

# Decrypting the Big Deal Landscape

## Follow-up of the 2019 EUA Big Deals Survey Report

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# Introduction

As of 2017, the European University Association (EUA) assembled a unique collection of ‘Big Deals’ data on agreements between scholarly publishers and (national) consortia of libraries, universities and research organisations. This was carried out in the light of mounting higher education institution concerns about the increasingly unsustainable cost of subscriptions to scholarly publications. In 2016, EUA committed to “establishing an evidence base about current agreements and on-going negotiations with publishers in collaboration with NRCs”.<sup>1</sup> Subsequently, data collected by EUA has served as the basis for two reports released in 2018 and 2019, respectively.<sup>2</sup>

Big Deals now receive increased attention due to their potential to ‘flip’ entire segments of the scholarly publication market from closed to open access publications. Big deals have also been widely criticised for locking-in library budgets, due to constantly increasing subscription costs. The *2019 EUA Big Deals Survey Report* surveyed covered 30 European countries and found that over €1 billion is spent on electronic resources each year, including at least €726 million spent on periodicals alone.

Big Deals are said to limit competition and innovation in the scholarly publishing system<sup>3</sup> and curb universities’ and consortia’s financial freedom to pursue other priorities. However, recently, several European negotiating consortia and scholarly publishers have concluded Big Deals that allow eligible authors to publish articles in open access formats in specific journals. Known as ‘transformative agreements’, these contracts are also supported as one way to comply with future funder requirements that will apply as of 2021 under Plan S.<sup>4</sup>

In a system that is largely defined by Big Deals, this report aims to inform the transition to open access debate, by providing additional insights and indicators on these agreements’ costs, publication volumes and timelines. This has been achieved by placing EUA Big Deals data into context.

1 European University Association (2016). *EUA Roadmap on Open Access to Research Publications*. <https://eua.eu/resources/publications/627:eua-roadmap-on-open-access-to-research-publications.html>

2 Morais, R., Stoy, L., and Borrell-Damian, L. (2019). *2019 Big Deals Survey Report. An Updated Mapping of Major Scholarly Publishing Contracts in Europe*. <https://www.eua.eu/resources/publications/829:2019-big-deals-survey-report.html>; Morais, R., Bauer J., and Borrell-Damian, L. (2018). *EUA Big Deals Survey Report - The First Mapping of Major Scientific Publishing Contracts in Europe*. <https://www.eua.eu/resources/publications/321:eua-big-deals-survey-report-the-first-mapping-of-major-scientific-publishing-contracts-in-europe.html>

3 For example, see the: Directorate-General for Research and Innovation (2006). *Study on the economic and technical evolution of the scientific publication markets in Europe*. <https://publications.europa.eu/en/publication-detail/-/publication/1058c2f8-5006-4d13-ae3f-acc6484623b9>

4 See cOAlition S (2019). *Principles and Implementation*. <https://www.coalition-s.org/principles-and-implementation/>

Specifically, this report uses aggregate data obtained from the Web of Science by Clarivate Analytics provided by the German Competence Center for Bibliometrics<sup>5</sup> and correlates it with EUA data on Big Deals. This bibliometric research data set includes information about the corresponding authors of journal articles available in the Web of Science broken down by publishers and countries of affiliation. EUA has re-used this data to **combine country-level publication numbers with country-level Big Deal expenditures**. This information is usually available to a particular consortium, institution or publisher, but this report provides a previously unavailable comparative analysis of 26 European countries.

The present report is divided into five sections that provide new angles on the data to increase the transparency of the financial flows within the scholarly publication system and, hopefully, to expand understanding of the market and its dynamics.

Part 1 explains the methods used to obtain the underlying data as well as limitations and responsible use of the data.

Part 2 links the publication outputs of journal articles and reviews to the large five publishers' market share. It seeks to provide a bigger picture of the relation between subscription costs and publishing output.

Part 3 sets out an analysis of the price-per-article for each country and publisher, calculated on the basis of subscription prices and publication volume. It provides European negotiators with comparative Big Deals price per article data in 26 countries.

Part 4 takes a closer look at the timeline of Big Deal agreements collected by the EUA Big Deals Survey. It shows that the 2018-2020 period is crucial for negotiations with scholarly publishers (in terms of market volume). Negotiations that occur during this time may also be crucial for the further development of 'transformative' agreements and therefore compliance with Plan S requirements.

Part 5 provides a brief summary of our main findings, contextualises them with current developments and provides policy recommendations.

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<sup>5</sup> Jahn, N. (2019). *Global Publishing Output from Corresponding Authors 2014 - 2018 (Version 0.1)* [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.3484568>

# 1 Methodology, data and limitations

## 1.1 DATA FROM THE 2019 EUA BIG DEALS SURVEY REPORT

The most recent EUA Big Deals Survey covered 31 consortia in 30 European countries negotiating on behalf of the university sector and other higher education and research organisations, including research institutes and hospitals. This data was anonymised and aggregated in line with the survey's confidentiality policy and to avoid the identification of individual consortia. Most data concerned Big Deal contracts from 2017 and, partially, 2018. The Big Deals Survey methodology is explained in more detail in the *2019 EUA Big Deals Survey Report*.<sup>6</sup>

Parts 3 and 4 used 145 individual contracts from 26 countries containing data on the subscription costs for five large scientific publishers: Elsevier, Springer Nature, Taylor & Francis, Wiley, and the American Chemical Society (ACS). The prices reported for these publishers were paid for subscriptions to periodicals and do not include other services such as databases, e-books, article processing charges or other tools and resources.

Part 5 used a partially different sample of 126 contracts, based on the completeness of data about contract costs and durations.

The country codes displayed in this report follow the same number as the two previous EUA Big Deals Reports. Since not all 30 consortia are used in this report, several numbers are missing.

## 1.2 DATA ON JOURNAL ARTICLES AND REVIEWS

The underlying data set consists of scholarly articles and reviews indexed in Web of Science. 2017 data was used, corresponding to most of the contracts covered by the EUA Big Deals Survey.

