



Financial and administrative issues around article publication costs for Open Access

The author's perspective



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Executive summary

Understanding the author's perspective on APCs

How are authors of journal articles paying for Open Access (OA) fees or Article Processing Costs (APCs)? What is the administrative burden for authors? And do their research organisations have an accurate overview of all these payments?

A better understanding of such authors' perspectives on APC payments will support the development of an optimal communication and administrative strategy with the aim of encouraging authors' usage of existing APC-funding mechanisms.

For these purposes, Knowledge Exchange has carried out a study among authors at six research organisations. In total, 1,069 authors participated in online surveys focused on their 2015 articles published in OA journals or in subscription journals that offer the option of publishing individual articles on OA for an additional fee, so-called hybrid journals.

Key results

Regarding the number of OA articles published:

- Growing importance of OA in scholarly journal publishing: The fact that one third of the scholarly journals are now OA journals means that the outcome of a journal selection process for a given article will frequently be an OA journal, even when the authors are not particularly interested in OA. One of the results of this is that between 11% and 38.6% of the articles from six research organisations, which each have very different OA policies in place, were published on Open Access in 2015
- APC-funds increase article publication in APC-OA journals: At two research organisations with Open Access publication funds, the proportion of APC-OA journal articles is above 10% (Glasgow with 11.5% and Göttingen with 15.5%). The percentages of APC-OA articles at the other four organisations are below 10% three without APC-funds and one with a limited APC-fund

Policy of APC-fund and/ or offsetting deals are crucial for OA articles in hybrid journals: The percentages of OA articles in hybrid journals are generally lower than 5% if the authors themselves have to select this OA option and thus pay for the APC involved. However, the total percentages of OA articles in hybrid journals are above the 10% level at two universities: the Technical University of Eindhoven (11.8%), mostly as a result of offsetting deals, and the University of Glasgow (16.6%) as a result of a combination of active funding of APCs for articles in hybrid journals and offsetting deals

Regarding the selection of OA journals:

- OA factors influencing journal selection: In about one third of the cases, authors of articles published in OA journals reported that OA factors had played an important role in journal selection. In a similar proportion of cases, such factors did not play a role in their journal selection, despite those articles eventually being published in OA journals. In those cases, the match between article and journal appears to have been of primary importance to the authors, while the fact that it was an Open Access journal was not seen as significant
- Reasons for OA publishing: The authors indicated that two practical reasons for OA publishing were of prime importance: firstly, more exposure and a wider audience for the article and secondly, offering others complete freedom to reuse, republish and distribute it. However, the more ideological reason to support Open Access/ Open Science was also much cited. For UK authors, requirements by research funding organisations, universities and/ or research evaluation exercises played primarily a role, though were much less important for authors in the other countries. This is clearly an effect of the stricter policies in the UK in this regard

Executive summary

Regarding the payment of APCs:

- Author-controlled discretionary funds: Research grants and/ or research unit budgets are most likely to be used if there is no APC-fund available or if it does not fund OA articles in hybrid journals
- APC-funds have two effects:
 - Replacement effect: Authors prefer using the APC-fund instead of their own discretionary funds
 - Stimulating effect: It is also clear from the figures and from interviews with authors that APC-funds do stimulate and facilitate OA publishing
- Private payments by authors show flaws in the system: Small percentages of respondents to the surveys reported having paid APCs for OA journals privately. Also, several authors commented on the uncertainty about the funding of the APC after acceptance of a paper, often taking on the financial risk personally
- Discounts are quite normal: Respondents frequently reported discounted APCs. Discounts are given for many reasons: relationship with the journal, membership of the relevant society, arrangements by the library including membership deals and so on, but also as a result of price negotiations between the author(s) and the publisher
- Great variation in APC-levels induces price sensitivity among authors: The respondents reported a great variation in APC levels; tenths of percents reported an APC for OA-journals lower than 1000 euro or pounds, while similar percentages reported an APC of more than 2000 euro or pounds. Due to this large variation in APCs and the increasingly frequent experience of respondents with it, quite a number of comments by the respondents show an increasing price sensitivity to APCs

Regarding administrative efforts by the authors:

- Administrative efforts for authors regarding APCs take too long: One hour of administrative effort for authors is generally seen as acceptable. However, a considerable proportion of respondents indicated that their administrative efforts regarding the payment of their 2015 articles took longer than this
- Administrative efforts for authors to partaking in offsetting deals are negligible: The administrative efforts by authors who want to make use of OA in hybrid journals as a result of library arrangements is minimal; the respondents from two research organisations with a number of offsetting deals (Glasgow and Eindhoven) reported that only 27 minutes and 35 minutes respectively were spent on administration

Regarding information sources on OA used by authors:

Authors use a mixture of information sources about OA, among which publishers' journal websites take an important place. Libraries are generally not (yet) seen as a logical information source on OA by authors

Regarding (potential) library services:

- APC-funds are popular: The existing APC-funds are seen as relevant by large majorities of the respondents
- Information services on discounted APCs and on OA options are relevant:
 - A service that shows the option for getting discounted or free Open Access publishing options that the library has arranged is also seen as relevant by large majorities of the respondents.
 - The same is true for a service that gives information about Open Access options and policies proposed by the University, research funders and so on

1. Introduction

1.1 Purpose of the study

How are authors of journal articles paying for Open Access (OA) fees or Article Processing Costs (APCs)¹? How are these payments administered in practice? What is the administrative burden for authors? And does the research organisation have an accurate overview of all these payments?

A better insight into these questions will help to develop and/ or improve:

- The communication to authors about the options for funding OA payments
- The administrative systems that support these payments

A good understanding of the present situation will support the development of an optimal, effective and efficient communication and administrative strategy in order to encourage the usage of existing APC-funding mechanisms by authors. The final goal is to make it as easy for authors to publish their articles via Open Access as it is for them to publish in subscription journals.

1.2 Study approach

The approach of this study is to understand the author's perspective on APC payments by conducting a series of interviews followed by online surveys. Six research organisations (five universities and one research institute) participated in this study. 24 researchers were interviewed and 1,069 researchers participated in online surveys about their articles published in OA journals or in subscription journals that offer the option to publish individual articles via OA for an additional fee (so-called hybrid journals).

1.3 Composition of the report

The report consists of the following:

 In chapter 2, an overview of the scholarly journal landscape as well as the latest developments in Open Access

- In chapter 3, the methodology of this study in detail
- In chapter 4, an overview of the results of the author interviews
- In chapter 5 to 10, the results of the surveys to the authors of each participating organisation, including background information on the OA situation in each institution. Two points are important for understanding the results:
 - Many questions in the survey were not mandatory, which is why the number of responses for each question may differ
 - Many figures are calculated and rounded off in the tables but not in further calculations; therefore the sum of the two figures might deviate somewhat
- In chapter 11, a summary of the overall results, followed by conclusions and recommendations

1.4 Execution of the study

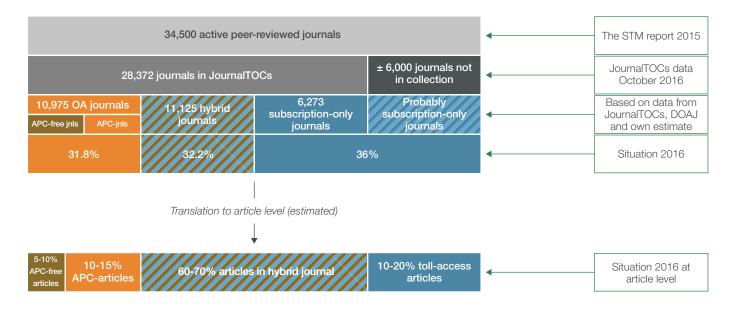
This study - commissioned by Knowledge Exchange – has been executed by Maurits van der Graaf of Pleiade Management & Consultancy under the supervision of a Knowledge Exchange Task Force for this study consisting of: John Doove, Karin van Grieken, Mafalda Marques, Arja Tuuliniemi, Gernot Deinzer, Christine Weil-Miko, Saskia Woutersen, Karen Hytteballe, Herbert Gruttenmeier, Bas Cordewener and Sarah James.

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- Merle Rodenburg and Sjef Öllers; Technical University Eindhoven
- Valerie McCutcheon and Michael Eadie; University of Glasgow

2. The scholarly journal landscape in the light of OA developments

Figure 1: Overview of scholarly journal landscape



2.1 The scholarly journal landscape 2.1.1 A quantitative overview

In figure 1 an overview of the scholarly journal landscape is presented. According to the STM report, there were about 34,500 scholarly peer-reviewed journals active in 2014².

Data from **Directory of Open Access Journals and the JournalTOCs** collection, which makes a distinction between OA journals, hybrid journals and subscriptiononly journals, show that there are about 11,000 OA journals and about an equal number of hybrid journals. Most of the other 12,000 journals are probably for the larger part subscription-only journals.

The figure also contains an estimate of how many articles are published in each category of journal titles. This estimate is based on the following assumptions and estimates: APC-free OA journals and APC OA journals: The DOAJ states that about half of these journals are APC-free. This type of journals is also called 'subsidised OA' or 'Platinum OA'. However, the number of articles published by APC-free OA journals in comparison to the APC OA journals is lower³. This led to the estimate that 10% of all articles are published in APC-free journals

- 1 Throughout the report, the term APC is used for publication costs solely related to Open Access publishing. Other publication costs such as page charges are excluded, unless explicitly mentioned.
- 2 Mabe M. and Ware M., (March 2015) The STM report
- 3 Crawford, W., (2015) Open-Access Journals; Library Technology Reports, 2015

- Hybrid journals: The current hybrid journals are for the larger part published by the six largest publishers (see below), who publish 50% to 60% of all articles published per year
- Subscription-only journals: Although in this estimate the proportion of subscription-only journal titles is high (36%), most of those journals are published by smaller publishers and therefore the number of articles published by these journals is estimated to be lower than the proportion of titles would indicate⁴

There is a growth rate of about 3% to 3.5% in the overall number of journals. A similar growth rate is seen in the number of articles. This increase reflects the rise in the number of researchers worldwide.

2.1.2 Oligopoly of subscription journal publishers

The market of journal publishers can be described as an oligopoly: the biggest five to six publishers dominate the market by publishing over 50% of the journals and over 50% of the journal articles (see text box⁵).

However, there is also a long tail of over 5,000 publishers: the Scopus database covers 22,000 journals from about 5,000 publishers. There are probably several thousands more publishers, most of which will mainly publish only in one journal⁶.

2.1.3 Emerging market of open access journals

The number of OA journals grew rapidly in the last decade and so too the number of journal articles: 12.8% of journal articles in 2012 were Gold OA and a growth rate of 24% was reported in the years up to 2012⁷. The OA journals follow two basic business models:

Natural and medical sciences:

- The top five publishers are Reed Elsevier, Wiley Blackwell, Springer, Taylor and Francis and American Chemical Society
- 53% of all journal articles are published by the top five publishers
- 53% of journals are published by the top five publishers
- ▶ 55% of citations received are by articles published by the top five publishers
- With regard to subdisciplines there are two exceptions:
 - Physics: 35% of articles are published by the top five publishers (because of ArXiv and SCOAP3).
 - Biomedicine: The top five publishers reached 49% of the total articles published in 2009. This percentage decreased to 42%, mainly as a result of the emergence of new publishers such as PLOS and its mega journal PLOS ONE

Social sciences and humanities:

- The top five publishers are: Reed Elsevier, Wiley Blackwell, Springer, Taylor and Francis, Sage
- 51% of the journal articles are published by the top five publishers
- 54% of the journals are published by the top five publishers
- 54% of the citations are received by articles published by the top five publishers
- With regard to subdisciplines, arts and humanities are the exception with only 20% of articles published by the top five publishers.

2. The scholarly journal landscape in the light of OA developments

- APC: the publication costs are supported by APCs
- Non-APC models: publishing for the authors is free. The publication costs are supported by freemium models (OA for the online version, other versions payable) or by subsidised OA (sponsorship, library partnership subsidy and so on)

In contrast to the above-mentioned oligopoly of subscription journal publishers, the OA journal market has a low market concentration and low entry barrier (see table 1 below).

Table 1: OA journal market and subscription journal market compared⁸

	New Open Access market	Legacy subscription/ hybrid market
Concentration	 Market concentration is low 16% of all OA journal titles published by the ten publishers with the most titles 	 Market concentration is relatively high 2014: 45% of all journal titles published by the top ten publishers
Barriers to entry	 Low Seven of the ten OA journal publishers with the largest range of titles were founded since 1994 	 High Eight of the ten journal publishers with the largest range of titles were founded before 1900
Strength of customer response	Customer response in terms of price sensitivity is relatively strong	Customer response in terms of price sensitivity is weak

- 4 For many of these journals, the Green Open Access route is available.
- 5 Larivière V., Haustein S., Mongeon P. The oligopoly of academic publishers in the digital era; PloS One 10(6): e0127502
- 6 Mabe, M. and Ware M., March 2015.
- 7 Archambault E., Deschamps P., Didier A.. Nicol, A., Provencher F., Rebout L., Roberge G. (28 April 2014), Proportion of Open Access Papers published in peer-reviewed journals at the European and World levels – 1996-2013; European Commission.
- 8 Rossiter A. (2016), Managing relationships between libraries and publishers for greater impact; Insights, 29(2), 103-110.

2.2 Developments in Open Access 2.2.1 Offsetting deals

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Offsetting deals were originally developed to prevent the so-called 'double dipping' phenomenon, but are now increasingly seen as a means for publishers to change the business models from subscription journals to APC-based OA journals. This development has been greatly stimulated by the white paper written by MPDL⁹. A publication written by Jisc¹⁰ describes various types of offsetting agreements and their advantages/ disadvantages (see table 2).

Table 2: Overview types of offsetting deals

Туре	Comments		
APC spend returned as a deduction against future subscriptions	 Administration might be difficult and burdensome: (1) processing APCs (2) processing refunds 		
No extra charge beyond subscription payments [capped surcharge of maximum 5%]	 Concern that this might perpetuate the traditional subscription model and transform it into a long-term hybrid model opt-out may be needed for authors needing to manage third party copyright for reproduction of images (mostly in art) might lead to 'lock-in' of libraries makes the actual cost of APCs invisible to authors 		
Discount of (at least 95% of) article processing charges for subscribing institutions	 might not contribute to changing the business model might artificially reduce APC offered by hybrid publishers and put pure gold publishers at a disadvantage 		
Vouchers for spend against APCs	 might not contribute to desired change in business model vouchers should work on unique codes; expiry date will be difficult to administrate; might be used on APCs that have been funded in a different way. 		

- 9 Schimmer, R., Geschuhn, K. K., & Vogler, A. (2015). Disrupting the subscription journals' business model for the necessary largescale transformation to Open Access. doi:10.17617/1.3. http://hdl.handle.net/11858/00-001M-0000-0026-C274-7
- 10 Earney, L. (13 April 2015), Principles for offset agreements, Jisc, blog post jisc.ac.uk/blog/offsetting-agreements-for-openaccess-publishing-13-apr-2015

2. The scholarly journal landscape in the light of OA developments

2.2.2 APC-funding options

Many research organisations offer their researchers funding for APCs to allow them to publish their articles Open Access. Table 3 presents an overview of the main options for researchers in the Knowledge Exchange countries including the following observations:

- Many APC-funds are managed by the libraries of research organisations but funded (partly or entirely) by research funders via so-called block grants. The EU FP7 Post-Grant Open Access Pilot uses a central registration system (for more details, see the text box below)
- Most APC-funds in continental Europe fund only articles in Open Access journals and exclude those in hybrid journals. In contrast, in the UK many APC-funds do fund OA articles in hybrid publications
- APC-funds are in many cases focused on researchers without a current research grant as research grant holders can in many cases use their grant to fund APCs

Table 3: Overview of APC-funding options

	OA publication fund				APC payable with grant money?
	Separate fund exists?	Hybrid OA	Maximum	Mechanism	
FP7 Post-Grant Open Access Pilot	yes	no	€2,000	central registration	
Horizon 2020	no				yes, during the project
DFG	yes	no	€2,000	block grants plus own funding	yes, during the project (also hybrid allowed)
NWO	yes	no	€6,000 per project	central registration	
Five Danish research funds	no				no
Academy of Finland	no				yes
Tekes	no				yes
L'Agence Nationale de la Recherche	no				yes
RCUK	yes	yes		block grant	from 2013 onwards grant holders have to apply to central APC-fund
COAF	yes	yes		block grant	
Chief Scientist Office Scotland	yes	yes	£6,000	apply for each case	
A number of other research funders (eg Leverhulme Trust)	no	yes			yes, during the project
	Pilot Horizon 2020 DFG NWO Five Danish research funds Academy of Finland Tekes L'Agence Nationale de la Recherche RCUK COAF COAF Chief Scientist Office Scotland A number of other research	fundSeparate fund exists?FP7 Post-Grant Open Access PilotyesHorizon 2020noDFGyesNWOyesFive Danish research fundsnoAcademy of FinlandnoTekesnoI'Agence Nationale de la RecherchenoRCUKyesCOAFyesChief Scientist Office ScotlandyesA number of other researchno	fundSeparate fund exists?Hybrid OAFP7 Post-Grant Open Access PilotyesnoHorizon 2020nonoDFGyesnoNWOyesnoFive Danish research fundsnoroAcademy of FinlandnoroTekesnoroL'Agence Nationale de la RecherchenoroRCUKyesyesCOAFyesyesChief Scientist Office ScotlandnoyesA number of other researchnoyes	fundSeparate fund exists?Hybrid OAMaximum exists?FP7 Post-Grant Open Access Pilotyesno€2,000Horizon 2020no	fundSeparate fund exists?Hybrid OAMaximum Mechanism registrationFP7 Post-Grant Open Access Pilotyesno€2,000central registrationHorizon 2020noDFGyesno£2,000block grants plus own fundingNWOyesno£6,000 per projectcentral registrationNWOyesnoAcademy of FinlandnoTekesnoL'Agence Nationale de la Rechercheyesyesblock grant pointRCUKyesyesyesblock grant central registrationCOAFyesyes£6,000 grantapply for each caseA number of other researchnoyesyesblock grant

2.3 Evolving administrative procedures2.3.1 Administrative procedures at institutional level

The project INTACT aims to establish transparent and efficient procedures for managing article processing charges (APCs) for Open Access publications. The project looks at the business processes of the evolving APC market and proposes efficient workflows for the processing of APCs at an institutional level¹¹. These cover the following areas:

- 1. Central acquisition budget¹²
- 2. Database including publications by institutional authors, with data such as costs, Open Access licence, type of publication
- 3. Administrative procedures:
 - a. Three types of arrangement:
 - i. Reimbursement of individual bills to authors (in case of limited number of APCs) often via an online form to be completed by the authors
 - ii. Prepaid arrangements with publishers (membership model)
 - iii. Framework arrangements with publishers whereby the invoices sent by the publisher go directly to a central account at the library
 - b. Author identification:
 - i. Crucial for both prepaid and framework arrangements
 - Most often based on email address, IP identification or certain data given by the author
 - Sometimes problematic from the publisher side if they publish in journals on behalf of societies with different and not centrally managed procedures
 - iv. Important condition (1): the authors should be correctly informed about conditions, ie that OA publication funds only fund the corresponding author¹³. If the corresponding author has more than one affiliation, a choice must be made by the author

- v. Important condition (2): upon submission, the funding organisation should be informed by the publisher and be able to confirm/ not confirm possible payment. At the moment, this often happens via e-mail alerts sent to library account managers. Increasingly, these processes are also being managed via so-called dashboards
 - Ideally, such a dashboard should have functionality to show the outstanding balance in case of prepayments arrangements
 - 2. For every submitted article, the following information should be provided: all data on the authors, the status of the authors (such as corresponding author) and their affiliations, the article itself, direct object identifier (DOI) and link to the article and price
 - 3. Lists of all titles that fall under the framework arrangements should be exportable, along with their APCs
- c. Accounting procedures:
 - The chronological order of the confirmation and the invoice processing is important. If there has been a mistake, it is difficult to correct this later in the administrative process
 - ii. Ideally, the confirmation that the APC will be paid by the University has to take place during the submission process¹⁴. Invoice processing should take place only upon publication. In practice, some publishers send an invoice upon submission. Others delay the confirmation until just before or at the publication date

2. The scholarly journal landscape in the light of OA developments

4. Reporting and transparency:

- a. Research funders that provide funding for the local APC-fund demand reporting
- b. Transparency is important to check APC price developments and therefore the Open APC initiative has been set up (see https://treemaps. intact-project.org and the Jisc Monitor UK)

2.3.2 Administrative procedures for FP7 post-grant Open Access pilot

The FP7 post-grant Open Access pilot¹⁵ is a work package within the OpenAIRE project. The aim of this work package is to fund Open Access publications resulting from research grants from the Seventh Framework Programme for Research and Technological Development of the European Union. The FP7 postgrant fund is the only post-grant Open Access fund of this scale. The fund only finances APCs for Gold Open Access; OA articles in hybrid journals are not eligible. This funding initiative ended in spring 2017.

APCs for OA publications resulting from over 8000 research projects, each with multiple researchers, are eligible for funding by this pilot. Eligibility is not restricted to the European Union nor to the academic world. In total, €4 million is available.

The workflow for submitting a request for funding via the OpenAIRE website is as follows:

- Fill in the project name or grant number: The system will advise if the project is eligible for funding (the closing date of the project has to be within two years and there is a maximum of three OA publications per project that can be funded)
- Data on the article/ book/ book chapter: in the next step, data about the article (book or book chapter) have to be inputted. An important element is the acceptance date of the publication (this in relation to the criteria regarding the closing date of the FP7 project)

- Approval by the project coordinator: a request for funding has to be approved by the project coordinator of the original FP7 project. An automatic notification for approval is sent to the project coordinator from the OpenAIRE system upon submission. Gaining approval can be difficult as these project coordinators have moved on and give low priority to this kind of emails
- Submitting the invoice: the publisher has to send an invoice with OpenAIRE's official address in Athens (without VAT as this is reverse charged) which has to be submitted in the system¹⁶. Invoicing generally poses problems as publishers have often sent an invoice to the author and then have to create another one for OpenAIRE (and sometimes an additional invoice for the author if the APC is higher than the maximum funded by OpenAIRE)
- Author or library: the above-mentioned workflow can be carried out by authors themselves or by libraries on behalf of the authors. Two libraries tried out the block grant approach: the Radboud University and the Bielefeld University

- 11 Geschuhn, K., and Pieper, D. (2016) Wandel aktive gestalten: Das Projekt INTACT – Transparente Infrastruktur für Open-Access-Publikationsgebühren; Konferenz Beitrage Wisskom; Sikora A., and Geschuhn, K. (2016) Management of article processing charges - challenges for libraries; Insights, 29(2), 87-92.
- 12 This is seen as an important prerequisite, given that many university libraries often work with decentralised acquisition budgets.
- 13 At the University of Glasgow the APC is funded if the award is held by the University itself.
- 14 However, this could mean that some funds will end up being held but will not come to fruition.
- 15 Based on an interview with Pablo Castro, project manager of this project.
- 16 There is a price cap for APCs of €2,000.

A recent development are prepayment agreements with publishers. The idea is that the publishers received a 'pre-paid fund' and charge this each time an APC or Book Processing Charge (BPC) is payable for a publication resulting from an eligible FP7 project. Publishers are used to these kinds of prepayment arrangements as they already exist with universities in case of licence agreements or membership agreements¹⁷. Publishing staff can look at the author's affiliation to check if there is a relevant prepayment agreement. For funding by the post-grant FP7 pilot project, one has to look at the acknowledgement written by the author. All submitted papers are checked by the pilot project, and for the eligible papers, the project manager approaches the project coordinator of the FP7 project for approval.

