

o p e n a c c e s s

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## What will it take to secure open access to today's scholarly journals?

Colleen Campbell, Open Access 2020 Initiative  
Max Planck Digital Library

Open Science Days  
Budapest – 22.11.2017



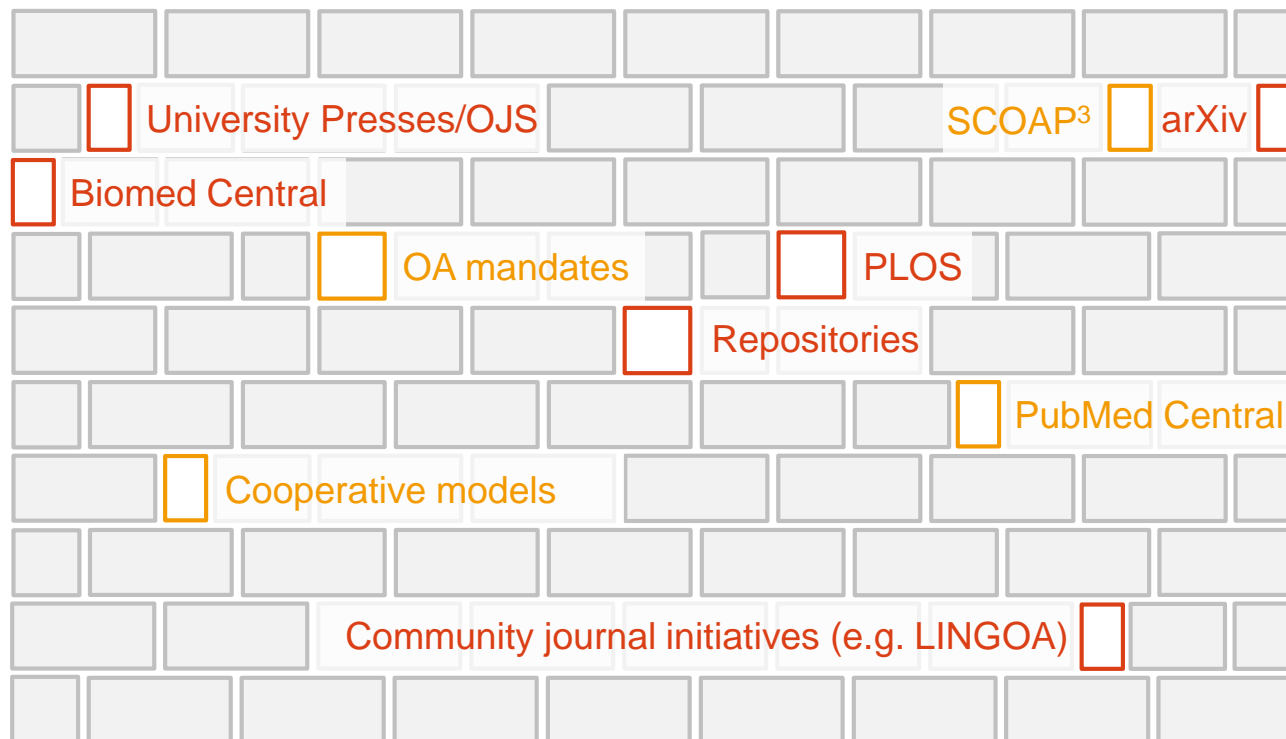
Egy régi hagyomány és egy új technológia találkozásából egyedülálló eredmény született a köz javára. A régi hagyomány lényege tudósok hajlandósága arra, hogy kutatási eredményeiket szakfolyóiratokban térítésmentesen közreadják, hogy az érdeklődőket és tudóstársaikat tájékoztassák; az új technológia pedig maga az internet. Ezek együtt teszik lehetővé a lektorált folyóirat-irodalom elektronikus terjesztését, és a tudósok, oktatók, diákok és más érdeklődők számára a teljesen szabad, korlátok nélküli hozzáférést az egész világon. A hozzáférés akadályainak eltűnésével felgyorsul a kutatás üteme, gazdagodik az oktatás, a gazdagok megoszthatják tudásukat a szegényekkel és viszont, a folyóiratcikk-irodalom a lehető legjobban hasznosul, és mindez megteremti annak az alapját, hogy az emberiséget intellektuális dialógus és a tudás keresése kapcsolja össze.



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# What progress have we made in the last 15 years?

**With an annual growth rate of just 1%, Open Access publishing accounts for ~15% of the scholarly publishing market.**



**And as for publisher revenues, Open Access accounts for just 4%; the remaining 96% of comes from subscriptions.**

# What is holding back the large-scale shift to OA?



**Porter's 5 Forces framework** analyzes the sources of competitive pressure in a market.

- When the 5 competitive forces are weak, the industry becomes very lucrative.
- When competitive pressure is high, this creates the opportunity for a shift in the market.

Bo-Christer Björk has applied this model to understand why OA publishing has not achieved a greater market share.

**Scholarly journal publishing in transition - from restricted to open access**

Bo-Christer Björk, Hanken School of Economics, Helsinki, Finland

**The International Journal on Networked Business**

Special issue on "Transformation of the academic publishing market"

Published online, 19.2.2017, DOI: 10.1007/s12525-017-0249-2

# Porter's 5 Forces and Scholarly Publishing

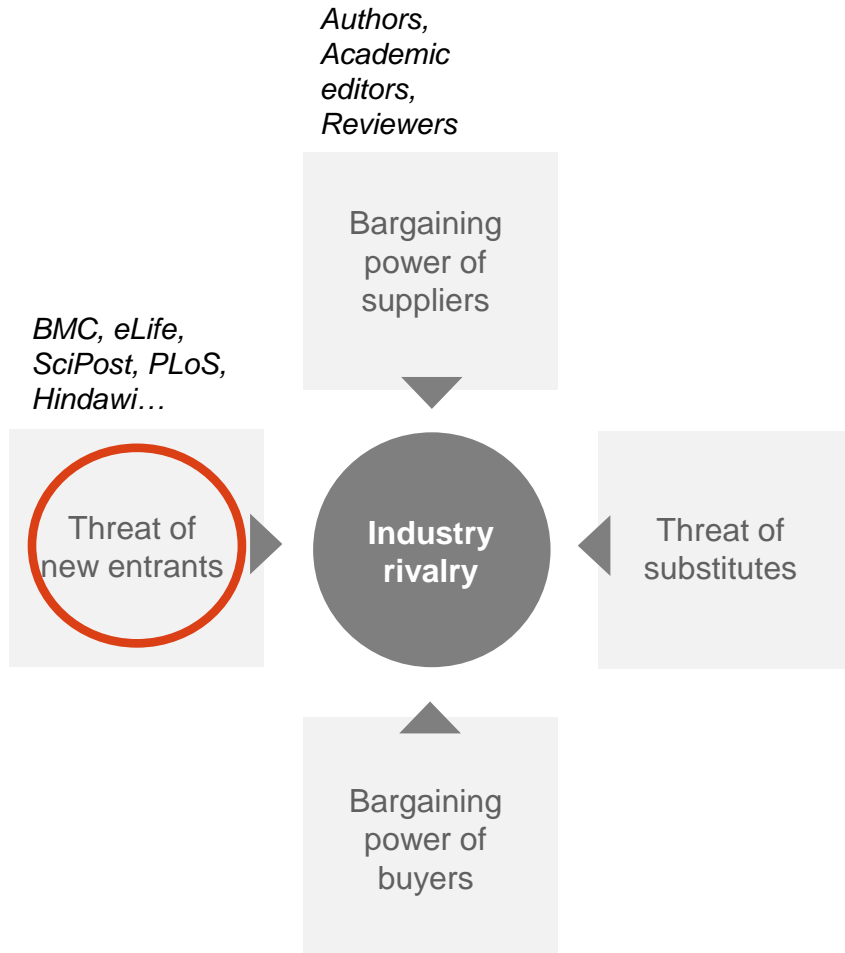


## Suppliers

Authors, editors, reviewers

- give their articles and services for free, receiving social capital in return, ie reputation.
- total lack of monetary transaction obliterates their bargaining power.

# Porter's 5 Forces and Scholarly Publishing

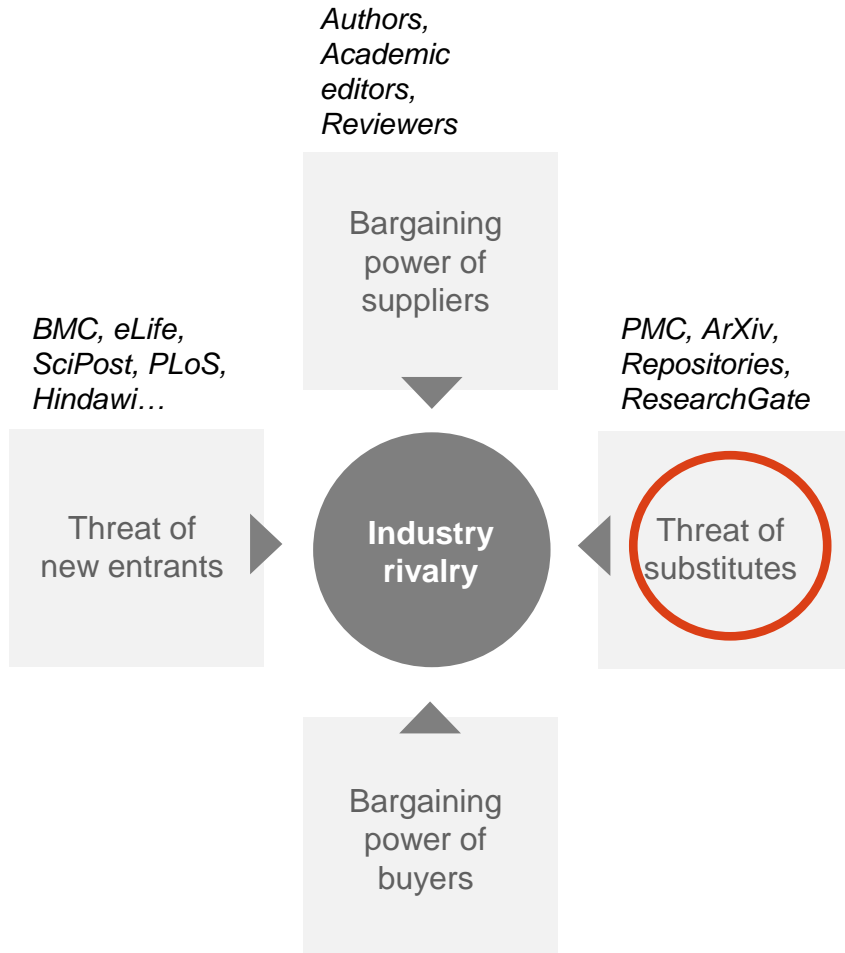


## New entrants

Pure OA publishers

- “Big deal” journal packages drain library budgets
- Journal reputations take time to build