The dataset was prepared using the in-house Web of Science database belonging to the German Competence Center for Bibliometrics. This data was enriched with publisher information from CrossRef, a large DOI registration agency for scholarly work.<sup>7</sup> The full open access status of journals was checked using the *Bielefeld GOLD OA List v3*.<sup>8</sup> A full description of the dataset, underlying methods and other use cases are available on GitHub.<sup>9</sup>

6 Morais, R., Stoy, L., and Borrell-Damian, L. (2019). *2019 Big Deals Survey Report. An Updated Mapping of Major Scholarly Publishing Contracts in Europe*. <https://www.eua.eu/resources/publications/829:2019-big-deals-survey-report.html>

7 The data collection follows methods employed by Palzenberger, M. (2015). *Number of Scholarly Articles per Country*. <http://hdl.handle.net/11858/00-001M-0000-0026-C292-3>

8 Bruns, A., Lenke C., Schmidt, C., & Taubert, N.C. (2019). *ISSN-Matching of Gold OA Journals (ISSN-GOLD-OA) 3.0*. Bielefeld University. <https://doi.org/10.4119/unibi/2934907>

9 <https://github.com/subugoe/oa2020cadata/blob/0.1/analysis/paper.md>

### 1.3 LIMITATIONS

It is important to be aware of certain limitations regarding the available data when reading and interpreting the analysis presented in this report. First, while the Big Deal data collected by EUA has been pivotal in increasing transparency in a notoriously opaque market, all of the numbers and figures should be considered with caution: expenditure figures are not always precise, and subscriptions vary in terms of their service levels or the degree of access provided to collections and journals. Some consortia and even individual publisher agreements apply an opt-in or opt-out mechanism, which affects institutional coverage. In short, no two Big Deals are the same, thus individual subscription price data points should not be used to draw conclusions.

However, due to the large volume of individual contracts analysed, EUA considers that the data shown in this report is broadly representative of the current landscape. Unfortunately, neither the countries, contracts nor data can be released due to existing non-disclosure agreements – an ironic symptom of the challenges involved in creating a transparent scholarly publishing system.

Second, bibliometric data also comes with caveats. The aggregated data used here does not allow conclusions about the actual costs associated with publishing a journal article or review, such as peer-review, editing, typesetting, etc. Also, subsidiaries of the main publishers may have slipped through the net as the sample included records from 986 individual publishing houses. Moreover, using Web of Science as the original data source also limits the data available to journals indexed in Web of Science, which carries biases in terms of the fields, countries and languages covered.<sup>10</sup>

Finally, historical Big Deals data provides only glimpses of the past. It should not be used, or only used with extreme caution, when it comes to projecting costs and other contract conditions beyond the duration of individual contracts. All calculations and analyses make *ceteris paribus* assumptions. However, market dynamics prevent simple predictions extrapolated from historical data.

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<sup>10</sup> See e.g. Mongeon, P. & Paul-Hus, A. (2016). "The journal coverage of Web of Science and Scopus: a comparative analysis". In *Scientometrics* 106: 213. <https://doi.org/10.1007/s11192-015-1765-5>

# 2 Publication volumes and costs

## THE BIBLIOMETRIC SAMPLE

Overall, the bibliometric sample contains data about 391,020 journal articles and reviews with corresponding authors in the 26 countries and some 220,000 from the five large publishers. The data stems from 2017. As a point of comparison, the European Union produced roughly 613,000 journal articles in 2016 according to figures produced by the National Science Foundation.<sup>11</sup>

As shown in Table 2-1, the five publishers' have a 56% share of all publications across the 26 countries. By publisher this breaks down to: 24.95% for Elsevier, 14.15% for Springer Nature, 9.43% for Wiley, 5.78% for Taylor & Francis and 2.03% for ACS.

Table 2-1 Publications per publisher

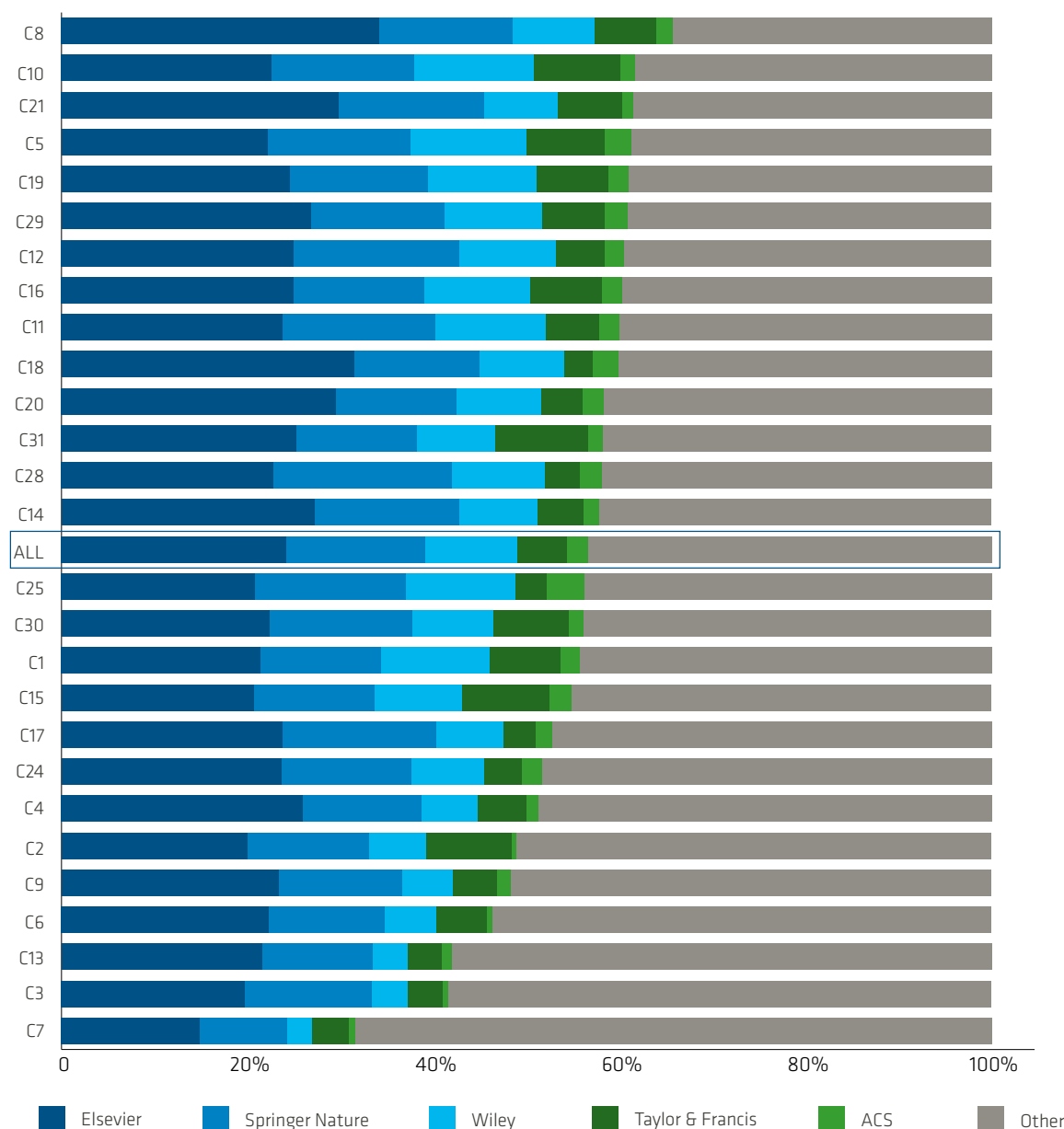
Publisher	Absolute	Percentage
Elsevier	97,580	25.0%
Springer Nature	55,332	14.2%
Wiley	36,875	9.4%
Taylor & Francis	22,610	5.8%
ACS	7,930	2.0%
<b>Subtotal</b>	<b>220,327</b>	<b>56.3%</b>
Other	170,693	43.7%
<b>Total</b>	<b>391,020</b>	<b>100.0%</b>

