

Green Light for Open Access: Conference Report

On 17-18 May 2016, PASTEUR4oa held its final conference in Amsterdam. Titled **Green Light For Open Access: Aligning Europe's OA Policies**, the conference attracted delegates and speakers from as far away as Australia.

The reports below, written by conference reporter Clare Sansom and edited by members of the project consortium, serve as a record of what was discussed at the conference. Further information about the meeting and the project, including downloadable presentations and advocacy resources, can be found on the project website: www.pasteur4oa.eu

1 Conference Summary

The PASTEUR4OA project was launched in 2014 with the goal of supporting the development and standardisation of Open Access (OA) policies throughout Europe, in order to maximise alignment with the Horizon 2020 policy on access to research funded by the European Commission (EC).

With the project now nearing its end, a final conference to present the results of the project and discuss the broader landscape for OA in Europe was held in Amsterdam on 17-18 May 2016. Attended by 145 delegates, the conference comprised three keynote lectures from distinguished European OA proponents, five thematic sessions and panel discussions, and presentations from project leaders.

The coordinator of the PASTEUR4OA project, **Victoria Tsoukala** from the National Documentation Centre in Athens, Greece, welcomed delegates to the conference and introduced its first session, starting with two keynote speakers. **Ron Dekker**, Director of Institutes at the Netherlands Organisation for Scientific Research (NWO) and Project Leader Open Access for the Dutch presidency of the Council of the European Union, and **Gerard Meijer**, president of Radboud University.

Dekker introduced the meeting theme, highlighting the importance of Open Science with reference to the importance of open research in tackling challenges such as the Ebola and Zika virus outbreaks. Many OA initiatives have emerged in recent years and the services available today are unlikely to be completely sustainable in the long term, but they can be pathfinders towards a universal solution that could one day provide free access to the whole of scholarly literature. Before that can happen, however, we need improved infrastructure, policies and incentives, and perhaps above all we need to complete the transformation of research culture. Dekker ended by challenging his listeners to work towards these goals, asking 'What are you going to do tomorrow?'

Meijer described the progress that the Netherlands has made towards OA. Several factors have led to this country being a world leader in this area. It is relatively small and homogeneous so its universities and other institutes work closely together,

and there is strong support for OA policies at the highest levels of government. Furthermore, Meijer and his fellow university leaders have been working closely together to keep the major publishers on board by negotiating a separate agreement with each to make most of the journals they publish freely available. He highlighted the need for the OA movement to expand out of countries like the Netherlands, where it is strongest, to cover the whole continent and eventually the world.

Host Alma Swan, summing up Session 1 of the conference.



After these lectures, Tsoukala and **Alma Swan** (convenor of the global organisation and project partner Enabling Open Scholarship), described the outcomes and achievements of the PASTEUR4OA project in supporting and enabling OA policies across Europe. Its main achievements include the Knowledge Net of key nodes across Europe, workshops and training programmes, and sets of policies and tools to align those policies to the requirements of Horizon 2020. A Europe-wide analysis of OA policies identified three criteria in particular that make such a policy successful: the requirement to deposit papers in a repository, a no-waiver condition for this deposit, and linking compliance with research assessment and thus career outcomes for authors.

The rest of the conference programme included five sessions of short talks, each with its own theme and panel discussion. The first of these comprised four presentations about the state of OA in different European countries, starting with Slovenia. **Meta Dobnikar** outlined her country's policy, which had been previously described as 'one of the best in Europe'. Its OA goal, which is fully aligned with Horizon 2020 requirements, will shortly be incorporated into national law. Belgium's policies, as described by **Eric Laureys** of BELSPO, are more fragmented since the country itself has federal and regional approaches to policymaking, but overall its researchers and policymakers favour a repository-based ('green OA') approach. The director of library services at the University of Malta, **Kevin Ellul**, described that institute's policies, which were drafted following a wide consultation and which should soon be adopted by the whole archipelago. Finally, **Beate Eellend** from Sweden, another country with

progressive OA policies, presented the OpenAccess.se project that she manages and described the progress towards, and potential barriers to, her country's 'far-reaching and ambitious' proposals for 2025.

Funders' Perspective

All talks in the second session came from the perspective of national and international research funders, starting with **Rūta Petrauskaitė** from the Lithuanian science funding agency. She used a visualisation to describe the complex interplay of organisations and infrastructures involved with regulating OA policy in Lithuania.

Neil Jacobs of Jisc described the complex but generally favourable position of OA in the UK, including the role of its higher education funding council (HEFCE) in linking OA publication to the assessment of researchers for block grants to university departments. This progressive policy was mentioned several times during the meeting, as were others like it from elsewhere in Europe.

Delegates from as far away as Australia attended the event.