The OpenAIRE system for collecting and processing funding requests is available at https://postgrantoapilot. openaire.eu. The system stores all the information for this FP7 Post-Grant OA Pilot. It also has a real-time reporting module where the progress of the initiative can be followed live at https://postgrantoapilot.openaire.eu/#statistics

2.3.3 The costs of administrative procedures

One study on the costs of administrative procedures around APCs is based on estimates given by respondents at UK research organisations¹⁸. The main results are:

- The processing costs of an APC for an article in 2013/2014 is estimated at £81. On average, it took an institution around two hours to process each APC
- This includes efforts by the author; the time spent by an author ranged from a few minutes to around an hour. This includes identifying the requirement or option to make the article Gold OA, requesting the appropriate contact in the institution for funding and providing relevant information to administrative staff

The efforts by the administrator include triage, payment and closure. Benchmark figures suggest that this will take one FTE for every 500 APCs for smaller institutions to one FTE per 1000 APCs for larger ones. However, there is a learning effect: the cost of processing APCs per article could decrease by more than 60% to £31 based on best case estimates. In comparison, the administrative effort for the green route to Open Access cost is £33 or 48 minutes per article

2.4 APC complexity from the author's perspective

The above Open Access publishing developments – with offsetting deals and membership deals¹⁹ – and the various APC-funding options. These have led to a rather complex range of possibilities regarding the costs of APCs and the way to finance these from the author's perspective. An overview of these options is presented in the table below. The complexity is further increased by the fact that authors sometimes successfully negotiate APCs with publishers.

- 17 Agreements between libraries and OA publishers on discounted APCs.
- 18 Counting the costs of Open Access; the estimated cost to UK research organisations of achieving compliance with Open Access mandates in 2013/2014 (November 2014) Research Consulting.
- Agreements with OA journal publishers that grant APCs discounts to institutional authors.

2. The scholarly journal landscape in the light of OA developments

Table 4: Options for APC pricing and funding from the author's perspective

Article publication costs options

APC in OA journal

APC discount (or waiver) because of the relationship between author and the OA journal (editorship; membership)

APC discount in OA journal via membership program with OA publisher

APC in hybrid journal

APC discount in hybrid journal as a result of offsetting deal with University library

APC in hybrid journal included in offsetting deal with University library

APC is part of offsetting deal in the form of 'APC spend returned as a deduction against future subscriptions'

APC spend returned as a deduction against future subscriptions'

Financing options

APC-fund managed by library/ University

APC-fund managed by research funder

APC included in research grants

APC paid by research group budget

APC paid by individual author

3. Methodology

The methodology aims to make 'representative snapshots' of the situation at six research organisations where APCs were paid to enable the publication of peerreviewed articles in 2015.

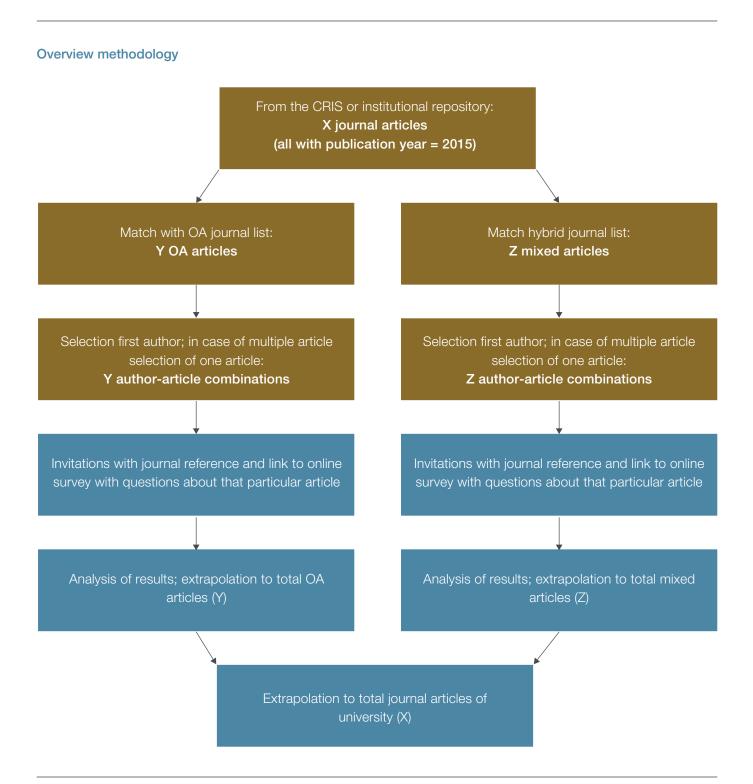
- 1. Six participating academic libraries across the KE countries. The libraries of the following research organisations participated:
 - > Technical University Eindhoven (The Netherlands)
 - > Roskilde University (Denmark)
 - > Göttingen University (Germany)
 - > University of Glasgow (United Kingdom)
 - > University of Helsinki (Finland)
 - Inria (French Institute for Research in Computer Science and Automation)
- 2. The metadata of journal articles with the publication year 2015 received from the collaborating Universities' libraries will form the basis of the study

3. Lists of OA journals and hybrid journals:

- A list of OA journals has been provided by QOAM (Quality Open Access Market) to Pleiade. This OA journal list²⁰ is a compilation of DOAJ and Ullrich and contains 13,010 OA journals (APC-Gold and APC-free Gold)
- A list of hybrid journals was obtained from JournalTOCs.ac.uk, a service developed by Heriot-Watt University. This list consists of 11,114 hybrid journals
- 4. Matching with the ISSN: journal article references from the participating research organisations were matched with the above-mentioned lists (if necessary²¹), resulting in a set of OA journal articles and a set of hybrid journal articles. Depending on the possibilities, one author per article has been selected²². In the event of there being more than one article published by the same author, one article was selected randomly. The result was two sets of unique author-journal article combinations for each participating research organisation.

- 5. Adding email addresses: The unique author-journal article combinations were matched with the email address of the author using procedures that differed for each participating research organisation
- 6. **Preparing the online survey:** Based on several interviews with key persons and desk research, the various financing options and administrative procedures were described by research organisation and by country. In addition, a number of OA article authors at each participating research organisation have been interviewed about the administrative procedures they have deployed. This information has been used to develop the online questionnaire. In most cases, a separate online survey has been developed for OA journal articles and for hybrid journal articles
- 7. **Personalised invitations:** The invitations and reminders have been sent out with the journal reference mentioned

- 20 The basic information comes from Ullrich. With regard to the identification of hybrid journals, SURFmarket is an important information source as they process the largest offsetting deals for the Dutch universities.
- 21 Roskilde University, the Technical University Eindhoven and (for the larger part) the University of Glasgow had administered it themselves if the article was published in an OA or Hybrid journal.
- 22 The first author (Roskilde, Helsinki), the first or last author (Glasgow, TU/e), the first author on the list with the affiliation of the institute (Inria), an at random selected author of the authors from the Helsinki University, or the corresponding author (Göttingen).



4.1 Introduction

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Short interviews were held with authors of the participating organisations that had published OA articles. An email was sent to each respondent with reference to his/ her article. Most interviews were held by telephone but five were conducted by email. The focus was on the following topics:

- Finances: Were there costs involved and if yes, how were these financed (research unit budget, a research grant, APC-fund, etc.)?
- Administrative procedures: What kind of administrative procedures were needed regarding the payment of the publication fee (APC) and how much time did that take?
- Information flows: What information channels are used to get information about the policies evolving around OA (such as research funders' mandates) and regarding funding opportunities for APCs?
- Considerations regarding OA: What were the authors' considerations regarding publishing the article on OA?

Research organisation	Type of journal (hybrid or OA)	Payment of the APC
TU Eindhoven		APC payment
Mark Peletier	Н	Offsetting deal
Luc Brunsveld	Н	Offsetting deal
Daniel Lakens	OA	Personal
Jos van Schijndel	OA	From project budget
University of Göttingen		
Hans Strasburger	OA	By APC-fund of Göttingen
Steffen Kiel	OA	By APC-fund of Göttingen
Albert Rosenberger	OA	By APC-fund of Göttingen
Antonia Zapf	OA	By APC-fund of Göttingen
Catharina Meinen	OA	By APC-fund of Göttingen
University of Glasgow		
Graeme Milligan	Н	By APC-fund of Glasgow
Douglas MacGregor	Н	By APC-fund of Glasgow
George Baillie	OA	By APC-fund of Glasgow
Ravinder Dahiya	Н	By APC-fund of Glasgow
Katie Hampson	OA	By APC-fund of Glasgow
Barbara Helm	Н	Fee was waived by the journal after negotiation
University of Helsinki		
Rosanna Coda	OA	By co-authors of another University
Ritva Laury	OA	No APC (APC-free journal)
Juha Merilä	OA	From project budget
Marko Nieminen	OA	By own consulting firm
Roskilde University		
Poul Erik Hansen	OA	By co-author of another institution and (for another article) no APC because invited paper
Inria		
Eric Tannier	OA	By APC-fund of Inria
Pierre Yves Oudeyer	OA	By APC-fund of Inria
Frederic Alexandre	OA	By research grant
Claire Lemaitre	OA	By co-author of another institution

4.2 Payment and administrative procedures

The results of the author interviews regarding payments of APCs and the administrative procedures are presented below:

Payment via APC-fund:23

- Procedures were generally seen as straightforward and did not take a lot of effort for the authors
- Some respondents contacted the APC-fund administrators prior to submission of the article, others after acceptance of the paper and some when the invoice was received
- Uncertainty about the funding of the APC sometimes posed a problem for researchers. Two respondents contacted the APC-fund before submitting their papers to make sure that they would be financed, as otherwise they would have had to look for another journal that would not charge an APC. In Inria, respondents were sure that it would be financed as the fund had published a number of criteria for financing. Most other respondents were not concerned about the financing of the APC. If it was not financed, there were other funding options available
- The price cap of several APC-funds can induce researchers to negotiate with the publisher about the APC: one respondent reported that he could only get €2,000 financed (for an APC that cost more than €2,000) and as a result the €2,000 were accepted as the total APC cost

Payment from own budget:

- Procedures varied for instance, some authors paid by personal credit card and claimed costs back later from their institution
- Opportunity costs²⁴:
 - Most respondents saw this as an obstacle: budgets were limited and 'someone else suffers'

(=opportunity costs); if an APC is paid from the research budget, something else cannot be paid, such as sending a student to a conference or new equipment. Another respondent recently published an article in Nature Communication. The APC was \$4000. In this case, he checked with the APC-fund in advance if they would cover this cost. If the library had not financed this, the author would probably have looked for another option: 'There are always a number of other journals with similar profiles. I would have done that rather than pay this kind of money from my own research project budget'

- However, many stated that one or two APCs per year would not be a significant problem but if APCs were paid for all articles published then this would constitute an issue
- One author stated that all his articles were published OA and that he could afford the payments because of the substantial resources he could use
- Some mentioned that there was a special budget section in research grants for such payments
- One respondent stated that if the costs for the APC are a problem, you just tell the journal that and then often they let you make use of the journal's waiver policy
- Most indicated that they would not pay for an OA article in a hybrid journal out of their own budget
- Personal payments: One respondent did pay the APC out of his own pocket. Several others mentioned that they knew colleagues who had done the same

- 23 The term APC-fund is used for institutional APC-funds and for block grants/ central budgets managed by the library.
- 24 Definition of opportunity cost: 'the loss of other alternatives when one alternative is chosen'.

Administrative procedures:

- The large majority of the respondents were not bothered by the administrative procedures around APC payments. Most stated it took them only minutes to arrange for the payment (by contacting the APC-fund or paying it themselves)
- Only one author claimed that the OA requirements sometimes took him several additional hours. He worked in an international collaboration with over 50 researchers, who are often co-authors in articles. For the researchers in other countries, OA was not an important factor. Therefore, the respondent had to take care of this (by arranging the APC payment or arranging a deposit in a repository). Most of the extra hours were taken up in communicating with everyone involved in the process

The green option:

Several respondents mentioned the green OA option as an alternative that they could use. However, some were rather of about this option. One mentioned: 'You could also deposit the author's version in a repository. However, this is time-consuming and you have to find out about the legal matters²⁵. Also, most readers prefer the published version. In addition, the effect of this green Open Access is less clear. So I have never deposited an article in the repository of my University'

4.3 Journal selection

Most respondents can be categorised into three groups regarding journal selection and OA:

Researchers with hardly any interest in OA:

- For this group, the match between the article and the journal, and the latter's reputation (impact factor, audience reached) are practically the only selection factors
- If this leads to an OA journal, the author pays the APC
- If this leads to an article in a subscription journal and

this can be published Open Access because of an offsetting deal, this is viewed as positive but not very important

Researchers selecting OA options because of requirements by research funders:

This is primarily the case for researchers in the UK. In the words of one respondent: '[As a result of funder mandates] OA is becoming a more important factor in selecting a journal'. Many research funders in the UK, such as the Wellcome Trust, mandate OA publishing and enforce this policy by reviewing this in the event of a subsequent research grant submission. One respondent mentioned the new publication platform by the Wellcome Trust as an interesting development which demonstrates that the publishing landscape is changing (see text box)

Wellcome Open Research

- A platform for Wellcome-funded researchers to rapidly publish any research outputs they wish to share
- Supports reproducibility and transparency
- Uses an open research publishing model: immediate publication followed by open invited peer review
- Includes all supporting data, enabling re-analysis, replication and re-use
- The UK's Research Excellence Framework (REF) – the research evaluation exercise for all universities in the UK, which is due in 2021 – requires each researcher to submit his/ her four best papers. One of the requirements for these papers is that they should be available OA (Green or Gold). Most interviewees see Gold OA as the preferable option for this purpose. Some respondents indicated that the Green option took them more time, others stated that many readers preferred the published version.

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The REF appears to be the most important driver for researchers choosing Gold Open Access options for their best articles (although Green OA also fits perfectly with the REF requirements), more so than the research funder requirements mentioned above

- Choosing the OA option in a hybrid journal is often proposed by the researcher when he/ she thinks that the article would be relevant for the REF. However, if the APC-fund decided not to finance this OA option, researchers would then generally opt for the green OA route for the article (thus not having to pay the APC out of their own budget)
- However, all respondents in this category stated that journal reputation is the primary decision factor in selecting a journal and OA only plays a secondary role

Researchers favouring OA:

- Several interviewees stated that they prefer OA publishing
- Some preferred OA out of principle. One respondent also added that in computer science OA publishing had become the norm, while in his other domain (neuroscience) some subscription/ hybrid journals were seen as the best options
- Others preferred OA because they saw a wider reading audience for OA articles and observed more citations and/ or feedback for their OA articles. One respondent said: 'It looks like I get more feedback if an article is published in an OA journal as opposed to a subscription journal. This seems especially the case for articles outside of high impact journals'. It is important to emphasize that many respondents reported similar experiences. For some respondents another important factor in choosing OA is reaching an audience outside academia such as industry, medicine or veterinary medicine

- Ease of use (easy access, no problems about re-publishing or re-distributing among students and so on) is an additional argument for OA that was used by several respondents
- Even so, these respondents also stated that the journal impact factor/ journal reputation was the most important decision factor in selecting a journal. If they could publish in a very high-impact journal without an OA option, they would invariably do so
- The availability of funding for the APCs does influence the choice for OA:
 - A respondent stated that without the APC-fund financing the APC, they would have looked for another journal as there was no possible way to finance this otherwise
 - Another respondent moved to another University without an APC-fund and without the means to finance the APC, and therefore had to choose a subscription journal for his article

However, sometimes specific criteria override others in journal selection; one respondent explained that for the results of this study, it was important to add a large addendum with all the details. An OA journal offered this option and was therefore selected.

Footnotes

25 It is worth noting that some libraries provide a service to the researchers that relieve them entirely of this.

4.4 Information sources

- Asked how they got information about OA developments, many respondents mentioned the scientific press, requirements from research funding organisations and the websites of scholarly journals
- Several respondents did not mention the library as an information source about OA. In some interviews, it was opportune to mention offsetting deals by the library, and quite often the respondent was not familiar with this development
- In a library with offsetting deals, it became clear that terminology and set up of submission procedures by publishers with offsetting deals did not always facilitate the selection of the (free) OA option by the researchers
- From the interviews it can be concluded that the library was not automatically seen as a partner in OA publishing by some of the respondents

4.5 Specific aspects

Inria:

- Respondents indicated that in addition to the central APC-fund - they often have several budgets in their research unit, for instance, from CNRS, from Universities and sometimes project funding. It is thus possible to distribute the APC payment between several budgets
- Several respondents indicated that Inria forbade APCs payments in hybrid journals because of 'double dipping'

APC-funds of Göttingen, Glasgow or Inria:

- The procedures are generally seen as simple and straightforward
- These APC-funds seem to stimulate OA publishing; one respondent - now working for another organisation - stated that he would probably not publish OA any more as there was no APC-funding option in his new workplace
- There is some evidence that APC-funds also attract APC financing:
 - One respondent had two affiliations, one to Göttingen and one to another University. The latter also had an APC-fund but 'with the long read-me' and with only 80% APC coverage. Therefore, this respondent always chose Göttingen's APC-fund
 - Several respondents admitted that there were opportunities to finance APCs from other budgets, but they logically preferred to have the APCs financed by the APC-fund

Helsinki:

One respondent published in a journal for which the library of the University of Helsinki has a so-called membership deal. However, the respondent was unaware of this and it was not clear if he got the discount

Subscription journals in the humanities and social sciences:

One respondent was on the editorial board of several subscription journals and they saw the number of subscriptions dropping. As APCs are very rare in this field (linguistics), a recurrent discussion topic in these editorial boards was how to develop the business models of these journals in the light of Open Access developments

5. University of Glasgow, UK

5.1 OA in the UK

Active role of research funders:

The large research funders in the UK have set up an APC-funding mechanism for publications that resulted from research grants they awarded (see table 3). Most research funders have outsourced the management of these funds to the libraries of research institutes by so-called block grants. University College London, or UCL's, website provides a more comprehensive list of 40 (mostly UK) research funders. 39 of them have OA mandates and for 36 of them, financing of APCs is possible.

Nationwide and individual offsetting deals and membership deals:

 UCL – a large research organisation active in Gold OA - lists arrangements with 21 publishers regarding APCs. The complexity is demonstrated by table 5

Publisher	ULC agreement
BioMed Central	prepayment scheme;15% discount; via authorisation code
BMJ Journals	prepayment scheme;15% discount; via authorisation code
Cogitatio Press	20% discount
De Gruyter	20% discount
Elsevier	prepayment scheme;10% discount (except Cell Press and Lancet; different payment if Charity Open Access Fund (COAF)
Faculty of 1000	centralised payment scheme
Frontiers	prepayment scheme;10% discount; Frontiers checks eligibility and will contact UCL for payment
Future Science/ Future Medicine	25% discount in two journals
IEEE	prepayment scheme; 25% discount
Institute of Physics	offsetting deal: 90% of the APCs will be offset against the costs of the subscriptions the following year
MDPI	centralised invoicing; 10% discount; MPDI checks eligibility
PeerJ	offers lifetime publishing for authors; UCL has a prepaid account to facilitate eligible payments
PLOS	prepayment scheme: PLOS checks eligibility and asks UCL to authorise payment
Royal Society of Chemistry	UCL is member of gold for gold scheme; some vouchers are free, others discounted for UCL; RSC will ask author for voucher code
Sage	prepayment scheme: 87,5% discount in STEM journals and 75% in Arts Humanities and Social Science (AHSS) papers. Author needs UCL's account code
SCOAP3	(1) author posts article in ArXiv.org (2) when submitting, indicate SCOAP & supply ArXiv nr (3) CERN will pay APC directly to publisher (4) paper automatically deposited in SCOAP repository
Springer	Springer Compact Agreement: (1) upon acceptance, author has to select his/ her affiliation (2) Springer checks with UCL on eligibility (3) author has to use UCL email address
SpringerOpen	prepayment scheme; 15% discount; via authorisation code
Taylor & Francis	prepayment scheme; 30% discount to 70% discount for journals included in offsetting deal
Ubiquity Press	prepayment scheme; 10% discount; Ubiquity identifies UCL articles to add to account at acceptance
Wiley	prepayment scheme; 25% discount; currently an offset credit account in place which means the discount is 100%

Table 5: List of OA arrangements by UCL

Jisc Collections (who arrange many nationwide licences) has implemented the Springer Compact offset model in 2016: this agreement covers OA publishing by authors from 90 participating UK institutions in about 1,600 Springer journals as well as access to all content published in about 2,500 Springer journals (See http://ji.sc/compact-agreement-firstyear-eval). The institution pays a set fee for unlimited APCs based on their APC expenditure with Springer in 2014 and the top-up fee to cover access to subscription content. In the first year of the implementation of the agreement, 3,073 articles were published by authors from over 97% of the participating organisations. This is a workable and efficient model; it is relatively easy for institutions to determine eligibility and there is no need for authors to consider different application processes or funding routes

Research evaluation framework OA requirements:

- In order to be eligible for the REF evaluation process, papers in publications with ISSN numbers that are accepted after 1 April 2016 have to be:
 - Deposited in institutional or subject repository (this is the accepted author version, which can later be replaced by the published version)
 - OA within a defined period (STEM 12 months; AHSS 24 months)²⁶

5.2 OA at the University of Glasgow

University of Glasgow:

- Has more than 25,000 undergraduate and postgraduate students
- Has more than 6,000 staff, including 2,250 active researchers
- Is multi-disciplinary with four colleges: the College of Arts, the College of Medical, Veterinary and Life Sciences, the College of Science and Engineering and the College of Social Sciences

Services offered by the library:

The library manages APC-funds with block grants from various research funding organisations (RCUK, COAF, CSO; see table 3). This service is offered to authors of the University of Glasgow in order to help them comply with the guidelines of the research funders, the research evaluation framework and other Open Access requirements. The purpose of the service is to minimise the burden on the authors (mostly authors can send the library one email and the rest of the administrative effort is carried out by the library).

The service consists of the following:

- Upon acceptance: the author sends the acceptance notification and a copy of the author's final version to a dedicated email address at the library
- Triage: the library checks the article on the availability of information on the research funder and the possibilities with regard to Green or Gold OA. As soon as possible but within two days in any case, the author is informed as to how the library will process their articles to comply with OA requirements
- Administration and payment: the library arranges the payment from the various block grants or local funds (such as the MRC unit budgets), using a self-developed model with eprints for OA management
- Reporting: the library reports to the various block grants providers. In addition, the University of Glasgow has to monitor compliance with the REF requirements

Footnotes

26 At https://goo.gl/YJ9H3V a list of over 250 non-compliant journals has been compiled by a collaborative effort of various University libraries.