# Porter's 5 Forces and Scholarly Publishing



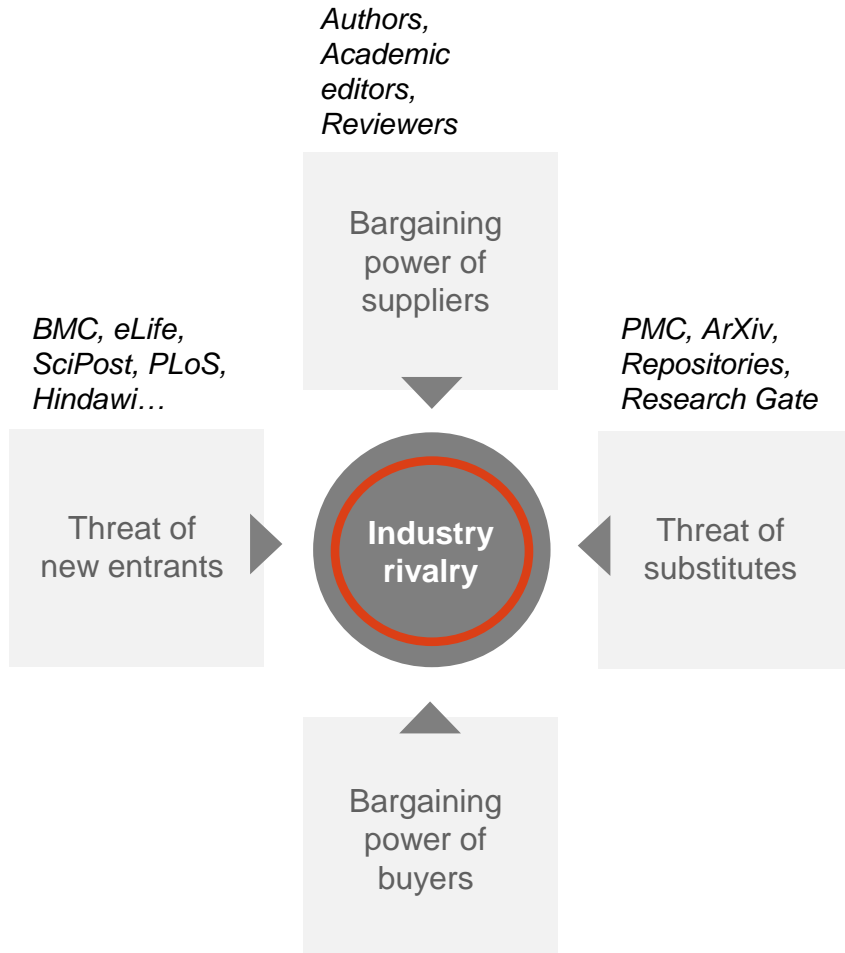
## Substitutes

Pre-print archives, IRs and sharing sites

- Hampered by embargo periods, low deposit rates and the threat of legal action against piracy.
- Libraries cannot fully rely on freely available copies as an alternative to subscriptions.



# Porter's 5 Forces and Scholarly Publishing

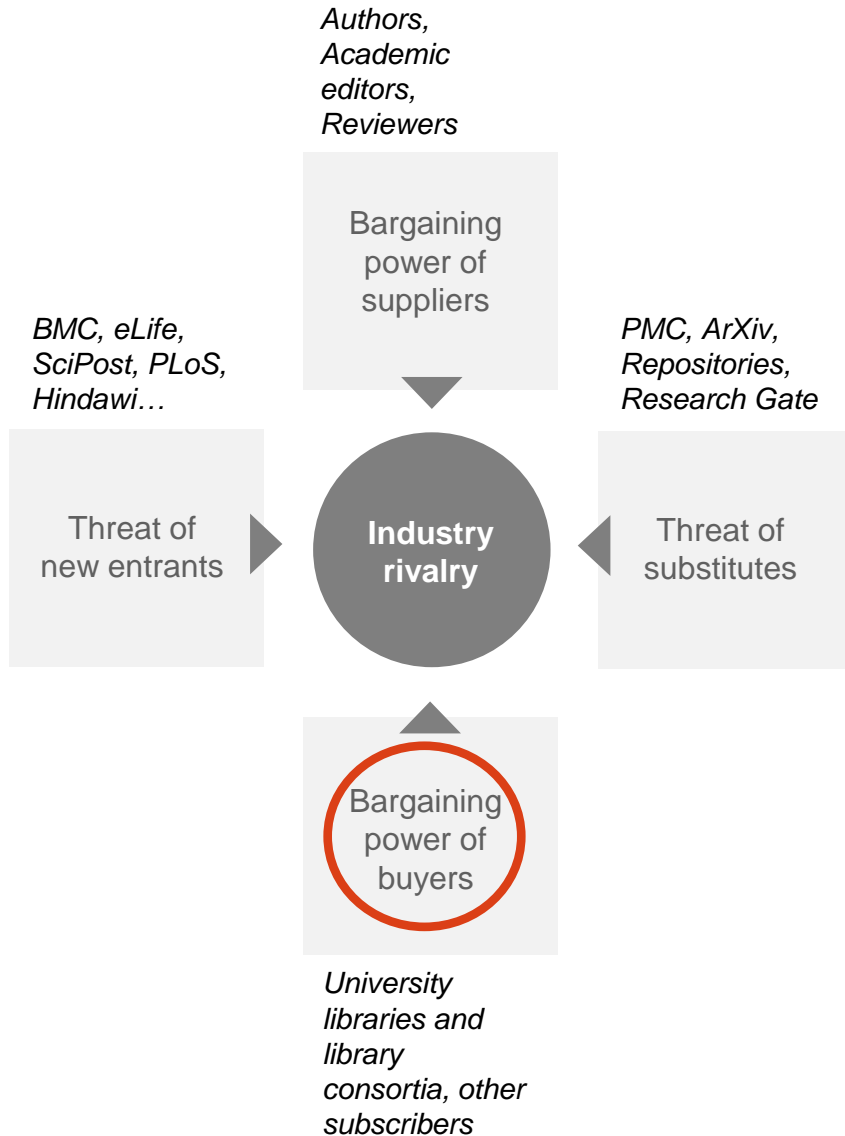


## Industry rivalry

### Commercial publishers

- handful of large commercial publishers control highly diversified portfolios of respected journals and do not compete on price.
- libraries cannot choose one over another but must purchase from all of them.

# Porter's 5 Forces and Scholarly Publishing



## Buyers

Libraries, consortia

- prices hidden by non-disclosure agreements and based on historic print spend
- prices based not on actual cost of publishing but rather the customer's "willingness to pay".
- users, who might exert some pressure, are shielded from any cost considerations



# Lack of competitive pressure

“So far, green OA has not threatened the profits of the leading subscription publishers.

...the lack of competitive pressure in this industry, leads to high profit levels of the leading publishers”

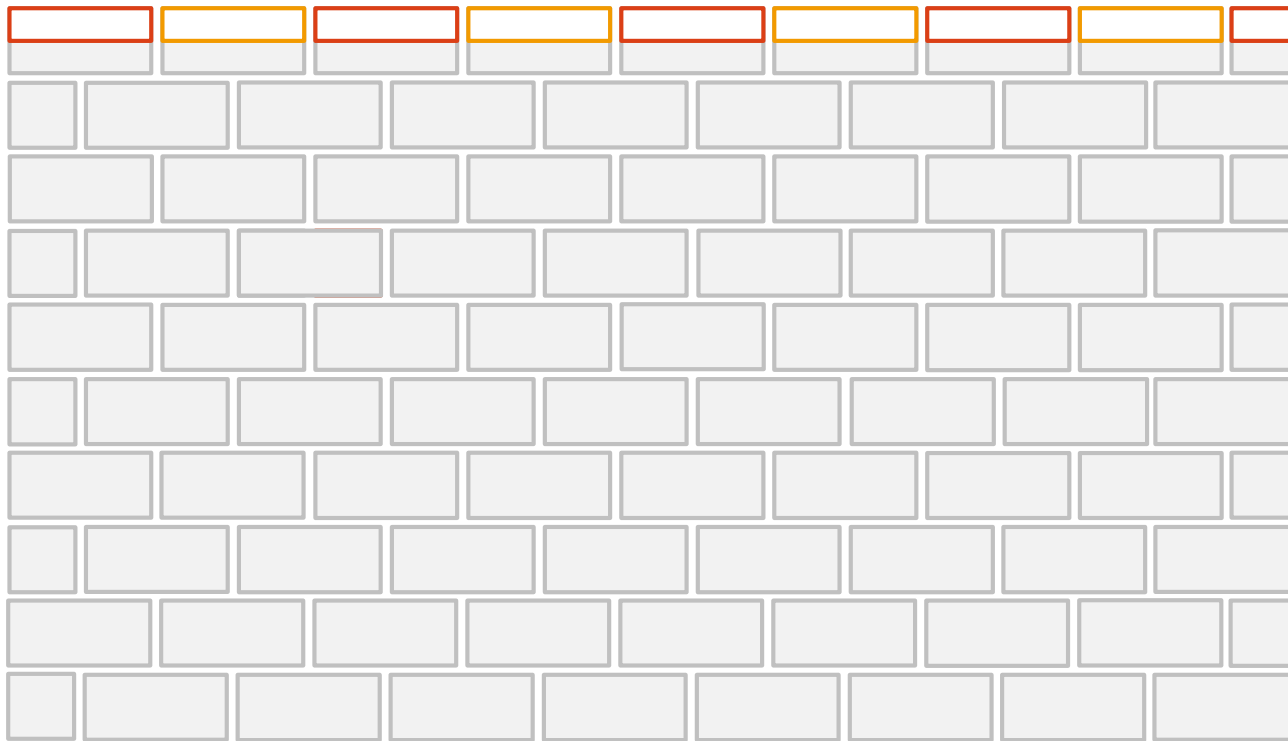
According to Björk’s analysis, the large subscription publishers firmly **hold the scholarly publishing market in a deadlock.**