Other talks in this session came from **João Nuno Ferreira** of Portugal's Fundação para a Ciência e a Tecnologia (FCT), who described how that council is implementing its OA policy, stressing the need to make it straightforward for researchers to use, and from **Patrick Danowski**, the library manager at a new inter-disciplinary research institute, IST Austria. Danowski outlined the 'transition to open science' that was taking place in Austria. The Austrian Science Fund, FWF, already mandates that papers from the research it funds are published on OA and with a CC-BY Creative Commons licence and there is an overall goal to reach a '100% open' landscape by 2025. A pan-European view came from **Jean-François Dechamp** of the European Commission's Directorate-General for Research and Innovation. Dechamp described the current policies for promoting OA to publications and research data arising from Horizon 2020 projects

and highlighted the importance of communication with researchers in encouraging 'buy-in' as well as compliance.

The third and final session of short talks on the first day was devoted to the essential task of monitoring compliance with OA requirements. Two of the presenters, **Mikael K. Elbæk** from the Technical University of Denmark and **Frank Manista** from Jisc in the UK described software tools that had been developed in their institutions for monitoring researchers' compliance with OA requirements and, therefore, progress towards agreed goals. The Netherlands' **Kim Huijpen** described some methodologies that are being used to classify publications. The fourth talk in this session came from **Stephen Curry**, a researcher in biomedical sciences in the UK who is also a well-known OA advocate. He praised the Open Science ethos and its 'fit' with academic research but highlighted problems raised by the need for scientists to be seen to publish in high impact journals. Many of these are not OA, and those that are charge accepted authors very high fees.

The second day of the conference began with another keynote lecture, by **Jean-Pierre Finance**, the chair of the European University Association's expert group on 'Science 2.0 and Open Science'. This association, with over 800 EUA member institutions from a total of 46 countries, offers consultative services to the whole university sector. It has been working on OA initiatives since 2008, and now with the new expert group it is moving beyond OA to open science and open data. It has set out a roadmap for expanding OA, including both long-term aims and more detailed priority actions. Finance ended his talk by emphasising the importance of encouraging dialogue between scientists and wider society and the potential value of open science in fostering this dialogue.

A view on what's next for Open Access, as sketched by conference illustrator Elco van Staveren.



What's Next for Open Access Policy?

The conference ended with two further sessions of short talks under the single heading of 'What next for open access policy?'. The first half focused on infrastructure developments and the second on policy. The introductory talk in the infrastructure session was given by **Bill Hubbard** from Jisc in the UK. He stressed the need for OA infrastructure to be both sustainable and scalable if it is to be fit for the situation envisaged in a few years, when all or almost all of scholarly output should be available through OA. **Rob Johnson**, an OA consultant also working in the UK, explored this need for sustainability further. **Kristiina Hormia-Poutanen** of LIBER, the Association of European research libraries, explained that enabling OA was one of LIBER's main priorities for the next academic year and described some ways in which libraries and librarians are contributing to this goal. Finally, **Natalia Manola** from OpenAIRE, an EU project aiming to reinforce an open and sustainable scholarly communication infrastructure in Europe, explained the need for free access to research data – such as that provided through the new European Open Science Cloud.

Natalia Manola of OpenAIRE explained the need for free access to research data.



The final conference session comprised three talks exploring future developments in OA and Open Science policy. **Ben Johnson** from HEFCE in the UK described how that funding council's policy to align research funding with OA, termed a 'game-changer', aims to become even further aligned to UK research culture. **Bernard Rentier**, former Rector of the University of Liège in Belgium explained that a similar policy at that institution had resulted in higher rates of compliance with OA policies than other Belgian universities and, in the last talk of the meeting, **Stephan Kuster** of Science Europe gave a snapshot of European OA policy and proposed that the next stage of development should involve the expansion of European 'best practice' not only throughout the continent but worldwide.