Offsetting deals and membership deals (in 2015) included:

- Royal Society of Chemistry
- Springer Compact
- PeerJ
- SAGE
- Open Library of Humanities
- Constructivist Foundations

Coverage of the administration system and repository:

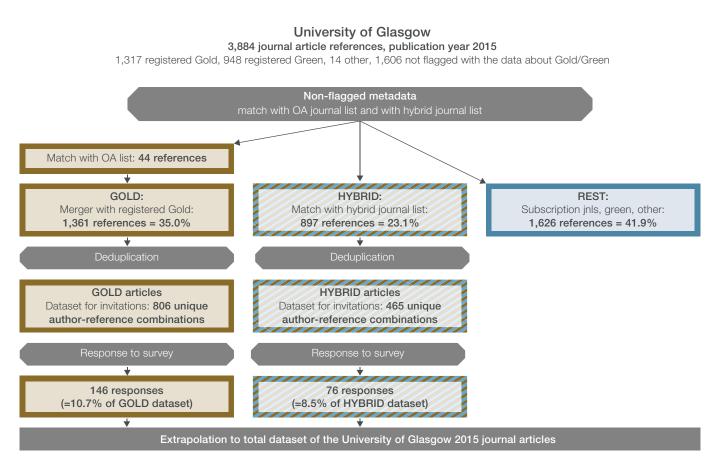
- In 2015, 3,885 article references were registered:
 - 1,318 Articles with APCs (gold and hybrids, the latter being mainly compensated by the CSO)
 - > 946 Green option
 - 1,619 not tagged; recording of additional metadata about the Gold/ Green status was extended in the course of 2015
- Based on searches in Scopus, this covers around 60% to 70% of all journal articles published by authors within the University of Glasgow
- There are several reasons why this coverage will increase over time:
 - They are affected by the REF requirements implemented in 2016
 - The increasing use of data in researchers' annual assessments within the University, which are already resulting in submissions of articles some time after the publication date
 - The increasing awareness among researchers of the service provided by the library, especially with regard to APC funding
 - The increase in data imports to the system eg the University introducing wider usage of Web of Science and other service imports and Jisc's Publications Router starting to feed data in to the repository

5.3 Survey results

5.3.1 Dataset and survey response

The University of Glasgow library has sent a dataset with 3,884 journal article references with the publication year 2015 (see also figure 2). The library had tagged the type of Open Access for 2,265 articles (Green OA and Gold OA, including OA in hybrid journals). The file also included 1,606 non-tagged references (as this Gold/ Green type tag was reinforced in the course of 2015). The non-tagged references were matched with the OA journal list, producing a number of additional articles in OA journals (n=44). In a next step, the rest of the non-tagged references were matched with the hybrid journal list, resulting in 897 references to articles in hybrid journals of which the OA status was unknown (Hybrid dataset). The other dataset (Gold dataset: 1361 references) contained OA articles, either in OA journals or in hybrid journals. After deduplication procedures, these articles' first or secondary authors based at the University of Glasgow were invited to participate in the surveys that ran from 23 November to 30 December. In that period, two reminders were sent. This has resulted in 146 responses (10.7% of the Gold dataset) and 76 responses (8.47% of the Hybrid dataset).

Figure 2: Overview datasets and response University of Glasgow



Ι

5.3.2 Overview of OA journal articles

Table 6 shows an overview of both datasets extrapolated to the entire dataset²⁷

Table 6: Overview OA articles by Glasgow authors

All publications 2015	Results of survey	Extrapolation to all publications	
		Numbers (cursive = calculated numbers)	%
Total number		3884	
GOLD dataset (n)	1361		35.0%
Articles in OA journals (type of journal if known)		657	16.9%
In APC-OA journals	32.7%	445	11.5%
In APC-free OA journals	15.6%	212	5.5%
OA articles in hybrid journals		501	12.9%
OA option in hybrid journal selected by author	25.2%	343	8.8%
OA option in hybrid journal arranged by library	11.6%	158	4.1%
Other OA articles (no further details known)			
Arranged by co-author outside University	12.2%	166	4.3%
Unknown	2.7%	37	0.9%
Hybrid dataset (n)	897		
OA option in hybrid journal selected by author	9.2%	83	2.1%
OA option in hybrid journal arranged by library	6.6%	59	1.5%
Arranged by co-author outside University	35.5%	318	8.2%
Totals for all publications (calculated)			
Articles in OA journals (type of journal known)		657	16.9%
In APC-OA journals		445	11.5%
In APC-free OA journals		212	5.5%
OA articles in hybrid journals (total, details known)		643	16.5%
OA option in hybrid journal selected by author		426	11.0%
OA option in hybrid journal arranged by library		217	5.6%
Other OA articles (no further details known)			
OA arranged by co-author outside University or unknown to respondent		203	5.2%

Footnotes

27 Explanation of the table: the survey results of the Gold and Hybrid dataset (second column with percentages) have been extrapolated to the totals of each dataset (third column with numbers) and to all 2015 publications by the Glasgow authors (fourth column). In the lower section (green), an overview is given for all publications.

The main results are:

- In total, 38.6% of the articles published in 2015 by Glasgow authors are Open Access. A closer look at these 38.6% OA articles shows the following:
 - The OA option of 33.4% of the articles is arranged by an author from the University of Glasgow: of these, about half (16.9%) Were published in OA journals, and about half (16.5%) In hybrid journals
 - 5.2% of the articles are published on open access without the active involvement of a Glasgow author. In most cases, this was arranged by a co-author outside the University, in some cases the respondent to the survey was not aware of this. As a result it cannot be determined if these articles were published in OA journals or in hybrid journals

5.3.3 Payment of APCs

According to the calculations presented in table 7, 11.5% of the 2015 articles were published in APC-OA journals. How were these APCs paid? The results of the survey are presented in table 8.' to 'The results of the survey into how these APC's were paid are presented in table 8.

The main results are:

- Over 35% of the APCs for articles in APC-OA journals was funded by the APC-funds managed by the Glasgow University library
- Over 33% of the APCs were paid for by the author(s): half (16.7%) From a research grant from research funding organisation and half (16.7%) By the research unit of the University of Glasgow
- 12.5% of the APC payments were arranged by a co-author of another University or institution
- Interestingly, 2.1% of the APCs due were waived by the journal publisher. Also, 6.3% of the APC payments received a discount as a result of the author's relationship with the journal or as a result of a negotiation by the author

The average APC level was calculated at £1,504.
 25% Of the APCs were lower than £1,000, 21.9%
 Were higher than £2,000

According to the calculations presented in table 7, 8.8% of the 2015 articles were published in hybrid journals with the OA option selected by the author(s). How were these APCs paid? The relevant results are presented in table 8²⁸.

The main results are:

- 47.2% of the APCs for OA articles in hybrid journals were funded by the OA funds managed by the University of Glasgow library
- 36.1% were financed by the authors themselves:
 27.8% from a research grant, 8.3% from the budget of the research department
- 8.3% were financed by a co-author of another University or institution
- The average APC level was £1,900 but 5.3% of the APCs were below £1,000 and 42.1% were over £2,000. 2.8% report receiving a discount due to the relationship between one of the authors and the journal and the same percentage report a discount due to an arrangement by the library. One Glasgow author did not participate in the full survey, but emailed to explain that she had negotiated a 100% discount of the APC in a hybrid journal

Footnotes

28 The results of the GOLD dataset survey are presented. Because of the low number of responses to these questions in the HYBRID dataset survey (n=6), these results are not presented. This is also the case for the results presented hereafter.

Ι

Table 7: Overview payment data for APC-OA journals

Articles in APC OA journals		
Payment APC for OA journal (number of answers)	48	
Don't remember/ don't know	5	10.4%
Research grant from research funding organisation	8	16.7%
Open access funds managed by our library (RCUK,COAF,CSO)	17	35.4%
Budget of our research unit	8	16.7%
Co-author of another university/ institution	6	12.5%
Myself (private payment)	0	0.0%
A combination of the above	0	0.0%
Was not paid because it was waived	1	2.1%
Other	2	4.2%
APC level (number of answers)	32	
< £500	0	0.0%
£500 - £1,000	8	25.0%
£1,000 - £1,500	13	40.6%
£1,500 - £2,000	4	12.5%
£2,000 - £3,000	6	18.8%
> £3,000	1	3.1%
Average (£ sterling)		£1,504
Discounts (number of answers)	48	
Discount received due to relationship with journal	1	2.1%
Discount due to arrangement of library	0	0.0%
Discount as result of negotiation	2	4.2%
Discount due to other reason	0	0.0%

Table 8: Overview APC payment datafor hybrid journals

OA Articles in hybrid journals selected by authors	n	%
Payment APC for OA journal (number of answers)	36	
Don't remember/ don't know	2	5.6%
Research grant from research funding organisation	10	27.8%
Open Access funds managed by our library (RCUK,COAF,CSO)	17	47.2%
Budget of our research unit	3	8.3%
Co-author of another University/ institution	3	8.3%
Myself (private payment)	0	0.0%
A combination of the above	1	2.8%
Was not paid because it was waived	0	0.0%
Other	1	2.8%
APC level (number of answers)	19	
< £500	0	0.0%
£500 - £1,000	1	5.3%
£1,000 - £1,500	6	31.6%
£1,500 - £2,000	5	26.3%
£2,000 - £3,000	6	31.6%
> £3,000	2	10.5%
Average (£ sterling)		£1,900
Discounts (number of answers)	36	
Discount received due to relationship with the journal	1	2.8%
Due to an arrangement between our library and the publisher	1	2.8%
Discount as result of negotiation	0	0.0%
Other	4	11.1%

5.3.4 Administrative efforts and procedures

For 11.5% of the 2015 articles published in APC-OA journals, the respondents indicated that the administrative efforts with regard to the APC payment took them on average 51 minutes (see table 9):

- 82.3% of the respondents indicated that it took them less than one hour
- 17.7% indicated that it took them more than one hour

In addition, the invoice for the APC was sent to the majority of the respondents (63.3%).

The administrative efforts and procedures for APC payments for hybrid journals hardly differ (see table 10): the average administrative effort was calculated at 55 minutes, while the invoice was also in most cases sent to the author directly.

Table 10: Administrative efforts regarding APCpayments for hybrid journals

Effort by authors (number of answers)	31	
< 15 minutes	6	19.4%
15 - 30 minutes	8	25.8%
30 - 60 minutes	10	32.3%
1 - 2 hours	7	22.6%
2 - 4 hours	0	0.0%
4 - 8 hours	0	0.0%
> 8 hours	1	3.2%
Average (minutes)		55
Invoice (number of answers)	19	
Not sent to the author	7	36.8%
Sent directly to author	12	63.2%

Table 9: Administrative efforts regardingAPC payments for OA journals

Effort by authors (number of answers)	34	
< 15 minutes	15	44.1%
15 - 30 minutes	8	23.5%
30 - 60 minutes	5	14.7%
1 - 2 hours	2	5.9%
2 - 4 hours	2	5.9%
4 - 8 hours	2	5.9%
> 8 hours	0	0.0%
Average (minutes)		51
Invoice (number of answers)	30	
Not sent to author	11	36.7%
Sent directly to author	19	63.3%

5.3.5 OA articles in hybrid journals based on arrangements by the library

In table 6 it can be seen that 5.6% of the articles published on Open Access in hybrid journals came about as a result of arrangements between the library and the publisher(s). The results of the questions about these articles are presented in table 11. The main results are:

- About half (47.1%) of the respondents were informed of this option by the library itself. 35.3% were informed by the publisher
- Benefiting from these Open Access arrangements took the authors very little time' to 'These Open Access arrangements took the authors very little time: 94.1% of the respondents reported that it took them less than an hour. The average has been calculated at 27 minutes
- This library service is greatly appreciated by all respondents involved

Table 11: Results regarding OA articles in hybridjournals based on library arrangements

OA articles in hybrid journal as a result of arrangement by library (number of answers)

How were you informed about this Open Access option? (number of answers)	17	
Don't remember/ don't know	1	5.9%
By the publisher	6	35.3%
By the library	8	47.1%
Other	2	11.8%
Effort by authors (number of answers)	15	
< 15 minutes	8	47.1%
15 - 30 minutes	4	23.5%
30 - 60 minutes	2	11.8%
1 - 2 hours	0	0.0%
2 - 4 hours	1	5.9%
4 - 8 hours	0	0.0%
> 8 hours	0	0.0%
Average (minutes)		27
Rating of support in this by University of Glasgow library (n=17)		
Poor	0	
Neutral	0	
Good	17	100%

5.3.6 Role of OA in journal selection

62 respondents to the gold dataset survey scored the role of OA in the selection of the journal on a scale of 1 to 5 (where 1 is no role and 5 is very important role).

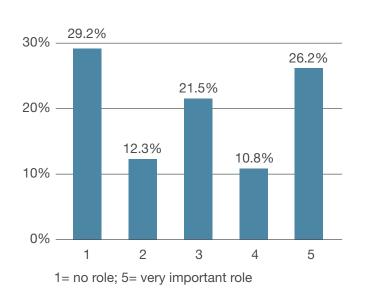
The results are presented in figure 3:

- 41.5% of respondents indicated that OA aspects played no or hardly any role in the selection of the journal for the article in question
- 37% of the respondents indicated that OA aspects played a somewhat important role

In the next question, the respondents could select a number of reasons for selecting OA options for publishing (all options that applied to the respondent). The results are presented in figure 4.

Figure 3: Role of OA in journal selection (Percentage of respondents)

40% -



The main results are:

- 24.8% sought more exposure and a wider audience for the article
- 20.9% selected OA options in order to meet requirements by the research funding organisation
- > 19.1% supported Open Access and Open Science
- 12.8% were seeking to meet University requirements, while a similar percentage saw the complete freedom to reuse, republish and distribute the article as an important driver
- 9.6% of the respondents selected OA options to meet research evaluation requirements, such as the REF²⁹

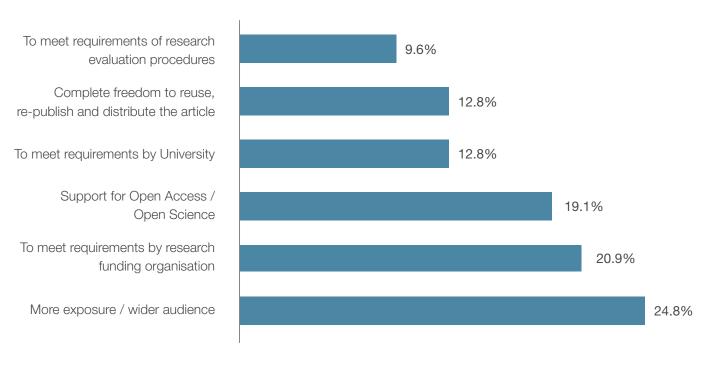
Footnotes

29 It should be noted that the REF requirements for OA take effect for publications from 2016 onwards.

5. University of Glasgow, UK

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Figure 4: Reasons for OA (Percentage of respondents)



5. University of Glasgow, UK

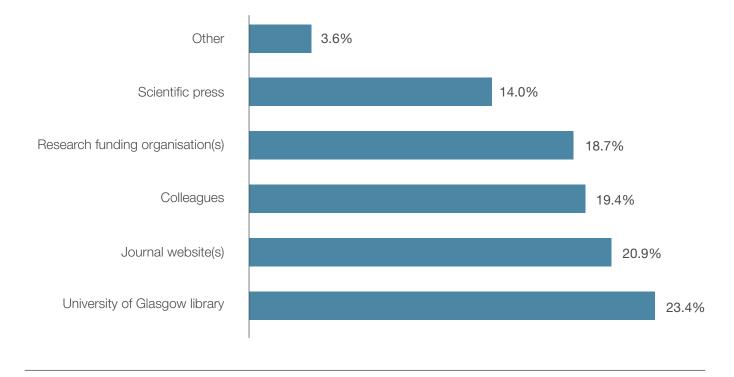
5.3.7 Information sources for OA

Which information sources about developments regarding Open Access do you use? The answers to this question are presented below.

The results are as follows:

- The University of Glasgow library is the main information source for OA with 23.4% of the respondents selecting this answer
- Journal websites (20.9%), colleagues (19.4%) and information from research funding organisations (18.7%) are also frequently chosen categories
- In addition, 14% of the respondents received information about OA from the scientific press

Figure 5: Information sources about OA (Percentage of respondents)





5.3.8 The relevancy of (potential) library services

The last question of the survey was as follows: if you plan to publish articles Open Access in the future, how could the University of Glasgow library best support you? Five options for (potential or existing) library services were presented, which the respondents could score on a scale from -2 (not relevant) to +2 (very relevant). Results are presented in table 12. The results are as follows:

- The most popular library service is the existing Open Access service of the University of Glasgow library with 88.4% of the respondents scoring this as relevant or very relevant
- Showing the options to get discounted or free Open Access publishing that are arranged by the library scores also very highly with 87.8% of the respondents scoring this as relevant or very relevant
- A service showing information about Open Access options and policies proposed by the University and research funders is seen as relevant or very relevant by 82.6% of the respondents

- Support and information on how to choose OA licences and on copyright issues is seen as (very) relevant by 77% of the respondents
- 'How to' manuals for making Open Access choices at publishers' websites are seen as (very) relevant by 66.1% of the respondents

5.3.9 Comments by the respondents

A number of respondents commented in the open spaces in the questionnaire. These comments show:

- Costs are a major concern
- There is some concern that there is no funding available for Open Access for some publications that are not resulting from a research grant
- Sometimes the administrative process is complicated by various factors including multisite involvement in payment arrangements

Table 12: Scoring (potential) library services

-2 = not relevant; +2 = very relevant

Scoring (potential) library services	-2	-1	0	1	2
With the existing Open Access service for accepted papers	2.3%	0.0%	9.3%	25.6%	62.8%
Showing the options to get discounted or free Open Access publishing options that the University of Glasgow library has arranged	0.8%	0.8%	10.6%	21.1%	66.7%
Information about Open Access options and policies proposed by the University, research funders etc	0.0%	1.7%	15.7%	41.3%	41.3%
Support and information on how to choose Open Access licences and on copyright issues	0.8%	1.6%	20.5%	34.4%	42.6%
'How to' manuals for making Open Access choices on publishers' websites when the paper is accepted	1.7%	5.8%	26.4%	33.1%	33.1%

6. University of Göttingen, Germany

6.1 OA in Germany³⁰

DFG OA:

The Deutsche Forschungs Gemeinschaft is the most important research funding organisation in Germany and started its programme OA Publishing in 2009. This enables universities to set up OA publication funds. This funding programme will last until 2020.

- From the 108 universities in Germany, about a third have profited from the DFG programme by setting up an OA publication fund
- The criteria for funding are that:
 - > The APC must be for a maximum of €2,000
 - he submitting or corresponding author should be attached to a University
 - > the DFG is acknowledged in the article
- In practice, many APCs are more than €2,000.
 In these cases, co-financing is not possible using funds from DFG³¹
- DFG supported 28 universities in 2014 with €1,570,069 for 1,332 articles with an average APC of €1,179. In 2015, DFG supported 26 universities with a total of €1,812,402 for 1,524 articles with an average APC of €1,189³²
- The aim of the programme is to be transformative: the central funding by DFG is decreasing (first year funding is 75% by DFG, 25% own funding; at the end 40% by DFG, 60% own funding). The program will end in 2020. By that point, all participating universities are expected to have found a solution for the sustainable funding of APCs

Situation in German University libraries:

Many University libraries have a two-tier system, a central library and institutional/ faculty libraries. In practice, this means that the central library has no complete authority on the acquisition budget, or that there is none. However, for APC payments in relation to offsetting deals, it is crucial that there is only a central acquisition budget or at least that there is central monitoring and overview of all APCs spent.

Project DEAL:

In project DEAL, nationwide licences are being negotiated with large publishers such as Elsevier, Springer and Wiley. From 2017 onwards, the intention is to include OA elements in these licences.

6.2 OA at the University of Göttingen³³

University of Göttingen has:

- Over 30,000 students
- Over 12,000 staff members
- Four faculties: Medicine; Natural sciences, Mathematics, and Informatics; Law, Economic sciences, Social sciences; Humanities and Theology
- Written OA policies since 2005, renewed in 2017, supporting Green and Gold OA

Repositories:

- There are several repositories set up in DSpace, mainly because of different workflows for the input
- Depositing electronic dissertations is obligatory for the medical faculty; all other deposits are voluntary
- Full text coverage is estimated at 15%. The coverage of metadata of recent publications by medical researchers is nearing 100%. Within that faculty, these data are also used in internal evaluation procedures

6. University of Göttingen, Germany

CRIS system in development:

In order to gain a complete overview of all the publications published by the authors of the University, a new CRIS system is in development. This is a collaboration between the University of Bielefeld and the University of Gent. The aim is to roll out this system, dubbed LIBERCAT, in 2017

APC-fund:

- The APC-fund for 2017 consists of €500,000 per year and is as such the largest APC-fund in Germany
- The aim is to develop one budget for the acquisition of journals and books as well as for APCs per faculty. This transition process has just started
- The price cap of €2,000 appears to work well. If an APC is over €2,000, sometimes one contacts the publisher and tries to bring down the amount often with some success or the author has to use other funds
- Hybrid OA is not supported

Göttingen University press:

- > Focused on books in humanities and social sciences
- In the near future, a journal will be published as well

Offsetting deals:

- An earlier deal with Springer to combine the licence for their journals with OA, for University of Göttingen authors' articles, was later cancelled by Springer
- Apart from the Royal Society of Chemistry offering a voucher in compensation, there were no offsetting deals in place in 2015

Footnotes

- 30 Based on an interview with Margo Bargheer, University of Göttingen, on projekt-deal.de and on: Geschuhn, K. and Pieper, D. (2016) Wandel aktive gestalten: Das Projekt INTACT – Transparente Infrastruktur für Open-Access-Publikationsgebühren;; Konferenz Beitrage Wisskom.
- 31 See dfg.de/en/research_funding/programmes/infrastructure/ lis/funding_opportunities/open_access/index.html
- 32 Data from from Angela Holzer, DFG.
- 33 Based on an interview with Margo Bargheer, University of Göttingen.

6.3 Survey results

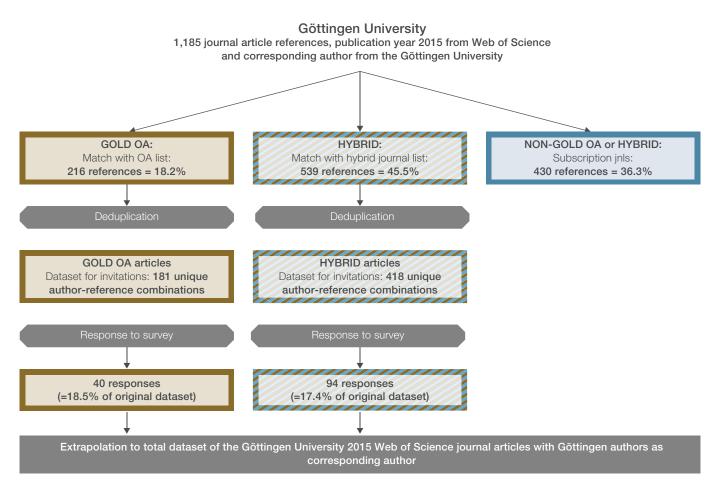
6.3.1 Datasets and survey responses

The dataset received from the State and University library of Göttingen was derived from Web of Science. It contained journal article references of corresponding authors from the University of Göttingen which had been published in 2015.

The dataset was matched with the OA list, revealing 216 articles in OA journals (see also figure 6). The match

with the hybrid journal list resulted in 539 articles in hybrid journals. After de-duplication, 181 corresponding authors of articles in OA journals and 418 corresponding authors of articles in hybrid journals were invited to participate in the respective surveys. The surveys ran from December 8 until December 30 with one reminder sent on December 19. This resulted in the participation of 40 authors of articles in OA journals (18.5% of the GOLD dataset) and 94 authors of articles in hybrid journals (17.44% of the HYBRID dataset).

