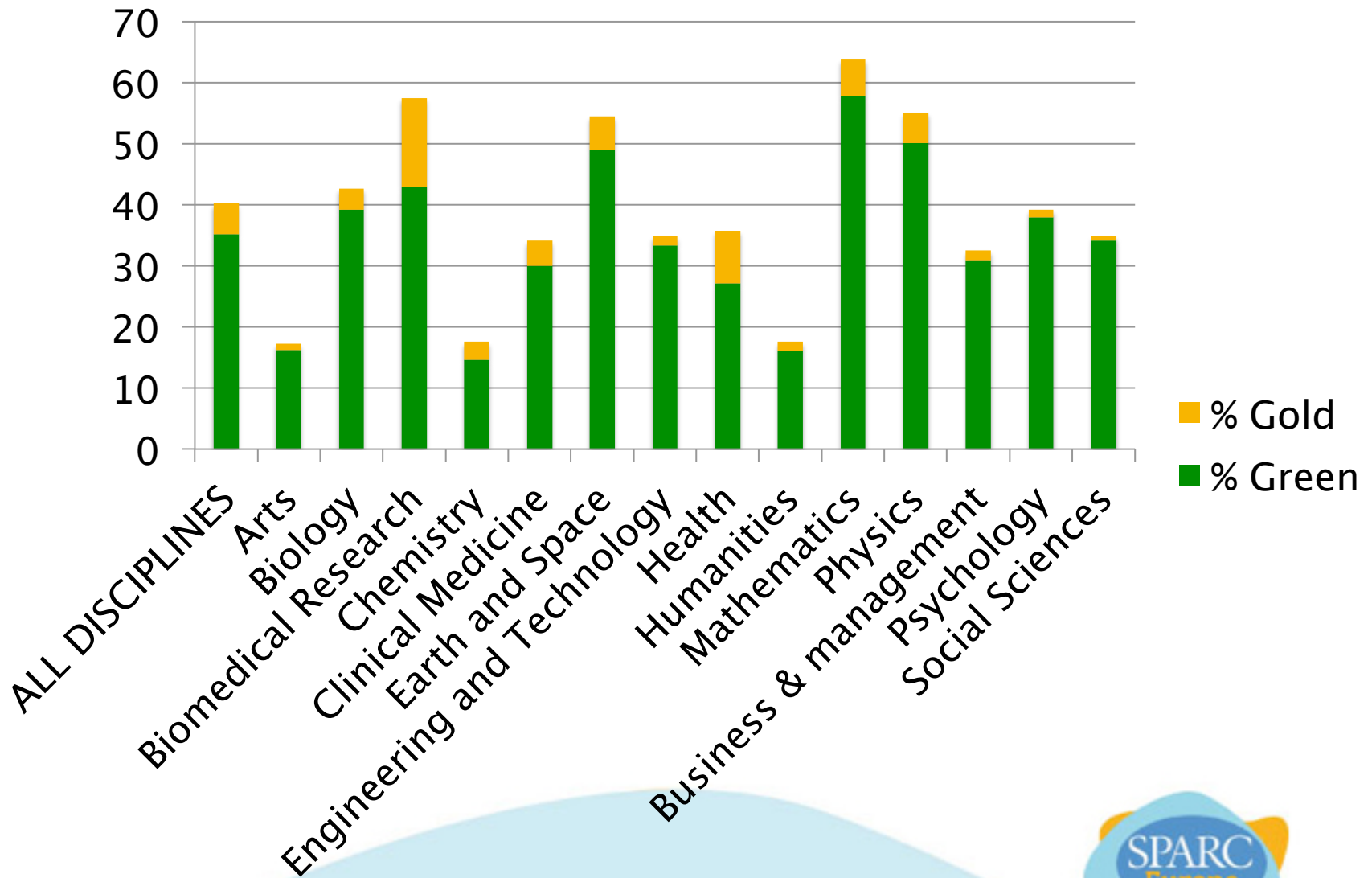


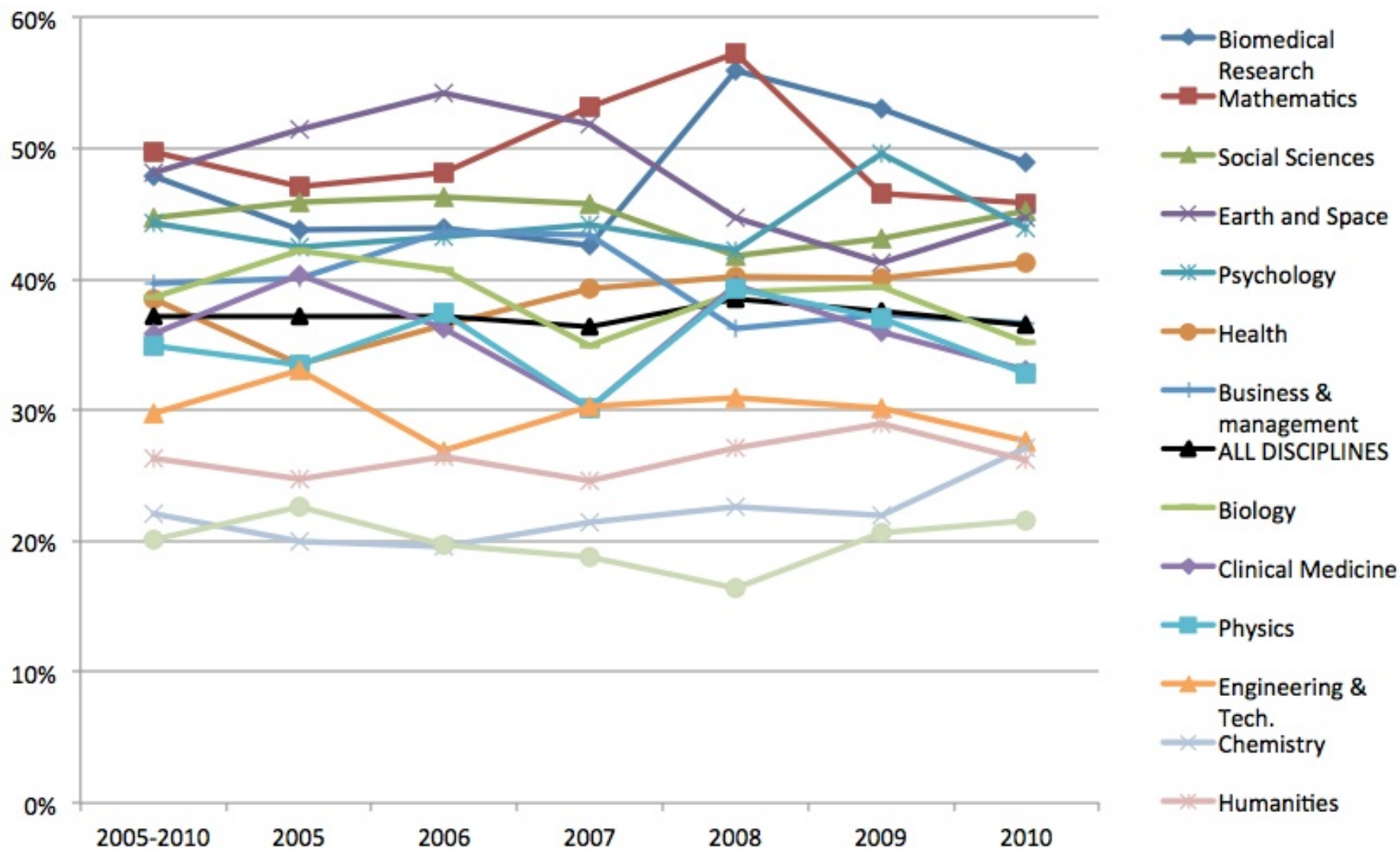
Celebrating the 1 Millionth Paper

January 2015



Where are we?





What next?

- Policy
- The policymakers:
- Research–performing organisations (universities and research institutes/centres)
- Research funders
- Governments



Institutional-advantage arguments

- Visibility, usage, impact
- Record-keeping / management information

“I am asked how many articles my researchers publish each year, and I have to say ‘I have no idea!’.

It is like being the manager of a car factory and not knowing what models of car, nor how many cars, my factory produces.”

Professor Bernard Rentier, Rector, University of Liege, Belgium, explaining one of the reasons why he has built an institutional Open Access repository and introduced a mandatory policy on Open Access



Institutional-advantage arguments

- Visibility, usage, impact
- Record-keeping / management information
- **Rankings (e.g. Webometrics)**
- **Social value**

“The case for Open Access within a university is not simply political or economic or professional. It needs to rest in the notion of what a university is and what it should be It is central to the university’s position in the public space”

Professor Martin Hall, Vice Chancellor of the University of Salford



Institutions led the way

- First OA policy was a (sub)institutional one: ECS, University of Southampton (2002)
- Followed by Queensland University of Technology, Brisbane (early 2004)
- University of Minho, Portugal (late 2004)



And then some funders took notice

- Wellcome Trust (2005)
- NIH (2005)
- UK Research Councils [5 of 7] (2005)
- Gradually, various other national research funders around the world



What arguments worked with research funders?