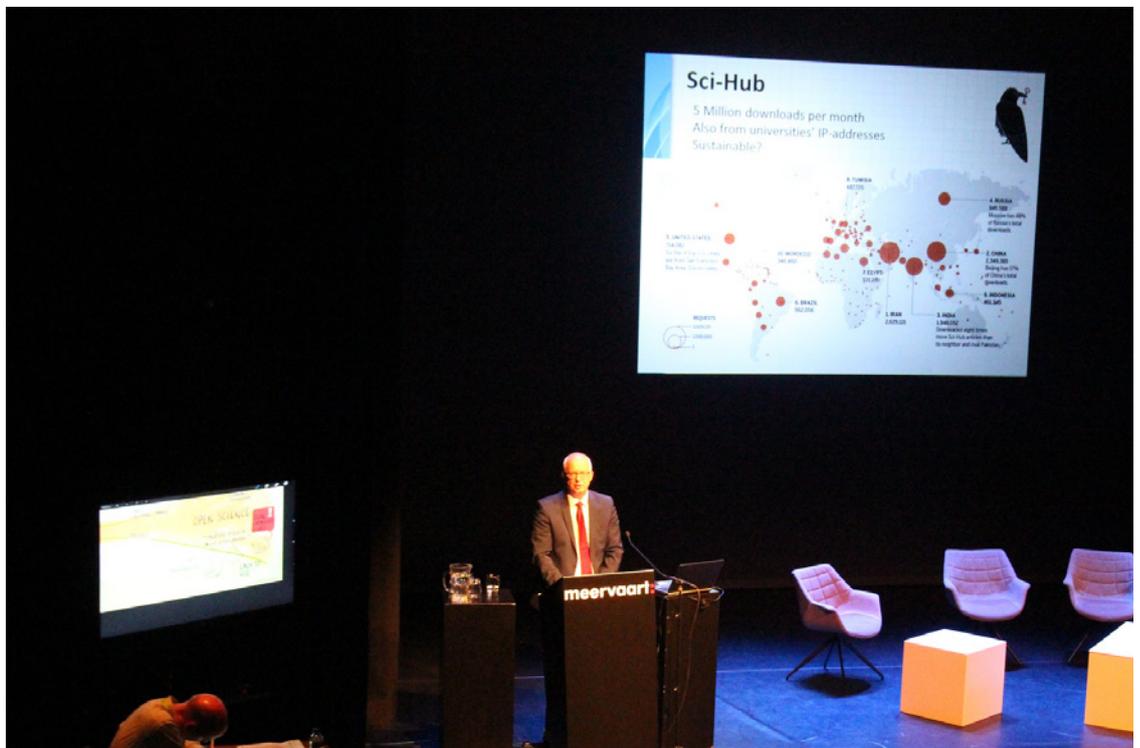
The task of summing up the developments presented throughout the conference was left to Tsoukala as PASTEUR4OA coordinator. She emphasised that progress

towards completely OA will be a long process and that delegates had heard a series of ‘snapshots’ at a particular point in time. The end point of 100% OA is still a long way away and different countries and institutions will progress towards it using different methods and at different rates. The European Union can, through projects like PASTEUR4OA, contribute to the creation of guidelines, policies, milestones and targets to encourage faster and more uniform progress. Policies – the main thrust of this project – are not aims in themselves but means to that end. One of the aims of open science is to bridge the gap between scholarship and the world outside. The outputs of the conference, including sketches, photos, presentations and tweets – nearly 3,000 with the hashtag **#greenlight4oa** – should help raise the profile of the OA movement well outside academic circles.

2 Keynote Speech - Ron Dekker

The first keynote – and, in fact, the first talk – of the conference was given by **Ron Dekker**, Director of Institutes at the Netherlands Organisation for Scientific Research (NWO) and Project Leader Open Access for the Dutch presidency of the Council of the European Union. He has been one of the key players in the development of the host country’s OA policies and the harmonisation of such policies within Europe.

Ron Dekker delivering his keynote speech.



Dekker set the scene for the meeting with a wide-ranging talk about the development of European policies for OA and open science.

He started with the question ‘why open science?’, explaining the advantages of an open approach to research in promoting the transfer of knowledge: ‘open access, open data, open to the world’. This is essential in order to keep pace with innovation, and with a need for even faster innovation in the face of rapidly developing threats such as the Zika and Ebola viruses.

There are many European initiatives to support free and rapid access to the scientific literature, coming from universities, librarians, research funders, the researchers

themselves and even publishers. Taken as a whole, about 15% of research papers are now published in fully OA journals, but this still represents relatively slow progress. Many papers are still published using the old, 'toll access' publication model and this is no longer sustainable: it is not only costly but time-consuming, and researchers – particularly young researchers, who have grown up with the Internet – are no longer prepared to pay for content. Over 5 million papers a month are downloaded from the Sci-Hub website, which began as a protest against the high cost of 'firewalled' papers. Dekker confessed to using the service for himself, to obtain a paper that would have cost his institution \$36: 'Is this free-loading?' he asked, rhetorically. 'Probably... but is it ethical for a rich publisher to ask \$36 for access to one paper from 2012?'

The Sci-Hub model is (self-evidently) free, it is easy to use, and it can offer a comprehensive service, but it is unlikely to be sustainable. It could, however, be a pathfinder (or more likely one of many pathfinders) towards a more universal OA solution, and the availability of such services might be an additional incentive for the transfer of the bulk of European (and global) research output into OA journals. OA publication could also avoid some of the other problems of toll access journals, including publication bias, which leads to results that are negative or non-significant, but still important, remaining unpublished.

The government of the Netherlands has made encouraging open science one of the goals of its current six-monthly presidency of the European Union Council. It has set two pan-European goals, calling for full OA for all scientific publications and a new approach to 'optimal re-use of research data' by 2020. In order to remove barriers to OA and to reach these goals, it calls for research infrastructures to be developed; incentives for open science to be created; and open science policies to become mainstream and to be embedded in research culture and wider society. There are many promising ideas, trials and prototypes but progress is still patchy. The Amsterdam Call for Action on Open Science highlights the need for 'cooperation, common targets, real change, and stocktaking on a regular basis' in order to reach these goals; Dekker ended his presentation with a challenge to delegates: What are you going to do tomorrow?