This allows them to continue to extract **high profit margins** and impeding the shift to open access.



# The paywall system is as prosperous as ever

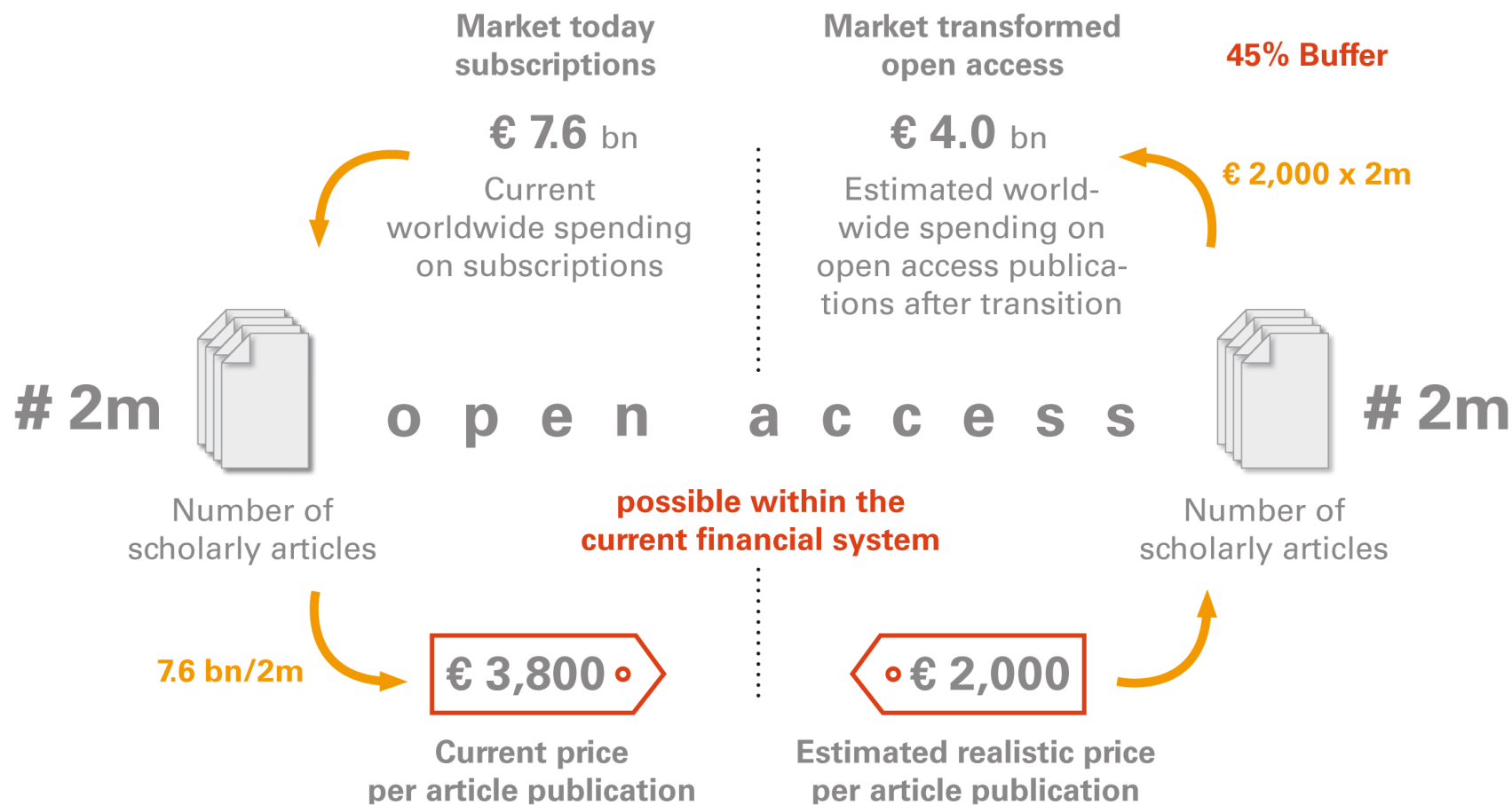
**Subscription prices have increased by 60% in the past decade and are projected to rise 25% in the next five years.**



**Large subscription publishers continue to extract high profit margins, raising and fortifying the paywall.**

There is more than enough money in the system

## Worldwide Publishing Market





## Money as leverage to bring down the paywall

By virtue of our own **spending decisions** we can drive Open Access into the system.

We don't need further mandates for researchers

we need a

*mandate for our money*



# TODAY'S SCHOLARLY JOURNALS OPEN, RE-USABLE, SUSTAINABLE

## vision

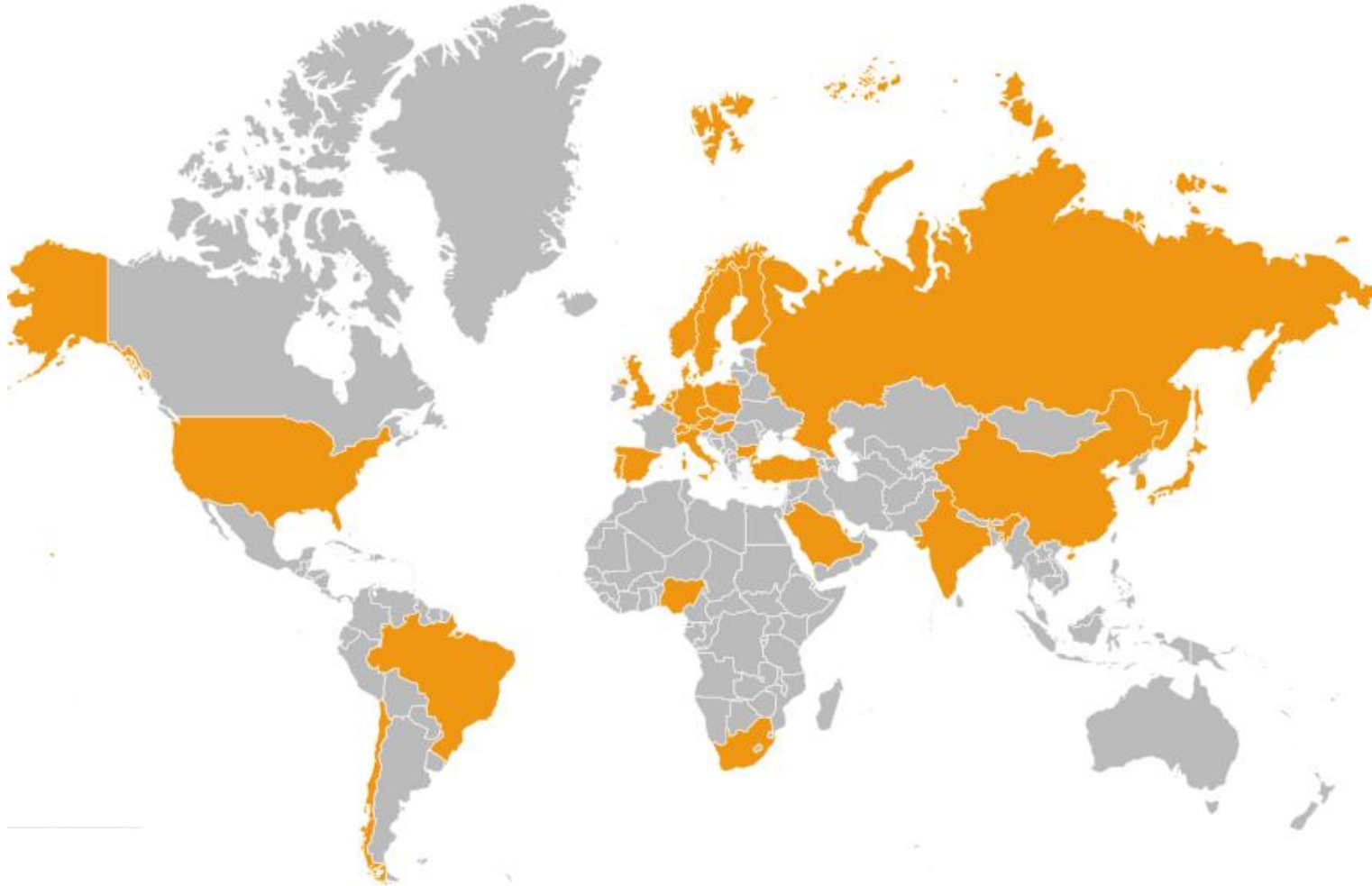
OA2020 IS A GLOBAL ALLIANCE COMMITTED TO  
**ACCELERATING THE TRANSITION** OF TODAY'S  
SCHOLARLY JOURNALS **TO OPEN ACCESS.**