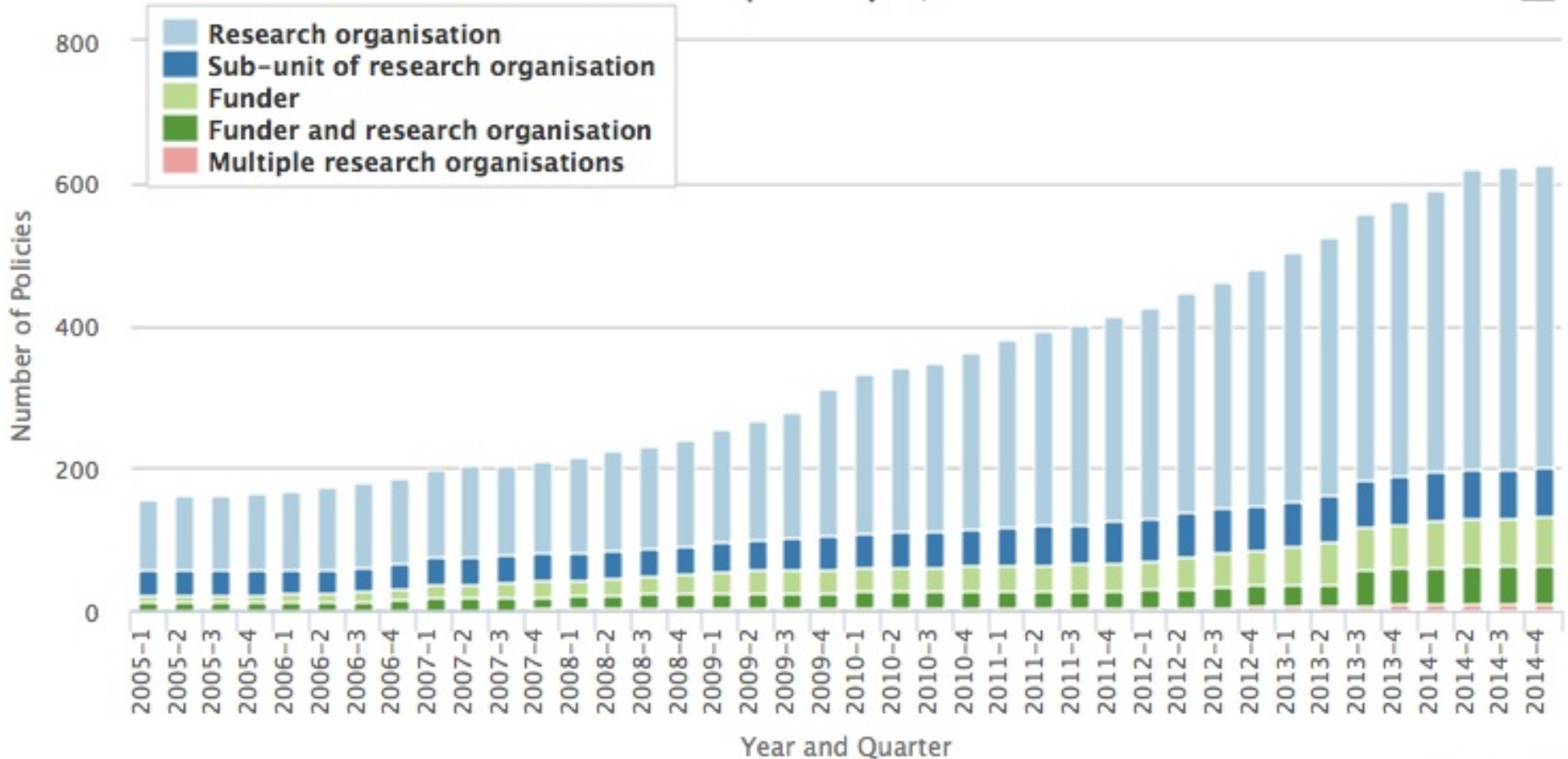
- Faster, more efficient, better research
- Open Access advances science
- Open Access brings greater usage and impact
- An Open Access literature enables better research management and planning
- There is better return on their investment in research if they require it to be Open Access
- Open Access benefits the wider society