Figure 6: Overview dataset and responses



6. University of Göttingen, Germany

6.3.2 Overview OA articles

In table 13³⁴, an overview of the Open Access articles by the authors of the University of Göttingen is presented. The main results are:

- 17.3% of the 2015 articles with corresponding authors from the University of Göttingen have been published in Open Access journals: the large majority in APC-OA journals (15.5%) and a small proportion in APC-free OA journals (1.8%). 0.5% of the articles in OA journals were arranged by coauthors outside the University. For 0.5% of these articles in OA journals the respondent was not aware of the OA arrangements
- 5.3% of the 2015 articles are published on Open Access in hybrid journals: the larger part of these Open Access options was selected by the authors themselves (4.4%), while a small proportion was due to arrangements by the library (1%)

Footnotes

34 Explanation of the table: the survey results for each dataset (second column with percentages) have been extrapolated to the totals of each dataset (third column with the numbers) and those have been used to calculate the extrapolated percentages for all 2015 publications by Göttingen authors (fourth column).

Table 13: Overview OA articles by Göttingen authors

All publications 2015 University of Göttingen	Results survey	Extrapolation to a	II publications
		Numbers (cursive = calculated numbers)	%
Total number		1,185	
GOLD dataset (n)	216		
Articles in OA journals (type of journal known)		205	17.3%
In APC-OA journals	85.0%	184	15.5%
In APC-free OA journals	10.0%	22	1.8%
Other articles in OA journals (type of journal unknown)			
Arranged by co-author outside University	2.5%	5	0.5%
Unknown	2.5%	5	0.5%
Hybrid dataset (n)	539		
OA articles in hybrid journals (total)	11.7%	63	5.3%
OA option in hybrid journal selected by author	9.6%	52	4.4%
OA option in hybrid journal arranged by library	2.1%	11	1.0%

6.3.3 Payments of APCs

According to the calculations presented in table 13, 15.5% of the 2015 articles were published in APC-OA journals. How were these APCs paid? The results of the survey with regard to these aspects are presented in table 14. The main results are:

- Over three quarters (76.5%) of the APCs for articles in APC-OA journals were funded by the APC-fund of the Göttingen State and University library using block grants from DFG
- Nearly 12% (11.7%) were paid by the author(s), mostly using a research grant from a research funding organisation (8.8%), a small percentage (2.9%) using the budget of their research unit
- With regard to other APC payments, 2.9% were waived, and 5.8% used a combination of funds or other ways to pay the APC
- In 11.7% of cases, the APC was discounted, mostly as a result of an arrangement by the library (8.8%), some due to other reasons such as membership of the society
- The average APC level was calculated at €1,337.
 26.1% of the APCs were lower than €1,000, 4.3% were higher than €2,000

According to the calculations presented in table 13, 4.4% of the 2015 articles were published in hybrid journals with the OA option selected by the author(s). How were these APCs paid? The results of the survey are presented in table 15. The main results are:

89.9% of the APCs for OA articles in hybrid journals were funded by the authors themselves: the large majority from a research grant (66.7%) and a smaller percentage from the budget of the research department (22.2%). For 11.1% of these articles, the APC payment remains unknown The average APC level was €1,657. 33.3% of the APCs were below €1,000, 44.4% were over €2,000.
 None of the respondents reported receiving a discount

Table 14: Overview payment data forAPC-OA journals

Articles in APC OA journals		
Payment APC for OA journal (total answers)	34	
Don't remember/ don't know	0	0.0%
Research grant from research funding organisation	3	8.8%
Open Access fund managed by library	26	76.5%
Budget of our research unit	1	2.9%
Co-author of another University/ institution	0	0.0%
Myself (private payment)	1	2.9%
A combination of the above	1	2.9%
Was not paid because it was waived	1	2.9%
Other	1	2.9%
APC level (total answers)	23	
< €500	2	8.7%
€500 - €1,000	4	17.4%
€1,000 - €1,500	11	47.8%
€1,500 - €2,000	2	8.7%
€2,000 - €3,000	1	4.3%
> €3,000 euro		0.0%
 Average (€)		€ 1,337
Discounts (total answers)	34	
Discount received due to relationship with journal	0	0.0%
Discount due to arrangement of library	3	8.8%
Discount as result of negotiation	0	0.0%
Discount due to other reason	1	2.9%

6. University of Göttingen, Germany

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Table 15: Overview APC payment data for hybrid journals

Göttingen articles in hybrid journals (total answers)	94	%
Yes, we [the author(s)] chose the Open Access option, were in principle responsible for these costs and had to arrange the payment	9	9.6%
Yes, the article is published on Open Access by the journal based on an arrangement between the Göttingen State and University library (SUB) and the publisher (Royal Society of Chemistry)	2	2.1%
I don't know about this aspect of the article as this has been taken care of by a co-author from another institution outside my University	3	3.2%
No, this article is not published on Open Access by the journal	80	85.1%
OA Articles in hybrid journals selected by authors		
Payment APC for OA journal (total answers)	9	
Don't remember/ don't know	0	0.0%
Research grant from research funding organisation	6	66.7%
Budget of our research unit	2	22.2%
Co-author of another University/ institution	0	0.0%
Myself (private payment)	0	0.0%
A combination of the above	0	0.0%
Was not paid because it was waived	0	0.0%
Other	1	11.1%
APC level (total answers)	9	
<€500	2	22.2%
€500 - €1,000	1	11.1%
€1,000 - €1,500	0	0.0%
€1,500 - €2,000	0	0.0%
€2,000 - €3,000	3	33.3%
> €3,000 euro	1	11.1%
 Average (€)		€ 1,657
Discounts		
Discount received due to relationship with journal	0	
Due to an arrangement between our library and the publisher	0	
Discount as result of negotiation	0	
Other (please elaborate below)	0	

6.3.4 Administrative efforts and procedures

For 15.5% of the 2015 articles published in APC-OA journals (see table 16), the respondents indicated that the administrative efforts with regard to the APC payment took them on average 33 minutes:

- 92.5% of the respondents indicated that it took them less than one hour
- > 7.5% indicated that it took them more than one hour

In addition, the invoice for the APC was sent to the majority of the respondents (63%).

The administrative efforts and procedures for APC payments for hybrid journals hardly differ (see table 17). The average administrative effort was calculated as 42 minutes, while the invoice was also in most cases sent to the author directly.

Three respondents reported that their articles in hybrid journals were published on Open Access as a result of arrangements of the library with the publisher. This arrangement took them less than 15 minutes, and all were very positive about the support of the library in this

Table 16: Administrative efforts regardingAPC payments for OA journals

Effort by authors (total answers)	27	
< 15 minutes	13	48.1%
15 - 30 minutes	7	25.9%
30 - 60 minutes	5	18.5%
1 - 2 hours	1	3.7%
2 - 4 hours	0	0.0%
4 - 8 hours	1	3.7%
> 8 hours	0	0.0%
Average (minutes)		33
Invoice (total answers)	27	
Not sent to author	17	63.0%
Sent directly to author	10	37.0%

Table 17: Administrative efforts regarding APCpayments for hybrid journals

Effort by authors (total answers)	8	
< 15 minutes	2	25.0%
15 - 30 minutes	3	37.5%
30 - 60 minutes	2	25.0%
1 - 2 hours	0	0.0%
2 - 4 hours	1	12.5%
4 - 8 hours	0	0.0%
> 8 hours	0	0.0%
Average (minutes)		42
Invoice (total answers)	6	
Not sent to the author	1	16.7%
Sent directly to author	5	83.3%

6. University of Göttingen, Germany

6.3.5 Role of OA in journal selection

31 respondents to the GOLD dataset survey scored the role of OA in the selection of the journal on a scale of one to five: one – no role and five – very important role. The results are presented in figure 7:

- 16.1% of respondents indicated that OA aspects played no or hardly any role in the selection of the journal for the article in question
- 54.9% of the respondents indicated that OA aspects played a somewhat important role

Seven respondents that had published an OA article in a hybrid journal responded to in this question as well. 57% report no or hardly a role for OA in the journal selection, while 29% did.

In a subsequent question, the respondents could select any reasons for selecting OA options for publishing that applied to the respondent. The results are presented in figure 8. The main results are:

- 37.2% selected 'more exposure and wider audience for the article' as a reason for OA publishing
- 27.9% selected OA to retain complete freedom to reuse, republish and distribute article
- > 27.9% support Open Access and Open Science
- The other potential reasons for OA score rather poorly among the respondents: 3.5% selected OA to meet the requirements of the University or of the research funding organisation, while none of the respondents selected the option to meet the requirements of research evaluation procedures

The 11 respondents that published an OA article in a hybrid journal choose primarily 'more exposure/ wider audience for the article' as a reason for OA (58%)

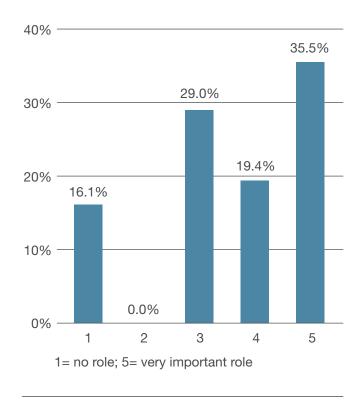


Figure 7: Role of OA in journal selection

Figure 8: Reasons for OA

To meet requirements of research evaluation procedures

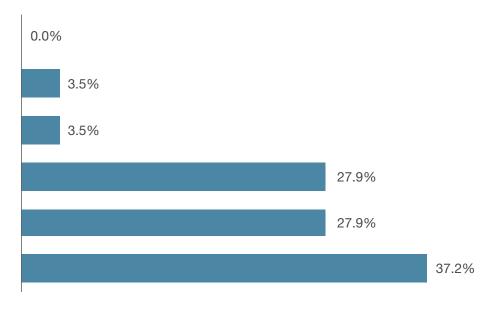
To meet the requirements by my University / research institute

To meet requirements by the research funding organisation

Support for Open Access / Open Science

Complete freedom to reuse, re-publish and distribute the article

More exposure / wider audience for the article

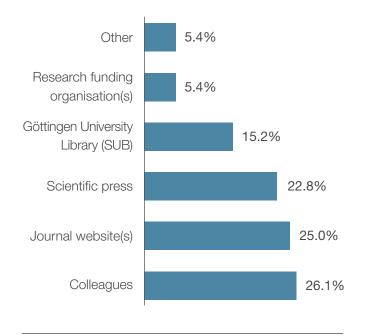


6.3.6 Information sources for OA

Which information sources do you use to find out about developments regarding Open Access? The answers to this question are presented below in figure 9. The results are as follows:

- Journal websites (26.1%, colleagues (25%) and the scientific press (22.8%) are the main information sources for OA for the respondents of the University of Göttingen
- The Göttingen State and University library is mentioned by 15.2% of the respondents as an information source about OA. In addition, some of the respondents (5.4%) mention research funding organisations as a source
- The responses of those respondents that published OA articles in hybrid journals follow a similar pattern

Figure 9: Information sources for OA





6.3.7 The relevancy of potential library services

The last question of the survey was as follows: if you plan to publish articles Open Access in the future, how could the State and University library of Göttingen best support you? Five options for (potential or existing) library services were presented, which the respondents could score on a scale from -2 (not relevant) to +2 (very relevant). Results are presented in table 18. The results are as follows:

- The most popular library service is the existing Open Access service of the Göttingen University library with 92.1% of the respondents scoring this as relevant or very relevant
- Having the library show the options to get discounted or free Open Access publishing that are arranged by the library also scores very highly, with 86.8% of the respondents citing this as relevant or very relevant
- A service showing information about Open Access options and policies proposed by the University and research funders is seen as relevant or very relevant by 73% of the respondents

- Support and information on how to choose OA licences and on copyright issues is seen as very relevant by 60.5% of the respondents
- 'How to' manuals for making Open Access choices at publishers' websites are seen as very relevant by 64.9% of the respondents

6.3.8 Comments by the respondents

Comments by respondents mentioned the following:

- One respondent states that in his domain (physics) the corresponding author is chosen for reasons of practicality. In his view, linking financial support for APCs to the affiliation of the corresponding author is absurd
- Another respondent mentions that in his scientific field most relevant journals are hybrid journals. This respondent argues for opening up the APC-fund for OA articles in these journals
- In another comment it is stated that there are no clear rules on how to deal with electronic invoices

Table 18: Scoring (potential) library services

-2 = not relevant; +2 = very relevant

Scoring (potential) library services	-2	-1	0	1	2
With the existing Open Access service for accepted papers	2.6%	0.0%	5.3%	13.2%	78.9%
Showing the options to get discounted or free Open Access publishing options that the library has arranged	2.6%	2.6%	7.9%	23.7%	63.2%
Information about Open Access options and policies proposed by the University, research funders etc.	2.7%	8.1%	16.2%	29.7%	43.2%
Support and information on how to choose Open Access licences and on copyright issues	2.6%	10.5%	26.3%	23.7%	36.8%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	8.1%	5.4%	21.6%	24.3%	40.5%

7.1 OA in Finland³⁵

The Finnish Ministry of Education and Culture has launched the Open Science and Research Initiative 2014-2017. This initiative focuses on OA publications as well as open data and open software. It is described as a 'planning project' that will set targets for 2017 regarding openness. The ultimate goal is that Finland will become a leading country in Open Science. At the moment, there is no national OA policy: it is expected that during the end of the project in the second half of 2017, the ministry will make a number of key decisions in this regard.

Monitoring OA:

Improving the monitoring system for OA publications is part of this initiative. However, the figures of the first monitor for 2015 can be interpreted in different ways, as a result of vague definitions. The criteria for the 2016 OA figures are more detailed and will likely result in a more accurate picture.

Research funders:

- Academy of Finland: this is the most important research fund for the academic sector in Finland. They require that publications resulting from their research grants are available on Open Access, via the Green or Gold route. APCs can be included in the research costs of any project funded by the Academy
- Tekes: this is the Finnish Agency for innovation, partly focused on the private sector and it also endorses OA. Research applications need to include an OA publication plan
- Currently, there is no OA publication fund in Finland

15 universities:

Because of the lack of a national policy, the 15 Finnish universities have formulated different ones, some Green, some Gold and some a mixture of both. The abovementioned initiative by the Ministry might result in a more uniform situation.

Offsetting deals:

Negotiations for licences are carried out by the Department of the National library and the universities can then choose to opt in. The steering committee of FinELib consortium sets guidelines for consortium operations. At the moment, there are no offsetting deals in place, but negotiations on these were begun in the second half of 2016.

7.2 OA at the University of Helsinki³⁶ The University of Helsinki:

The University of Helsinki has around 10,000 staff members and over 40,000 students and doctoral students. The University's 11 faculties cover most scholarly disciplines.

Green OA policy:

The University encourages OA publishing and requires self-archiving by its researchers of scientific articles in the repository HELDA after they have been published. In practice, this policy is at the level of recommendation to the researchers.

CRIS system:

The University library uses PURE as their CRIS system. With regard to metadata, the coverage of the system is quite comprehensive as the metadata are for a large part imported via Web of Science and Scopus. Another part of the data is put in by the researchers themselves. With regard to full text of the articles published in subscription journals deposited in the repository, the coverage is estimated at around 10%. One has to add the full text of gold OA articles to this percentage, which brings the total percentage of full text of all journal articles in the repository to around 25%. The data in the CRIS system are used for reporting to the Ministry of Education and Culture, and to the Academy of Finland. In addition, the data are open to the public via **tuhat.** helsinki.fi/portal

Gold OA:

- There is no APC-fund in Finland. However, the researchers can cover APCs with grant money from the academic of Finland or use departmental budgets
- Offsetting and membership deals: The University library has a number of membership/ offsetting deals (also in place in 2015):
 - > No APC required:
 - Royal Society of Chemistry (2015-2016: 24 APC vouchers per year based on RSC Gold journal package subscription)
 - SCOAP3 (the Helsinki University library is a co-funder)
 - Open Library of Humanities
 - PeerJ (library pre-payment to cover 7 APCs)

> APC-discounts:

- American Chemical Society (25% discount)
- Biomed Central (15% discount)
- SpringerOpen (15% discount)
- MDPI (10% discount)
- Microbiology society (15% discount)
- Science Advances, AAAS (reduction of \$900)

Footnotes

- 35 Based on an interview with Arja Tuuliniemi, National library of Finland
- 36 Based on an interview with Matti Myllykoski, University of Helsinki

7.3 Survey results

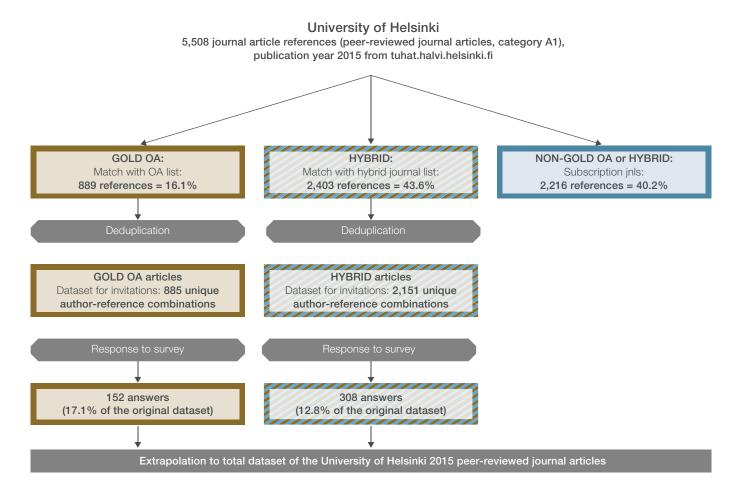
7.3.1 Datasets and survey responses

The dataset received from the University library of Helsinki contained 5,508 article references (peer-reviewed articles, category A1) with the publication year 2015 and one or more authors from the University of Helsinki. The dataset was derived from their CRIS system.

The dataset was matched with the OA list, which showed 889 articles in OA journals (see also figure 10). The

match with the hybrid journal list resulted in 2,403 articles in hybrid journals. After de-duplication, 835 authors of articles in OA journals and 2,151 authors of articles in hybrid journals were invited to participate in the respective surveys. The surveys ran from November 21 until December 30 with one reminder sent on December 7. This resulted in the participation of 152 authors of articles in OA journals (17.1% of the GOLD dataset) and 308 authors of articles in hybrid journals (12.82% of the HYBRID dataset).

Figure 10: Dataset and survey responses



7.3.2 Overview OA articles

Table 19³⁷ gives an overview of Open Access articles by University of Helsinki authors.

The main results are:

- 12.1% of the 2015 articles University of Helsinki authors appeared in Open Access journals: a majority in APC-OA journals (8.3%) and a minority in APC-free OA ones (3.8%). 3% of the articles in OA publications had been arranged by co-authors outside the University. For 1.1% of these articles in OA journals the respondent was not aware of the OA arrangements
- 4.2% of the 2015 articles are published on Open Access in hybrid journals: the greater part of these Open Access options were selected by the authors themselves (3.5%), while a smaller proportion were due to arrangements by the library (0.7%)

Footnotes

37 Explanation of the table: the survey results for each dataset (second column with percentages) have been extrapolated to the totals of each dataset (third column with the numbers) and those have been used to calculate the extrapolated percentages for all 2015 publications by Helsinki authors (fourth column).

Table 19: Overview of OA articles by Helsinki authors

All publications 2015 University of Helsinki	Results of survey	Extrapolation to all pub	olications
		Numbers (cursive = calculated numbers)	%
Total number		5,508	
GOLD dataset (n)	889		
Articles in OA journals (type of journal known)		667	12,1%
In APC-OA journals	51.3%	456	8.3%
In APC-free OA journals	23.7%	211	3.8%
Other articles in OA journals (no further details known)		
Arranged by co-author outside University	18.4%	164	3.0%
Unknown	6.6%	59	1.1%
Hybrid dataset (n)	2403		
OA articles in hybrid journals (total)		233	4.2%
OA option in hybrid journal selected by author	8.1%	195	3.5%
OA option in hybrid journal arranged by library	1.6%	38	0.7%

7.3.3 Payments of APCs

According to the calculations presented in table 19, 8.3% of the 2015 articles were published in APC-OA journals. How were these APCs paid? The results of the survey with regard to these aspects are presented in table 20. The main results are:

- 58.5% was paid by the author(s), using a research grant from a research funding organisation (32.5%) or the budget of their research unit (26%). Some APCs were funded by an Open Access fund (5.2%)³⁸
- 6.5% was paid by the author(s) privately
- With regard to other APC payments, 5.2% was waived, and 6.5% used a combination of funds or other ways to pay the APC
- In 16.9% of cases, the APC was discounted, mostly as a result of a relationship of the author with the journal (7.8%), due to an arrangement of the library (3.9%), through negotiation (1.3%) or for other reasons (3.9%)
- The average APC level was calculated at €1441.
 16.1% of the APCs were lower than €1,000, 14.5% were higher than €2,000

Turning now to publication in hybrid journals, according to the calculations presented in table 19, 3.5% of the 2015 articles were published in hybrid journals with the OA option selected by the author(s). How were these APCs paid? The results of the survey with regard to these aspects are presented in table 21. The main results are:

58.3% of the APCs for OA articles in hybrid journals were funded by the authors themselves, the large majority from a research grant (45.8%), a smaller percentage from the budget of the research department (12.5%)

- 8.3% of the APCs for these articles were paid by the author privately. For the same percentage, the payment was arranged by co-author of another University
- 8.3% of the APCs for these articles were waived.
 Finally, 4.2% of the payments were using a combination of methods and 8.3% have been paid by other methods
- The average APC level was €1767. 23.1% of the APCs were below €1,000, 53.9% were over €2,000. In 4.2% of the cases a discount was received

Footnotes

38 Explanation of the table: the survey results for each dataset (second column with percentages) have been extrapolated to the totals of each dataset (third column with the numbers) and those have been used to calculate the extrapolated percentages for all 2015 publications by Helsinki authors.

Ι

Table 20: Overview of payment data for APC-OA journals

Helsinki articles in APC OA journals		
Payment APC for OA journal (total answers)	77	
Don't remember/ don't know	4	5.2%
Research grant from research funding organisation	25	32.5%
Open Access fund	4	5.2%
Budget of our research unit	20	26.0%
Co-author of another University/ institution	10	13.0%
Myself (private payment)	5	6.5%
A combination of the above	4	5.2%
Was not paid because it was waived	4	5.2%
Other	1	1.3%
APC level (total answers)	62	
<€500	2	3.2%
€500 - €1,000	8	12.9%
€1,000 - €1,500	27	43.5%
€1,500 - €2,000	15	24.2%
€2,000 - €3,000	8	12.9%
> €3,000 euro	1	1.6%
 Average (€)		1441
Discounts (total answers)	77	
Discount received due to relationship with journal	6	7.8%
Discount due to arrangement of library	3	3.9%
Discount as result of negotiation	1	1.3%
Discount due to other reason	3	3.9%

Table 21: Overview of APC payment data for hybrid journals

Helsinki articles in hybrid journals		%
Yes, we [the author(s)] chose the Open Access option, were in principle responsible for these costs and had to arrange the payment	25	8.1%
Yes, the article is published on Open Access by the journal based on an arrangement between the Helsinki University library and the publisher	5	1.6%
I don't know about this aspect of the article as this has been taken care of by a co-author from another institution outside my University	91	29.5%
No, this article is not published on Open Access by the journal	187	60.7%
OA Articles in hybrid journals selected by authors		
Payment APC for OA journal (total answers)	24	
Don't remember/ don't know	1	4.2%
Research grant from research funding organisation	11	45.8%
Open Access publication fund	0	0.0%
Budget of our research unit	3	12.5%
Co-author of another University/ institution	2	8.3%
Myself (private payment)	2	8.3%
A combination of the above	1	4.2%
Was not paid because it was waived	2	8.3%
Other	2	8.3%
APC level (total answers)	13	
<€500	1	7.7%
€500 - €1,000	2	15.4%
€1,000 - €1,500	1	7.7%
€1,500 - €2,000	1	7.7%
€2,000 - €3,000	6	46.2%
> €3,000 euro	1	7.7%
Average (€)		1767
Discounts (total answers)	24	
Discount received due to relationship with journal	0	0.0%
Due to an arrangement between our library and the publisher	0	0.0%
Discount as result of negotiation	0	0.0%
Other (please elaborate below)	1	4.2%

7.3.4 Administrative efforts and procedures

For 8.3% of the 2015 articles that were published in APC-OA journals (see table 22), the respondents indicated that the administrative efforts with regard to the APC payment took them on average 62 minutes:

- 68.7% of the respondents indicated that it took them less than one hour
- > 31.4% indicated that it took them more than one hour

In addition, the invoice for the APC was sent to the majority of the respondents (84.6%).