3 Keynote Speech - Gerard Meijer

The second keynote speaker in the first session was **Gerard Meijer**, President of Radboud University in Nijmegen, the Netherlands. He described himself as an early enthusiast for OA, having been involved in the issue since the 'Berlin Declaration' of 2003.

The Netherlands is a small country with only 14 universities, and these universities – and their senior managers – work very closely together on a number of issues. This is one of the reasons why it has been relatively easy to develop coherent OA policies for and with the whole of the university sector.

OA is therefore high up the national agenda in the Netherlands. Back in 2014 the country set an ambitious goal for 100% of its scientific papers to be published in gold OA journals (accessible for all readers at no cost) within ten years. Progress within the last two years has been steady and they are on target, despite no extra funds being made available to universities.

The Dutch approach to delivering OA publication involves the close relationship between the rectors of its universities, who meet every 4-6 weeks. These university leaders decided to focus on major publishers, the eight largest of which make up 70%

of the overall market for publications. The rectors initiated negotiations with each publisher to set up ‘big deals’ for provision of OA to the journals on each publisher’s list. This has proved time-consuming but deals have already been arranged with Springer (for 1700 journal titles), Sage, Elsevier and most recently Wiley. A deal with ACS is expected within weeks or months. Meijer explained that difficulty in persuading these multinational companies that OA was an issue of global concern and not just ‘a bizarre thing that the Dutch want’ was one of the barriers preventing faster progress.

*Gerard Meijer
and Ron
Dekker answer
questions from
the audience,
following
their talks.*



Meijer then presented some figures for the size of the publishing market, highlighting its profitability and the potential for making changes. Each of the approximately two million papers published in 2014 made about €3,800 for its publisher while costing only about €2,000 to process. The current model therefore works very well for publishers but much less well for universities and their researchers; reform is long overdue and the deals arranged were no threat to the publishers’ profitability.

He went on to highlight four separate factors that led to the success of the rectors’ negotiations with these powerful publishers: the unique bargaining model, support from the institutions at the highest level, a clear mandate and political support. All Dutch universities and university medical centres formed a single bloc to negotiate with the publishers, and each university was represented by its president. This gave the negotiators a mandate to stick to clearly defined OA principles. The Dutch government, which had already stated the goal of reaching full OA for research papers by 2024, offered clear and vocal support to the rectors’ negotiations.

Meijer concluded his presentation by suggesting that the OA movement would need to expand from those countries where it is already strong. The Dutch universities have very good contacts with the Max Planck institutes in Germany and with institutions in some other EU countries, but they should expand the network further. They are very willing both to share their expertise and to learn from others’ experience; best practice is not restricted to one country or even one continent.

4 Keynote Speech - Jean Pierre Finance

The third and final keynote lecture, which opened the second day of the conference, was given by **Jean Pierre Finance**, president of the conference of French rectors (university principals). He works with the European University Association (EUA) as chair of its expert group on 'Science 2.0 / Open Science' and spoke to the meeting largely in that capacity, focusing on the role of the EUA in supporting OA and open science initiatives.

Jean-Pierre Finance speaking to the audience about his role at the European University Association.



The European University Association treats 'Europe' as much larger than just the 28 EU members: its over 800 member institutions represent a total of 46 countries, and 33 national rectors' conferences are also involved. It has an important consultative role in political developments relevant to the university sector, and it has already contributed to a number of actions to support both OA and the broader open science movement. These include the Commission's planned Open Science Cloud, which should provide a virtual environment for Europe's researchers to store and share data.

With the growth of the open science movement, university-based research is undergoing a rapid transition. The systems through which research is carried out, findings published, and researchers progress through their careers are changing fast. The EUA, as a major stakeholder in this sector, can help to manage this transition and to create a scientific infrastructure that is not only more open but more 'fair, transparent and sustainable'. It can play an active role in many ways: political at national and European levels, financial, and through support for institutions.

Although the expert group that Finance chairs is relatively new, the EUA's involvement in the OA movement goes back to 2008 and the publication of recommendations from its first working group. Later task forces produced reports, yearly surveys of university OA policies and, in 2015, a practical guide to implementing such policies. The new expert group, which has 20 members from a variety of disciplines, was set up in

the context of the move beyond OA to published papers towards the more complex concept of 'open science'.

In February 2016 the group published its first significant output, a roadmap on OA to research publications. This aims to encourage and support dialogue between all groups with a stake in making research findings more widely available and sets out a range of policies, research assessment systems, standards and business models as steps towards this goal.