Policies: worldwide

numbers

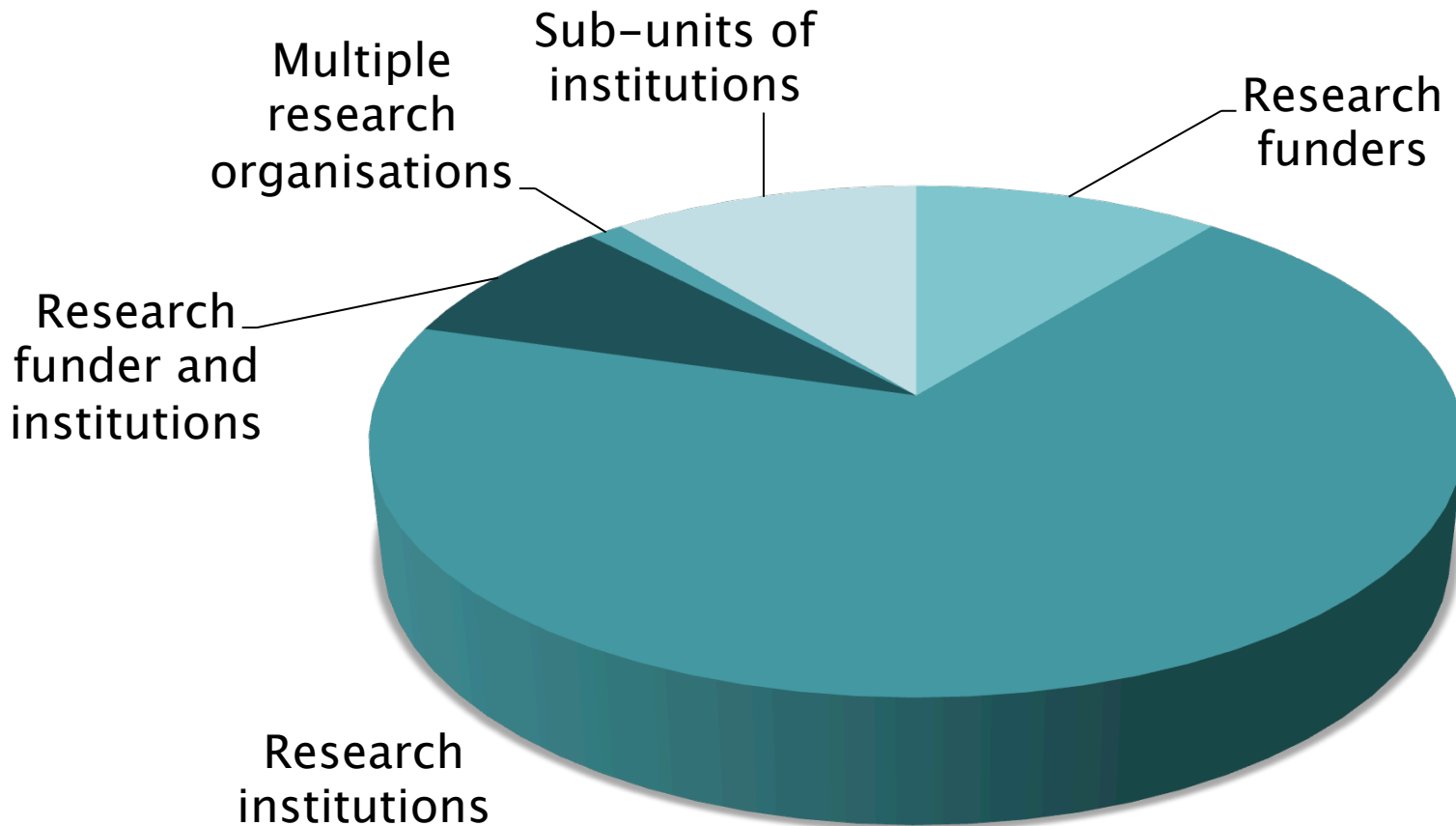
Policies Adopted by Quarter



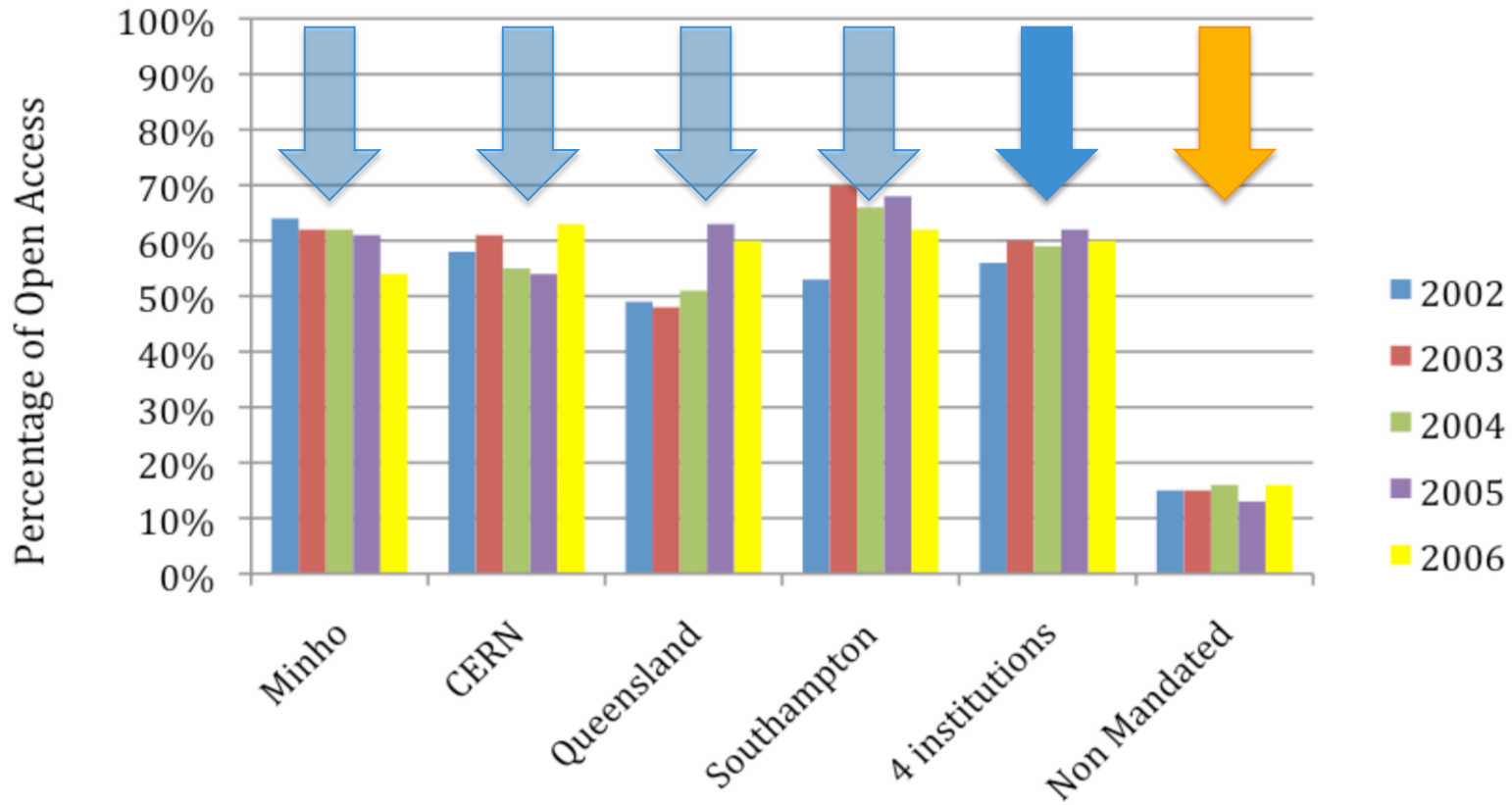
Highcharts.com