The administrative efforts and procedures for APC payments for hybrid journals hardly differ (see table 23). The average administrative effort was 75 minutes, while the invoice was also in most cases (76.5%) sent to the author directly.

Five respondents reported that their articles in hybrid journals were published on Open Access as a result of the library's arrangements with the publisher³⁹.

Footnotes

39 Only two respondents filled in some of the other questions about this arrangement. Therefore, these results are not presented here.

Table 22: Administrative efforts regarding APCpayments for OA journals

Effort by authors (total answers)	51	
< 15 minutes	11	21.6%
15 - 30 minutes	11	21.6%
30 - 60 minutes	13	25.5%
1 - 2 hours	12	23.5%
2 - 4 hours	2	3.9%
4 - 8 hours	1	2.0%
> 8 hours	1	2.0%
Average (minutes)		62
Invoice (total answers)	52	
Not sent to author	8	15.4%
Sent directly to author	44	84.6%
Not sent to author	8	

Table 23: Administrative efforts regarding APCpayments for hybrid journals

Effort by authors (total answers)	16	
< 15 minutes	8	50.0%
15 - 30 minutes	3	18.8%
30 - 60 minutes	3	18.8%
1 - 2 hours	0	0.0%
2 - 4 hours	0	0.0%
4 - 8 hours	0	0.0%
> 8 hours	2	12.5%
Average (minutes)		75
Invoice (total answers)	17	
Not sent to the author	4	23.5%
Sent directly to author	13	76.5%

7.3.5 Role of OA in journal selection

92 respondents to the GOLD dataset survey scored the role of OA in the selection of the journal on a scale of 1 to 5: 1 - no role and 5 - very important role. The results are presented in figure 11:

- 35.9% of respondents indicated that OA aspects played no or hardly any role in the selection of the journal for the article in question
- A similar percentage (35.9%) of the respondents indicated that OA aspects played a somewhat important role

22 respondents that had published an OA article in a hybrid journal filled in this question as well. 59.1% report no or hardly a role for OA in the journal selection, while 9.1% said that there had been one (see figure 12).

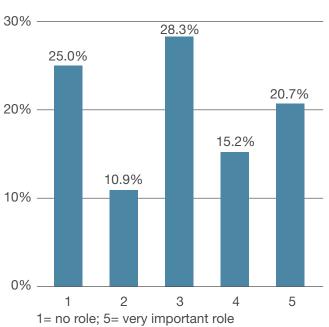
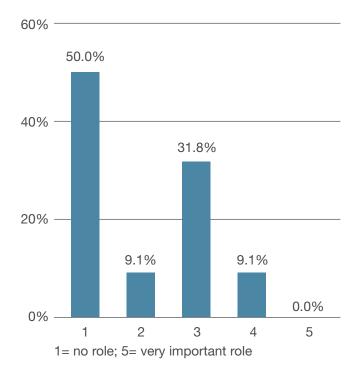


Figure 11: Role of OA in journal selection (Percentage of respondents)

Figure 12: Role of OA in journal selection (authors of OA articles in hybrid journals) (Percentage of respondents)



In the following question, the respondents could select a number of reasons for selecting OA options for publishing - all options that applied. The main results, as shown in figure 13, are:

- 35% selected 'more exposure and wider audience for the article' as a reason for OA publishing
- 19.9% selected OA to keep complete freedom to reuse, republish and distribute their article
- > 21.8% support Open Access and Open Science
- The other potential reasons for OA score lower among the respondents: 9% and 8.6% for non-OA journal

authors and OA-authors respectively selected OA to meet the requirements of the University or of the research funding organisation, while 5.6% of the respondents stated that they were meeting the requirements of research evaluation procedures

The respondents that published an OA article in a hybrid journal (see figure 13) also choose primarily 'more exposure/ wider audience for the article' as a reason for OA (30.6%). To meet the requirements of the research funding organisation, the University or the research evaluation procedures seem to score somewhat higher with, respectively, 14.5%, 12.9% and 8.1%

Figure 13: Reasons for OA (authors of articles in OA journals) (Percentage of respondents)

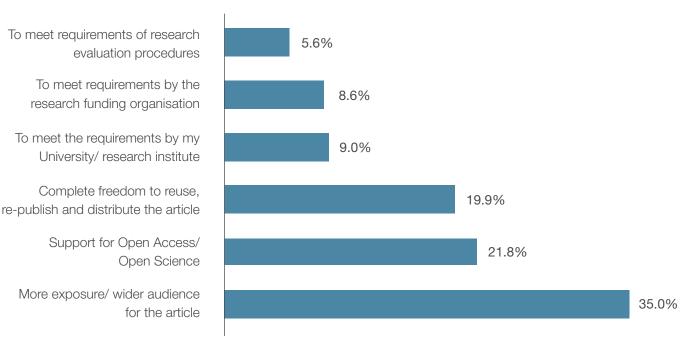




Figure 14: Reasons for OA (authors of OA articles in hybrid journals)

To meet requirements of research evaluation procedures

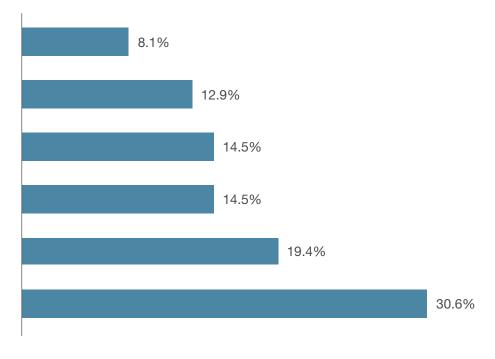
To meet the requirements by my University/ research institute

Complete freedom to reuse, re-publish and distribute the article

To meet requirements by the research funding organisation

Support for Open Access/ Open Science

More exposure/ wider audience for the article



7.3.6 Information sources for OA

Which information sources do you use for developments regarding Open Access? The answers to this question are presented below in figure 15 for the authors of articles in OA journals and in figure 16 for the authors of OA articles in hybrid journals.

The results are as follows:

- For both groups, the top three information sources are the same: journal websites, scientific press, and colleagues (all with percentages between 27% and 20%)
- The Helsinki University library is seen by a relatively small percentage as an information source about OA (15% by authors of articles in OA journals, and 11.1% by authors of OA articles in hybrid journals)
- The research funding organisation(s) are seen by similar small percentages as an information source about OA (respectively 9.4% and 14.3%)

Figure 15: Information sources for OA (authors of articles in OA journals)

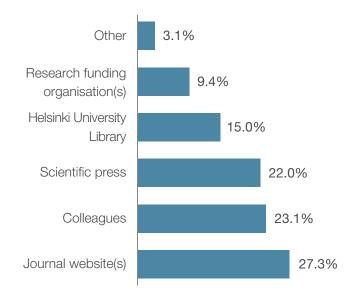
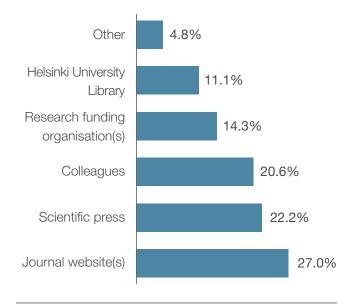


Figure 16: Information sources about OA (authors of OA articles in hybrid journals)



61

7.3.7 The relevancy of potential library services

The last question of the survey was as follows: if you plan to publish articles Open Access in the future, how could the Helsinki University library best support you? Five options for (potential or existing) library services were presented, which the respondents could score on a scale from -2 (not relevant) to +2 (very relevant). Results are presented in table 24 for authors of articles in OA journals and in table 25 for those with OA articles in hybrid journals. The results are as follows:

Showing the options to get discounted or free Open Access publishing that are arranged by the library scores the best with 85% for authors of articles in OA journals and and 96.6% of OA article authors publishing in hybrid journals scoring this as relevant or very relevant

- A service showing information about Open Access options and policies proposed by the University and research funders is seen as relevant or very relevant by 80.3% of the OA journal authors and 81.5% of the respondents publishing in hybrid journals
- Support and information how to choose OA licences and on copyright issues is seen as (very) relevant by respectively 63.6% and 71.4% of the respondents
- 'How to' manuals for making Open Access choices at publishers' websites are seen as (very) relevant by respectively 51.9% and 64.3% of the respondents

Table 24 Scoring (potential) library services by authors of articles in OA journals

-2 = not relevant; +2 = very relevant

Scoring (potential) library services [authors of articles in OA journals]	-2	-1	0	1	2
Showing the options to get discounted or free Open Access publishing options that the library has arranged	1.5%	3.0%	10.5%	21.1%	63.9%
Information about Open Access options and policies proposed by the University, research funders etc	0.8%	6.8%	12.1%	36.4%	43.9%
Support and information on how to choose Open Access licences and on copyright issues	3.8%	14.4%	18.2%	29.5%	34.1%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	8.5%	14.7%	24.8%	29.5%	22.5%

Table 25 Scoring (potential) library services by authors of OA articles in hybrid journals -2 =not relevant; +2 =very relevant

Scoring (potential) library services [authors of OA articles in hybrid journals]	-2	-1	0	1	2
Showing the options to get discounted or free Open Access publishing options that the library has arranged	3.4%	0.0%	0.0%	13.8%	82.8%
Information about Open Access options and policies proposed by the University, research funders etc.	3.7%	0.0%	14.8%	33.3%	48.1%
Support and information on how to choose Open Access licences and on copyright issues	3.6%	7.1%	17.9%	32.1%	39.3%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	7.1%	3.6%	25.0%	32.1%	32.1%

7.3.8 Comments by the respondents

Below there are a number of comments by the respondents about:

Private payments:

- I got bill. University could not help. I paid
- I took a personal risk with the Open Access costs of this manuscript when I decided to submit it into a very good journal. At the time of submitting, I did not know whether the University would pay the fee or whether I needed to pay it myself. However, after the paper was accepted, the University did pay the fee. At that point it was very important for my career to have another high impact factor paper. Later on and with forthcoming papers I did not/ will not take that personal risk with the fees and will not go for Open Access

Sharing of the costs of the APC between research departments:

- There were several authors in the paper and we agreed that those who currently have research funding would share the costs evenly. The publisher could not share the invoice so one of us paid and his department sent an invoice to my department
- 50% paid by the co-authors in Turku and 50% by us in Helsinki

Problematic administrative procedures:

It is usually quite difficult with paying for OA fees as publishers require fast action but the University admin is slow at sending the money. As a result, researchers often pay by themselves and claim a refund for that later on. Last summer I did this, and I only got reimbursement in November We discussed the share of costs with co-authors, but finally, my institute paid the fee. There were some misunderstandings with the transfer of the bill to the payment department and, therefore, I estimated a longer time for the administrative procedure

General comments about Open Access and the costs of it, suggesting price sensitivity on the side of the authors:

- The payment was truly high, and a surprise for us. Granting agencies or Helsinki University have not supported us after publication costs increased considerably. Administrative effort was low.
 Publication costs are the main barrier, otherwise the Open Access procedure is quite straightforward
- The biggest obstacle in Open Access publishing (which I think in general is a very beneficial thing) is the cost, which is often very high, especially in better journals. So all efforts to get the costs down, in one way or another, would be very nice
- The costs to publish Open Access are very high, so info on options that are not so costly would be good, and also info on options from where to get support for covering Open Access fees would be good
- If there are ways to get support for costs, it would be great, because now the costs are eating up scientist positions and reagents. Ways to avoid costs, if there are any, would be valuable
- In the future I would try to publish in Open Access journals that don't charge such a huge fee.
 Fortunately for this article we had project budget to cover the cost, but usually that is not the case
- There should be a list of journals that have Open Access with low payment (incl. high IF [impact factor]). In addition, there should be University support for publishing

- It would be helpful to have a free Open Access publishing possibilities with Helsinki University Library
- The only support needed for Open Access publishing is support for publication costs
- Library could establish a list of Open Access journals with their impact factors and publication costs
- I would prefer Open Access but usually there is no money or the money is taken from the salary of the researchers. Therefore an agreement between University of Helsinki Library and the publisher is a good arrangement I assume

8. Inria, France

8.1 OA in France⁴⁰

National policy:

In January 2013, the French Minister for Higher Education and Research stated that 'scientific information is a public good that should be available for all'. The French government wishes to develop Green and Gold OA in a balanced and complementary way, assisting well the users that prefer Gold during the negotiation of licences with publishers^{41.}

National law for digital information since October 2016:

Recently, a new law on digital information has been implemented. In this law, researchers, who have carried out a research project that is publicly funded for 50% or more of its costs, keep the right to publish the full text Open Access after an embargo period of at most six months for STM and 12 months for AHSS (via for instance HAL or via their personal website).

HAL:

HAL is the French national repository that serves over 80 scientific institutions. HAL is a platform which is interoperable with local and international thematic archives such as PubMed Central or ArXiv. There is a partnership between research institutions, universities and Grandes Écoles for the joint development and management of HAL. Some other independent repositories exist.

OA journals at the OpenEdition platform:

OpenEdition is a portal for the humanities and social sciences. It consists of four platforms, of which **revues.org** offers over 400 journals. About two thirds of those journals are freely accessible, via Open Access or via a freemium model. The rest of the journals are freely available after an embargo period of a maximum of 12 months.

Research funders:

ANR (Agence Nationale de Recherche) is the principal research funding organisation in France. Most research

grants from ANR have a budget for publications and the researchers can use this for the payment of APCs.

Budgets of research units and APC payments:

Most research units in France are mixed research units. meaning they are supported by more than one higher education institution and its researchers have more than one affiliation. A typical research unit has a budget from University and from a national research agency (such as CNRS or Inria). Since a few years ago, there has been an accounting code in the common budgetary nomenclature for Higher Education and Research entitled "Publication costs". This includes APCs, but also page charges, charges for colour photos and so on. The result is that the researcher has multiple options to pay an APC: he or she can use the research grant money from ANR (if applicable) and/ or budgets from the various affiliated institutions. It is even possible that for example one budget will be charged for 50% of the APC and another budget for the other 50%

Offsetting deals:

There are no offsetting deals at the national level concluded by the Couperin consortium except for the voucher system of the Royal Society of Chemistry. In practice, this voucher system hardly functions in the French institutions as it is difficult to distribute the vouchers to researchers. At the moment, the consortium Couperin does not want to encourage Open Access in hybrid journals by including APCs in the licences with publishers, as happens in the Netherlands. However, Couperin does strive to avoid double dipping in their upcoming negotiations with publishers. For that, it is important to know how much is paid by the French academic community for APCs. Therefore, Couperin has started a study by investigating research unit budgets, using the above-mentioned accounting code. In addition, CNRS has recently finished a study to assess how many OA articles have been published in recent years by French researchers.

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8.2 OA at Inria⁴²

Organisation:

- The National Institute for Research in Computer Science and Control (Inria) is a public science and technology institution. It consists of:
 - > 178 research project teams
 - > 1800 scientists
 - > 8 research centres

Publications and OA:

- 4600 scientific publications per year, and there were 1755 journal articles in 2015
- Inria uses HAL as their repository
- There is since 2015 an obligation for scientist at Inria to deposit their articles in HAL. The coverage is therefore practically comprehensive: at this moment, one estimates that the repository contains nearly 100 percent of the metadata and about 75% of the full text

OA policy of Inria and its APC-fund:

- Inria has a central APC-fund which will only compensate APCs for articles in Open Access journals. Open Access articles in hybrid journals are discouraged by Inria. The central fund financed 20 APCs in 2015
- Inria is primarily in favour of Green Open Access and has made the depositing in the repository HAL of full text of the articles published by authors of Inria in the repository mandatory since 2015
- If there are no other solutions, publication in OA journals are accepted and financed by the centralised APC-fund. This fund is currently limited to 5% of the budget for subscriptions. This limit might be extended to 7% in the short term. If a further increase of this limit is necessary, the entire policy of Inria in this respect will need to be revised

- As stated before, Inria rejects APC payments for articles in hybrid journals and recommends its authors avoid these. Most Inria researchers appear to follow this recommendation. However, it is possible for authors to finance APCs for articles in hybrid journals from their departmental budgets
- With regard to projects for the H2020 EU research programme, Inria insists that the Green OA route is sufficient to meet the Open Access requirements of this program and thus researchers do not have to budget for APCs in their research grant
- With regard to arrangements with publishers:
 - Inria has a membership deal with BioMed Central, which gives 15% discount on APCs for publications in journals of BMC and Springer Open

Other subscriptions are arranged via the Couperin consortium. Some of these licences include an offsetting of APCs (PNAS and Wiley).

Footnotes

- 40 Based on an interview with Christine Weil-Miko (INIST-CNRS) with additional information from Herbert Gruttemeier (INIST-CNRS)
- 41 RIO Country Report 2015: France; Joint Research Centre, European Commission
- 42 Based on an interview with Claire Buren (IES, Inria).

8.3 Survey results

8.3.1 Datasets and survey responses

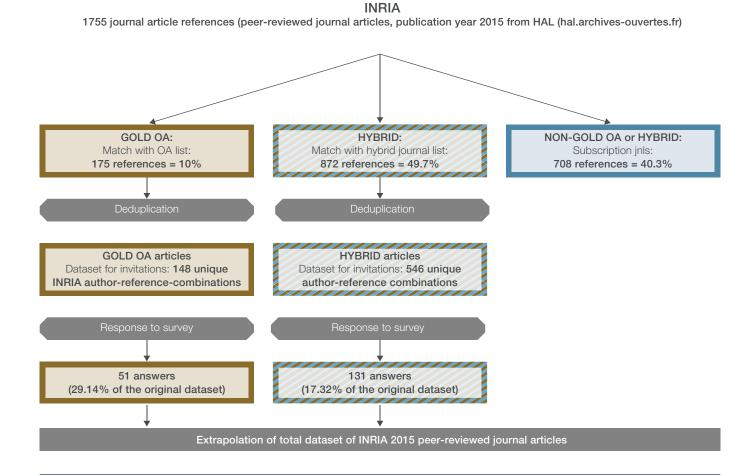
The dataset received from the IES⁴³ department of Inria contained 1,755 article references with the publication year 2015 and with one or more authors from Inria. The dataset was matched with the OA list, which showed 175 articles in OA journals (see also figure 17). The match with the hybrid journal list resulted in 872 articles in hybrid journals. After de-duplication, 148 authors of articles in OA journals and 546 authors of articles in hybrid journals were invited to participate in the

respective surveys. The surveys ran from November 23 until December 30 with two reminders sent (December 8 and December 19). This resulted in the participation of 51 authors of articles in OA journals (29.14% of the GOLD dataset) and 131 authors of articles in hybrid journals (17.32% of the HYBRID dataset).

Footnotes

43 Information et Edition Scientifique

Figure 17: Datasets and responses Inria



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8.3.2 Overview of OA articles

In table 26⁴⁴, an overview of the Open Access articles by the Inria authors is presented. The main results are:

- 7.6% of the 2015 articles with authors from Inria were published in Open Access journals: a majority in APC-OA journals (4.7%) and a minority in APCfree OA ones (2.9%). 2.2% of the articles in OA publications had been arranged by co-authors outside the institution. For 0.2% of these articles in OA journals, the respondent was not aware of the OA arrangements
- 1.1% of the 2015 articles were published on Open Access in hybrid journals: the larger part of these Open Access options were selected by the authors themselves (0.7%), while a somewhat smaller proportion were due to arrangements by the library (0.4%)

Footnotes

44 Explanation of the table: the survey results for each dataset (second column with percentages) have been extrapolated to the totals of each dataset (third column with the numbers) and those have been used to calculate the extrapolated percentages for all 2015 publications by Inria authors (fourth column).

Table 26 Overview of OA articles by Inria authors

All publications 2015 Inria	Results survey	Extrapolation to all publications			
		Numbers (cursive = calculated numbers)	%		
Total number		1,755			
GOLD dataset (n)	175				
Articles in OA journals (type of journal known)		134	7.6%		
In APC-OA journals	47.1%	82	4.7%		
In APC-free OA journals	29.4%	51	2.9%		
Other articles in OA journals (type of journal unknown)					
Arranged by co-author outside the institution	21.6%	38	2.2%		
Unknown	2.0%	4	0.2%		
Hybrid dataset (n)	872				
OA articles in hybrid journals (total)		20	1.1%		
OA option in hybrid journal selected by author	1.5%	13	0.7%		
OA option in hybrid journal arranged by library	0.8%	7	0.4%		

8.3.3 Payments of APCs

According to the calculations presented in table 27, 4.7% of the 2015 articles by Inria authors were published in APC-OA journals. How were these APCs paid? The results of the survey are presented in table 28. The main results are:

- 29.2% of the APCs were paid by the author(s), using a research grant from a research funding organisation (16.7%) or the budget of their research unit (12.5%). It is important to note that most research units are mixed research units, supported by more than one higher education institution, and have as such more than one budget available (see also paragraph 8.1). Thus, these APCs are not necessarily paid by an Inria budget
- > 25% were paid by the Open Access fund of Inria
- In 29.2% of the cases, the APC payment was arranged by a co-author of another institution
- With regard to other APC payments, 4.2% were waived, and 4.2% used a combination of funds or other ways to pay the APC
- In 12.5% of the cases, the APC was discounted, most often as a result of a relationship of the author with the journal (8.3%), but also due to an arrangement with the library (4.2%)
- The average APC level was calculated at €1,596. 23.5% of the APCs were lower than at €1,000, 23.6% were higher than €2,000 Because of the low number of responses to these questions in the HYBRID dataset survey (n=2), these results are not presented. This is also the case for the results presented hereafter.

Table 27: Overview payment data for APC-OA journals

Articles in APC OA journals by Inria authors		
Payment APC for OA journal (total answers)	24	
Don't remember/ don't know	2	8.3%
Research grant from research funding organisation	4	16.7%
Open Access fund managed by library	6	25.0%
Budget of our research unit	3	12.5%
Co-author of another University/ institution	7	29.2%
Myself (private payment)	0	0.0%
A combination of the above	1	4.2%
Was not paid because it was waived	1	4.2%
Other	0	0.0%
APC level (total answers)	17	
<€500	3	17.6%
€500 - €1,000	1	5.9%
€1,000 - €1,500	6	35.3%
€1,500 - €2,000	3	17.6%
€2,000 - €3,000	2	11.8%
>€3,000 euro	2	11.8%
 Average (€)		1596
Discounts (total answers)	24	
Discount received due to relationship with journal	2	8.3%
Discount due to arrangement of library	1	4.2%
Discount as result of negotiation	0	0.0%
Discount due to other reason	0	0.0%

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8.3.4 Administrative efforts and procedures

For 4.7% of the 2015 articles that were published in APC-OA journals (see table 28), the respondents indicated that the administrative efforts with regard to APC payment took them on average 139 minutes:

- 45.5% of the respondents indicated that it took them less than one hour
- > 54.5% indicated that it took them more than one hour

In addition, the invoice for the APC was sent to the majority of the respondents (68.8%).