Finance highlighted the ambitious nature of the aims listed in the roadmap and set out a number of more detailed 'priority actions' for initial work under three headings: information gathering and sharing, dialogue with researchers at all stages of their careers and with other stakeholders, and recommendations for good practice within institutions. Under the first of these, he presented the results of a survey on the implementation of OA policies by universities. A total of 173 universities from 32 countries, or 22% of EUA members, replied to this questionnaire. Over half the respondents had an OA policy in place, and a further 40% were developing one. Almost all institutions with a policy either encouraged or mandated researchers to deposit papers in a repository, and about 90% of all institutions either had their own repository or shared one. Encouragingly, the majority of institutions had seen an increase in repository use since the adoption of a formal policy. Finance ended his talk by listing some 'next steps' for the group – which included establishing dialogue with an association of scientific publishers and holding a workshop on peer review – and highlighting the importance of the open approach for building connections between scientists and society at large.

5 Session 1 - Current Activity in Developing Open Access Policies

The first of five sessions of short talks was moderated by **Iryna Kuchma**, Open Access Programme Manager at the EIFL (Electronic Information for Libraries) network, and presented a brief survey of OA policy and practice around Europe. Four speakers from different European countries – Slovenia, Belgium, Malta and Sweden – described different contexts, challenges and opportunities.

First to speak was **Meta Dobnikar** from the Ministry of Education, Science and Sport in Slovenia. Kuchma had described Slovenia's OA policy as 'one of the best national level approaches in Europe' but Dobnikar was more modest, claiming only that her small country had made the 'first steps'. The strategy she presented was nevertheless impressive. It was adopted in September 2015 after a public consultation, is fully aligned with the Commission's requirements for OA in Horizon 2020 and sets a goal for all nationally-funded publications in 2020 to be freely available at most a year later. Furthermore, all journals published by companies based in Slovenia and receiving any public funds must make papers freely available (i.e. using gold OA). Incorporation of the strategy into a forthcoming act of Parliament on research and development is likely to speed its implementation.

The scientific community in Belgium is larger than that in Slovenia, and like all Belgian society it is fragmented into French- and Flemish-speaking groups. **Eric Laureys** from the Belgian Federal Science Policy Office (BELSPO) described the research landscape in his country as 'scattered' with many policy-makers and, therefore, many different policies at university and funder level. These do share common features, including mandatory publication archiving (green OA) with gold OA recommended.

This contrasts with a general tendency elsewhere in Europe to invest preferentially in gold OA funded via authors' contributions (APCs). Belgian researchers tend to favour a repository-based approach because publication can be controlled by public sector institutions that have a stake in keeping the material permanently available, and because they feel that an over-reliance on APCs reduces publishing opportunities for researchers who are short of funds, whether this shortage is due to their home country, institution or discipline.

Kevin Ellul, the director of library services at the University of Malta, gave an overview of the development of an OA policy for his institution that is due to be used as a template policy for the whole country. The University of Malta is the main higher education institute on the Maltese islands, covering all disciplines in 14 faculties and with over 11,000 students. Its comprehensive OA policy was drafted after a wide consultation including the PASTEUR4OA project team. This policy mandates University of Malta researchers to deposit a copy of each peer-reviewed paper in the institution's repository as soon as possible after publication. Only papers in the repository are counted when evaluating individual researchers or groups. Researchers are also recommended, although not strictly required, to make their datasets freely available. Ellul recognised that librarians and researchers need to be motivated before the policy can be fully implemented, and that this needs financial resources that are not always readily available.

Kevin Ellul of the University of Malta, speaking about OA policies at his institution.



The final talk in this session presented a Swedish perspective. **Beate Eellend** from the Royal Library of Sweden is the manager of the OpenAccess.se programme, which started in 2006. This promotes and supports both green and gold OA to all works produced by Swedish researchers, teachers and students. It also acts as a national contact point or partner in numerous Europe-wide and international initiatives. A recent set of guidelines gave milestones for developments from 2015-2020, suggesting that books by Swedish researchers should be included with papers in the materials to be made available free of charge by 2020. Further 'strategic objectives' for 2025

suggest that all publicly-funded ‘scientific publications and artistic works’ should be licensed through Creative Commons by that date. These are far-reaching and ambitious proposals, and Eellend recognised that many practical issues will need to be solved before they can be implemented.

