

Ingrid M. Wijk

4c Open access in the Netherlands

Compared to Austria, Switzerland (and the UK), the Netherlands are unique to a certain extent regarding government policies and the presence of large commercial publishers on its territory. For these reasons, this contribution will focus on business models and financing strategies, without neglecting the perspective of the scientists.

The start

In April 2013, Dutch State Secretary of Education, Culture and Science, Sander Dekker, announced he would be sharing his vision on the further development of open access to scientific publications. In November 2013, these policy intentions were disclosed in a letter (Ministerie van Onderwijs, Cultuur en Wetenschap, ref. 563640, 2013)¹ to the Dutch Lower House of the Dutch Parliament (*Tweede Kamer*), declaring that all results of research that are publicly or publicly/privately funded must always be freely available. He stated that open access availability of research output stimulates the exchange and circulation of knowledge and thereby contributes to the innovative capacity of the Netherlands. In addition, it leads to the development of science in general and to the resolution of societal challenges such as global health and climate change. Furthermore, the letter indicated that these research results can be made freely available ‘within a reasonable time frame’ as there are no technical constraints to the immediate distribution of content where public money is involved. The targets set were clear and ambitious: by 2019, 60 percent of scientific output in the Netherlands is to be available as open access content, growing to a full open access situation by 2024. The preferred road is the ‘gold road’, via publishers who facilitate direct open access to peer-reviewed publications. Unlike the UK, where additional funding was provided to reshape the publishing business model, the Dutch government declared that no additional funding would be made available.

In stating this, the Dutch government had encountered differences between disciplines, publishing practices and formats, and consequently acknowledges that there will be no one-size-fits-all implementation of the Open Access policy. For example, in the medical and biomedical sciences, scientific findings are shared for the first time on publication in a high-impact peer-reviewed journal, whereas in economics findings may already have been announced at conferences before submitting an article for

¹ Ministerie van Onderwijs, Cultuur en Wetenschappen, Open Access van publicaties, kenmerk 563640, november 2013

publication. In other areas, such as the humanities, the dominant publication format is a book rather than an article. And while open access only publishers are already operating in some subject fields, such as medical and biomedical sciences, in others open access publishing is open access of one or several articles in licensed journals.

Given this current situation, the Dutch government has called for concerted action by all stakeholders: universities, university libraries, Dutch grant and research organisations such as the Netherlands Organisation for Scientific Research (NWO)² and the Royal Netherlands Academy of Arts and Sciences (KNAW),³ as well as publishers. The first and primary focus was on creating a platform, a common ground to enable and initiate the transition from subscription-based access to content to a situation of open access publishing, culminating in public access to content. Round table meetings with the stakeholders were initiated by the Ministry of Education, Culture and Science to explore directions and to detect sustainable paths to transform the publishing business model. Note that by that time universities and libraries have questioned the business model of the publishing industry for several years already. Specifically, university boards and researchers regard the profit margins of publishers a thorn in the side. Gerard J. M. Meijer, president of Radboud University, explained: ‘We are willing to pay publishers for the work they do, but Elsevier’s profit margin is approaching 40 percent, and universities have to do the [editing] work and pay for it. We aren’t going to accept it any longer’. (Times Higher Education, January 2015).⁴ Different discussions – that of opening up scientific content and that of who is to benefit – came together.

The 13 Dutch, state-funded universities, the largest producers of scientific output in the Netherlands, associated in the universities network VSNU,⁵ took the Dutch policy change to the highest administrative level. The VSNU identified which stakeholders – politicians, the public, research groups as well as individual researchers and grant organisations – perform a role in publishing scientific knowledge. A taskforce was formed to take charge of public relations and communication. Consisting of members of the VSNU office and librarians, its main responsibility was to get across the message that open access publishing would henceforth be the preferred and targeted means of disseminating scientific output. In addition to press releases, roadshows and seminars about Open Access policy, a website was also launched (www.openaccess.nl), providing updates on the latest Open Access developments in the Netherlands and abroad, researchers’ statements advocating Open Access and a Q&A regarding publishers’ policies.