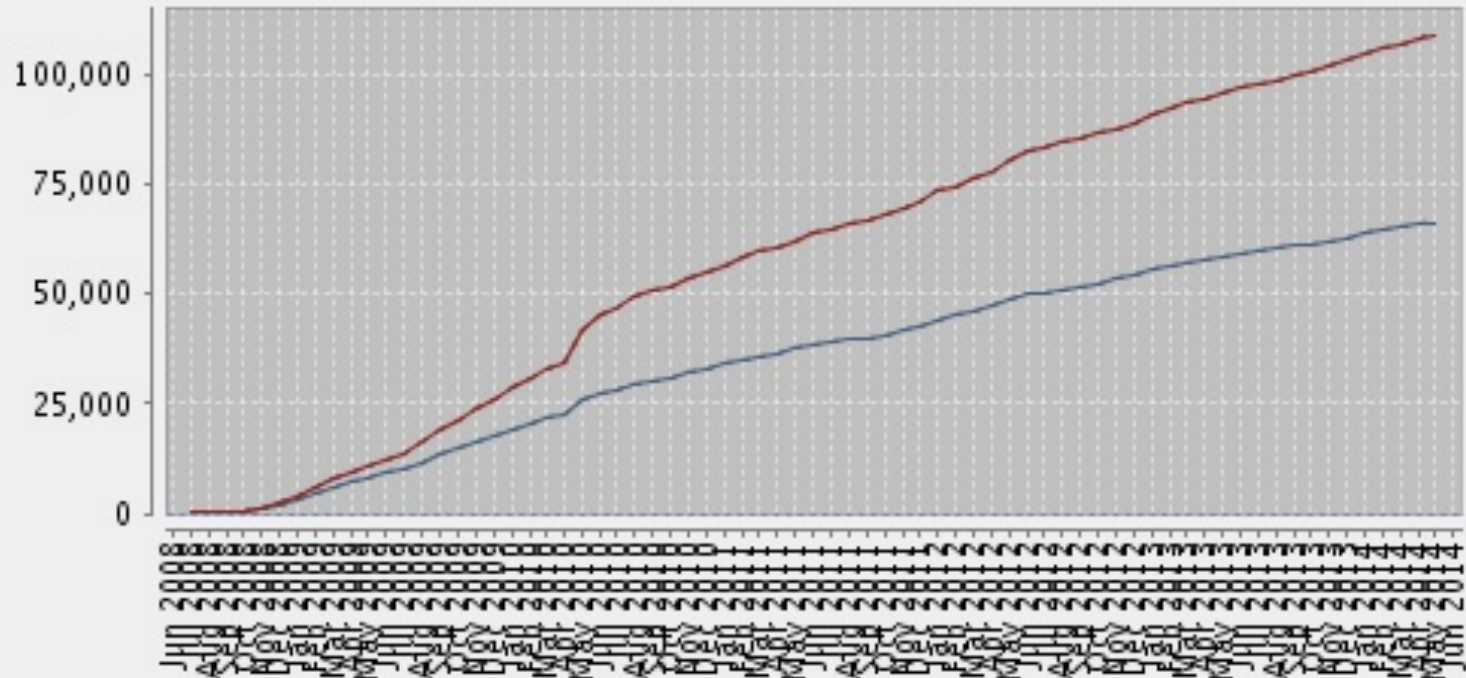
Open Access policymakers worldwide



The effect of a mandatory policy

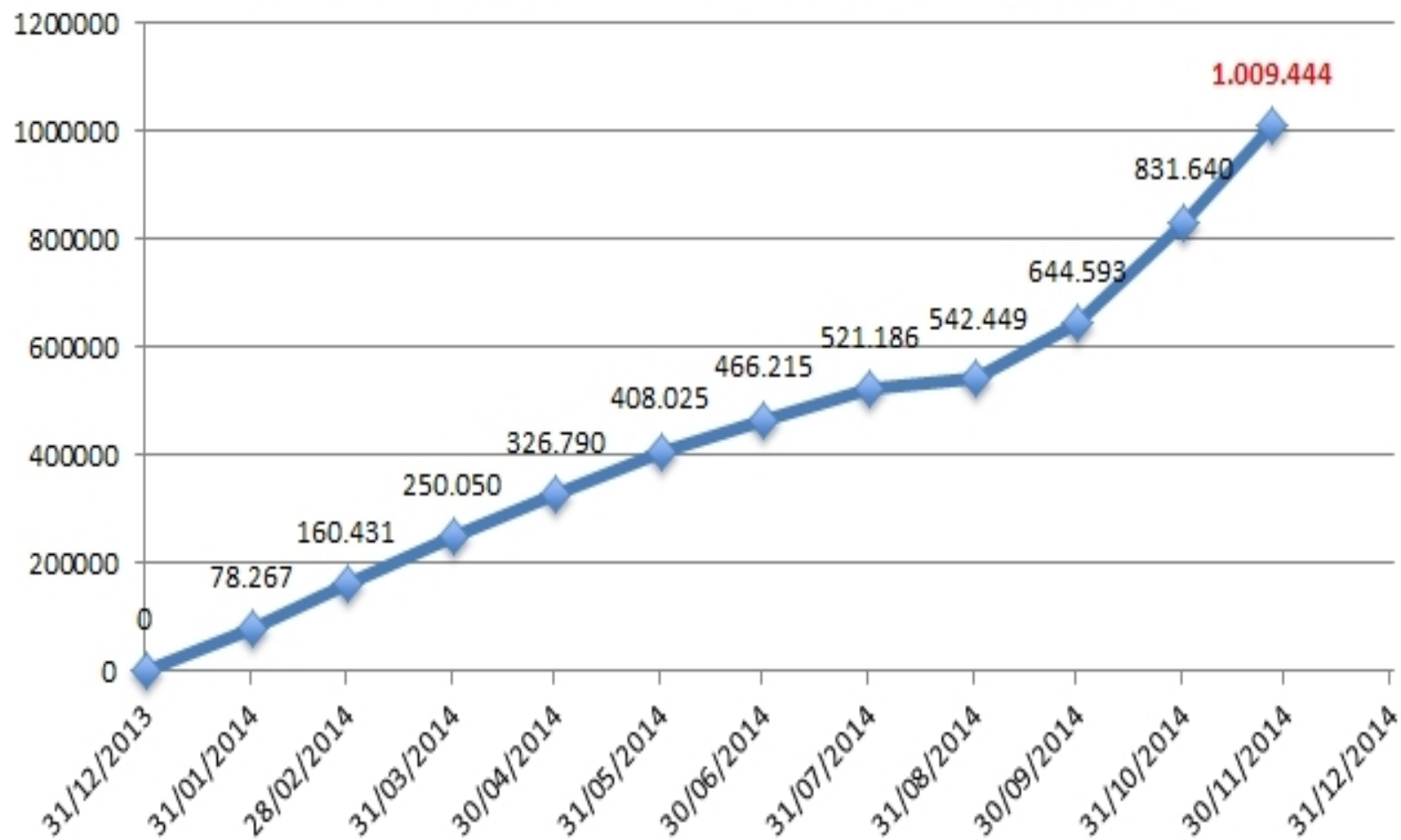


University of Liege repository: authors deposit



— Number of references --- with extrapolation
— Number of references with full text --- with extrapolation