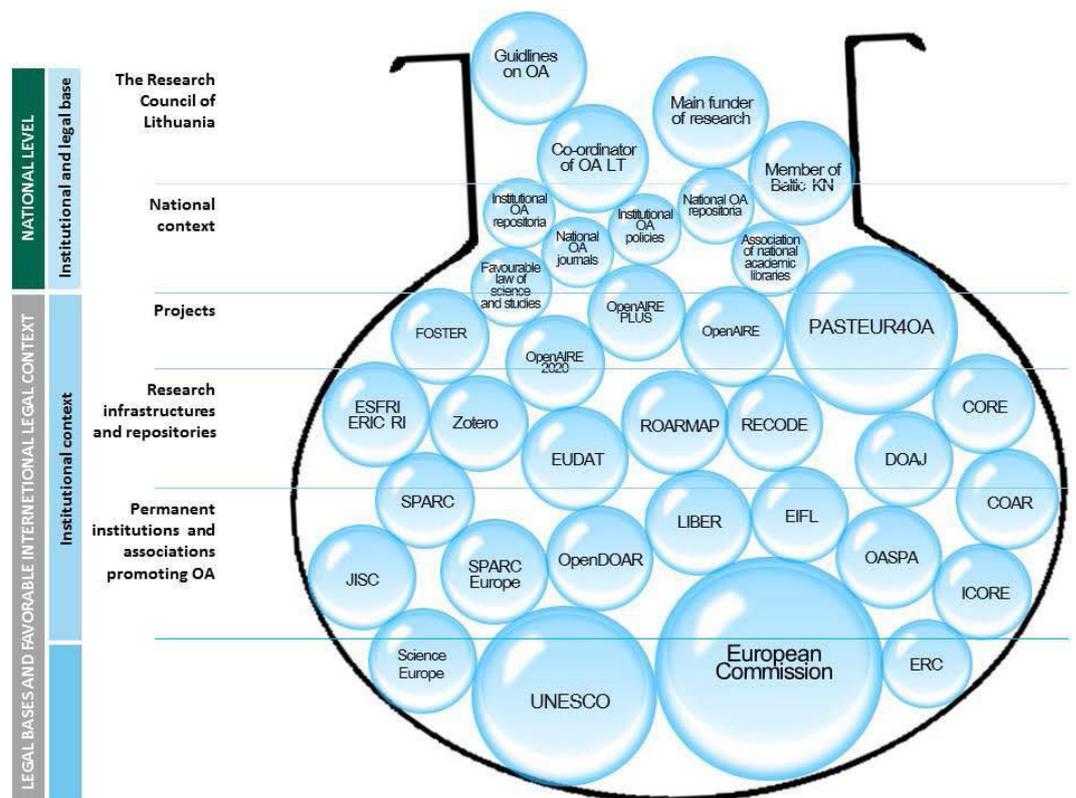
In introducing a short panel discussion that followed the four talks, Kuchma pointed out that the four speakers agreed strongly about what needed to be done, but differed in their strategies for achieving those goals: the discussion was to focus on ‘Not if, but how’.

6 Session 2 - The Funders’ Perspective

There is general agreement that there is a key role for science funders in establishing and implementing appropriate OA policies and that large funders are now contributing to the development of good practice. The second session, chaired by LIBER’s **Pablo de Castro**, featured short talks from representatives of funding agencies from four countries and the European Commission.

The first speaker was **Rūta Petrauskaitė** from the Research Council of Lithuania, who used an attractive visualisation of a glass of bubbles to present a guided tour of an ‘alphabet soup’ of bodies, projects and infrastructures involved with monitoring or supporting OA in her country. Lithuanian OA policy is already aligned with the requirements of Horizon 2020 and its current formulation, which covers the period from 2016-2020, includes some requirements for data as well as publications.

The complex interplay of organisations and infrastructures involved with regulating OA policy in Lithuania, as depicted in Rūta Petrauskaitė’s talk.



Jean-François Dechamp from the European Commission’s Directorate-General for Research and Innovation, which administered the Framework programmes (and thus PASTEUR4OA) and now looks after Horizon 2020, gave the view from the Commission.

All participants in Horizon 2020 projects are expected to publish their results on open access; there will also be a requirement to make research data freely available from 2017. There are still open questions over, for example, the allowed lengths of embargoes between first publication and paper deposit for green OA, and how far the Commission should be prepared to fund author contributions to gold OA journals. And good communication is essential if researchers and other stakeholders are to remain on board. For example, it is important to provide reassurance that some data, such as confidential data, may stay 'closed'.

Neil Jacobs from Jisc, which provides digital services for the academic sector in the UK, presented a rather complex picture of OA requirements from UK research councils and one large charity funder, the Wellcome Trust. These bodies all now specify that the research they fund must be published on open access (either green or gold) and give block grants to institutions to help pay for APCs. An interesting addition to these policies has come from the UK's higher education funding council, HEFCE, which provides block grants to university departments for research; these are allocated every few years following quality assessment through a Research Excellence Framework exercise (REF). Any paper published after 1 April 2016 may only be included in future REFs if it has been made openly available.

Portugal has a single research council covering all disciplines, the Fundação para a Ciência e a Tecnologia (FCT). **João Nuno Ferreira** described how that council is implementing its OA policy, stressing the need to make it straightforward for researchers to use. They have created a software tool that will automatically validate a paper deposited in a repository, associate it with a particular project (not necessarily FCT-funded) and generate the required scientific and financial reports. As with the REF in the UK, only papers available on OA are used to assess researchers' records when they apply for FCT grants.