## mission

WE COLLABORATE TO TRANSFORM THE CURRENT  
PUBLISHING SYSTEM, **REPLACING THE SUBSCRIPTION  
BUSINESS** MODEL WITH NEW MODELS THAT ENSURE  
THAT OUTPUTS ARE **OPEN AND RE-USABLE** AND THAT  
THE COSTS BEHIND THEIR DISSEMINATION ARE  
TRANSPARENT AND **ECONOMICALLY SUSTAINABLE.**

<https://oa2020.org/>

# The power of collective action



**We will pursue this transformation process by converting resources currently spent on journal subscriptions into funds to support sustainable OA business models**



# Opportunity to redesign scholarly communications



“**OA2020** is a step in the right direction to free knowledge...and to establish a fair, just, and sustainable scholarly communications ecosystem”

Prof. Yiqi Peng

Director of China's National Science and Technology Library



“...to build an open science environment to support better research”

Prof. Huizhou Liu

Director of the National Science Library, Chinese Academy of Sciences

# Consensus of the research community

## UNIVERSITY OF CALIFORNIA, ACADEMIC SENATE

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

**JANET NAPOLITANO, PRESIDENT**  
**UNIVERSITY OF CALIFORNIA**

**Re: Support for the University's Open Access Mission**

*Chair of the Assembly of the Academic Senate*  
*Faculty Representative to the Regents*

July 18, 2017

As the nation's largest public research institution and a source of two percent of the world's research literature, the University of California is uniquely positioned to further this goal for the benefit of people all over the world who currently do not have access to the vast majority of scholarly research articles.

**OA2020** is consistent with the Senate's Open Access Policy and also aligns with UC's larger mission to conduct research in the public interest and to serve society by "transmitting advanced knowledge, discovering new knowledge, and functioning as an active working repository of organized knowledge."

UCOLASC and Academic Council support all efforts by UC campuses to promote Open Access to scholarly research, both in the service of the University's Open Access mission and **in the service of similarly-oriented global missions such as OA2020.**

# OA2020 Roadmap to open access

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## Sign the OA2020 Expression of Interest

- Transform a majority of today’s scholarly journals from subscription to OA publishing in accordance with community-specific publication preferences.
- Pursue this transformation process by converting resources currently spent on journal subscriptions into funds to support sustainable OA business models.

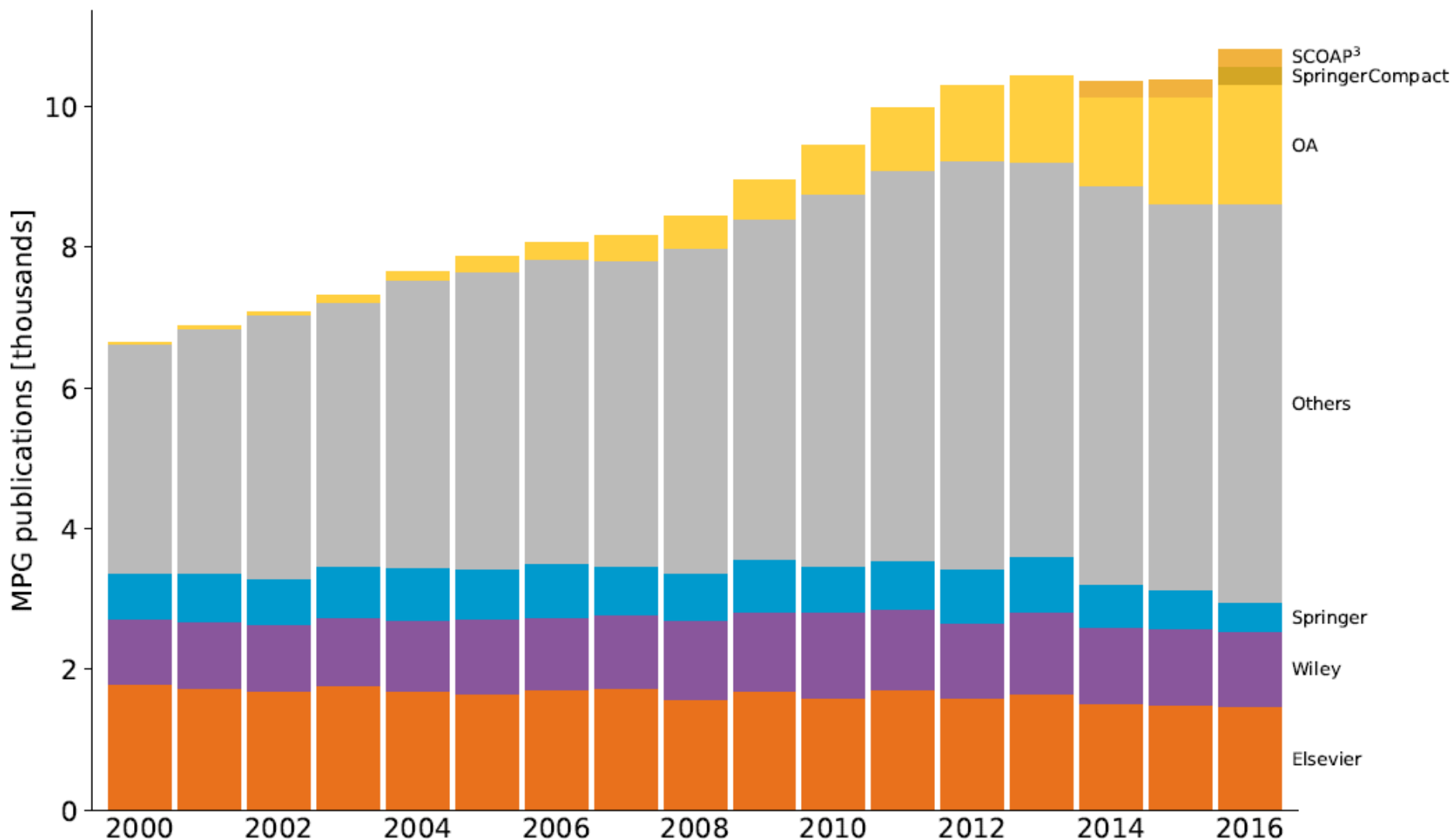
## Create your local OA2020 Roadmap

- Assess your leverage power (publication & financial data)
- Engage Ministries / University Rectors / Research Funders
- Prepare a transformation strategy to divest of subscriptions
- Pilot and support new and alternative OA models
- Collaborate with OA2020 Community and other initiatives

# Assessing value

## Where do our researchers choose to publish?

open access  
2020

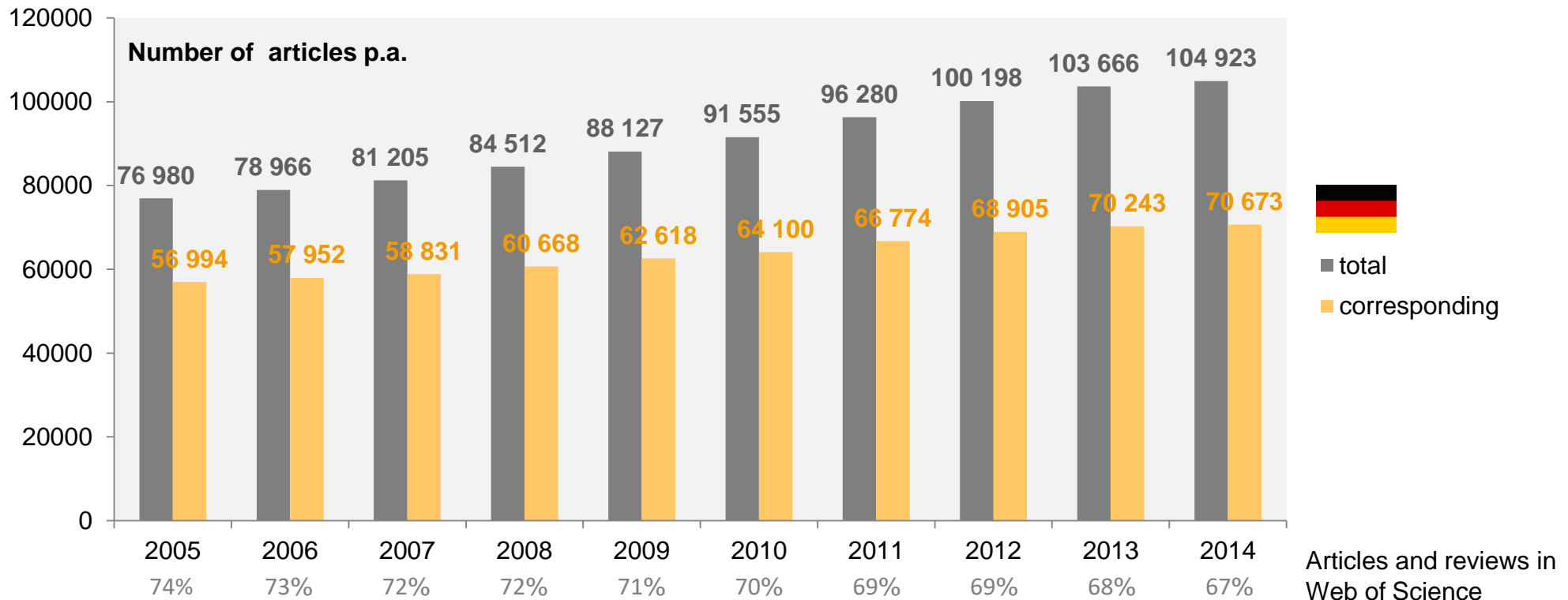


# Assess current and projected costs

## What should we aim for in terms of cost?

70,673 corresponding author papers x estimated per-article cost of 1,300 € = ~ **91.9m €**

70,673 corresponding author papers x estimated per-article cost of 2,000 € = ~ **141.3m €**



## Prepare and execute a transformation strategy

### **Divest of subscriptions, for example...**

- Implement a step-wise reduction in subscription expenditure
- Negotiate transitional agreements (e.g. read & publish, offsetting)
- Engage in subscription reviews and cancellations of “big deals”

### **Invest in Open Access, for example...**

- Promote pure open access journals and publishers
- Negotiate pay to publish agreements
- Divert funding to open access publishing models (cooperative publishing, institutional publishing initiatives, memberships, etc.)