Total ORBi downloads since January 1, 2014



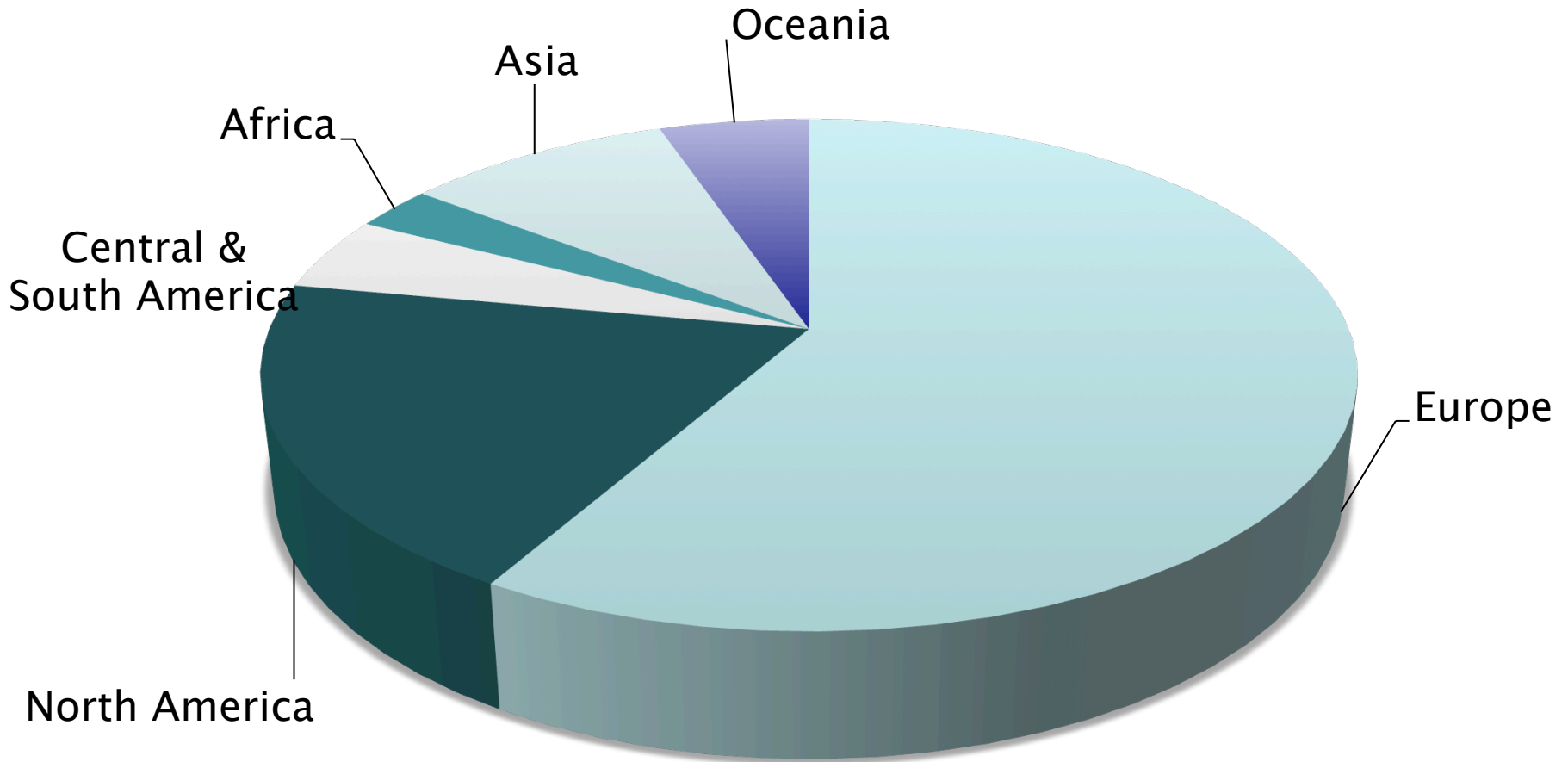
Current global picture: Open Access mandates

Region	Mandates
Europe	203
North America	70
Central & South America	17
Africa	6
Asia	32
Oceania	18
Total	346

Almost all funder policies are now mandates



Open Access mandates worldwide



Governments

- Have different interests to institutions and pure research funders
- Can legislate
- Recognise and act upon other governments' initiatives
- Have both competitive and collaborative imperatives



Which arguments have worked with governments?

- Framing arguments in the context of the ‘Knowledge Society’
- Economic: Open Access will be a cheaper system (Houghton; Houghton & Swan)
- Economic: benefits to the innovative SME sector

Economic implications in Denmark: Cost to companies

- 80% needed access to the scientific literature and experienced difficulties with that
- Average delay to product or process development without access to academic research: 2.2 years
- For new PRODUCTS, this would amount to around DKK 36 million per company (approx 3.6m GBP or €4m)
- For new PROCESSES, delays would amount to around DKK 211 000 per company (approx £21K or €23.5K)



What arguments worked with governments?