The final talk in this session was from **Patrick Danowski**, the library manager at a new inter-disciplinary research institute, IST Austria. He described the 'transition to open science' that was taking place in Austria. The Austrian Science Fund, FWF, already mandates that papers from the research it funds are published on OA and with a CC-BY Creative Commons licence. Open Access Network Austria is a voluntary association that takes this forward, moving beyond OA for published work to open science: that is, to a transformation of the research infrastructure at all levels. The Network recognises that 'openness is the normative pledge of science and scholarship' and is working towards a '100% open' landscape by 2025. More detailed interim goals include reorganising contracts with publishers and collaborating with like-minded partners internationally. However, although PASTEUR4OA classifies the FWF policy as one of the most effective in Europe, there are still Austrian institutions with no OA policy at all.

7 Session 3 - Monitoring Open Access

Even the best OA policy is of little use without systems for monitoring how – and, in fact, whether – it is used. A varied session at the end of the first day, chaired by Jisc's **Neil Jacobs**, featured four talks taking different perspectives on this issue.

Firstly, **Mikael K. Elbæk** from the Technical University of Denmark described a software tool, the Danish Open Access Indicator, that is now being used to monitor Danish researchers' progress towards the goal of 80% of papers published in 2016 and 100% of those published in 2021 being made freely available within a year. The

Danish strategy focuses on green OA and no extra money has been provided to help researchers fund publication in gold OA journals. The indicator, which was released in 2016, classifies the OA potential of published research as ‘realised’, ‘unused’ or ‘unclear’ and the results can then be grouped by date, institution or research area. Papers with the status of either ‘realised’ or ‘unused’ are regarded as potentially available through OA.

Kim Huijpen of the Dutch universities’ association VSNU, which comprises the fourteen research universities in the Netherlands, then described how OA policy and practice are monitored in that country. The Dutch have set ambitious targets for 60% of publications to be available on OA by 2018 and 100% by 2024. Their Ministry of Education, Culture and Science commissioned a study in 2014 to establish a baseline from which progress could be monitored, comparing the situation in the Netherlands with that in Denmark and Switzerland. The two methodologies selected gave very different results, suggesting that definitions could be tightened up. They therefore re-defined ‘gold’, ‘hybrid’ and ‘green’ OA to give four clear-cut categories, from A (‘Open article in open access journal’) to D (‘not yet openly available through any mechanism’). Following a pilot project involving three universities, all Dutch universities are now working on a measurement for 2015 that will be presented to the Ministry in September.

The audience asks questions of panelists in Session 3 of the conference.



Frank Manista from Jisc in the UK then described the Jisc Monitor services that are being developed to monitor compliance with OA rules in the UK. He began by re-stating the policies of the main funding agencies and reminding delegates of the important role of the Research Excellence Framework. Jisc Monitor comprises two separate but linked services, Monitor Local for institutions and Monitor UK for aggregating data country-wide. Monitor Local is used after papers are accepted and allows institutions to record and report on their academics’ use of both the ‘gold’ and the ‘green’ OA routes for their research publications, facilitated through automatic

connections with other software tools. It is currently available only as an alpha release. Monitor UK will aggregate information about 'gold' OA, showing how much publishers are charging and institutions paying in APCs to publish through this route.

The final talk in this session was rather different, as it came from a researcher's perspective. **Stephen Curry** is a professor of structural biology at Imperial College London, an advocate for OA, and an enthusiastic blogger. He began by describing his fellow academics as intelligent, creative and fiercely independent, 'like children'. The OA ethos and the academic ethos fit together well, but there are still tensions. Stereotypically, academics hate organisation (managing them has been described as 'herding cats') but compliance with OA rules requires it. Physicists, for example, are now expected to deposit their papers in the archive ArXiv.org, but compliance is relatively poor. Researchers also worry about the high cost of APCs to authors, particularly from journals with high impact factors. Many have begun to query the over-reliance of journal impact factors in assessing the quality of published work, particularly as the majority of papers in even the highest-impact journals are not particularly well cited. Alternative metrics for assessing research quality should be considered alongside more traditional ones. Ideally, scientists should be rewarded for engaging with the public and even for encouraging participation in so-called 'citizen science' initiatives; this may not be a majority pursuit but there are still thousands of non-scientists out there who are willing and able to engage with research in sophisticated ways.

8 Session 4 - What's Next for Open Access (Part I)

The two sessions of short papers on the second day of the meeting both looked to the future, under the strapline 'What's Next for Open Access'. The first of these focused on developments in infrastructure to support OA and the second on policy developments.

Present and future developments in OA infrastructure were introduced by **Bill Hubbard**, deputy head of scholarly communication support at Jisc in the UK. He stressed the link between supporting infrastructure and supporting policies, and also the need for sustainability. This should not place a burden on authors of scholarly publications, who need to be free to carry on with their research but also to be aware that 'open access is now part of research'. It should therefore be simple to use but complex enough to satisfy the requirements of all stakeholders – librarians, publishers and funding agencies as well as researchers – and financially as well as technically sustainable for the foreseeable future. It will also need to be scalable, to cope with many countries' and funders' requirements for 100% of published papers to be available on OA within a few years. Jisc has developed an infrastructure that is working well in the UK and that should be scalable in this way, but neither OA infrastructures nor policies should be a goal in themselves: they are required to support a wider cultural change.