Table 28 Administrative efforts regarding APCpayments for OA journals

Effort by authors (total answers)	11	
< 15 minutes	2	18.2%
15 - 30 minutes	0	0.0%
30 - 60 minutes	3	27.3%
1 - 2 hours	2	18.2%
2 - 4 hours	2	18.2%
4 - 8 hours	1	9.1%
> 8 hours	1	9.1%
Average (minutes)		139
Invoice (total answers)	16	
Nnot sent to author	5	31.3%
Sent directly to author	11	68.8%

8.3.5 Role of OA in journal selection

26 respondents to the GOLD dataset survey scored the role of OA in the selection of the journal on a scale of 1 to 5: 1 – no role and 5 – very important role. The results are presented in figure 18:

- 42.3% of respondents indicated that OA aspects played no or hardly any role in the selection of the journal for the article in question
- A smaller percentage (23%) of the respondents indicated that OA aspects played a (somewhat) important role

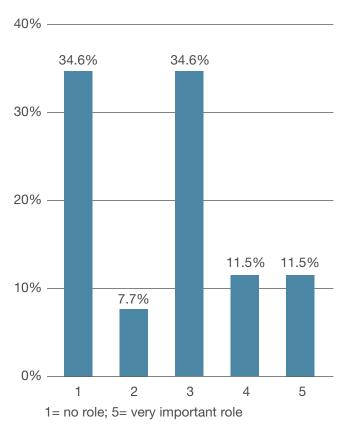


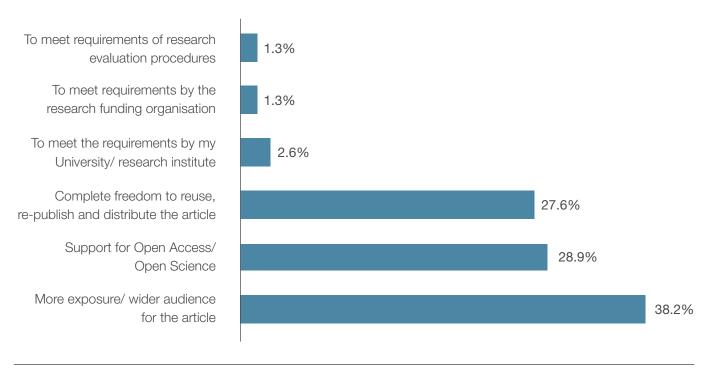
Figure 18: Role of OA in journal selection (Percentage of respondents)

In the next question, the respondents could select a number of reasons for choosing OA options for publishing and all options that applied to them. The results are presented in figure 19. The main results are:

- 38.2% selected 'more exposure and wider audience for the article' as a reason for OA publishing
- 28.9% selected support for Open Access and Open Science

- 27.6% chose OA to retain the complete freedom to reuse, republish and distribute article
- The other potential reasons for OA score lower among the respondents with only 2.6% choosing them. Half of those (1.3%) selected OA to meet the requirements of the University or of the research funding organisation, while 1.3% of the respondents were aiming to meet the requirements of research evaluation procedures

Figure 19: Reasons for OA (authors of articles in OA journals)

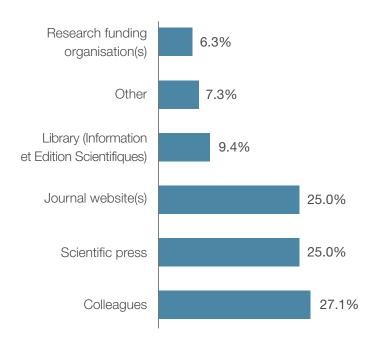


8.3.6 Information sources for OA

Which information sources about developments regarding Open Access do you use? The answers to this question are presented below in figure 20. The results are as follows:

- The top three information sources are: journal websites, scientific press, and colleagues (all with percentages between 27% and 25%)
- The Inria Library department (Information et Edition Scientifiques) is seen by a relatively small percentage as an information source about OA (9.4%)
- Research funding organisation(s) are seen by a similarly small percentage as an information source about OA (6.3%)

Figure 20: Information sources for OA (authors of articles in OA journals)



8.3.7 The relevancy of (potential) library services

The last question of the survey was as follows: if you plan to publish articles Open Access in the future, how could the Inria IES department best support you? Five options for (potential or existing) library services were presented, which the respondents could score on a scale from -2 (not relevant) to +2 (very relevant). Results are presented in table 29. The results are as follows:

- The existing Open Access fund operated by the IES department is seen by 95.7% of the respondents as relevant or very relevant
- Showing the options to get discounted or free Open Access publishing that are arranged by the library is seen by 93.5% of the respondents as relevant or very relevant
- 70.5% of the respondents see as relevant or very relevant a service showing information about Open Access options and policies proposed by the University and research funders
- Support and information how to choose OA licences and on copyright issues is seen as very relevant by 69.6%
- 'How to' manuals for making Open Access choices at publishers' websites are seen as very relevant by 62.2%

Table 29: Scoring (potential) library services by authors of articles in OA journals -2 =not relevant; +2 =very relevant

Scoring (potential) library services [authors of articles in OA journals]	-2	-1	0	1	2
With the existing Open Access fund for accepted papers (IES centralized budget)	0.0%	4.3%	0.0%	26.1%	69.6%
Showing the options to get discounted or free Open Access publishing options that the library has arranged	0.0%	0.0%	6.5%	47.8%	45.7%
Information about Open Access options and policies proposed by the University, research funders etc.	0.0%	6.8%	22.7%	45.5%	25.0%
Support and information on how to choose Open Access licences and on copyright issues	4.3%	4.3%	21.7%	37.0%	32.6%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	4.4%	8.9%	24.4%	35.6%	26.7%

8.3.8 Comments by the respondents

A few comments are presented below, reflecting on various topics:

Complicated payment procedures:

- I was first confronted with the payment procedure when submitting the manuscript. I then had to go to our team assistant to know how to proceed, then once the manuscript had been accepted I received the invoice and I had to get to IES to understand how to proceed. On each occasion, it took some time and split my time, as I had to be focused on both manuscript submission and acceptance procedures
- IES could not pay by credit card, so we used an invoice payment method but it had an additional cost of 55 € and there were constraints about the form and content of the invoice (address, VAT numbers, etc.). I was not in charge of the administrative tasks, it was our team assistant. I believe the invoice method took her some time, with several forms to fill (for instance, creation of the supplier in the database) and to be accepted by other services. This prevented us from respecting the deadline imposed by the publisher (30 days). For information, I published more recently another Open Access paper and this time IES was able to pay by credit card and it was much easier and faster

Sharing costs of the APC:

Equal share between the budget of our research unit, and the research unit in the US where most of the work was done. We paid in full, and then got refunded by our collaborators by sending an Inria Invoice

Paying APCs:

 Open Access should be supported by the institution not on the research grant

Suggestions for library services:

- Database of Open Access journals with impact factors, topics and costs that researchers could query
- Help in avoiding predatory publishers

General comments on OA:

- In my field, all the papers are systematically uploaded on the ArXiv, so I wouldn't publish in an Open Access journal if this involved some non-negligible fees
- Publishers shouldn't be allowed to hide papers and request money for it. It is strictly against the goal of science, which is to distribute information as widely and freely as possible

9.1 OA in the Netherlands⁴⁵

The main Dutch research funding organisation Netherlands Organisation for Scientific Research or NWO has an OA fund for publications that it has funded. Its specifications include:

- ▶ Maximum of €6,000 grant per research project
- Hybrid OA is excluded
- Applications for refunds can be made up until six months after publication

Situation in Dutch universities:

- 4 out of 14 have a budget for APCs: three universities have a central budget for APCs. One university has a budget only for publications in Biomed Central journals
- 4 out of 14 have implemented a cost number for APCs
- 5 national licences involving APCs:
 - > American Chemical Society
 - > Electrochemical Society
 - > Royal Society of chemistry
 - > Sage Choice
 - > Springer
- 8 out of 14 have arrangements with publishers involving APCs:
 - > Biomed Central: 8/14
 - > Multidisciplinary digital publishing Institute: 3/14
 - > BMJ: 2/14
 - > Cogitatio Press: 2/14
 - > Brill: 2/14
 - > Copernicus: 1/14
 - > Frontiers:1/14
 - > Knowledge Unlatched: 1/14
 - > PLOS: 1/ 14

9.2 OA at the technical University Eindhoven⁴⁶ TU/e:

Eindhoven University of Technology (TU/e) is a research university specializing in engineering science and technology. The University has 2,044 academic staff members, 4,973 bachelor students, 3,238 master students and 1,210 doctoral candidates

TU/e has a Green OA policy:

The Governing Board of the Technical University Eindhoven has officially implemented a Green OA policy. In the meantime, a number of offsetting deals have been arranged for a number of licences for all universities via the UKB consortium, the Dutch consortium of the 13 university libraries and the National Library of the Netherlands. For the publication year 2015, the Springer Compact agreement and the voucher system of the Royal Society of Chemistry were applicable as well as the Electrochemical Society

Footnotes

- 45 Based on: Verkenning registratie en monitoring goud OA kosten bij Nederlandse universiteiten (20 August 2015) UKB werkgroep OA.
- 46 Based on an interview with Merle Rodenburg, IEC, TU/e.

CRIS:

(4

- Pure: The Technical University Eindhoven (TU/e) has used Pure as their CRIS system since the end of 2015. The system offers a number of user-friendly services to the authors such as the interface for the input of metadata. In addition, the synchronization with Web of Science and Scopus means that authors receive alerts about journal articles probably authored by them. This gives the authors the option to review and select the articles that are theirs from a list. The philosophy behind the system is that the author remains responsible for the registration of his/ her articles and other publications in the system. However, the library aims to provide many services to the authors in order to facilitate their tasks in this
- Data are used for the annual report of the Dutch universities and for research evaluation purposes: the metadata of the publications registered in the CRIS system are used for the annual report of the Association of universities in the Netherlands (Kengetallen Universitair Onderzoek, KUOZ, VSNU). The data from a certain calendar year have to be delivered on the first of July of the following year. The internal deadline for authors is the end of January. In practice, there are authors, or administrative staff of authors and research units, who fill in the metadata during the year and there are those that provide the data about their publications just before the deadline. The data are also used for research evaluation (Standard Evaluation Protocol) and some faculties use the data internally as well for their internal research evaluation procedures
- Complete coverage: With the usage of the data for the annual report and research evaluation, in combination with the data synchronization with Web of Science and Scopus, the coverage of researchers' outputs at the TU/e is deemed to be reasonably comprehensive

Validation and enrichment of the data: an internal unit of the library works on the validation and enrichment of data in the system. Authors most often only fill in the minimally required metadata. Library staff members then enrich the metadata and validate the data by checking the DOI (or adding the DOI) and reviewing the publication itself

Gold OA:

- In addition to the above-mentioned validation and enrichment, library staff members check the DOI (outside the network of the University) and see if the publication is available on OA47. If the article is OA, this will be registered and the full text (publisher's version) will be registered in the repository as OA
- The OA registration is also required for the VSNU KUOZ data⁴⁸. There are four specifications: Gold, Hybrid, Green and Toll Access. These data are meant to be used by the Dutch Ministry to monitor its OA policy. The figures for the year 2015 are not publicly available as the definitions used have not been uniformly interpreted

Green OA full text procedures:

- Embargo period: the embargo period is set in the CRIS system based upon the Sherpa Romeo list, the UK-based database of publishers' policies on copyright and self-archiving:
 - > A list of journals where authors of the TU/e have published articles since 2012 has been set up in a webpage
 - Twice a week, mutations in the embargo conditions are added to the list, using an API to Sherpa Romeo; embargo data for new journals or changing conditions need then to be added manually in Pure
 - In the autumn of 2016, Pure will be able to use an API on the above-mentioned web page with the updated journal list, so that the new conditions will be added automatically to articles registered

in Pure⁴⁹. At the moment, there are ongoing discussions with other Dutch university libraries to explore the opportunities of collaborating on this list and using it more widely in the Netherlands.

- 94% of the peer-reviewed articles by authors of the TU/e allow the author's version to go OA (after embargo). 8% of the publisher's versions can be made OA (after embargo)
- Authors' versions: if the publisher's version is not made OA, even after an embargo period, but the publisher allows OA for the author's version, the authors of these articles are targeted with an invitation to upload their author version with an explanation of the reasons. These targeted emails get a good response rate, resulting in a high percentage of OA for articles recently deposited in the repository. In fact, most of the available OA full text articles in the repository are authors' versions

Footnotes

- 47 This check on DOIs outside the network is done only for hybrid journals, as pure OA journals are known on the basis of DOAJ and Ullrich
- 48 Definition framework monitoring Open Access (17 February 2016) VSNU
- 49 However, this will not work automatically for all articles, because it depends on what order the metadata are being put into the system

9.3 Survey results

9.3.1 Datasets and survey responses

The dataset received from the Information Expertise Center (IEC) for the Technical University Eindhoven (TU/e) contained 88 registered 'pure' GOLD articles (published in OA-journals) and 195 registered Hybrid OA articles, on a total of 1,648 journal articles published in 2015 with TU/e authors (see also figure 21).

The dataset with 88 articles published in OA journals contained 74 references with a TU/e author as the first or last author and with a known email address. After deduplication on author names, 65 invitations to participate were sent, resulting in 28 completed questionnaires (31.82% of the original PURE GOLD dataset)

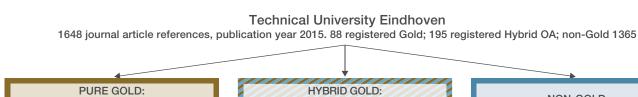
Figure 21: Datasets and responses TU/e

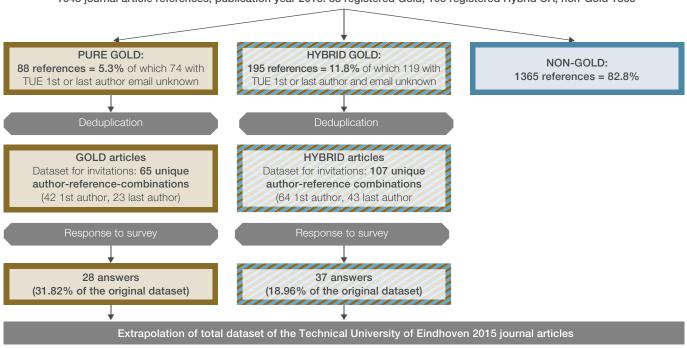
The dataset with 195 references of OA articles in hybrid journals contained 119 references with a TU/e author as the first or last author and with a known email address. After deduplication on author names, 107 invitations to participate in the survey were sent, resulting in 64 filled-in questionnaires (18.96% of the original HYBRID GOLD dataset)

The surveys ran from November 21 until December 30 with two reminders sent (December 8 and December 19).

9.3.2 Overview of OA articles

In table 30⁵⁰, there is an overview of the Open Access articles by the authors of the Technical University Eindhoven.





The main results are:

- 4.6% of the 2015 articles with authors from the TU/e were published in Open Access journals: a small majority in APC-OA journals (2.5%) and a minority in in APC-free OA journals (2.1%). 0.6% of the articles in OA journals had been arranged by co-authors outside the University. For 0.2% of these articles in OA journals the respondent was not aware of the OA arrangements
- 8.9% of the 2015 articles were published on Open Access in hybrid journals: a minority of these Open Access options were actually selected by the authors

themselves (3.8%), while the majority were based on arrangements by the library (5.1%). In addition, 1% was arranged by a co-author outside the university, while in 1.9% of cases, the respondent was not aware of the OA-arrangement of the article in question

Footnotes

50 Explanation of the table: the survey results for each dataset (second column with percentages) have been extrapolated to the totals of each dataset (third column with the numbers) and those have been used to calculate the extrapolated percentages for all 2015 publications by TU Eindhoven authors (fourth column).

Table 30: Overview of OA articles by tu/e authors

9.3.2 Overview of OA articles	Results survey	Extrapolation to all pul	blications
All publications 2015 TU/e		Numbers (cursive = calculated numbers)	%
Total number		1,648	
GOLD dataset	88		
Articles in OA journals arranged by authors of the university		76	4.6%
In APC-OA journals	46.4%	41	2.5%
In APC-free OA journals	39.3%	35	2.1%
Other			
Arranged by co-author outside university	10.7%	9	0.6%
Unknown	3.6%	3	0.2%
Hybrid dataset	195		
OA articles in hybrid journals arranged by the authors or library of the university		147	8.9%
OA option in hybrid journal selected by authors	32.4%	63	3.8%
OA option in hybrid journal arranged by library	43.2%	84	5.1%
Other			
OA option arranged by co-author outside the university	8.1%	16	1.0%
Respondent not aware of the OA-arrangement	16.2%	32	1.9%

9.3.3 Payments of APCs

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According to the calculations presented in table 30, 2.5% of the 2015 articles by TU/e authors have been published in APC-OA journals. How were these APCs paid? Table 31 shows the main results, which were that:

- 83.3% was paid by the author(s), using a research grant from a research funding organisation (41.7%), the budget of their research unit (33.3%) or privately (8.3%)
- In 8.3% of the cases, the APC payment was arranged by a co-author of another institution
- The average APC level was calculated at €1,059.
 36.4% of the APCs was lower than €1,000, none was higher than €2,000. No discounts were reported

Table 31: overview payment data for APC-OA journals by tue authors

Articles in APC OA journals		
Payment APC for OA journal (total answers)	12	
Don't remember/ don't know	1	8.3%
Research grant from research funding organisation	5	41.7%
Open Access fund (NWO; EU)	0	0.0%
Budget of our research unit	4	33.3%
Co-author of another university/ institution	1	8.3%
Myself (private payment)	1	8.3%
A combination of the above	0	0.0%
Was not paid because it was waived	0	0.0%
Other	0	0.0%
APC level (total answers)	11	
<€500	2	18.2%
€500 - €1,000	2	18.2%
€1,000 - €1,500	6	54.5%
€1,500 - €2,000	1	9.1%
€2,000 - €3,000	0	0.0%
>€3,000 euro	0	0.0%
 Average (€)		€1059
Discounts (total answers)	12	
Discount received due to relationship with journal	0	0.0%
Discount due to arrangement of library	0	0.0%
Discount as result of negotiation	0	0.0%
Discount due to other reason	0	0.0%

According to the same calculations presented in table 30, 3.8% of the articles with TU/e authors were published in hybrid journals with an OA option selected by the authors. How were these APCs paid for? The results of the survey are presented in table 32. The key results are:

- 66.6% was paid by the author(s) of the TUE, using a research grant from a research funding organisation (33.3%) or the budget of their research unit (33.3%)
- In 16.7% of the cases, the APC payment has been arranged by a co-author of another institution and in 8.3% of the cases, the APC payment was waived. In 8.3%, the payment source remains unknown
- The average APC level was calculated at €1,764. 22.2% of the APCs were lower than €1,000, but 33.3% were higher than €2,000. Discounts were reported for 16.6% of the cases, because of among other reasons - the relationship of an author with the journal

Table 32: Payment data for OA articles in hybrid journals by tue authors

OA Articles in hybrid journals selected by authors

Payment APC for OA journal (total answers)	12	
Research grant from NWO, STW, EU etc.	4	33.3%
Open Access publication fund (NWO, EU)	0	0.0%
Budget of our research unit	4	33.3%
Co-author of another university/ institution	2	16.7%
Myself (private payment)	0	0.0%
A combination of the above	0	0.0%
Was not paid because it was waived	1	8.3%
Other	0	0.0%
Don't remember	1	8.3%
APC level (total answers)	9	
<€500	1	11.1%
€500 - €1,000	1	11.1%
€1,000 - €1,500	2	22.2%
€1,500 - €2,000	2	22.2%
€2,000 - €3,000	2	22.2%
> €3,000 euro	1	11.1%
Average (€)		1764
Discounts (total answers)	12	
Discount received due to relationship with journal	1	8.3%
Due to an arrangement between our library and the publisher	0	0.0%
Discount as result of negotiation	0	0.0%
Other	1	8.3%

9.3.4 Administrative efforts and procedures

For the 4.7% of the 2015 articles that were published in APC-OA journals (see table 31), the respondents indicated that the administrative efforts with regard to the APC payment took them on average 139 minutes, as is presented in table 33:

- ▶ 45.5% of the respondents indicated that it took them less than one hour
- ▶ 54.5% indicated that it took them more than one hour
- The invoice for the APC was sent to the majority of the respondents (68.8%)

Table 33: Administrative efforts regardingAPC payments for OA journals

Effort by authors (total answers)	9	
< 15 minutes	1	11.1%
15 - 30 minutes	2	22.2%
30 - 60 minutes	5	55.6%
1 - 2 hours	0	0.0%
2 - 4 hours	1	11.1%
4 - 8 hours	0	0.0%
> 8 hours	0	0.0%
Average (minutes)		50
Invoice (total answers)	12	
Not sent to author	3	25.0%
Sent directly to author	9	75.0%

For the 3.8% of the 2015 articles that were published on OA in hybrid journals through means of an OA option selected by the authors (see table 29), the respondents indicated that the administrative efforts with regard to the APC payment took them on average 86 minutes, as is presented in table 34:

- 55.5% of the respondents indicated that it took them less than one hour
- 44.5% indicated that it took them more than one hour
- All invoices for the APC were sent to the authors themselves

Table 34: Administrative efforts regarding APC-payments for OA articles in hybrid journals by TUe authors

Efforts by authors for APC=payments to hybrid journals (total answers)	9	
< 15 minutes	2	22.2%
15 - 30 minutes	3	33.3%
30 - 60 minutes	1	11.1%
1 - 2 hours	2	22.2%
2 - 4 hours	0	0.0%
4 - 8 hours	0	0.0%
> 8 hours	1	11.1%
Average (minutes)		86
Invoice	6	
Not sent to the author	0	0.0%
Sent directly to author	6	100.0%

For the 5.1% of the 2015 articles that were published on OA in hybrid journals as a result of arrangement by the library (see table 31), the respondents indicated that the administrative efforts with regard to the APC payment took them on average 35 minutes (see table 35):

- 93.3% of the respondents indicated that it took them less than one hour
- > 7.7% indicated that it took them more than one hour
- 56.3% were informed of this arrangement by the publisher, 18.8% by the library and 18.8% by other means
- 38.5% of the respondents were positive about this support by the IEC of the TU/e, 61.5% were neutral about it

Table 35: Data on OA articles in hybrid journalsresulting from an arrangement by the library

OA articles in hybrid journal as a result of arrangement by the library (IEC)

How were you informed about this Open Access option? (total answers)	16	
Don't remember/ don't know	1	6.3%
By the publisher	9	56.3%
By the library	3	18.8%
Other	3	18.8%
Effort by authors (total answers)	13	
< 15 minutes	11	84.6%
15 - 30 minutes	1	7.7%
30 - 60 minutes	0	0.0%
1 - 2 hours	0	0.0%
2 - 4 hours	0	0.0%
4 - 8 hours	1	7.7%
> 8 hours	0	0.0%
Average (minutes)		35
Rating of support in this by the library (IEC)	13	
Poor	0	0.0%
Neutral	8	61.5%
Good	5	38.5%