As the end goal was to transform the subscription/paywall model into an Open Access publishing model, the Dutch focus was on redesigning publishers’ contracts.

² NWO, Nederlandse Organisatie voor Wetenschappelijk Onderzoek; www.nwo.nl

³ KNAW, Koninklijke Nederlandse Akademie voor Wetenschappen; www.knaw.nl

⁴ <https://www.timeshighereducation.com/news/dutch-universities-dig-in-for-long-fight-over-open-access/2017743.article>

⁵ VSNU Vereniging van Universiteiten; www.vsnunl.nl

The timing was perfect. The big deals (contracts arranging access to large packages of journals) with leading STM publishers – notably Elsevier, Springer and Wiley – were due to end and would soon be up for renewal. In pre-Open Access contracts, the focus was on agreeing on the terms of access (e. g. perpetual access rights) and usage of the content, for example text and data mining. In the new situation, however, the Dutch universities wanted to lay down the right to both access and publish content in one and the same contract. This indicates the intertwined approach the Netherlands has chosen: money spent on subscriptions (paying for consumption of research output) needs to be converted into money paid to publish (paying for production of research outcome) to avoid double dipping (see chapter 2d).

Licensing contracts usually cover more than only universities, however. In the Netherlands, higher education is offered at two types of institutions: research universities (*wetenschappelijk onderwijs*) and universities of applied sciences (*hoger beroepsonderwijs*). Research universities carry out fundamental and applied research and academic education, whereas universities of applied science primarily carry out applied research and professionally-oriented education. The agreement on Open Access between the Dutch government and universities regards research universities only; universities of applied sciences are not taken into account. This meant that the traditional licensing contracts that include universities of applied sciences (and a couple of university or science institutions though aligned, not being part of a university) piggybacking on the licence, needed to be changed into a twofold licence.

A shift in universities' views on the total costs of scholarly communication was also needed. Even before the introduction of the big deals, licensing budgets have been the exclusive domain of libraries. Information on expenditures for access to scientific information sources are administered in the university's library system and/or financial system. At all times, an overview of the costs of reading scientific output can be provided. Funded either from a central, university budget, or in an arrangement apportioning the costs over faculties and/or research institutes, university library budgets covered the licensing costs. In this era, university libraries' responsibilities included contracting a licence on the best possible terms. However, the picture with regard to open access publishing responsibilities regarding contracting and budgeting is less clear. In general, publishing costs may be covered at a decentralised – for instance departmental or research school – level, at one end. Financing may also be part of a grant from a public or private funder that is not administered as such. At the other hand, funding and administration might be (partly) under the central university budget. To gain better insight into their cash flows, the Dutch universities screened their financial and administrative systems. The results were alarming; overall accounting of open access expenses was inadequate. In some cases, for example, APCs were administrated as PR costs. Because each university has its own accounting system, recommendations were made at the institutional level to fine-tune processes and adjust administrative procedures to capture the total costs of publishing.

Joining institutional forces

There are a number of organisations that act either as advisory bodies to the government on research and innovation issues (such as the AWTI,⁶ the Governmental Advisory Council for Science, Technology and Innovation) or work independently to advance the research position of the Netherlands (such as the KNAW and NWO). These bodies have contributed to the Dutch open access agenda in diverse ways.

In the run-up to the Dutch EU Presidency (January – June 2016), the AWTI issued a report entitled ‘Dare to share’ (AWTI, 2016), placing open access to scientific output in the broader perspective of open science and open data. The AWTI contends that open access will serve to strengthen the position of science in society. However, access alone is not enough; most Dutch scientists already have access to scientific knowledge covered by licensing contracts with publishers. At the same time, openness is not actually desirable in some circumstances, for reasons of security (for example national security) or privacy (for example citizens’ confidential health information). The AWTI therefore advocated that open access should not be regarded as an end in itself in science, but as a vehicle to maximise knowledge within and – especially – beyond the bounds of science. In short, open access will only offer added value as part of a broader strategy that increases access to and the utilisation of scientific knowledge.⁷