However, all five publishing houses have varying shares of the publications of corresponding authors in the 26 countries studied. This is further explored in Figure 2-1. Elsevier, for instance, ranges between 15% and 34%; Springer Nature between 9% and 19%; Wiley between 3% and 14%; Taylor & Francis between 3% and 10% and ACS between close to 0% and 4%.

<sup>11</sup> National Science Board. (2018). *Science and Engineering Indicators 2018*. NSB-2018-1. Alexandria, VA: National Science Foundation. Available at <https://www.nsf.gov/statistics/2018/nsb20181/>



Figure 2-1 Share of publications per publisher and country



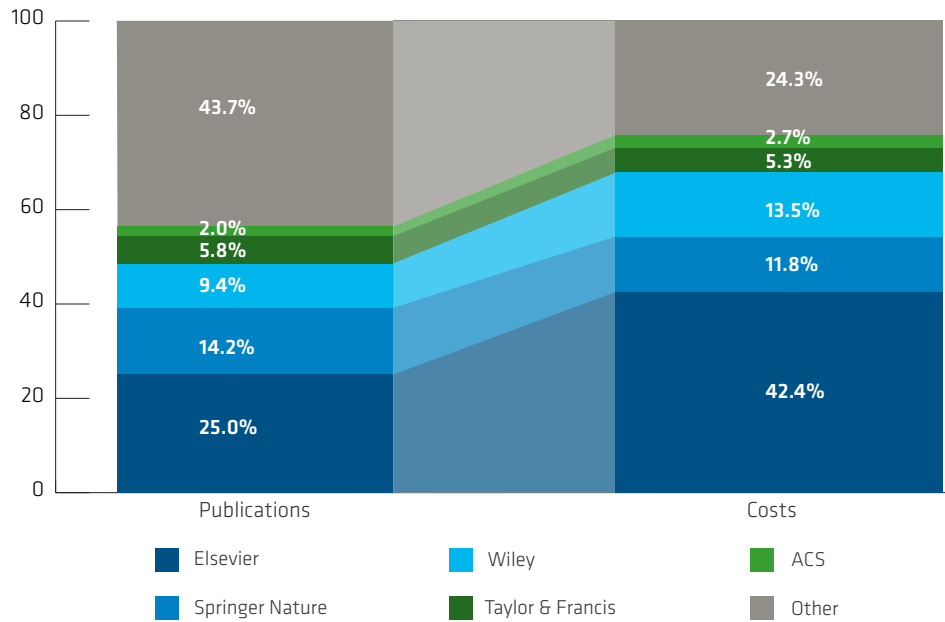
### BIG DEAL SAMPLE

The overall expenditure on subscriptions paid to all publishers in the 26 surveyed countries is €597 million. Of this amount, €451 million are spent on subscriptions to Elsevier, Springer Nature, Wiley, Taylor & Francis and ACS – roughly equivalent to 75% of the total volume.

Knowing both the extent of publishers' shares of national consortia subscription costs and the volume of publications allows further investigation and comparison of their relative share of both indicators. This is illustrated in Figure 2-2. This clearly shows that, as a group, their financial share is almost 20% larger than their share of articles.

Elsevier dominates this discrepancy with a 17% differential. Wiley likewise reports a financial share of the market that is 4% bigger than its share of articles and reviews, according to the data available. Springer Nature reports a financial share that is 4% smaller than the number of publications.

Figure 2-2 Share of market and publications compared



# 3 Price per article

The fact that the basis of subscription agreement pricing is not transparent is often raised in the open access debate. Some argue that the costs for publishing an individual article should be well below the article processing charge (APC) list prices of major publishers.<sup>12</sup> Elsevier's near 40% profit margins<sup>13</sup> aggravate the concern that service prices wildly exceed the actual costs incurred by publishers. As a result, many open access initiatives, including Plan S, call for transparent prices and costs.<sup>14</sup> While this report cannot answer exactly how much a given publication may or should cost, this question is likely to arise when flipping Big Deals from subscriptions to agreements with a large publishing component.

One way to approach this is by calculating an indicator of the price per article (PPA), a measure that divides a consortium's subscription expenditure by the total number of articles published by a given publisher in that country. Such indicators have already been used to simulate a possible shift of system-wide expenditure from subscriptions to open access publishing.<sup>15</sup> Recent agreements such as Wiley's agreements with Projekt DEAL in Germany function on a per-article 'Publish-and-Read' fee, which however includes a general price for publishing and reading access and therefore should not be confused with an APC for publishing services.<sup>16</sup>

The numbers reported in Figure 3-1 were calculated using the 2017 total consortium expenditure on periodicals (excluding VAT) in the 26 selected countries featured in the 2019 Big Deals Survey Report. Dividing this number (€597 million) by the number of publications by all publishers in the 26 countries in 2017 (391,000), the average PPA across all 26 countries is €1,526. Moreover, the minimum value of this price is €600 while the maximum is €2,883, meaning that there are large discrepancies in PPA values caused by the variability of publication volumes and subscription expenditures.