# The significance of OA publishing

## Top 20 journals by article output – World (2016)

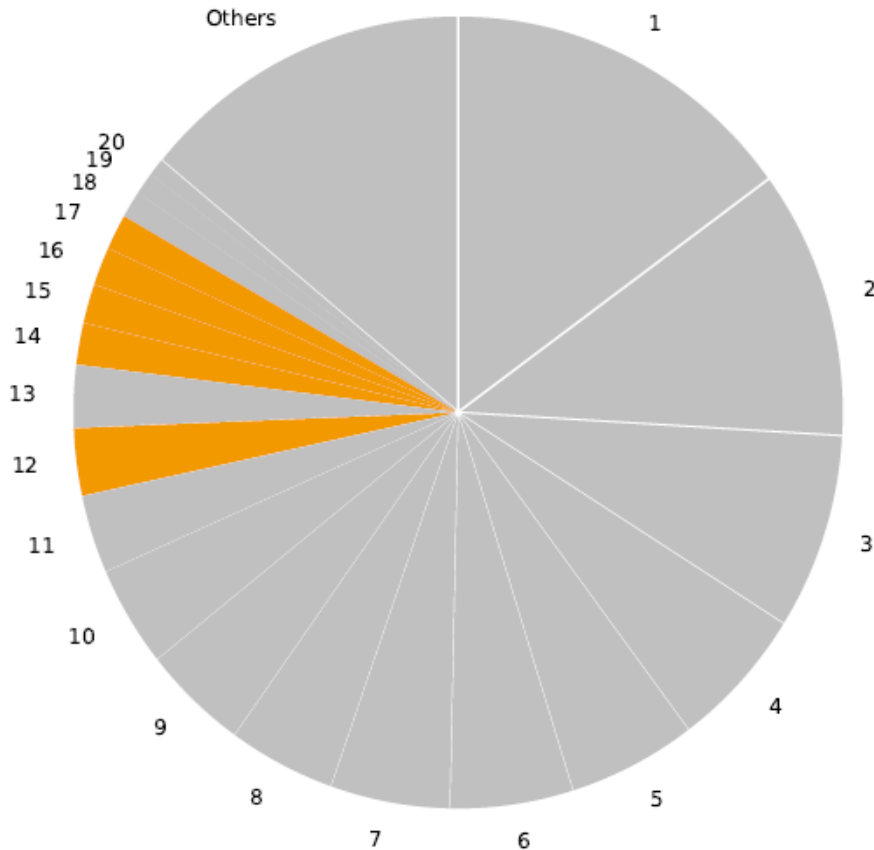
| Publisher    | Title   | 2016  |
|--------------|---|-------|
| PLOS         | PLoS ONE  | 22091 |
| NPG          | Scientific Reports  | 20546 |
| RSC          | RSC Advances  | 13274 |
| Impact       | OncoTarget  | 6625  |
| APS          | Physical Review B :: Condensed Matter and Materials Physics                     | 5345  |
| ACS          | ACS Applied Materials and Interfaces  | 4057  |
| NPG          | Nature Communications   | 3537  |
| RSC          | Physical Chemistry, Chemical Physics  | 3503  |
| APS          | Physical Review D :: Particles, Fields, Gravitation, and Cosmology              | 3390  |
| Elsevier     | Medicine  | 3275  |
| Elsevier     | Journal of Alloys and Compounds   | 3243  |
| ACS          | The Journal of Physical Chemistry C :: Nanomaterials and Interfaces             | 3241  |
| OUP          | Monthly Notices of the Royal Astronomical Society                               | 3208  |
| NAS          | Proceedings of the National Academy of Sciences of the United States of America | 3183  |
| AIP          | Applied Physics Letters   | 3047  |
| ecentury     | International Journal of Clinical and Experimental Medicine                     | 3005  |
| RSC          | Chemical Communications   | 2967  |
| OSA          | Optics Express  | 2903  |
| AAS          | The Astrophysical Journal   | 2812  |
| Desalination | Desalination and Water Treatment  | 2762  |

# MPDL strategy guided by data analysis

## Max Planck Society publications by publisher / OA Gold

articles and reviews in Web of Science 2015

Subscription publisher  
OA publisher

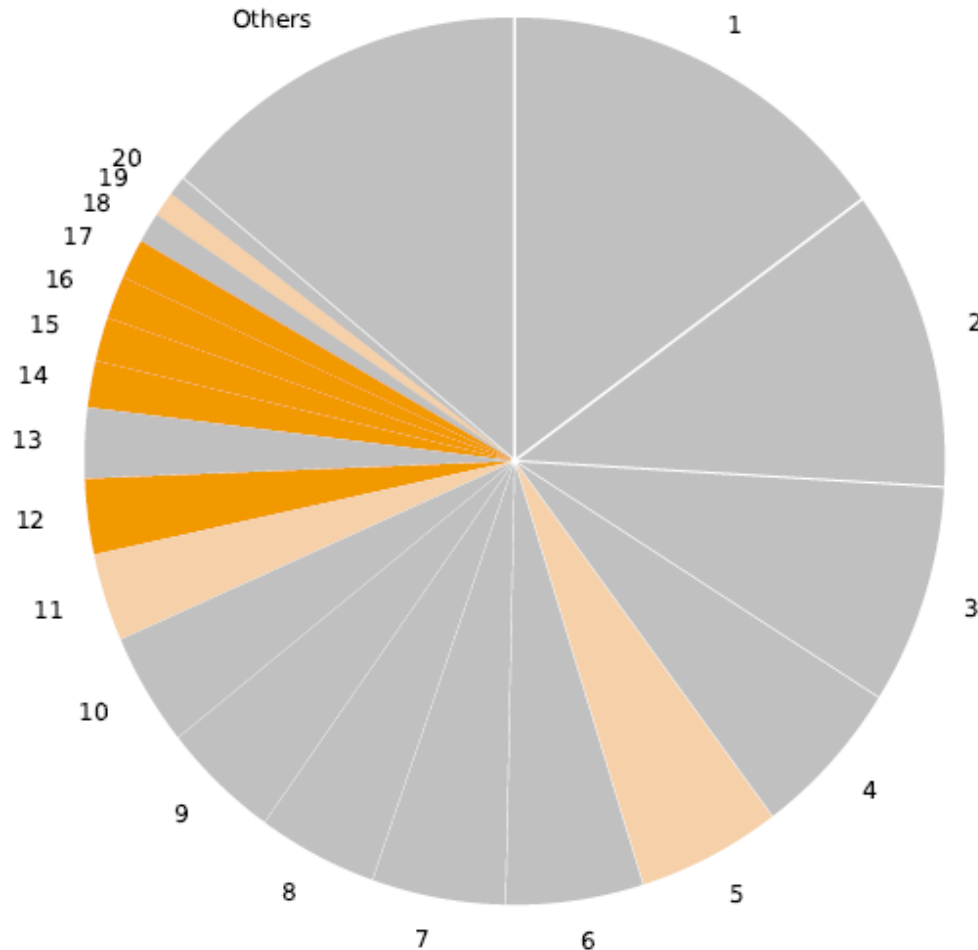


More than 80% of the total article output of the Max Planck Society is published in journals from **20 key publishers.**

5 out of the 20 publishers are already pure OA publishers.