As the main Dutch grant organisation, the Netherlands Organisation for Scientific Research (NWO) responded to the political changes by declaring open access the standard for the dissemination of research output. As of December 2015, the NWO has amended the conditions of its grant regulations in favour of open access, changing ‘accessible to the public as quickly as possible’ into ‘immediate open access at the moment of publication’.⁸ The NWO prefers gold open access, although green open access meets the standard as well. In the latter case, when an article is published in a traditional subscription journal, a version must simultaneously be made accessible in a public database such as a university repository. It has created the NWO Incentive Fund Open Access to cover the costs of article processing charges (APCs), to which principal applicants for NWO research funding can apply for grants of up to 6 000 € per research project. As the NWO wishes to trigger gold open access publishing, this funding can only be applied towards APCs for articles in pure gold open access journals (or books available in open access formats at the time of publication). Placement in an institutional repository is without cost for researchers. The NWO has found that in some cases publishers prohibit immediate publication of an article. Acknowledging that the transition to full access is not an easy process and given the different interests at stake, the NWO has stated that it will be using the period until January

⁶ AWTI Adviesraad voor wetenschap, technologie en innovatie; www.awti.nl

⁷ AWTI, *Durven Delen, Op weg naar een toegankelijke wetenschap*, Den Haag, januari 2016

⁸ <http://www.nwo.nl/en/policies/open+science/open+access+publishing>

2018 to identify any barriers that may impede meeting the OA requirement. During this period, researchers will have to either comply with the regulations or explain why it is impossible for them to do so ('comply or explain' principle).

The policy of the prestigious Royal Netherlands Academy of Arts and Sciences (KNAW) is to serve as a learned society representing the full spectrum of scientific and scholarly disciplines in the Netherlands, to act as a management body for national research institutes and to advise the Dutch government on matters related to scientific pursuit. The KNAW advocates and has committed itself to placing its publications and those of the KNAW institutes in the Academy publications repository, providing open access within six months of publication, or within 12 months in the case of publications in the humanities and social sciences. Furthermore, it has pledged to digitally preserve and provide open access to all of its research data (except the absence of obligations under the data memorandum) within 18 months after the research is concluded. It is clear that the Open Access movement started to address the issue of free access to publications and is evolving to the next stage of access to data.

Not only the leading research organisations in the Netherlands joined forces to achieve a national standard on open access, but internationally, too, government agencies, universities, university libraries and research institutes harmonised efforts. From the beginning, clear political vows were heard. Joint statements were drawn up, such as by LERU,⁹ the League of European Research Universities, calling to investigate new models for scholarly communication and the dissemination of research outputs. Also, the Association of European Research Libraries, LIBER, of which most Dutch university libraries are members of, has been instrumental for the The Hague Declaration on Knowledge to increase the availability of facts, data and ideas (Liber, 2015).¹⁰ The Netherlands and the United Kingdom published a joint non-paper on open science, and specifically open access to publications and data, which cites as shared common goals 'to strive for and support open access to the underlying data, make data interoperable and easy to re-use' and 'to promote a universal, simple and straightforward approach to re-use of data and publications without restriction (as described by the CC-BY licence)' (Dekker, 2015).¹¹

Also, political support for open access encouraging publishers 'to adapt their business models to new realities' is given in a European context, as reflected in a joint plea of EU Commissioner Moedas and Dutch State Secretary Sander Dekker in October 2015.¹²

⁹ <http://www.leru.org/files/general/Open%20Access%20to%20Research%20Publications-FINAL.pdf>

¹⁰ http://thehaguedeclaration.com/wp-content/uploads/sites/2/2015/04/Liber_DeclarationA4_2015.pdf

¹¹ Non-paper on open science: open access to publications and data, United Kingdom and the Netherlands, March 2015

¹² https://ec.europa.eu/commission/2014-2019/moedas/announcements/commissioner-moedas-and-secretary-state-dekker-call-scientific-publishers-adapt-their-business_en

In Horizon 2020 costs for open access may be reimbursed for the duration of the project. At the same time, monitoring is announced to increase transparency and prevent exorbitant APC price increases. In addition, the Commission will launch an Open Science Policy Platform to explore ways to construct alternative publishing business models. In the Netherlands, clear political support has proven to be one of the key success factors in the open access endeavour.