The mean PPA associated with the five publishers (Elsevier, Wiley, Springer Nature, Taylor & Francis, and ACS) is €2,050 (subscription expenditure divided by the five publishers' publications). Since the overall average is €1,526, we can assume that many other publishers are less costly than the five scrutinised here.

12 Grossmann, A., & Brembs, B. (2019). *Assessing the size of the affordability problem in scholarly publishing*. <https://doi.org/10.7287/peerj.preprints.27809v1>

13 The Bookseller (2019). *Elsevier records 2% lifts in revenue and profits*. <https://www.thebookseller.com/news/elsevier-records-2-lifts-revenue-and-profits-960016>

14 See cOAlition S (2019). *Principles and Implementation*. <https://www.coalition-s.org/principles-and-implementation/>: "cOAlition S, [...] will define the various services (e.g., triaging, peer review, editorial work, copy editing) publishers will be asked to price. This price transparency requirement will apply to all articles funded through transformative arrangements as well as those levied by Open Access journals and platforms. As a minimum, the breakdown of prices should be at a publisher level, but where possible publishers are encouraged to provide this price transparency at the journal level." Moreover, basic statistics such as "the number of submissions, the number of reviews requested, the number of reviews received, the approval rate, and the average time between submission and publication" must be reported.

15 See e.g. Schimmer, R., Geschuhn, K. K., & Vogler, A. (2015). *Disrupting the subscription journals' business model for the necessary large-scale transformation to open access*. Max Planck Digital Library Open Access Policy White Paper. <http://hdl.handle.net/11858/00-001M-0000-0026-C274-7>

16 <https://www.projekt-deal.de/wiley-vertrag/>

However, since our total expenditure underestimates all of the payments made to publishers per country, (as this figure would include other consortia and individual agreements and services not covered by the EUA Big Deals Survey) the real number probably needs to be adjusted upwards.

Figure 3-1 Price per article per country

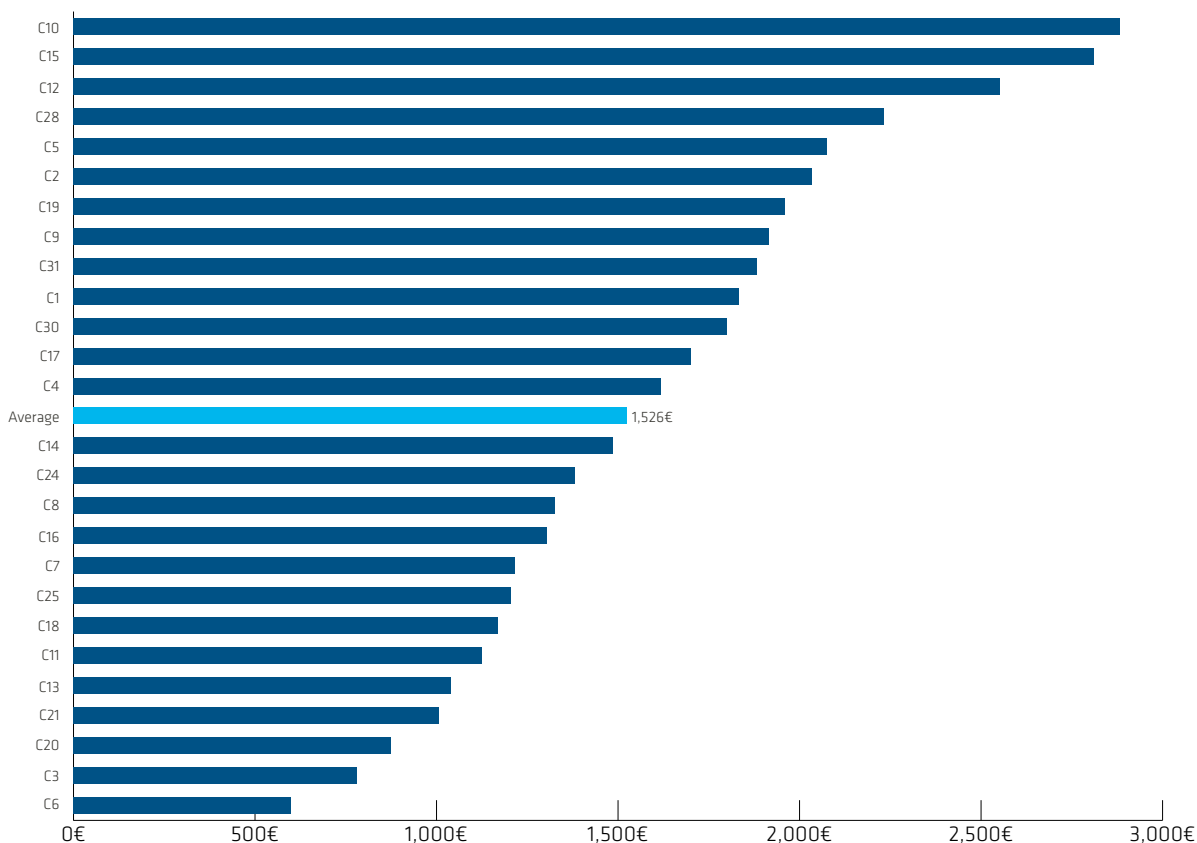
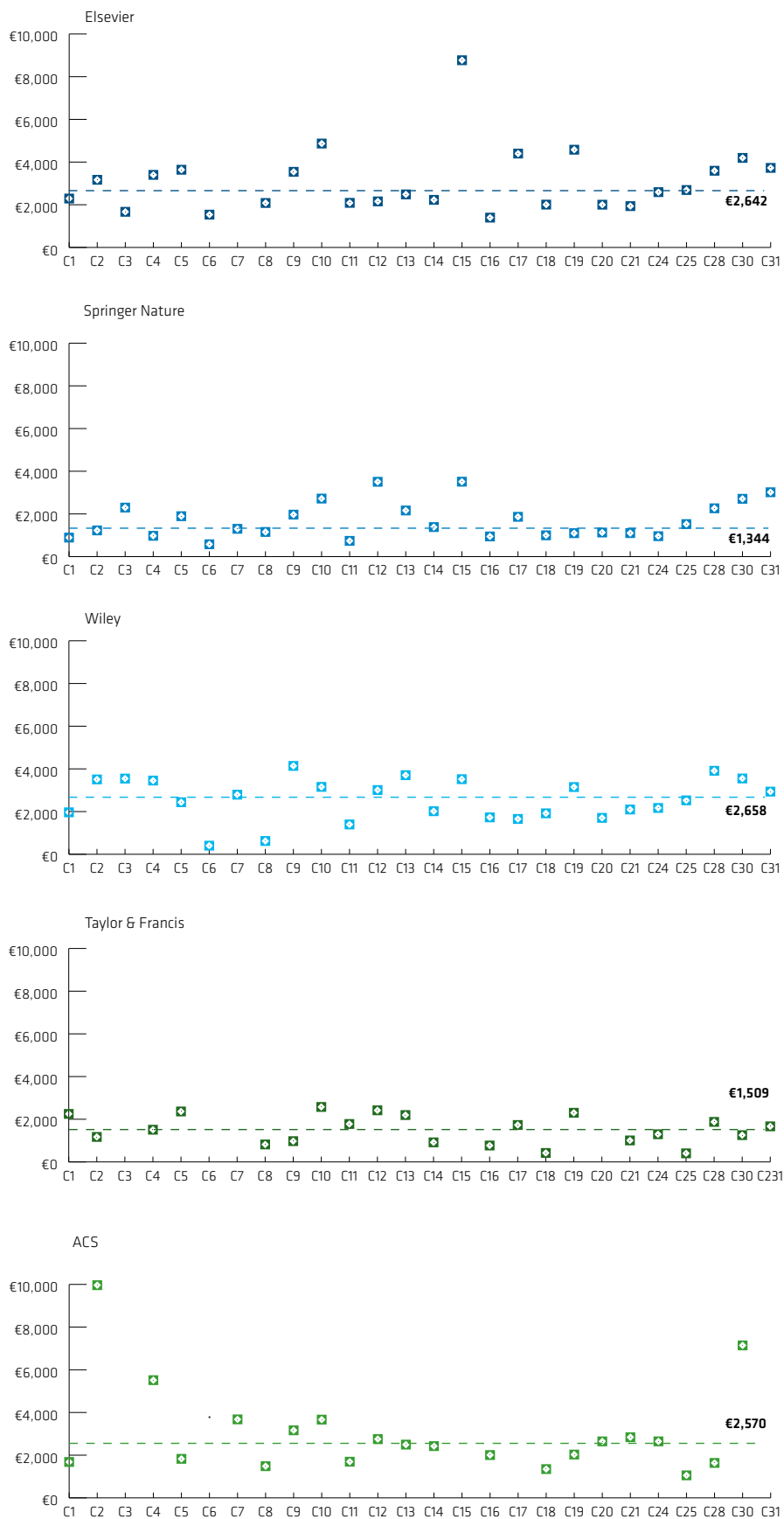