Rob Johnson, the founder and director of Research Consulting in the UK, explored the need for sustainability in implementing OA policies further. If OA is to be fully implemented it requires three things: the correct policies, a sustainable infrastructure and the support of the broad research community ('hearts and minds'). Currently there is broad acceptance that OA is desirable, and that policies depend on services, but those services remain fragmented. He proposes setting up a new body to promote and facilitate these services, to maintain a register and to assess further requirements, and to suggest ways of filling gaps. Many questions remain, however,

about the scope of such a body, how it would interact with existing ones, and – most importantly – where the funding would come from. It would, however, fit very closely into the scheme of work proposed in the Amsterdam call for action, and plans for a pilot project are underway: Johnson ended by asking us to ‘watch this space’.

Natalia Manola from the University of Athens and the Horizon 2020 text mining project OpenAIRE moved the discussion on from OA to open science. OA may be ‘here to stay’ but the principles underlying open scholarship more generally are in flux. Changes that are in progress go hand in hand with the infrastructure needed for their implementation so the system is circular. Repositories will need to go beyond merely preserving research papers and provide facilities for text and data mining, and to fit into a global infrastructure. Repository infrastructure, for example, needs to be flexible and extendible, but also, wherever possible, driven by the research community and open to every researcher and SME. OpenAIRE is providing the software needed to implement and monitor these policies and to support access to data hosted in the new European Open Science Cloud.

The final presentation in this session was given by **Kristiina Hormia-Poutanen**, president of the LIBER association of European research libraries. LIBER was founded in 1971 and now includes over 400 member libraries from 41 countries. Enabling OA is one of the association’s three strategic directions for 2016-7, along with ‘leading in changing scholarship’ and ‘engaging in shaping innovative research’. It aims to increase OA ‘content and coverage’ through supporting the publication process at all levels and exploring new channels for OA publication: some member libraries, such as Stockholm University and UCL in London, have already become OA publishers in their own right. New services will be needed if OA to scholarly publications is to be increased and maintained, and LIBER is involved in several projects to plan and investigate these.

*Speakers from
Session 4 in
discussion with
the audience.*



9 Session 4 - What's Next for Open Access (Part 2)

The three talks in the final session continued the theme of the future of OA, but switched focus from infrastructure to policy. The first was from **Ben Johnson**, research policy advisor at the UK's funding agency for higher education, HEFCE, who chose to do without slides. He explained the context of university research funding in the UK, which has two components: 'block grants' for university departments and individual ones for discrete research projects. HEFCE is responsible for the block grants, which are awarded based on the score that each department achieves in the Research Assessment Exercise (RAE). The council's commitment to OA as set out in its new policy to only count research papers that are freely available for download in assessing research excellence is providing a real incentive for the rapid development of OA in the UK. Johnson described that policy as 'relatively simple... but a game changer'. He then explained how the policy had been developed, with the whole research community – academics, publishers and librarians – involved at each stage. It had received broad support throughout the diverse UK academic sector, although there are still queries about details of its implementation. In the future, however, academic research in the UK (as everywhere) will need to become still more open to the world outside if it is to play its part in responding to challenges such as climate change and food security: open science, as well as OA.

Bernard Rentier, vice-president of the Federal Council of Science Policy in Belgium and a former rector of the University of Liège then presented a view of the situation at Liège and in other Belgian universities. In 2007 the University of Liège mandated that the full text of all papers from its researchers that were published after 2002 should be deposited in its repository, with compliance linked to the research assessment. Compliance has been much greater than at other Belgian universities with similar requirements but without this feature. A large majority of academics are satisfied or very satisfied with the policy. He suggested that OA does have drawbacks, particularly the cost of authors' contributions in gold OA. Scholarly communication is still in flux, and future changes are likely to be in the direction of increasing transparency: 'not just a slogan, but a cause'.

The final presentation of the meeting was given by **Stephan Kuster** of Science Europe, an association of large public research organisations and funders from all 28 EU countries. In entitling his talks 'What next for Open Access policy?' Kuster aimed to summarise much of the previous sessions. Seventy percent of Science Europe's member institutions already have an OA policy and most of the others are planning to introduce one; most such policies were introduced after 2007 and most have been revised at least once. In 2013, Science Europe introduced a set of common principles for the transition to OA. These set out policies to standardise and increase the efficiency of this transition, while emphasised that open scholarly communication cannot be implemented without resources. Four additional principles, including a recommendation to publish using the Creative Commons licence CC-BY, were added in 2015. Looking further ahead, Kuster suggested a way forward for developing OA policy, including expanding European policies to the global stage. We are challenged to support the entire worldwide knowledge infrastructure as a public good.

For presentations on the conference, or more on the PASTEUR4OA project, please visit the website: www.pasteur4oa.eu