In practice

Actual conversion of the licensing contracts started with the renewal of licences universities hold with Elsevier, Springer, Sage and Wiley as of 2015. In the Netherlands, licences with the major publishing companies are contracted through a central contracting organisation, SURFmarket,¹³ which operates on behalf of and within a mandate of the Dutch universities. Up until 2014, library directors and university licensing officials had worked with SURFmarket to negotiate licences (and renewals) for large packages of journals, known as ‘big deals’. The main structure in place consisted of a national steering committee representing directors and licensing experts from the Dutch consortium of university libraries and National Library of the Netherlands (UKB). The committee was responsible for guidance and monitoring of licensing issues. To negotiate licences of substantial value there was a team for each publisher consisting of a university director and/or working group member, supported by a SURFmarket licensing manager. Universities could express their wish to participate in a big deal beforehand. After closing a deal the licence fee was apportioned over the participating members, with costs shared on the basis of parameters such as student numbers, budget and – as from 2015 – research output. Expenditures are known upfront to the participating universities and are not due to changes during the contracting period, enabling libraries to forecast budget consequences to the best.

This structure changed after the call to action. The VSNU shouldered responsibility and created a high level support structure.

Three university Executive Boards presidents¹⁴ were delegated to lead the transition to open access, supported by an open access programme manager of the VSNU, and representatives from a large Dutch grant organisation, the Netherlands Federation of University Medical Centres (NFU)¹⁵ as well as the UKB. They now serve as a steering committee that liaises with the government and with the VSNU to align policy

¹³ Surfmarket ICT Samenwerkingsorganisatie van het onderwijs en onderzoek in Nederland; www.surfmarket.nl

¹⁴ Prof. Gerard Meijer (Radboud University Nijmegen), Dr. Koen Becking (Tilburg University) and Prof. Jaap Winter (VU Amsterdam).

¹⁵ NFU Nederlandse Federatie van Universitair Medische Centra; www.nfu.nl

on a regular basis, ensuring that overall policy statements and strategic directives are covered by tactical and operational actions that match the ambition. A project group was put in place to prepare the policy agenda on open access, monitor progress, handle public affairs, etc. From this point on, one of the delegated Executive Board presidents has strategically led the negotiations with publishing companies, with additional expertise furnished by a dedicated university library director and SURFmarket licensing officer for content-related and contractual issues. Because the Netherlands had opted for a united approach in negotiating big deals with publishing companies more than a decade before the Open Access debate started, the general working structure as described above, was already in place. This structure consisted of plenary UKB meetings of directors of the university libraries and national library where publishing and licensing are discussed in general. This ensures that although there might be different opinions, the stakeholders speak with one voice, facts can be exchanged and differences in opinions may be discussed. On the tactical level, two UKB working groups are functioning, one on licensing and one on open access. These working groups report to the UKB plenary assembly. Members of the licensing working group are a delegation of university library directors, university licensing officers, a librarian acting on behalf of the university medical centres and an advisor from SURFmarket's licensing office. The open access working group is made up of university library directors, licensing officers and open access representatives from the university libraries. The chairman of the open access working group also sits on the licensing working group to ensure that open access issues are taken into account in negotiations and that issues raised in meetings with publishers can be dealt with immediately. This cross-linking makes it possible, for example, to delve into questions such as Creative Commons settings.

In addition, a small expert group was set up to deal with open access working processes in conjunction with publishers. The UKB's involvement had evolved considerably over time and become more intense than ever. Almost every university library director was assigned to one of the publishers to guide the deal-making process. Inevitably, training was provided to get ready for the job.