# Effects of transformational agreements (2017)



- Subscription publisher
- OA publisher
- transformation agreement

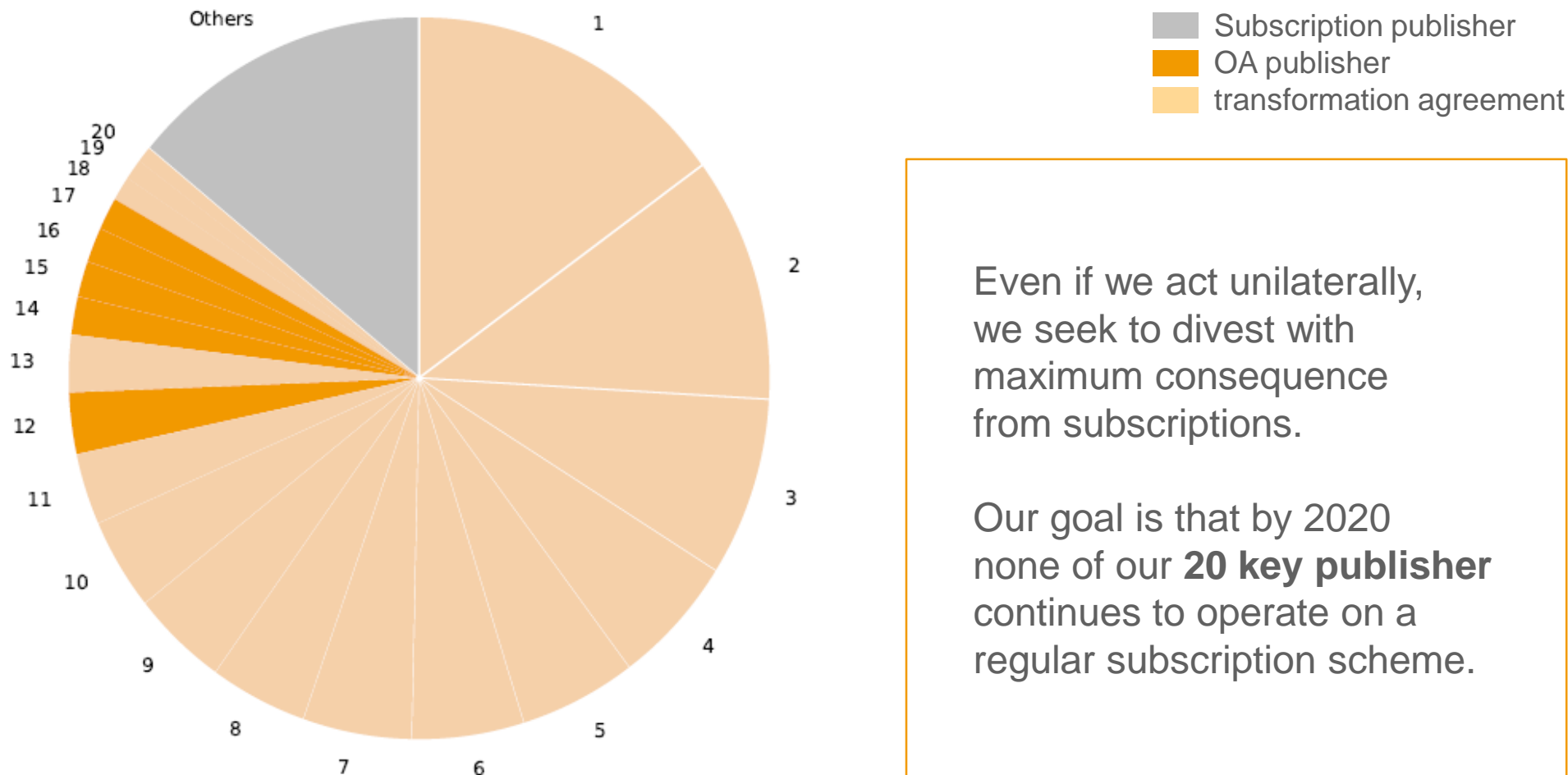
With our transformation agreements we have started to divest from subscriptions and increased our OA share.

This approach will be further extended as soon as the next license agreement is up for renewal.

# Our goal:

## Maximum divestment from subscriptions by 2020

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Even if we act unilaterally, we seek to divest with maximum consequence from subscriptions.

Our goal is that by 2020 none of our **20 key publisher** continues to operate on a regular subscription scheme.



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## All German Research organizations have signed up for OA2020

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National **DEAL** negotiations an expression of collective demand for more OA in the publishing system in Germany

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### PAR model (Publish & Read)

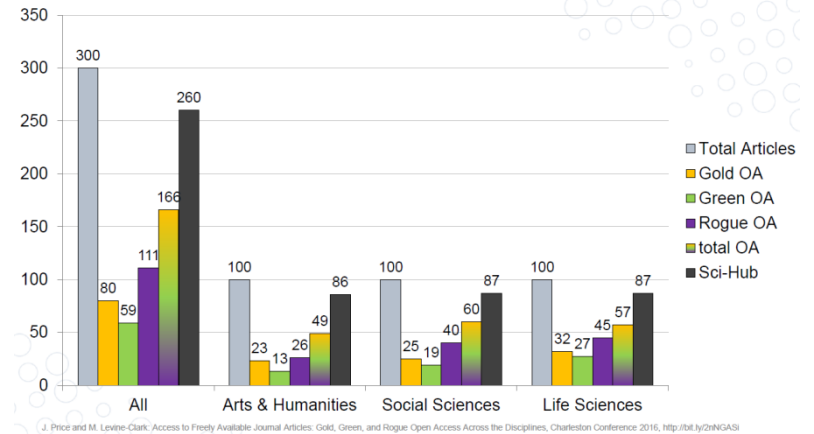
- Publish component: All publications by corresponding authors of eligible institutions become open access immediately upon publication (CC-BY)
- Read component: DEAL institutions obtain perpetual access to the complete e-journal portfolio of the publisher

# Alternative access strategies

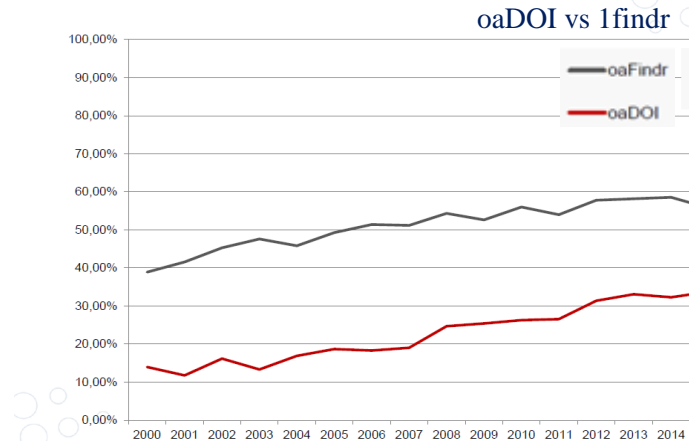
## Stepping away from the table is increasingly a viable option

- Increasing amount of scholarly output is available for free (20-60%)
- OA tools (ie oaDOI, 1findr) can be integrated into library systems
- Strategy being adopted in many contexts

2016 study by Levine-Clark, Price, etc. (SCELC)



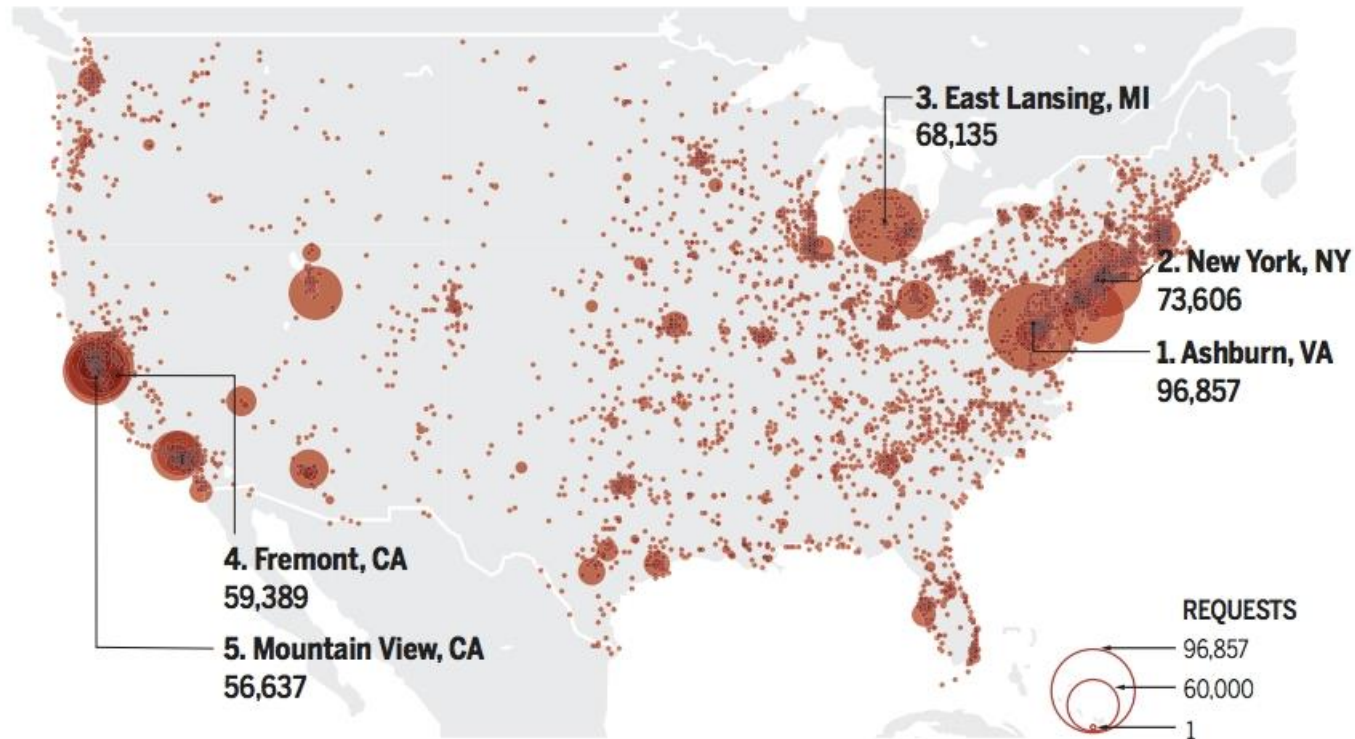
2017 homemade analysis (MPDL)



# What lesson can we learn from SciHub?

Going to SciHub is not only an act of necessity, it is an expression of convenience!