Figure 3-2 reports the PPA for Elsevier, Springer Nature, Taylor & Francis, Wiley and ACS per country. It shows the PPA (subscription price per publisher divided by publication output per publisher) for each country and the median PPA per publisher as a dashed line. Countries are listed on the x-axis and the PPA on the y-axis. Each mark in the graph shows the location of a country’s PPA according to the data and method used in this report.

Across publishers, Wiley posts the highest median PPA with €2,658, closely followed by Elsevier with €2,642 and ACS at €2,570. Taylor & Francis and Springer Nature are the least costly under this indicator at €1,509 and €1,344 respectively. The mean values follow a roughly similar pattern, however Elsevier and ACS are strongly affected by extreme values that increase the average PPA to €3,400 for Elsevier and €3,000 for ACS.

Figure 3-2 also illustrates that the PPA varies highly across the same publisher. The lowest value for Elsevier, for example, is just below €1,400 while several contracts are in the range of €4,000-€5,000. Two extremes can be found at almost €9,000 and even higher than €13,000 (not displayed to keep figures readable). Other publishers such as Springer Nature, Taylor & Francis and Wiley have less outliers, ACS also has an extreme value at almost €10,000.

Figure 3-2 Price per article per country and publisher (€, dashed line represents the median value)



Descriptive statistics per publisher further illustrating this are displayed in Table 3-1. The extremely high maximum value of over €13,000 is a stark outlier caused by a specific national constellation or errors in the data available.

Table 3-1 Descriptive statistics price per article (€)

Publisher	Average	Median	Max	Min	Range	StDev	N
Elsevier	3,476	2,642	13,323	1,397	11,926	2,520	26
Springer Nature	1,689	1,344	3,511	579	2,932	853	26
Wiley	2,577	2,658	4,139	403	3,736	995	26
Taylor & Francis	1,509	1,509	2,576	402	2,174	677	21
ACS	3,067	2,570	9,964	1,055	8,909	2,090	22

The fact that the data is affected by outliers is confirmed by higher mean values per country than median values. The shortest PPA range – that is the smallest difference between the lowest and highest PPA of the five publishers in an individual country – is €1,237. But even these ‘smaller’ differences may be significant for a national consortium with limited resources seeking to reduce subscription agreement expenditure.

As mentioned above, per article charges can be used to develop new pricing models when ‘flipping’ Big Deal contracts. It can be interesting to compare this with APC prices to find out if this change may result in savings or additional costs.

The prices of Big Deal subscription agreements, which often increase above inflation in the Eurozone, and the associated extractive rent-seeking of commercial publishers are widely discussed concerns. The data collected by EUA shows that several indicators like price per article do indeed vary widely between countries and publishers.<sup>17</sup> However, given the variety of contract conditions and collections in Big Deals agreements, and the standard business overheads, (for example, management, marketing and workflows) it is difficult to establish whether this always results from price discrimination. There are for instance concerns that using PPA as an indicator of the unit cost for read-and-publish agreements may be too simplistic to reflect the full spectrum of costs incurred in the publishing process.<sup>18</sup> Therefore, prices for subscription agreements cannot be fully equated to publishing costs; nor can this data show if commercial publishing divisions are indeed operating at a profit.