- Framing arguments in the context of the 'Knowledge Society'
- Economic: Open Access will be a cheaper system
- Economic: benefits to the innovative SME sector
- **ROI for government funding**



Major government developments

- UK: David Willetts and the Finch Report (2012)
- Also:
 - House of Commons Select Committee on Science & Technology hearing 2004
 - House of Lords S&T Committee hearings February 2013
 - House of Commons S&T Committee hearings April 2013



[RCUK Policy on Open Access](#)[2014 Independent Review of Implementation](#)[Past RCUK Open Access Events](#)[Home / Research / Open Access](#)

Open Access

Free and open access to publicly-funded research offers significant social and economic benefits. The Government, in line with its overarching commitment to transparency and open data, is committed to ensuring that such research should be freely accessible. As major bodies charged with investing public money in research, the Research Councils take very seriously their responsibilities in making the outputs from this research publicly available – not just to other researchers, but also to potential users in business, charitable and public sectors, and to the general public.

- [RCUK Policy on Open Access](#)
- [2014 Independent review of the implementation of the RCUK Policy on Open Access](#)
- [Past RCUK Open Access events](#)

Policy for open access in the post-2014 Research Excellence Framework

March 2014 | ref: 2014/07

To:

Heads of HEFCE-funded higher education institutions, Heads of universities in Northern Ireland
Heads of HEFCW-funded higher education institutions, Heads of SFC-funded institutions

Of interest to those responsible for:

Research management and administration, Library and information management

This document sets out the details of a requirement that certain research outputs should be made open-access to be eligible for submission to the post-2014 Research Excellence Framework (REF). This requirement will apply to journal articles and conference proceedings accepted for publication after 1 April 2016.



Major government developments

- David Willetts and the Finch Report
- White House Office of Science & Technology Policy Directive for federally-funded research (2013)
- European Commission's *Horizon 2020* Open Access policy (2014)

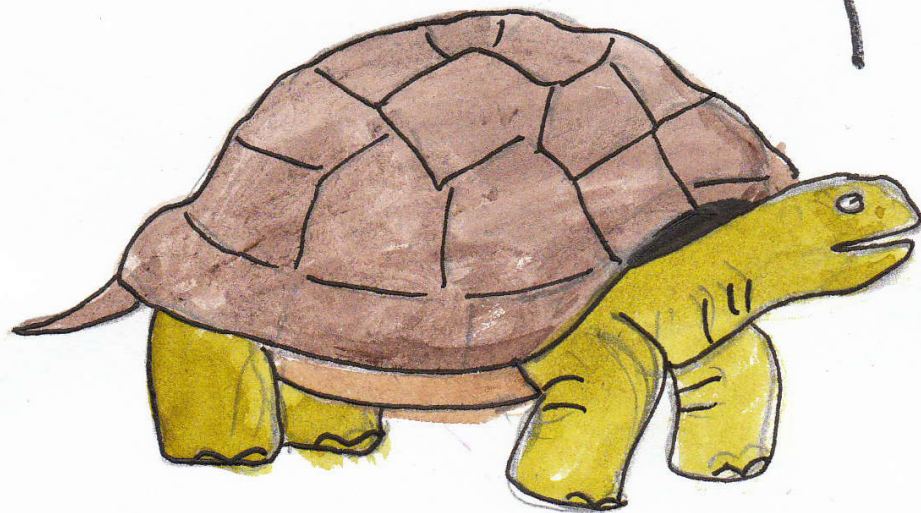


H2020 and Open Access

- Study on the market for scientific publications (commissioned 2005)
- Conference 2007
- Open Access pilot in FP7 (from 2009)
- Public consultation (2010)
- Impact study (2011)
- Communication on access to and preservation of scientific information (2012)
- Recommendation to Member States (2012)
- Open Access policy in the H2020 Rules for Participation (2013)

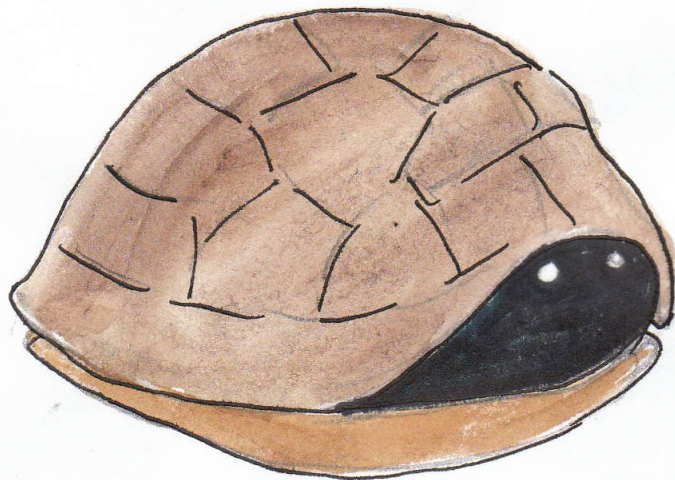


'Race you home'



'Deal'





'Shit'



Data

- Text- and data-mining (TDM)
- Text = content of journal articles
- What are the main issues?
- Who are the stakeholders here?
- What do you think are the barriers in this case?
- What tactics/arguments can be employed?

Thank you for listening

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www.sparceurope.org

www.openscholarship.org