9.3.5 Role of OA in journal selection

Nine respondents to the GOLD dataset survey scored the role of OA in the selection of the journal on a scale of 1 to 5: 1 – no role and 5 – very important role. The results are presented in figure 22:

- 44.4% of respondents indicated that OA aspects played no or hardly any role in the selection of the journal for the article in question
- A smaller percentage (33.3%) of the respondents indicated that OA aspects played a (somewhat) important role

11 respondents to the HYBRID GOLD dataset survey scored the role of OA in the selection of the journal for the article in a similar way. The results are presented in figure 23:

- 81.8% of respondents indicated that OA aspects played no or hardly any role in the selection of the journal for the article in question
- None of the respondents indicated that OA aspects played a somewhat important role

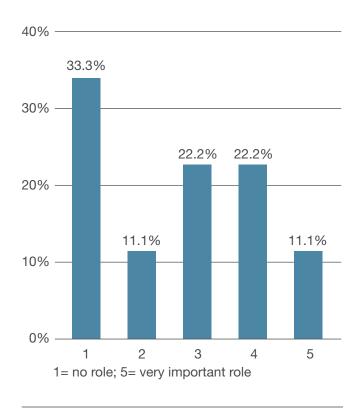
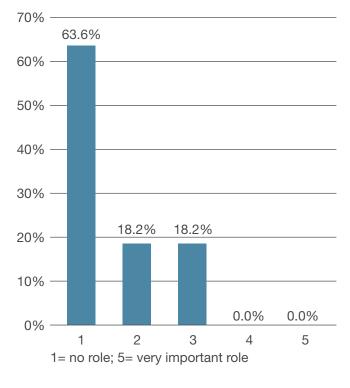


Figure 22: Role of OA in journal selection (authors of articles in OA journals)

Figure 23: Role of OA in journal selection (authors of OA articles in hybrid journals)



In the following question, respondents could choose all their reasons for selecting OA options for publishing. The results are presented in figures 24 and 25. The main results are:

- The top three reasons were: 'More exposure and wider audience for the article', 'Support for Open Access and Open Science' and 'Complete freedom to reuse, republish and distribute article'. These were chosen by similar proportions of respondents
- For authors of articles in OA journals, and for those publishing in hybrid journals, 13% and 9.1% respectively selected that they chose OA to meet the requirements of the University, 8.7% and 4.5% respectively chose OA to meet the requirements of the research funding organisation

Figure 24: Reasons for OA (authors of articles in OA journals)

To meet requirements of research evaluation procedures To meet requirements by the research funding organisation To meet the requirements by my University/ research institute Complete freedom to reuse, re-publish and distribute the article Support for Open Access/ Open Science More exposure/ wider audience for the article

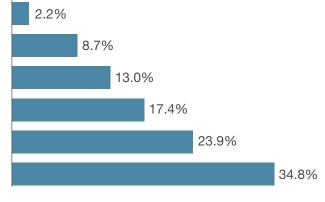
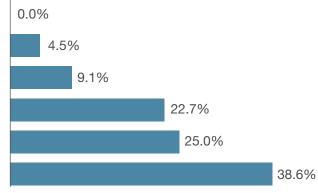


Figure 25: Reasons for OA (authors of OA articles in hybrid journals)

To meet requirements of research evaluation procedures To meet requirements by the research funding organisation To meet the requirements by my University/ research institute Complete freedom to reuse, re-publish and distribute the article Support for Open Access/ Open Science More exposure/ wider audience for the article



9.3.6 Information sources for OA

Which information sources about developments regarding Open Access do you use? The answers to this question are presented in figure 26 for the authors of articles in OA journals and in figure 27 for authors of OA articles in hybrid journals.

The results are as follows:

- The top four information sources are the same for both groups: journal websites, the library (IEC), colleagues and the scientific press, all chosen by percentages between 14.8% and 27.8%. However, the order is different for the two groups: the authors of OA articles in hybrid journals list the library (IEC) on top, while the authors of articles in OA journals mention their colleagues most frequently as a source on OA
- The research funding organisation(s) are seen by rather low percentages as an information source about OA; 7.4% for the authors of articles in OA journals, versus 14.5% for the authors of OA articles in hybrid journals

Figure 26: Information sources for OA (authors of articles in OA journals)

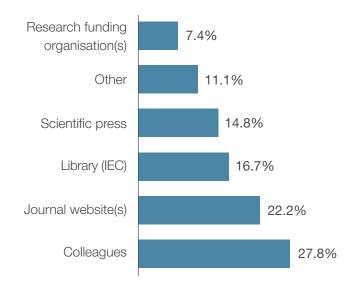
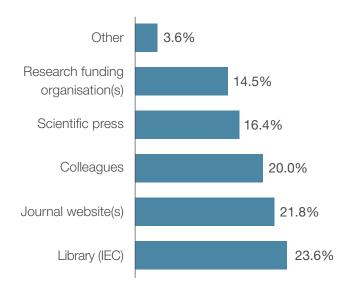


Figure 27: Information sources for OA (authors of OA articles in hybrid journals)



9.3.7 The relevancy of (potential) library services

The last question of the survey was as follows: if you plan to publish articles Open Access in the future, how could the library of the TU/e (IEC) best support you? Five options for existing or potential library services were presented, which the respondents could score on a scale from -2 (not relevant) to +2 (very relevant). Results are presented in table 36 for the authors of articles in OA journals and in table 37 for the authors of OA articles in hybrid journals. The results are as follows:

- A service showing information about Open Access options and policies proposed by the University and research funders is seen as relevant or very relevant by 76.9% and 89.3% of the two groups of respondents
- Showing the options to get discounted or free Open Access publishing that are arranged by the library is seen by 64.7% of the authors of articles in OA journals and 78.6% of the authors of articles in hybrid journals as relevant or very relevant respectively
- Support and information how to choose OA licences and on copyright issues is seen as (very) relevant by 57.7% and 75% respectively
- 'How to' manuals for making Open Access choices at publishers' websites are seen as (very) relevant by respectively 48% and 75%

Table 36: Scoring (potential) library services by authors of articles in OA journals -2 =not relevant; +2 =very relevant

Scoring (potential) library services [authors of articles in OA journals]	-2	-1	0	1	2
Information about Open Access options and policies proposed by the University, research funders etc.	0.0%	3.8%	19.2%	34.6%	42.3%
Showing the options to get discounted or free Open Access publishing options that the library has arranged	5.9%	5.9%	23.5%	23.5%	41.2%
Support and information on how to choose Open Access licences and on copyright issues	0.0%	7.7%	34.6%	30.8%	26.9%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	4.0%	12.0%	36.0%	8.0%	40.0%

Table 37: Scoring (potential) library services by authors of OA articles in hybrid journals -2 = not relevant; +2 = very relevant

Scoring (potential) library services [authors of OA articles in hybrid journals]	-2	-1	0	1	2
Information about Open Access options and policies proposed by the University, research funders etc.	3.6%	3.6%	3.6%	46.4%	42.9%
Showing the options to get discounted or free Open Access publishing options that the library has arranged	0.0%	0.0%	21.4%	28.6%	50.0%
Support and information on how to choose Open Access licences and on copyright issues	0.0%	3.6%	21.4%	42.9%	32.1%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	3.6%	0.0%	21.4%	39.3%	35.7%

9.3.8 Comments by the respondents

A selection of the respondents' comments are presented below, concerning:

Payment procedures:

- Budget was requested via the department's daily board; invoice was forwarded to our administration who handled payment
- I paid it with my personal credit card and expensed the costs to my research grant
- We paid with a personal credit card, and asked for money back
- First, I had to pay it using my private bank account, thereafter I could request this cost from the department
- First paid it myself with personal credit card and then applied for a reimbursement

The role of OA in journal selection:

- I chose PLOS one for the scope of the journal fitting our work, quality and impact factor, nothing else.
 Being Open Access didn't play any role at all
- In this case, Open Access or not was not relevant for the choice of journal
- Reputation and appropriate audience for the publication is the first selection criterion. Open Access costs are then accepted as is typical. I feel there is a need for more practical information on opportunities for recovering these costs
- Whether a journal is Open Access or not is usually not something that matters when choosing a journal for publication. Often a journal paper is a postconference paper, and there is no choice anyway which journal it will be in. If an article is published in

a journal that has an 'Open Access' option, the Information Expertise Center should make clear to the author 1. what will it cost; 2. who will pay for it and 3. how to make the publication Open Access

Suggestions for library services:

- I once attended a presentation by one of the librarians that was about this topic. I found it really helpful and therefore I think there are more things that I'm not aware of and in which the library/ information expertise centre could provide some extra help/ information
- An easily accessible helpdesk (telephone, email) for Open Access questions - in fact, I already have good experiences with this facility as the library already facilitates this

General comments on OA:

Main problem with Open Access publishing is still the lack of quality journals, equivalent to non-Open Access ones in the same field. Another problem is that OA is still in flux. We had a terrible experience recently with a publisher, which suddenly decided to discontinue the journal while we were in the middle of publishing a special issue with them. In the end, we managed to transfer the whole special issue to another OA journal because we did not wish our special issue to become part of a "dead" journal, but that transfer process was a terrible experience, both for the guest editors and the article authors who were asked to renegotiate their fee waivers. Documents also got lost. We had to get professional/ legal advice from the OA specialist at the IEC TU/e. Their continued coaching and support throughout the process has been extremely valuable, full marks

10. Roskilde University, Denmark

10. Roskilde University, Denmark

10.1 OA in Denmark⁵¹

Green OA policy nation-wide:

- Denmark's electronic research library (DEFF) is an organisational and technological collaboration between academic, research and education libraries, funded by the Danish government. The organisation negotiates most licence agreements with publishers for the Danish libraries. Danish libraries have an opt-in option. In practice, at least two to three libraries use the licences. In addition, university libraries do have also specific licences have negotiated on their own. So far, there have been no offsetting deals negotiated
- The Danish government also subsidises a platform for Danish scientific journals. Most of those are APC-free OA
- There are eight universities in Denmark, all using Pure as their CRIS system. The content of these CRIS systems is harvested for the Danish Research Database, a national database showcasing all Danish research. Using this database, a national OA indicator has been developed to monitor how many publications are OA available
- All libraries follow the Green OA policy. There is one library that manages an APC fund (University of Southern Denmark)

Research funders:

The Danish Council for Independent Research (DFF), the Danish Council for Strategic Research, the Danish National Research Foundations, the Danish Advanced Technology Foundation, and the Danish Council for Technology and Innovation have the same Green mandate policy for journal articles but not for monographs: (1) STEM – maximum embargo period six months, (2) AHSS – maximum embargo period 12 months APCs payments not allowed: the Danish research funders do not allow payments of APCs from their research grants. This guideline is generally followed by decision-makers within universities

National Steering Committee:

The National Steering Committee exists to coordinate implementation and the development of the national strategy for OA. All universities and most research funders, as well as representatives from the Ministry of Higher Education and Science take part in the committee. The ministry has set very ambitious goals for OA: in 2017 80% of all Danish research articles published in 2016 should be OA available. In 2022, 100% of the Danish articles published in 2021 should be OA available. In practice, these goals do not seem realistic and the present percentage is around 20%. The interviewee estimates that with expanded services around the CRIS systems of the university libraries, this percentage could possibly grow to 40%. The committee is presently discussing new policy options. Linked to these options, there is an ongoing discussion about how to achieve synergy with the roles of the various stakeholders in this. Such stakeholders include the ministry with regard to legislation, the research funders with regard to policies and mandates and the universities with regard to registration and research support

Footnotes

51 Based on an interview with Claus Vesterager Pedersen, Library Director, Roskilde University library; Denmark's National Strategy for OA, Ministry of Higher Education and Science, 23 July 2014.

10. Roskilde University, Denmark

10.2 OA at the Roskilde University

Roskilde University:

Roskilde University is a Danish public university. The University counts 541 academic staff, 7,647 students and 247 doctoral students (data from 2015⁵²) and four departments: Communication and Arts, People and Technology, Science and Environment and Social Sciences and Business

OA policies and registration:

- The university follows the national Green OA policy
- The library records all publications in their CRIS system (Pure), and registers if the publication is Gold OA with distinction between OA-journals, OA in hybrid journals, and OA in APC-free journals in a separate spreadsheet
- There is at the moment only one offsetting deal (Royal Society of Chemistry)
- There is a cost centre number for APC's but this is not consistently applied by the researchers

CRIS system and procedures:

- The library uses a CRIS system (Pure)
- The authors are the principal actors in this; they register their articles when submitting, change the status when the article is accepted for publication and change the status as well if the article is in press and/ or published
- The workflow is then as follows:
 - after registration, it is generally checked by the administrative officer of the research unit, and then the library receives the data through the workflow in Pure
 - the library checks the metadata and enriches them by matching the source data - they retrieve the publication electronically or in print to do this

- With regard to OA, the following actions are carried out by the library:
 - A check if the article is OA and if the licence is a CC-BY licence. With regard to hybrid articles, OA availability will be checked outside the network of the library. In addition, there are quite a few Danish and international OA journals, although sometimes it is not clear what licences are used. In these cases, the library gets in some cases in touch with the editor of the journal
 - > If OA, the full text is uploaded in to the CRIS system
 - If not OA, then Sherpa-Romeo which is connected > to Pure, and in some cases the journal's website, will be checked in order to see under which conditions it is allowed to upload a version of the article in the CRIS system (post-print or published version, embargo period and so on). If the upload of the postprint version is allowed, the library approaches the author with a tailored email. This explains the possibilities and asks for the post-print version to be submitted by the author themselves, or by the library after emailing the post-print to the library. If there is a mention of Danish research funding in the article, the policy of the research fund regarding OA is also explained in the email. The library sends this type of email systematically since over a year and gradually the response rate is increasing

Procedures regarding APCs and offsetting deals:

- Vouchers of the Royal Society of Chemistry:
 - In the first year of the voucher scheme, the licensing department informed authors published in journals of this society by email about the voucher scheme
 - Every month, a list of accepted articles in journals of the Royal Society of Chemistry is sent by the publisher. The library accepts the OA option and then informs the author
 - > There is a limited number of vouchers available, so for articles published later in the year there are often no more options for OA via this system



- Cost centre for APCs:
 - The University has created a cost centre number for APC payments. The financial department sends a copy of these payments to the library, who then record the APC amount in the spreadsheet with the Gold OA information (see above). In practice, the cost centre number is used by a minority of the authors. A very rough estimate sees this done by 10%

Communication channels:

Apart from the emails mentioned above, the library uses a number of other methods to reach out to researchers about OA. For instance, there is an OA guide on the website with a video; the library participates in meetings by Danish research funders to showcase their OA services and engage in discussions about OA; it participates in a course for PhD students; and library representatives regularly attend meetings with faculty staff

Footnotes

52 Danish Universities at http://dkuni.dk/Statistik/ Universiteternes-statistiske-beredskab 10. Roskilde University, Denmark

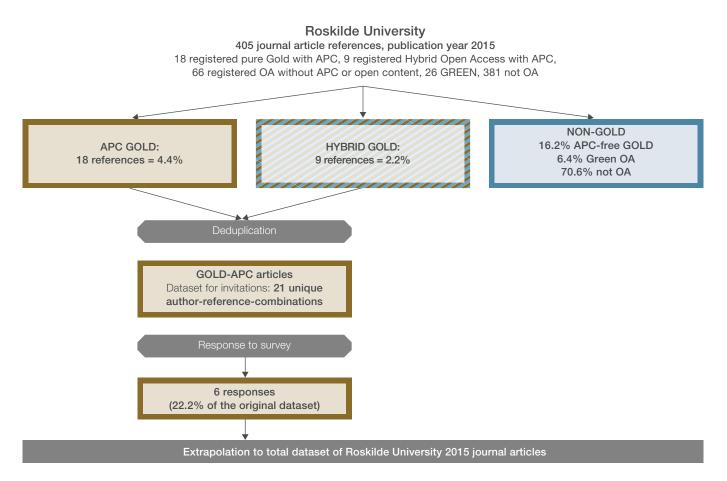
10.3 Survey results

The dataset received from the Roskilde University Library contained 18 registered APC GOLD articles (published in OA-journals with an APC) and nine references to Hybrid GOLD articles, from a total of 405 journal articles published in 2015 with authors from the Roskilde University (see also figure 28).

The type of OA, including the distinction between APC Gold, APC-free Gold, and Hybrid Gold is registered at the Roskilde University.

The authors of the APC-free Gold articles were not included in the survey, as the questionnaire was focused on the financial and administrative aspects of APCs. However, from figure 28 it is clear that the percentage of articles published in APC-free journals is considerable (16.2%). This phenomenon can be explained by various factors: Danish researchers traditionally choose Denmarkbased journals for their articles, while on a national level there are initiatives such as the Danish National OA Platform to support locally based Danish research journals to become more national, more professional and Open Access.

Figure 28: Dataset and response Roskilde University



10. Roskilde University, Denmark

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The two datasets with articles with APCs were combined and deduplicated, resulting in a dataset of 21 authors who were invited to participate: the survey ran from November 21 until December 30 with two reminders sent (December 8 and December 19).

The response rate (22.2%) is comparable with the other results. However, the number of responses (6) makes quantitative analysis impossible.

The responses to the first question are presented in table 38:

- Four of the six respondents indicated that the payment of the APC was their responsibility:
 - Three respondents indicated that there was an APC to be paid for an OA journal; one respondent indicated that these costs were paid by his/ her research department at the Roskilde University, another respondent indicated that the APC was covered by a research grant. The third respondent did not answer this question
 - One respondent indicated that there was an APC to be paid for a hybrid journal: these costs were covered by their research grant

Table 38: Responses from the survey at Roskilde University

Responses from	the survey	at Roskilde	University
-----------------------	------------	-------------	------------

Yes, this was in an Open Access journal with publication costs: we [the author(s)] were in principle responsible for these costs and had to arrange the payment	3
Yes, we [the author(s)] chose the Open Access option in this subscription journal, were thus in principle responsible for these costs and had to arrange the payment	1
No, this is an article in an Open Access journal without publication charges for the authors	0
No, there was no responsibility for these costs for the authors, the Open Access option in this subscription journal was based on an arrangement between the library and the publisher	1
I don't know if there were any costs involved: this is an article that has been taken care of by a co-author from another institution outside my University	1

11.1 Growing importance of OA in scholarly journal publishing

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The overview of the entire scholarly journal landscape (see chapter 2) showed that about one third of the active scholarly journal titles are OA journals, while another third are hybrid journals.

It is clear from the interviews and the surveys for this study that the most important factors in selecting a journal for article publication is the match between the article and the journal in terms of content, quality, and the audience to be reached. The fact that one third of scholarly journals are now OA means that the outcome of this selection process for a given article will frequently be an OA journal, even when the authors are not explicitly interested in OA. These authors are then confronted with APC costs. This phenomenon – in accordance with evolving requirements of universities and/ or research funding organisations regarding OA – makes an efficient and effective organisation of the financial and administrative aspects of APC payments increasingly critical.

Against this background, this study made an inventory of the authors' perspectives on the financial and administrative aspects of APC payments. This was done by engaging the authors of 2015 journal articles at six research organisations in six Knowledge Exchange countries. In this chapter, an overview of the results, conclusions and possible recommendations are presented.

11.2 OA journal articles with publication year of 2015

Table 39 provides an overview of 2015 journal articles that were published on Open Access by university/ institution. These results show the following:

Over 10% of articles were published on OA:

In the six research organisations the percentage of 2015 OA journal articles were all above 10% and for four research organisations above 20% of the articles

were OA, despite the very different OA policies that are locally and nationally in place.

APC-funds increase articles in APC-OA journals:

At two research organisations with Open Access publication funds, the proportion of APC-OA journal articles is above 10% (Glasgow with 11.5% and Göttingen with 15.5%). Inria, which also has a limited OA publication fund, has a lower percentage of APC-OA articles (4.7%). The percentages of APC-OA articles at the other three research organisations without APC-funds are also below 10%.

Danish policy regarding APC-free OA journals is effective:

The Danish policy with regard to APC-free OA journal seems successful with 16.3% of the 2015 articles by the authors of the Roskilde University published in this type of journals. The low percentage of these type of journal articles by Göttingen authors is likely due to the bias of the dataset used. This is because it was derived from the Web of Science, and so had less coverage of the humanities and social sciences.

Policy of APC-fund and/ or offsetting deals crucial for OA articles in hybrid journals:

The percentages of OA articles in hybrid journals are generally lower than 5% if the authors themselves have to select this OA option and thus pay for the APC involved. However, the total percentages of OA articles in hybrid journals are above the 10% level at two universities. At the Technical University of Eindhoven (11.8%) this is mostly as a result of offsetting deals, while at the University of Glasgow (16.6%) this is because of a combination of active funding of APCs for articles in hybrid journals, plus offsetting deals.

Ι

Table 39: Overview 2015 OA journal articles

	Roskilde University	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
Articles in OA journals arranged by own authors	n/a	12.1%	7.6%	17.3%	4.6%	16.9%
In APC-OA journals	4.4%	8.3%	4.7%	15.5%	2.5%	11.5%
In APC-free OA journals	16.3%	3.8%	2.9%	1.8%	2.1%	5.5%
Other articles in OA journals (type of journal unkr	iown)					
Arranged by co-author outside university	n/a	3.0%	2.2%	0.5%	0.6%	
Unknown to respondent		1.1%	0.2%	0.5%	0.2%	
Total articles in OA journals	20.7%	16.2%	10.0%	18.3%	5.4%	17.0%
OA articles in hybrid journals by own authors or library	2.2%	4.2%	1.1%	5.3%	8.9%	16.5%
OA option in hybrid journal selected by author		3.5%	0.7%	4.4%	3.8%	11.0%
OA option in hybrid journal arranged by library		0.7%	0.4%	0.9%	5.1%	5.6%
Other OA articles in hybrid journals (further detail	s unknown)					
Arranged by co-author outside university	n/a	n/a	n/a	n/a	1.0%	
Unknown to respondent		n/a	n/a	n/a	1.9%	
Unknown/ arranged by co-author outside university (OA; OA hybrid)						5.2%
% OA articles in hybrid journals	2.2%	4.2%	1.1%	5.3%	11.8%	16.6%
Total OA articles	22.9%	20.4%	11.1%	23.6%	17.2%	38.6%
Financial support for APCs	APCs are discouraged	No separate financial support for APCs; some membership deals	APC-fund for OA journals; Hybrid Gold discouraged	APC-fund for OA journals; Hybrid Gold discouraged	No separate financial support for APCs; number of offsetting deals	APC-funds for OA journals and hybrid journals; number of offsetting deals

11.3 APC payments

Table 40 presents an overview of the data on the sources of APC payments at five research organisations. Table 41 shows the levels of APCs and their discounts as reported by the respondents. These data lead to the following conclusions:

Effects of APC-funds on author-controlled discretionary funds⁵³:

- The use of author-controlled discretionary funds (research grant and/ or budget of the research unit) for financing the APCs varies from 11% to 75%. For the research organisations without an APC-fund, the percentages are the highest: 58.5% (University of Helsinki) and 75% (Technical University Eindhoven)
- The APC-funds of Inria, Göttingen and Glasgow clearly influence the way APCs are paid to OA-journals: these OA funds are used to finance APCs for respectively 25%, 76.5% and 35% of articles. The use of authorcontrolled discretionary funds (research grants or budgets of research departments) to pay these APCs is much lower at these research organisations than at the other participating organisations. This points clearly to a replacement effect of APC-funds whereby researchers use them instead of their own discretionary funds; this is a logical effect in view of the opportunity costs that were mentioned in the interviews (see paragraph 4.2). However, it is also clear from both the figures and the interviews that APC-funds do stimulate and facilitate OA publishing as well⁵⁴
- The policy of APC-funds has a very clear effect on the number of hybrid OA publications: only Glasgow finances APCs for articles in hybrid journals. 47.2% of the OA articles in hybrid journals by Glasgow authors are funded by the APC-funds of the library, leading to the highest percentage of OA articles in hybrid journals of all participating research organisations (16.6%)

Private payments by authors show flaws in the system:

In three surveys, authors reported to have paid the APC for the OA journals privately (6.5% in the Helsinki survey; 2.9% in the Göttingen survey and 4.2% in the Inria one). Also, several authors commented in the interviews or in the survey about a period of uncertainty regarding the funding of the APC after acceptance of a paper, often taking the financial risk personally.