<sup>17</sup> Costs per download also vary, as shown in the 2019 EUA Big Deals Survey Report.

<sup>18</sup> Eve, M. P. (2019). *The Problems of Unit Costs Per Article*. <https://eve.gd/2019/09/19/the-problems-of-unit-costs-per-article/>

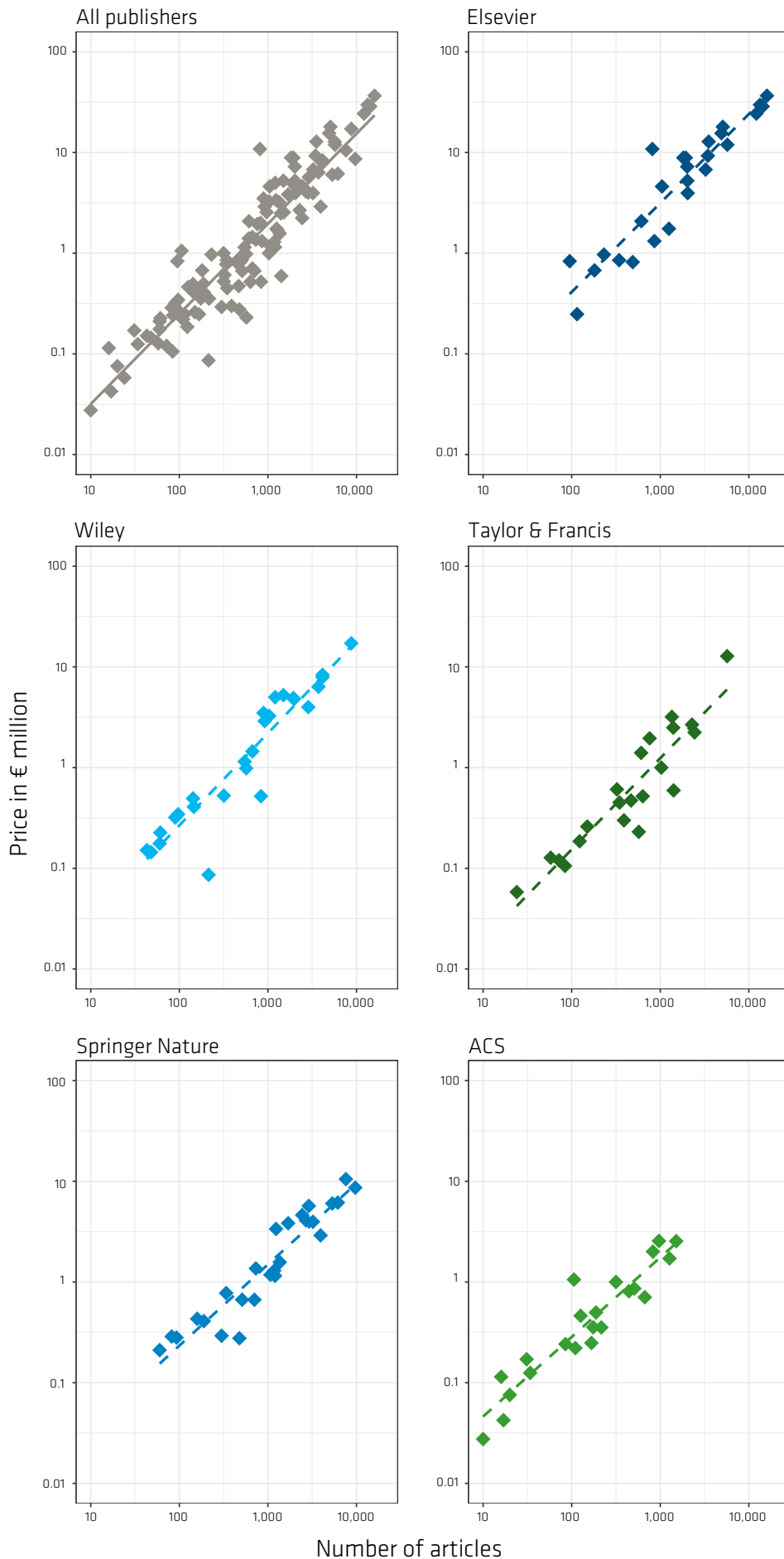
## CORRELATION BETWEEN PUBLICATION VOLUME AND SUBSCRIPTION PRICES

Nonetheless, knowledge of both subscription prices and publication outputs allows to ask how strongly these two indicators are correlated. Figure 3-3 investigates this by showing the publication volume and subscription prices as a scatterplot for all five publishers and per individual publisher. Note that both x-axis and y-axis use a logarithmic scale, as the values for both indicators span several orders of magnitude. This analysis clearly shows that both indicators are strongly correlated, with  $r^2$  values consistently above 0.8 for all publishers.

This correlation is not surprising – countries with a high publication output (for example, based on the number of research organisations and researchers) are likely to ‘consume’ more publications and thus have historically higher subscription costs. These may be based on combinations of indicators such as the number of readers, researchers, types of participating institutions and number of participating institutions.

The logarithmic scales used in Figure 3-3 mean that two consortia with comparable publication volumes can have widely different subscription prices for the same publisher. A small difference in the placement on the y-axis can represent additional costs of hundreds of thousands or even millions of euros. In particular when an agreement is transformed into a publish-and-read contract on a per-article price basis, this will beg the question how prices are set and question what services are provided.

Figure 3-3 Publication volume and subscription price





# 4 Contract timelines

Besides the overall costs and publication volumes, it is useful to study overall contract timings and the time that may be required to transform traditional subscription agreements (or at the very least their expenditure) into contracts that support open access publishing or other initiatives. While this data cannot be used to predict the future, a further examination reveals that 2018-2020 is a key period for contract renegotiations with scholarly publishers.

Of course, individual consortia will know their exact contract timelines. However, at European level, this knowledge is useful in the quest to achieve publishing compliance with Plan S. EUA also believes it is important for consortia and universities to acknowledge and realise their role as customers in the scholarly publishing market. The *2019 EUA Big Deals Survey Report* already showed that contracts generally last for three years (>40%) in addition to many 1 and 2-year agreements (approx. 20% each), although some contracts do last over 5 years.<sup>19</sup>

Of the full sample of 165 contracts studied in the *2019 EUA Big Deals Survey Report*, 126 contracts with complete contract duration and volume data were selected. Figure 4-1 provides an overview of the final years of the 126 contracts included in the sample. This reveals that most contracts (>50%) ended in 2018 and approximately 20% more of these agreements will terminate at the end of 2019 and another 20% in 2020. In short, over 90% of the contracts recorded in the latest survey will have expired before the official Plan S launch date in January 2021.