Within the libraries themselves, the new situation triggered various organisational changes. Open access officers had to be appointed, tasked with informing various stakeholders such as researchers and library colleagues about the open access deals, conditions and, most importantly, how researchers could use them. Alignment with university communication departments intensified. Licensing officers faced changes in their jobs as well, or new positions were created, with additional activities supporting publishing activities of researchers. For instance, tooling of and advising about Open Access publishing were taken up.

Like the role of the UKB, the services of SURFmarket have also undergone a change. Originally, SURFmarket was responsible for contracting content on behalf of the UKB. To do this, it was – within a mandate given by UKB – charged with leading market consultations and negotiating, and closing deals. In the new situation,

SURFmarket's role is a facilitating one and the actual negotiations are performed by the Dutch university presidents with the support of university library directors. The latter bear direct responsibility for informing the UKB working group on licensing matters and their UKB colleagues about results and outcomes of the negotiations. The need for a quick response in negotiation and decision-making processes calls for short lines of communication and ongoing coordination. In this system, effective supplier management is essential. Publishing industry developments and contracting business developments in other countries (mainly Europe) have to be carefully tracked in order to provide universities with key updates. At the same time, negotiation teams need a data warehouse organisation to keep records of changes in contract conditions and publisher deliveries in order to perform their role. This demands a flexible support organisation that is able to collaborate with different parties across the board, including the VSNU, UKB and publishers.

Essential for the negotiations was the commitment and steadfastness of University Boards to the Open Access agenda.¹⁶ From the beginning, it was clear that university leaders were open for unprecedented measures, such as that of not renewing a licensing contract with the publisher. University libraries prepared exit scenarios for these situations. Note that this caused concern among researchers, because of expected limited access to content. Furthermore, it was believed that it might impact the relationship between the researcher in his capacity as an author, and the publisher.

By mid-2016, the Dutch negotiations have resulted in a variety of models covering both reading and publishing rights. Concerning the Open Access publishing rights a variety of models appeared: (A) an unlimited number of Open Access articles (Springer, Wiley). In this case, every hybrid journal of the publisher is open for publishing Open Access without any APC costs for the researcher. In some cases, society titles are (not yet) part of this arrangement. (B): A substantial percentage (70–100%) of Open Access articles (RSC, Karger) is covered. In these cases substantial steps towards full open access are taken, however 100 percent open access is not reached yet. (C): A fixed (and growing) number of Open Access articles (Elsevier) is covered and free of APC costs for researchers. This might be connected to a specific set of journals, (D): An APC discount only is in place (Thieme, Walter de Gruyter, Emerald). Finally, (E) is a mixed model (for example a combination of C and D; Sage). The duration of these contracts varies from one to four years. It turned out that replacing a contract by another contract covering a substantial change regarding the contracted content is time-consuming. In most cases, a deal was only possible after the contract grace period had formally ended. Also, in some cases it turned out that a gap needed to be bridged by extending the former contract for a fixed period, for example, another year to have more time to agree on open access issues.

¹⁶ <http://www.magazine-on-the-spot.nl/openaccess/eng/the-dutch-approach.html>

As the main target was to convert the subscription-based model into a full open access and publishing model, dealing with full open access publishers such as BioMed Central or PLOS ONE was not subject to a national approach steered by the VSNU. This is not to say that this option was off the table altogether. Some universities already had membership agreements with this type of publisher, offering them discounted open access publishing, whereas others had put such memberships on the university research agenda, spurred by the open access movement.

Meanwhile, several other initiatives were launched to contribute to the Dutch Open Access movement on a specific disciplinary basis. They include the OAPEN project,¹⁷ a platform for open access monographs in the humanities and social sciences, LingOA,¹⁸ Open Library of the Humanities,¹⁹ and an initiative of university library directors and law school deans to develop an open content platform for Dutch law.

What about the researchers?