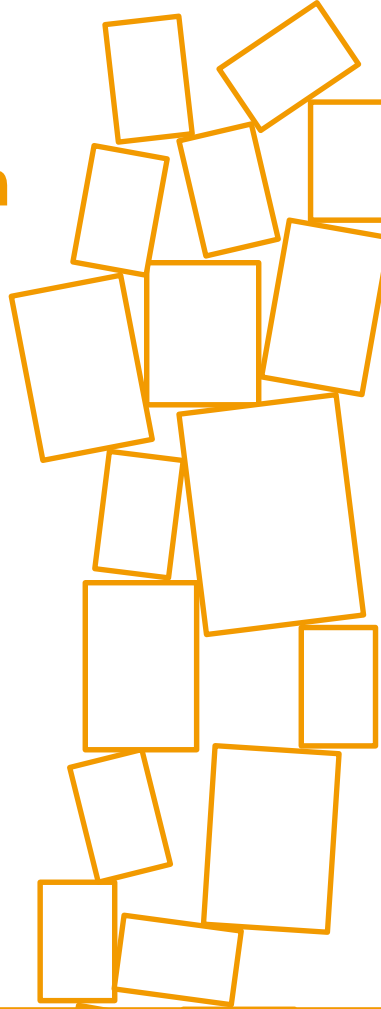
Sci-Hub users in the United States seem to congregate near universities and likely have institutional access to the articles they request. This map excludes 27,000 download requests from anonymous U.S. IP addresses.



SciHub, ResearchGate, Unpaywall et al.

**The publishing system**

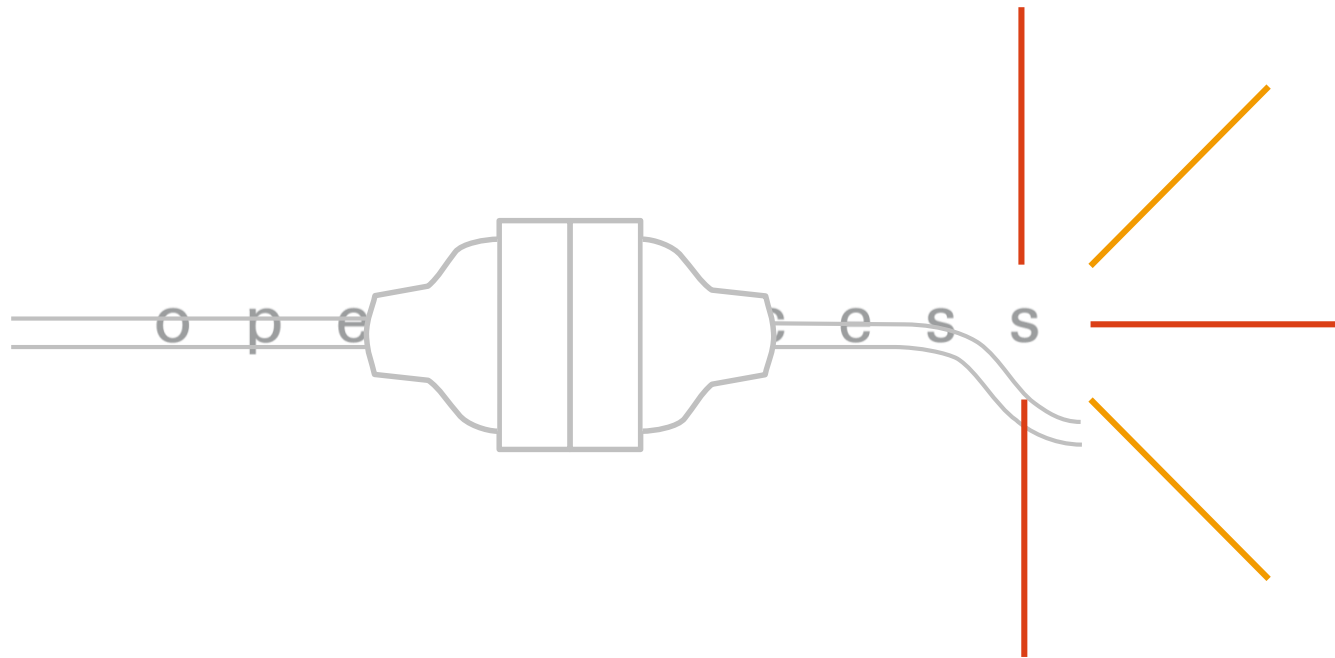
**as we know it**



**The current paywall system does not meet  
the demands of 21<sup>st</sup> century research**

# It is time to pull the plug on the paywall system

We need to discontinue the subscription system and **find new ways to finance the publishing services** that are wanted and needed in the 21<sup>st</sup> century



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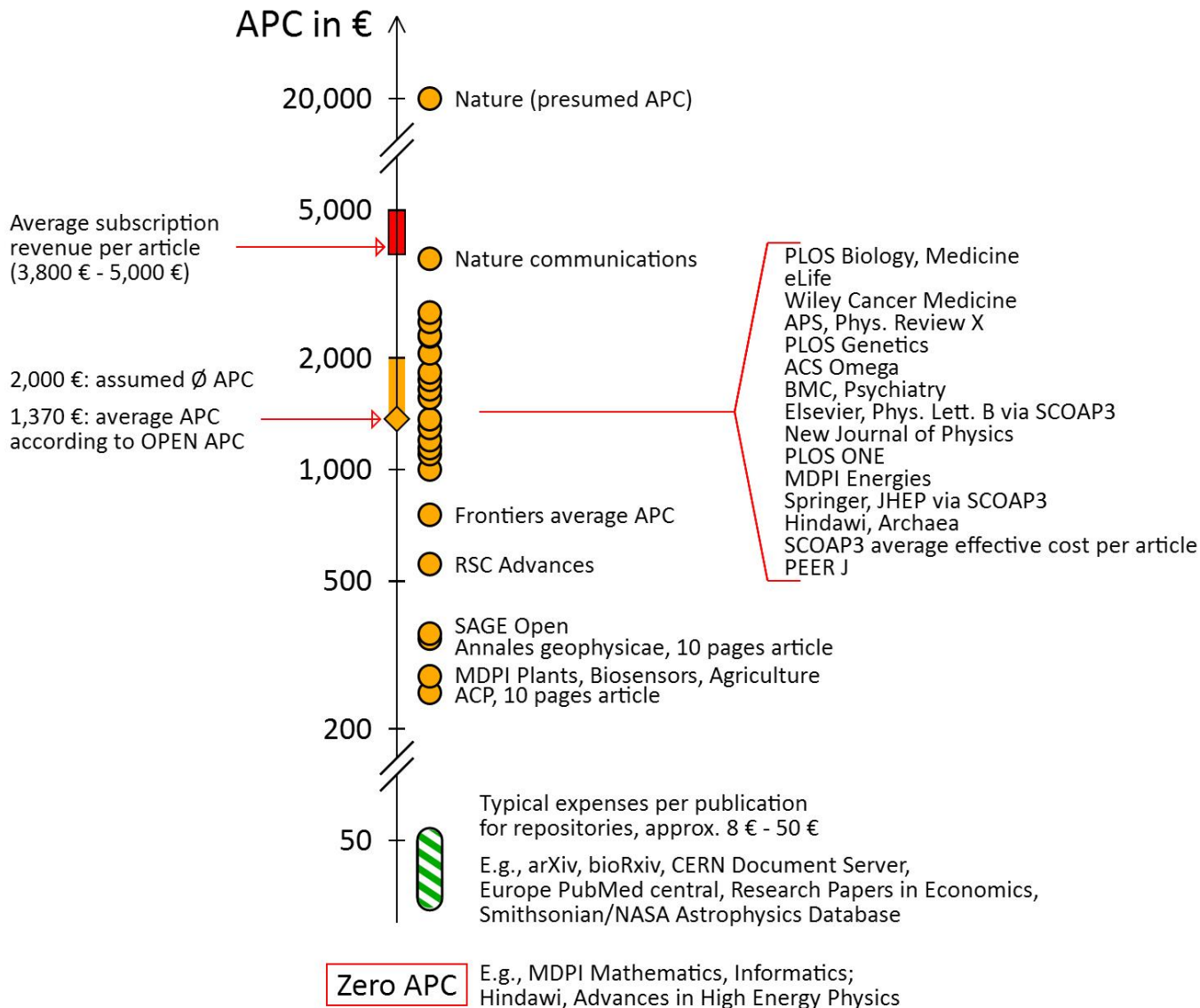


**Visit [oa2020.org](https://oa2020.org)**

**Thank you!**



# Cost stratification in the publishing system



## Rare high budget publications

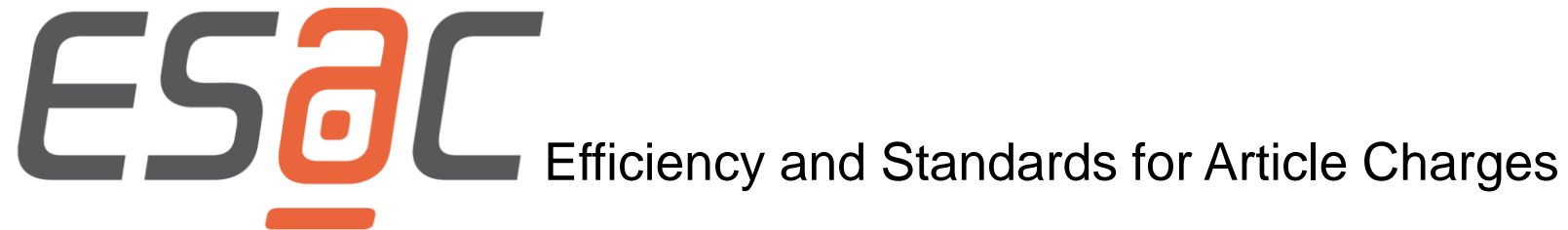
- Enhanced marketing
- Enhanced branding
- Digests (press releases)
- Presentation in social media

- State-of-the-art indexing, keywording, formatting
- Image editing
- Basic marketing