Figure 4-1 Final year of contract

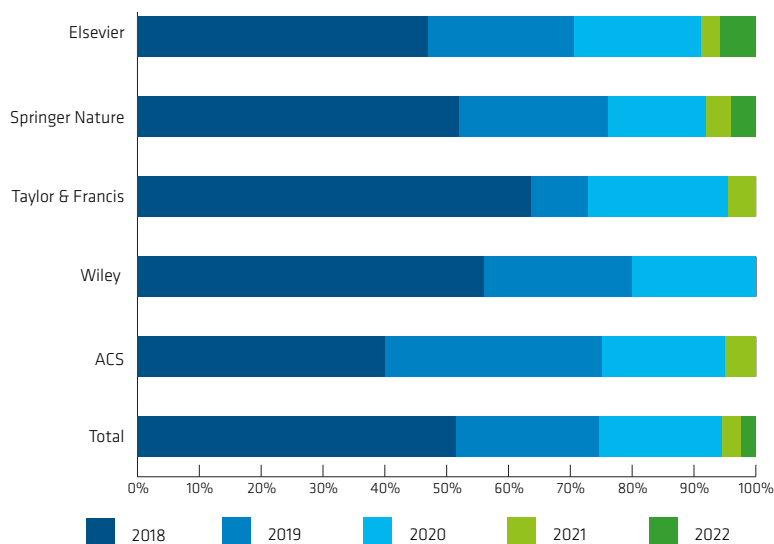
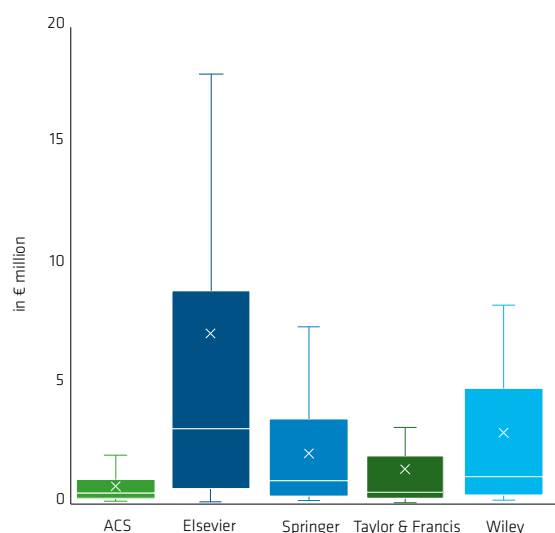


Figure 4-2 Annual volume of contracts



19 Morais, R., Stoy, L., and Borrell-Damian, L. (2019). *2019 Big Deals Survey Report*. p. 47.

Besides the sheer number of contracts, the data obtained allows us to analyse their annual financial volume. The distribution of these volumes is reported in boxplot format in Figure 4-2, which shows a high variability ranging from a few tens or hundreds of thousands of euros to several million euros per contract. Elsevier stands out as it posts the highest range of subscription prices and the most expensive contracts on average. The approximately €7 million average price of Elsevier contracts roughly equates to the maximum cost of (individual) Springer Nature (<€8 million) and Wiley agreements (>€8 million).

Note that the contract volumes were mainly recorded for calendar year 2017 and therefore only allow us to approximate the actual annual expenditure using the assumption that annual Big Deals costs do not change significantly over time. The 3.6% median annual cost increase reported in the *2019 EUA Big Deals Survey Report* was not examined in more depth as this indicator was not available for all contracts.

The total volume of these contracts is shown in Figure 4-3. Given how much they vary in size per publisher, the findings result in a very different picture for each. The total volume of contracts for Elsevier stands at almost €250 million, Springer Nature at €50 million and Wiley at approximately €75 million. Taylor & Francis and ACS stand at roughly €35 million and €10 million, respectively.

Figure 4-3 Annual contract volume by publisher and final year

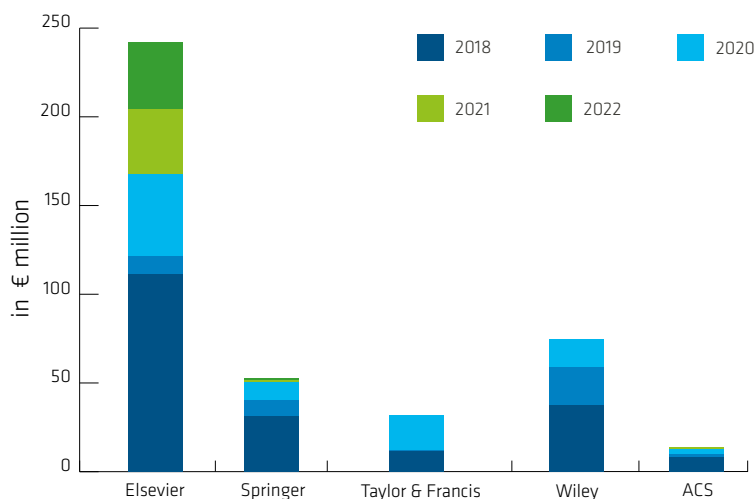
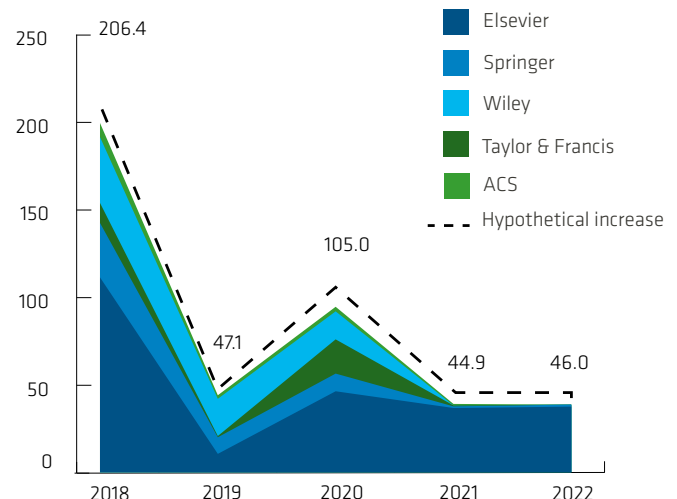


Figure 4-4 Annual contract volume by final year and publisher



To better understand the relevance of the period under scrutiny, the end year of each contract was related to the annual volume. This gave an approximate measure of the financial volume of contracts ending in a certain year – and therefore a glimpse into the market potentially affected by subsequent negotiations.