As of mid-2016, the big deal arrangements have enabled Dutch researchers to publish in one of three hybrid journals of contracted STM publishers without paying APCs. Additional, they may also publish in hybrid Open Access journals at a discounted APC rate. This does not impinge on the academic independence of researchers, who are not forced to publish in a particular journal. The decision of which journal to publish in is up to the academic community and a part of the research process and culture. This implies that the emphasis of most libraries is on informing researchers about the possibilities of Open Access, compliance with grant organisation Open Access policies and supporting researchers in the Open Access publishing process. Communication therefore requires a special focus. In general, researchers know exactly which journals are relevant in their field and in which ones to publish in. Their main concern is not in which journal they can publish open access, but which journal has high impact and relevancy for their research field and research ambitions. In most cases, the first and dominant incentive to publish in a specific journal is scholarly excellence – in other words, high impact. The rise (and fall) of questionable open access publishers has consequently led to caution among researchers where to publish. Dutch university libraries have built relationships with research institutes and research schools to deliver personalised publishing support services, and they are therefore best positioned to step in and inform, advice and guide researchers through the increasingly

¹⁷ <http://project.oapen.org/>

¹⁸ www.lingoa.eu

¹⁹ www.openlibhums.org

diffuse publishing landscape due to a variety of different publishing procedures and workflows.

An informal poll conducted in the summer of 2015 among Dutch university researchers showed that open access is considered to be a worthwhile objective, but not at the cost of career opportunities. Open access was (and perhaps is still) perceived as having lower impact, thus undermining career prospects in academia.

Research career prospects are still based on past performance as measured in the quantity and quality of research output. This makes the choice easy: Why opt for open access if the impact for the future academic career is still measured on the basis of traditional journal-based impact scores? Several young academy organisations, including the KNAW's Young Academy,²⁰ have expressed concern²¹ over the evaluation criteria currently applied by universities, research institutions and funding agencies, which value publication in established, high-impact factor journals. They state that early career researchers are more dependent on these criteria than successfully established scientists. The move towards Open Access should therefore be accompanied by a careful re-evaluation of these criteria. Both in the Netherlands and abroad, new ways of measuring impact are being explored, but have not yet been adopted. Here, too, the Netherlands is faced with the international reality that system changes cannot be forced by a single country.

In the Netherlands, the quality, societal relevance and viability of research conducted at Dutch universities (and NWO and KNAW institutes) are assessed every six years. The assessment methods used and the aims of assessment are set out in the Standard Evaluation Protocol (SEP).²² In the latest version (effective 2015–2020), the focus has changed and includes societal impact of research as well, measured on the basis of research institutes' most important societal publications or other societal output. The new SEP has also added a 'narrative' component, which should exemplify the relevance of the department's work to society. This new form of reviewing and valuing research output – in addition to scientific quality as measured by peers – is the first palpable proof of a changing research climate.

In addition to national research (funding) policies and assessment guidelines, international advocacy of open access output is welcomed. These efforts can build on initiatives taken by the European Commission under the FP7 Framework Programme to make scientific output publicly available. Concrete results (European Commission et al. 2016) of the €55 billion invested over the course of the seven-year programme include the strengthening of scientific excellence. Up

²⁰ www.dejongeakademie.nl

²¹ <https://www.dejongeakademie.nl/nl/nieuws/statements-over-open-access-en-open-data-gesprek-aan-eurocommissaris-moedas>

²² <http://www.vsnul.nl/files/documenten/Domeinen/Onderzoek/SEP2015-2021.pdf>

until the date of the ex-post evaluation, FP7 projects had led to more than 170 000 publications.

Of all peer-reviewed publications under the FP7 Framework Programme, 54% were published open access.²³ Further measures are being undertaken in the Horizon 2020 programme, addressing the need for better communication to the general public about science issues in general and Horizon 2020 in particular by strengthening open access to research publications and data and involving citizens in research strategy and topics. Article 29.2 of the programme's Model Grant Agreement²⁴ sets out detailed legal requirements for open access to scientific publications. Under the Horizon 2020 programme, all beneficiaries must ensure open access to all peer-reviewed scientific publications relating to their own results. To meet this requirement, beneficiaries must at the very least ensure that any scientific peer-reviewed publications can be read online, downloaded and printed.