Discounts are quite normal:

A rather surprising result of this study is that discounts on APCs are not an exception. Respondents report discounted APCs for OA-journals in up to 16% of the cases in Helsinki, while discounted APCs for hybrid journals are also regularly reported up to similar percentages at Eindhoven and Glasgow. Discounts are given for many reasons: relationship with the journal, membership of the society, arrangements by the library including membership deals and so on, but also as a result of price negotiations between the authors and the publisher.

Great variation in APC-levels induces price sensitivity among authors:

- The respondents report great variation in APC levels: between 16% and 36% of the respondents report an APC for OA-journals lower than 1,000 euro or pounds, while others report an APC of more than 2,000 euro or pound (0% to 23.6%)
- The respondents generally reported a lower APClevel for OA journals than for hybrid journals, which is corroborated by other data in the literature
- Due to the large variation in APCs and the increasing experience of respondents with this, quite a number of comments by the respondents show an increasing price sensitivity to APCs

Footnotes

- 53 Discretionary funds = funds at the discretion of those who control it.
- 54 Both findings the stimulating and the replacement effects of APC-funds - are corroborated by the findings of the evaluation of the FP7 Post-Grant OA Pilot. 33.1% of the authors benefitting from this funding programme indicated that they would, either probably or definitely, have made their publication Open Access anyway. Thus the subsidy replaced the financing by their own discretionary budgets. Meanwhile 43.6% indicated that they would probably or definitely have switched to a subscription-only journal (the stimulating effect). For more information, see chapter 5.6 of the annex to the study 'Towards a competitive and sustainable OA market in Europe - a study of the Open Access market and policy environment'; this is a report commissioned by OpenAIRE on behalf of the European Commission written by Rob Johnson, Mattia Fosci, Andrea Chiarelli, Stephen Pinfield and Michael Jubb; Research Consulting; to be published in 2017.

Table 40: Overview of APC payments

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	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
Articles in APC OA journals					
Payment APC for OA journal					
Research grant from research funding organisation	32.5%	16.7%	8.8%	41.7%	16.7%
Budget of our research unit	26.0%	12.5%	2.9%	33.3%	16.7%
Use of author-controlled discretionary funds (research grant plus budget research unit)	58.5%	29.2%	11%	75%	33.4%
APC-funds	5.2%	25.0%	76.5%	0.0%	35.4%
Co-author of another university/ institution	13.0%	29.2%	0.0%	8.3%	12.5%
Myself (private payment)	6.5%	0.0%	2.9%	8.3%	0.0%
A combination of the above	5.2%	4.2%	2.9%	0.0%	0.0%
Nas not paid because it was waived	5.2%	4.2%	2.9%	0.0%	2.1%
Other	1.3%	0.0%	2.9%	0.0%	4.2%
Don't remember/ don't know	5.2%	8.3%	0.0%	8.3%	10.4%
OA Articles in hybrid journals selected by authors					
Payment APC for OA article					
Research grant from research funding organisation	45.8%	n/a	66.7%	33.3%	27.8%
Budget of our research unit	12.5%	n/a	22.2%	33.3%	8.3%
Use of author-controlled discretionary funds (research grant plus budget research unit)	58.3%		88.9%	66.6%	36.1%
APC-funds	0.0%	n/a	n/a	0.0%	47.2%
Co-author of another university/ institution	8.3%	n/a	0.0%	16.7%	8.3%
Myself (private payment)	8.3%	n/a	0.0%	0.0%	0.0%
A combination of the above	4.2%	n/a	0.0%	0.0%	2.8%
Nas not paid because it was waived	8.3%	n/a	0.0%	8.3%	0.0%
Dther	8.3%	n/a	11.1%	0.0%	2.8%
Don't remember/ don't know	4.2%	n/a	0.0%	0.0%	5.6%

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Table 41: Data on APC levels and discounts received

	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
Articles in APC OA journals					
APC level					
Less than 1000 (euro or pound)	16.1%	23.5%	26.1%	36.4%	25.0%
1000 to 2000 (euro or pound)	67.7%	52.9%	56.5%	63.6%	53.1%
More than 2000 (euro or pound)	14.5%	23.6%	4.3%	0.0%	21.9%
Average (euro or pound)	€1,441	€ 1,596	€ 1,337	€ 1,059	£1,504
Discounts					
Discount received due to relationship with journal	7.8%	8.3%	0.0%	0.0%	2.1%
Discount due to arrangement of library	3.9%	4.2%	8.8%	0.0%	0.0%
Discount as result of negotiation	1.3%	0.0%	0.0%	0.0%	4.2%
Discount due to other reason	3.9%	0.0%	2.9%	0.0%	0.0%
Total discounted APCs	16.9%	12.5%	11.7%	0.0%	6.3%
OA Articles in hybrid journals selected by authors					
APC level					
Less than 1000 (euro or pound)	23.1%	n/a	33.3%	22.2%	5.3%
1000 to 2000 (euro or pound)	15.4%	n/a	0.0%	44.4%	57.9%
More than 2000 (euro or pound)	53.9%	n/a	44.4%	33.3%	42.1%
Average (pound or euro)	€1,767	n/a	€ 1,657	€ 1,764	£1,900
Discounts					
Discount received due to relationship with journal	0.0%	n/a	0.0%	8.3%	2.8%
Discount due to arrangement of library	0.0%	n/a	0.0%	0.0%	2.8%
Discount as result of negotiation	0.0%	n/a	0.0%	0.0%	0.0%
Discount due to other reason	4.2%	n/a	0.0%	8.3%	11.1%
Total discounted APCs	4.2%	n/a	0.0%	16.6%	16.7%

11.4 Administrative efforts and issues

The data on administrative efforts by the authors concerning the procedures around invoices of APCs and offsetting deals are shown in table 42. The main results are:

Administrative efforts for authors regarding APCs take too long:

If one considers a maximum of one hour of administrative efforts for authors acceptable, the calculated average of time spent on administrative efforts by the respondents is clearly too high. For Helsinki and Inria the average time spent on administrative efforts regarding APCs for OA journals is higher than 60 minutes, while at the other research organisations considerable percentages of people claim that it took them more than one hour. For APCs for hybrid journals, the results are comparable.

Administrative efforts for authors to partake in offsetting deals are negligible:

The administrative efforts by authors to make use of OA in hybrid journals as a result of library arrangements is minimal. However, the information about these OA publishing options deserves attention. Some of the authors were informed by the library and others by the publisher, which indicates that a clearer way of communicating with authors might be found.

Invoices of APCs are generally sent to the authors themselves:

Large majorities of the authors do report that they received the invoices themselves. However, the procedures developed by INTACT call for central processing of invoices (see chapter 2). This can be achieved by setting up framework arrangements or prepaid arrangements with publishers. Clearly, these kinds of arrangements were only partly in place for the 2015 journal articles studied here.



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Table 42: Administrative efforts and issues

	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
APCs for OA-journals					
Less than 1 hour	68.7%	45.5%	92.5%	88.9%	82.3%
Average (minutes)	62	139	33	50	51
Invoice sent directly to author	84.6%	68.8%	37.0%	75.0%	63.3%
APCs for hybrid journals					
Effort by authors					
Less than 1 hour	87.6%	n/a	87.5%	66.6%	77.5%
Average (minutes)	75	n/a	42	86	55
Invoice sent directly to author	76.5%	n/a	83.3%	100.0%	63.2%
OA in hybrid journals due to library arrangement					
How were you informed about this Open Access option?					
Don't remember/ don't know	n/a	n/a	n/a	6.3%	5.9%
By the publisher	n/a	n/a	n/a	56.3%	35.3%
By the library	n/a	n/a	n/a	18.8%	47.1%
Other	n/a	n/a	n/a	18.8%	11.8%
Effort by authors					
Average (minutes)				35	27
Less than 1 hour				92.3%	82.4%

11.5 Role of OA in journal selection and reasons for OA

Table 43 shows the data relating to the role of OA in the journal selection process. The main conclusions are:

In about one third of cases, aspects of OA did play a role in the journal selection of those articles that were eventually published in OA journals:

23% to 37% of the respondents indicated that the OA aspects played an important or very important role in journal selection.

In a similar proportion of cases, OA aspects did *not* play a role in the journal selection of those articles that were eventually published in OA journals.

Percentages from 16% to 44% of the respondents stated that OA played no or hardly a role in the journal selection. Here, the match between article and journal appears to have played the primary role, while the fact that the outcome of the selection process was an Open Access journal was not seen as important by the authors.

OA aspects hardly play a role in the journal selection for articles that were published on Open Access in hybrid journals:

In the two surveys that could measure this, 59% (Helsinki) and 82% (Eindhoven) of the respondents indicated that OA played no important role in the journal selection. 0% of the Eindhoven respondents and 9% of the Helsinki respondents stated that OA aspects did play a role in selecting the journal for publication.

Two practical reasons top the list for OA publishing:

What are the reason for publishing Open Access? There are two practical reasons for OA publishing according to the respondents: more exposure/ wider audience for the article is the top reason, followed closely by the complete freedom to reuse, republish, and distribute your article.

Ideology is important too:

Many respondents also indicated an ideological reason: support for Open Access/ Open Science

Requirements for OA play an increasing role.

The effects of requirements by research funding organisations, universities and/ or research evaluation exercises become (increasingly) visible in the reasons for OA given by the authors: the Glasgow authors score the highest on these three reasons, as the policies in the UK are in this respect the most advanced. In summary, authors do see intrinsic reasons to publish on Open Access, but policy measures and requirements are additional drivers to such thinking.

Footnotes

55 Glasgow figures are shown in a different colour to indicate that these percentages include the results for OA articles in OA journals and in hybrid journals combined.

Table 43: Overview of the role of OA in journal selection and reasons for OA⁵⁵

	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
Role of OA in journal selection (authors of articles in OA journa	als)				
No or small role	35.90%	42.30%	16.10%	44.40%	41.50%
(Very) important role	35.90%	23.10%	54.80%	33.30%	36.90%
Reasons for OA					
More exposure/ wider audience for the article	35.00%	38.20%	37.20%	34.80%	24.80%
To meet the requirements of the research funding organisation	8.60%	1.30%	3.50%	8.70%	20.90%
To meet the requirements of my University/ research institute	9.00%	2.60%	3.50%	13.00%	12.80%
To meet the requirements of research evaluation procedures	5.60%	1.30%	0.00%	2.20%	9.60%
Complete freedom to reuse, re-publish and distribute the article	19.90%	27.60%	27.90%	17.40%	12.80%
Support for Open Access/ Open Science	21.80%	28.90%	27.90%	23.90%	19.10%
Role of OA in journal selection (authors of OA articles in hybrid	d journals)				
No or small role	59.10%	n/a	Too few respondents	81.80%	
(Very) important role	9.10%	n/a	Too few respondents	0.00%	
Reasons for OA					
More exposure/ wider audience for the article	30.60%	n/a	Too few respondents	38.60%	
To meet the requirements of the research funding organisation	14.50%	n/a	Too few respondents	4.50%	
To meet the requirements of my University/ research institute	12.90%	n/a	Too few respondents	9.10%	
To meet the requirements of research evaluation procedures	8.10%	n/a	Too few respondents	0.00%	
Complete freedom to reuse, re-publish and distribute the article	14.50%	n/a	Too few respondents	22.70%	
Support for Open Access/ Open Science	19.40%	n/a	Too few respondents	25.00%	

11.6 Information sources on OA

There is an overview of information sources on OA used by authors in table 44. The main results are:

Libraries are not (yet) generally a logical information source on OA for authors:

- The Glasgow University library is very active with services with regard to Open Access publishing, including an active APC-fund. This has resulted in that authors of Glasgow list the library as the top information source about OA
- This is not the case for the libraries of the other research organisations: they are much less frequently mentioned as an information source about OA. One might draw the conclusion that libraries are not yet generally seen as a logical service and support partner for OA publishing by many researchers. Libraries will have to seize this role.

Publishers form an important source of information:

Journal websites are mentioned by many researchers as an important source of information on OA. This leads to the recommendation that in membership deals with OA publishers and in offsetting deals with subscription journal publishers, libraries should include arrangements by publishers to inform potential authors of about these arrangements, for example on the journal website and/ or as part of the submission procedure.

Footnotes

56 As before, Glasgow figures are shown in another colour to indicate that they show OA articles in both OA journals and in hybrid journals.

Table 44: Information sources on OA⁵⁶

	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
Information sources about OA (authors of articles in OA journals))				
Scientific press	22.0%	25.0%	22.8%	14.8%	14.0%
Research funding organisation(s)	9.4%	6.3%	5.4%	7.4%	18.7%
Journal website(s)	27.3%	25.0%	25.0%	22.2%	20.9%
Library	15.0%	9.4%	15.2%	16.7%	23.4%
Colleagues	23.1%	27.1%	26.1%	27.8%	19.4%
Other	3.1%	7.3%	5.4%	11.1%	3.6%
Information sources about OA (authors of OA articles in hybrid jo	ournals)				
Scientific press	22.2%	n/a	Too few respondents	16.4%	
Research funding organisation(s)	14.3%	n/a	Too few respondents	14.5%	
Journal website(s)	27.0%	n/a	Too few respondents	21.8%	
Library (IEC)	11.1%	n/a	Too few respondents	23.6%	
Colleagues	20.6%	n/a	Too few respondents	20.0%	
Other	4.8%	n/a	Too few respondents	3.6%	

11.7 Potential library services for OA publishing

In table 45, an overview is given of the relevancy ratings given by the respondents to the surveys on a number of potential library services for OA publishing. The main results are:

APC-funds are popular:

The existing APC-funds are seen as attractive or very attractive by the majority of respondents⁵⁷.

Information services on discounted APCs and on OA options are relevant:

- A service that shows the option to get discounted or free Open Access publishing options that the library has arranged, is also seen as attractive by large majorities of the respondents
- The same is true for a service that gives information about Open Access options and policies proposed by the University, research funders and so on

The other two proposed services - although seen by majorities of the respondents as relevant - score lower. These were: supporting information on how to choose Open Access licences and on copyright issues; and 'how to' manuals for making OA choices on publishers' websites when the paper is accepted.

Footnotes

57 This question was only asked in the service of those research organisations that had an APC fund. Asking this question of authors at other research organisations could create false expectations.

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Table 45: Relevancy of (potential) library services for OA publishing

	University of Helsinki	Inria	University of Göttingen	Technical University Eindhoven	University of Glasgow
Ratings of (potential) library services by authors of articles in OA journals (% relevant or very relevant)					
With the existing APC-fund for accepted papers	n/a	95.7%	92.1%	n/a	88.4%
Showing the options to get discounted or free Open Access publishing options that the library has arranged	85.0%	93.5%	86.8%	64.7%	87.8%
Information about Open Access options and policies proposed by the University, research funders etc	80.3%	70.5%	73.0%	76.9%	82.6%
Support and information on how to choose Open Access licences and on copyright issues	63.6%	69.6%	60.5%	57.7%	77.0%
'How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	51.9%	62.2%	64.9%	48.0%	66.1%
Ratings of (potential) library services by authors of OA articles in hybrid journals (% relevant or very relevant)					
With the existing APC-fund for accepted papers	n/a	n/a	n/a	n/a	
Showing the options to get discounted or free Open Access publishing options that the library has arranged	96.6%	n/a	n/a	78.6%	
Information about Open Access options and policies proposed by the University, research funders etc	81.5%	n/a	n/a	89.3%	
Support and information on how to choose Open Access licences and on copyright issues	71.4%	n/a	n/a	75.0%	
How to' manuals for making Open Access choices at publishers' websites when the paper is accepted	64.3%	n/a	n/a	75.0%	

11.8 Final observations and recommendations

11.8.1 OA policies

In table 46, there is a non-exhaustive list of OA policy options for the various stakeholders at national level, research funders, and research organisations.

This list will serve as guidance on some final observations and recommendations formulated below on general OA policies:

- Requirements by research funders, research organisations and/ or research evaluation procedures with regard to Open Access clearly influences authors and form reasons for OA, in addition to more intrinsic reasons for OA (such as more exposure for the article and complete freedom to re-use the article)
- APC-free journals: The Danish policy of stimulating APC-free OA journals have had a demonstrable effect on the proportion of articles published in this type of journal by the authors of the Roskilde University

APC-funds:

- The fact that one third of the journals are now OA journals means selection of an OA journal will frequently be the outcome of this journal selection process, even where these authors are not particularly interested in OA. These authors are then confronted with the cost of an APC
- The costs of APCs form an important obstacle for authors to publish on Open Access. Although many authors have budgets at their disposal (author-controlled discretionary funds), the use of these induce so-called opportunity costs (ie the loss of other alternatives to spend the money on). Therefore APC-funds are seen as highly relevant by the authors that responded to surveys in this study

Table 46: Overview of OA policy options See also 58, 59, 60

Research funders' policy options	Remarks
Mandate OA with maximum embargo periods	Standard embargo periods: STM 6 months; AHSS 12 months
Follow-up polices: deposit check, relationship with research evaluation system/ merit system	
APC Payment out of grant allowed	Variations: only for APC- gold; also for hybrid journals
APC-fund for post-grant publications (variations: only for APC-gold; also for hybrid journals)	Variations: only for APC- gold; also for hybrid journals price caps
Structural subsidies for APC-free OA journals	
Bridge grants for flipping business models subscription journals	
Research organisation policy options	3
CRIS/ Repository system with services to support authors	Usage of the CRIS data for reporting purposes, distribution of research funds and/ or research evaluation will further the coverage
APC-funds	
Membership deals (discounts on APC of APC-gold journals)	
Offsetting deals (see for descriptions of the various types table 2)	
Support in kind/ subsidies for APC-free journals	
Support and guidelines for authors with regard to Open Access and the transfer of copyright to subscription publishers	
National: Ministry for Science/ All sta	keholders
Open Access publications built in criteria for research evaluation	
Copyright legislation that preserves rights to self-deposit	

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11.8.2 APC-funds managed by libraries

Another study⁶¹ reports that focus groups with scientists demonstrated a preference for libraries to play an active coordinating role in any transition to the OA model. In this study, all libraries involved take such an active role and three of them manage an APC-fund. Based on the outcomes of the interviews and the surveys, the following is observed and recommended with regard to APC-funds:

- APC-funds have stimulating effects on Open Access publishing, but will partly replace financing by authorcontrolled discretionary funds
- An important question for libraries is when setting-up an APC-fund is how large the fund should be⁶². Based on the results of this study, the volume of an APCfund that focuses on APCs for OA journals should reflect the proportion of articles that are published in APC OA-journals by the authors of the research organisation⁶³. At the six research organisations participating in this study, the percentage of articles in APC OA-journals varied between 2.5% and 15.5%
- APCs for OA articles in hybrid journals are seen by many as 'double dipping' by publishers and are therefore discouraged by a number of organisations. However, the APC-funds at the University of Glasgow show a considerable effect on the number of OA-articles in hybrid journals
- The price caps such as those implemented by the DFG and Göttingen's APC-fund appear to work as they promote price sensitivity among researchers and stimulate negotiations with publishers

11.8.3 Arrangements between publishers and the library

With regard to arrangements between publishers and the library, the following observations and recommendations can be made:

- Offsetting deals appear to be effective in stimulating Open Access publishing by authors who otherwise might not publish their articles on Open Access. In addition, the administrative burden of offsetting deals for authors is negligible
- In view of the importance of journal websites and the submission procedures for informing authors, libraries should ensure they offer clear information and procedures as part of offsetting and membership deals

Footnotes

- 58 B. Björk, B., and Solomon, D. (March 2014) Developing an effective market for Open Access article processing charges.
- 59 B Björk, Laakso, M. and Solomon, D.J. (2016) Converting scholarly journals to Open Access: a review of approaches and experiences; Harvard library.
- 60 Earney, L. (2015).
- 61 Pay It Forward; investigating a sustainable model of Open Access article processing charges for large North American research institutions (30 June 2016) University of California libraries.
- 62 SPEC Webinar (youtube.com/watch?v=hPC0wMSwcfs&featur e=youtu.be) of Funding Article Processing Charges; Association of Research Libraries.
- 63 Some APC-funds are block-grants from research funders managed by libraries (eg Glasgow) and thus the size of these block grants is not controlled by the library.

11.8.4 Administrative issues

With regard to administrative issues around OA publishing and in particular APC funding, the following recommendations can be made:

- The financial administration of APCs should take the author less than one hour per article
- Corresponding authors should be listed in CRIS systems as they form the basis for OA financial issues
- Although in the large majority of cases corresponding authors appear to be responsible for the payment of the APC, there are exceptions to this rule with researchers/ research units sharing the costs; administrative procedures should allow for such exceptions
- The registration of various types of OA (APC-OA, APC-hybrid, APC-free and green) in the CRIS system is crucial for monitoring OA policies, for the financial administration of APCs and for the management and control of offsetting deals and membership deals
- Central invoicing, a central tenet of the proposed INTACT procedures, could potentially lessen the administrative burden for the authors and has to be realised by framework and/ or prepayment arrangements with publishers

11.8.5 Communication strategy

With regard to communicating OA options and developments to the community of researchers, the following observations and recommendations are made:

A communication channel about Open Access developments and options that is used by the large majority of researchers does not exist: researchers currently use a mixture of communication channels that are managed/ operated by different stakeholders: publishers, research funders, universities, and libraries. The use of terminology now differs greatly among the various stakeholders and adds to the confusion about the many options and policies. Some publishers complicate things further by offering many options for OA publishing and using their own terms for these options. From this study, it becomes clear that journal websites and article submission procedures are much-used information sources by authors alongside other information sources. An optimal communication strategy about OA includes a harmonisation and convergence of the terminology of OA options and by all stakeholders. Libraries may take a leading role in developing such standardised terminology

- Libraries are not generally seen as a logical information source on OA publishing by authors.
 Libraries must assume this role. The management of an APC fund by a library clearly helps to develop this role in the eyes of researchers
- An information service about Open Access policies and options is seen as relevant by many respondents in this study. As the current OA context in the six countries differ considerably, it is recommended that groups of libraries in each country cooperate in order to develop such a service together
- For many authors/ researchers, OA subtleties such as the various types of licences are seen as sideshows distracting from their work. Therefore, it is recommended that libraries offer more directive advice about what OA licence to use in what circumstances

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