Looking at the distribution over time reported in Figure 4-4, 2018 stands out as it shows contracts worth €206 million coming to an end. In 2019, a relatively 'low' €47 million are expiring. In 2020, contracts with a value of up to €105 million will end. The dashed line in the chart represents a hypothetical median price increase of 3.6% using 2017 as the baseline.

The *2019 EUA Big Deals Survey Report* found that the overall expenditure for periodicals Big Deals in 30 European countries stood at €726 million. Almost 30% of that volume or roughly €200 million were up for renewal in 2019, 6% at the end of 2019 and approximately 14% after 2020. This data does not take any delays, interruptions to negotiations or new agreements in the intervening period into consideration.

# 5 Concluding remarks

This report sought to provide additional transparency and insights into the financial dynamics of the scholarly publication system. Using the available data, it proves that the studied agreements have wide variations in terms of the relative price per article between publishers and between countries. It also confirms that the five large publishers' relative positions to each other differ, when using the calculated price per article.

These findings spotlight staggering differences in the prices per article under different agreements. These differences question whether publishers set prices according to a common principle across Europe, especially if traditional subscription agreements are flipped to a publish-and-read agreement priced on a per-article basis.

Moreover, the data demonstrates that subscription price and publication output at national level are strongly correlated and fall along a common curve for all publishers. This may be useful for further consortia negotiations of 'transformative' agreements. Knowing when contracts terminate and how much of the market will be affected by these contracts (in financial terms) helps illustrate the importance of each individual agreement when it comes to steering the market towards better outcomes for universities and consortia.

## Main findings

- ▶ Agreements vary widely between publishers and between countries in terms of the relative price per article.
- ▶ The five publishers' relative position to each other differs in terms of the price calculated per article.
- ▶ Subscription price and publication output are strongly correlated at national level.
- ▶ A large number of agreements (50%), representing a value of €200 million terminated in 2018. An additional 20% will terminate in 2019 and a further 20% in 2020.

Some current developments are not reflected in this report. On the side of research funders, the implementation of Plan S in the next several years is expected to further contribute to the transformation of the scholarly publication system. On the side of Big Deals, the recent trend to make more contracts publicly available, as, for instance, in Germany, Norway, Sweden and other countries, highlights that this crucial university, library and consortium demand is increasingly being met.<sup>20</sup> More information on Big Deal contracts aggregated through community initiatives such as the ESAC Registry for Transformative Agreements and the SPARC Big Deals Tracker also points in a positive direction. In an ideal future, the

<sup>20</sup> See for Germany <https://www.projekt-deal.de/>, for Norway <https://www.unit.no/en/news/norway-and-elsevier-agree-pilot-national-licence-research-access-and-publishing>, for Sweden <https://www.kb.se/samverkan-och-utveckling/nytt-fran-kb/nyheter-samverkan-och-utveckling/2019-09-20-new-read--publish-agre-e-ment-publicly-avai-lab-le.html>.

data underlying this report will be widely available for anyone to re-use and verify, but this can only be achieved by following the baseline principle that contracts and contract details should not be subject to non-disclosure clauses.

It is notable in this context that outgoing European Commissioner for Research and Innovation, Carlos Moedas, recently commented that the European Commission itself should be more actively exerting pressure or even negotiating directly with publishers.<sup>21</sup> EUA has been calling on the European institutions to enact “measures to support a more competitive environment in the scientific publishing market with the main objective of maximising the effectiveness and efficiency of the market”<sup>22</sup> and would therefore welcome additional support and activity from the European Commission to achieve full open access. Similarly, Europe’s national governments should provide political support for open access to research publications.<sup>23</sup> While clear progress has been made, EUA reiterates this need for continuous political support from national and European authorities, particularly when it comes to negotiating and implementing agreements at a sustainable and fair price in order to realise full open access.

A further critical aspect worth stressing is that transforming Big Deals into open access agreements means risking ongoing dependence on commercial providers for services that could also be provided by universities and the academic community – at least to a larger extent than at present. But this scenario would require shifting expenditures towards innovation and scholarly publishing infrastructures, which is challenging to achieve at scale if prices continue to increase, and budgets continue to be locked into large-scale publishing agreements. Again, national and European support, for instance in the form of dedicated funding, would allow universities and the academic community to develop alternatives to and capacities in scholarly publishing at European level (for example, to establish and improve monitoring mechanisms).

### Recommendations for policymakers

- ▶ Support consortia and universities negotiating transparent agreements at fair and sustainable prices, and further develop legal frameworks that support open access.
- ▶ Provide support that enables universities and the academic community to develop alternatives to and capacities in scholarly publishing at European level (e.g. to establish and improve monitoring mechanisms or to develop community-led publishing venues).

Finally, it is challenging to find simple ways to create a more sustainable and open scholarly publishing system. Consortia throughout Europe and beyond are experimenting with different models and prices that may be acceptable to allow scholarly articles to be published in open access. What works in one context may not work in another. Paired with increasing pressure in the form of Plan S and a clear preference for open access, this diversity of approaches will hopefully generate enough options and paths to make scientific knowledge universally available.

<sup>21</sup> ScienceBusiness (2019). Give EU more powers to take on academic publishers, says research commissioner. 10 Sep 2019. <https://sciencebusiness.net/framework-programmes/news/give-eu-more-powers-take-academic-publishers-says-research-commissioner>

<sup>22</sup> European University Association (2017). EUA Statement on Open Science to EU Institutions and National Governments. Achieving Open Access to Research Publications and Research Data Must be a Priority for Europe. <https://eua.eu/resources/publications/412:eua-statement-on-open-science-to-eu-institutions-and-national-governments.html>

<sup>23</sup> Ibid.

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