A global business

Publishing is a global business, both viewed from the perspective of the publishing industry and the perspective of universities and other knowledge institutes. Therefore, cross-border approaches are needed. The call for international cooperation was formally made by the Dutch Ministry of Education in the run-up to the Dutch Presidency of the European Union in 2016. Open access became one of the priorities under which Member States joined forces, and efforts gathered political and societal momentum. Both the European Commission and the Council of the European Union took up the gauntlet to facilitate and accelerate the envisioned transition towards open science. As it was formulated in the *Amsterdam Call for Action on Open Science* (2016), 'countless initiatives have been developed during recent years, policies are not aligned, and expertise can be shared more and better. There is a strong need for cooperation, common targets, real change, and stocktaking on a regular basis for a speedy transition towards open science'.²⁵ The debate has definitely shifted from 'if' to 'how' and 'why'. By aligning the research policies of governments, grant organisations and universities, open access will be the standard within a decade. During the 'Open Science – From Vision to Action' conference held in Amsterdam in April 2016,

23 European Commission Fact Sheet, Ex-Post Evaluation of the 7th Framework Programme for Research, January 2016

24 http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf

25 www.eu2016.nl and <https://www.eu2016.nl/documenten/rapporten/2016/04/04/amsterdam-call-for-action-on-open-science>

it was ascertained that a multi-actor approach would be needed to reach two specific pan-European goals by 2020.

The first goal is full open access to all scientific publications; the second is to radically change the approach to research data use in favour of optimal sharing and reusing data.

Flanking policies were formulated with regard to reviewing the assessment, reward and evaluation systems and for aligning policies, monitoring stocktaking and exchanging good practices.

This conference also resulted in the formulation of a 12-point action plan. One of the actions is to create transparency regarding the costs and conditions of academic communication, thereby addressing growing concerns over the continuing viability of the current scholarly communication system. The aim is to establish a cost-effective, efficient and dynamic publication system. In the transition to this new phase, transparency in the costs of big deals and APCs is essential. In the spring of 2016, a Dutch citizen petitioned for disclosure of big deal pricing information under the Dutch Government Information (Public Access) Act, or 'WOB'. Though some publishers claimed that non-disclosure declarations might prohibit revealing contract information, university legal advisors declared that a WOB request overrules contractual restrictions, and the financial data were made public.²⁶ In the summer of 2016 the universities received a second request to make information on open access publishing costs public, this time from a citizen who co-founded QOAM.²⁷ A Dutch initiative, QOAM is a free service marketplace for researchers, providing information about scientific and scholarly journals which publish articles in open access format. QOAM scores journal quality on the basis of academic crowdsourcing, whereas price information is based on institutional licence pricing. Like sources such as DOAJ and Sherpa/Romeo, the website provides current information on open access publishing.

Towards open science

As can be deduced from the Amsterdam Call for Action, open access to research output by means other than publications is being advocated. In an open science environment, research outputs generated through public funding should be accessible for reuse. At present, the Dutch NWO grant organisation requires researchers to submit a data management plan with their grant proposals.

With respect to research data, the FAIR principles are generally accepted, meaning data must be findable, accessible, interoperable and reusable. There is a

²⁶ http://www.vsnul.nl/f_c_kostenpublicaties.html (only in Dutch)

²⁷ <https://www.qoam.eu/about>

certain degree of leeway to allow for differences between disciplines, legal frameworks, types of data and the interests (commercial or legislative) of parties involved.

As a result, the format may vary from open and free downloads to application and registration-based access. In the Netherlands, Data Archiving and Networked Services (DANS)²⁸ promotes sustained access to digital research data by offering data storage facilities and encouraging researchers to permanently archive and reuse data. DANS allows researchers to either deposit datasets in EASY or send research data and publications to NARCIS; during research, DataVerseNetwork (DVN) can be used for data storage. DANS also offers training and advice and conducts its own research on sustainable access to digital information.

These practices build further on the basics laid down in the Code of Conduct for Scientific Practice in the Netherlands (VSNU, 2012),²⁹ which requires – among other things – that presented information must be verifiable and that research must be replicable in order to verify its accuracy. Every single process step, from research question to research setup and methods to source references must be precisely documented by the researcher. In general, whenever research results are made public, the basis for the data and the conclusions, how they were derived and how they can be verified must be made clear.

In the years ahead, a special focus will be placed on monitoring progress in open science. The Dutch Ministry of Education, Culture and Science has already imposed a reporting requirement on the Dutch universities to inform the national government on the progress made. A framework of Open Access definitions is set to facilitate annual progress reporting based on universities' current research information systems. This will ensure data are available to effectively steer open access policies to achieve 100 percent open access for public and public/private-funded research in the Netherlands by 2024.

Green open access and specific actions

So is green open access not on the agenda any more? The Horizon 2020 programme states that all peer-reviewed scientific research articles (published in scholarly journals) have to be freely available. This encompasses not only the right to read, download and print, but also to copy, distribute, search, link, crawl and mine. Such access can be granted either by self-archiving (green open access) or through open access publishing (gold open access).

²⁸ https://dans.knaw.nl/en/front-page?set_language=en

²⁹ http://www.vsnul.nl/files/documenten/Domeinen/Onderzoek/The_Netherlands_Code_of_Conduct_for_Scientific_Practice_2012.pdf

In August 2016 the VSNU drafted a green open access policy in which institutional repositories would play a pivotal role. Still, the ultimate objective in the Netherlands is gold open access. Though the green road is also open, it does not provide the immediate, open access that is envisaged by the Dutch government and essentially functions as a stepping stone to barrier-free access to scientific output.

Up until now, some universities, for example Erasmus University Rotterdam, Technical University Eindhoven and Technical University Delft, have formulated explicit green open access policies that include the depositing of scientific output. In these situations, green Open Access policies are supported by Executive Board and faculty deans. Erasmus University was the first Dutch university that formulated a Green Open Access Effective mandate in 2011, stating that all research output is to be uploaded to RePUB, EURs institutional repository.³⁰ From April 2015, authors at TU/e are requested to register all peer-reviewed journal articles and to submit the final, accepted authors' versions (post-print) for inclusion in the TU/e Repository. Authors only need to upload their publications.³¹ Other universities are in the process of formulating policies, or have restricted policy measures such as the required deposit of each PhD thesis (as at Maastricht University). Institutional repositories are harvested in turn by NARCIS,³² the Dutch national repository. The objective is to implement a general sector-wide policy on green open access and the depositing of publications, further building on the strides made by joining forces. Researchers may deposit either the final version (publisher's version) or final peer-reviewed and accepted version (postprint or final author's version) of their article in the repository. Publications in open access journals can be deposited immediately.

If a publication is already available in a 'trusted repository' (for example, some form of gold open access), linking to the publication based on a persistent identifier is sufficient.

These actions may be boosted by 2015 legislation on intellectual property rights in the Netherlands, when the existing law was amended in favour of making research output publicly available in as short a period as possible. The precise time period is still to be determined.

Aligned with EU statements, this means that after 6 months (for science, technology and medicine; for social sciences and humanities up to 12 months) the rights will revert to the producer of the knowledge – that is, the researcher.

The timing for the Green Open Access policymaking is opportune. Most universities (and university medical centres) have either recently replaced their CRIS (current research information system) or are in the process of choosing a future CRIS.

³⁰ http://www.eur.nl/researchmatters/open_access/eur_policy/

³¹ <https://www.tue.nl/en/university/library/education-research-support/scientific-publishing/open-access-coach/tue-open-access-policy/>

³² <http://www.narcis.nl/about/Language/en>

It is difficult to conceive that universities will remain dependent on publishers' data for information about one of the two major 'products' they deliver, namely research output; and where the other product – education output – is concerned, they know far more themselves in terms of data on graduates, programmes and marks. By constructing and using research information systems to their full potential, a more comprehensive picture of university research performance can be provided to all stakeholders, including government, management, the public and researchers themselves.