- Organization of proper review
- Technical platform
- Archiving

## Frequent low cost publications

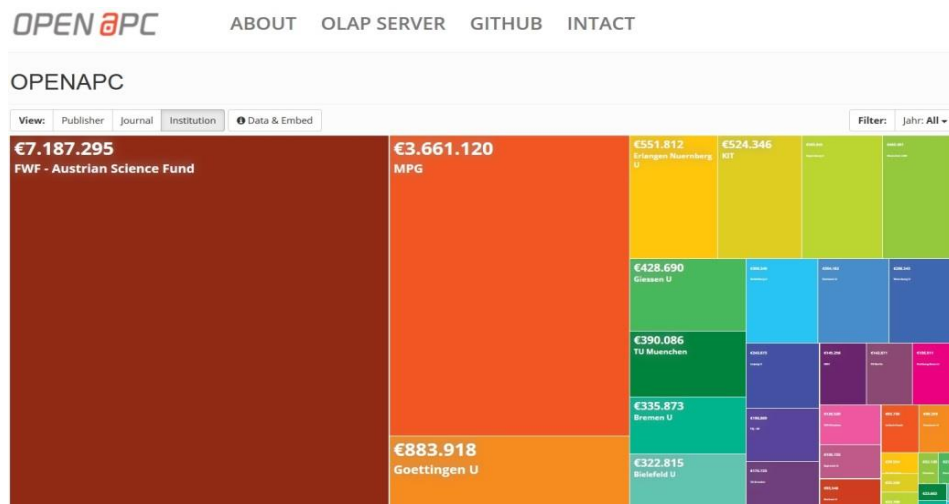
## Practical support – Offsetting Agreements



<http://esac-initiative.org/offsetting/>

- Agreement matrix
- Joint Understanding of Offsetting (March 2016)
- Customer Recommendations for Article Workflows and Services (March 2017)

# More and more APC evidence available



## Open APC

<https://treemaps.intact-project.org/>

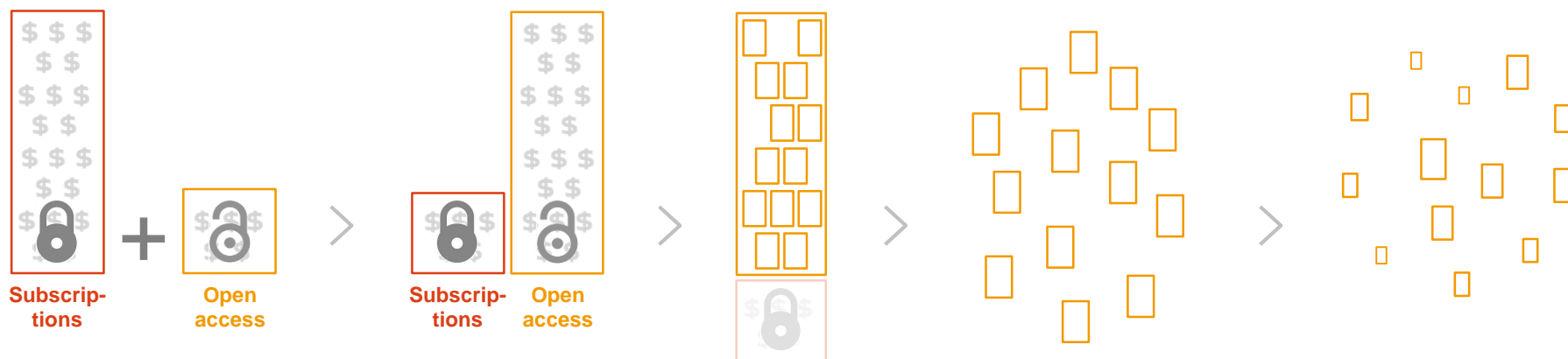


## Open APC Offsetting data set

<http://treemaps.intact-project.org/apcdata/offsetting/>

Universities and research institutions globally are invited to contribute their APC expenditure data to Open APC in order to build up a comprehensive data set that allows for extensive analyses and fosters transparency on the evolving APC market.

# The transformation road via offsetting summarized



## Phase 1

### How to get in

- Combine subscriptions with OA
- Combine entitlements and shift costs
- Establish OA processes & workflows

## Phase 2

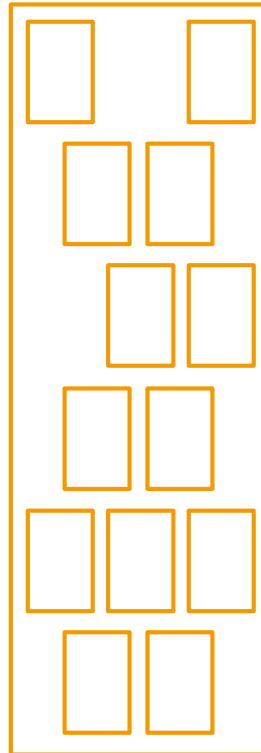
### How to get out

- Unbundle the individual publications
- Fade out the reading fee
- Establish differentiated APC pricing

**Offsetting is a model dedicated to the transformation; it cannot be a new standard routine. Offsetting has two distinct phases; together they pave the way to an OA market situation.**

# Step 1: Unbundling the article output

Publication Fee



Reading Fee

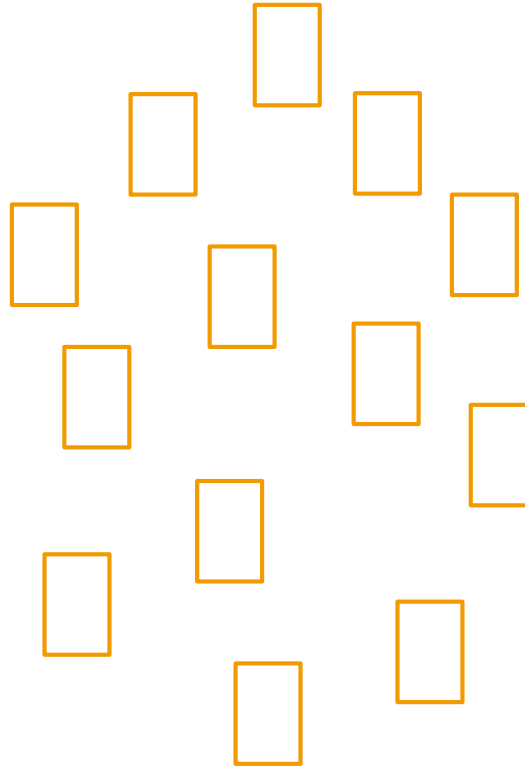


## Opening up

- Organize payment according to publishing output without guaranteed fee or capped articles
- Move from lump sum approach to individual invoicing
- Terminate the fixation of the big package deal
- Establish principle of “pay as you publish”
- Essential step towards an open publication market, which must be based on individually customized invoices per publication

## Step 2: Fading out the reading fee

Publication Fee



Reading Fee

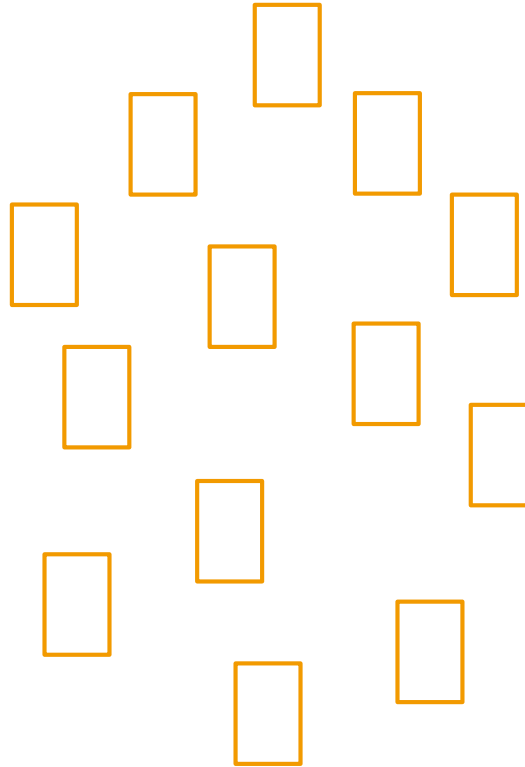


### Diminish & remove legacy

- Fade out read-access cost component
- Reading fee is an atavism in an OA business model and needs to be removed as an residual element of the past
- Inevitable target line: zero (to be reached as quickly as possible)
- Hence it is best not to start with such a cost component in an offsetting model

## Step 3: Establish differentiated APC pricing

Publication Fee



Reading Fee

### Create market conditions

- Depart from “one price fits all” publisher price policy as it has been typical for many hybrid offerings so far
- An individual APC level for each journal is needed
- An OA market system must be based on differentiated pricing (i.e. a stratification of APCs)
- The artificially set hybrid APC price points must be subjected to competition in order to arrive at an harmonized overall OA market

# Corresponding author output by country (2015 WoS data)

## Countries at B13

|                    | y2015RP          | Share       | Cumulative |
|--------------------|------------------|-------------|------------|
| <b>Total</b>       | <b>1,468,689</b> | <b>100%</b> |            |
| United States      | 297,093          | 20.2%       | 20.2%      |
| China              | 250,375          | 17.0%       | 37.2%      |
| Great Britain      | 69,613           | 4.7%        | 41.9%      |
| Germany            | 68,952           | 4.7%        | 46.6%      |
| Japan              | 60,448           | 4.1%        | 50.7%      |
| South Korea        | 47,900           | 3.3%        | 54.0%      |
| Italy              | 45,835           | 3.1%        | 57.1%      |
| France             | 44,573           | 3.0%        | 60.1%      |
| Canada             | 43,264           | 2.9%        | 63.0%      |
| Australia          | 39,293           | 2.7%        | 65.7%      |
| Spain              | 39,169           | 2.7%        | 68.4%      |
| Brazil             | 32,968           | 2.2%        | 70.6%      |
| Russian Federation | 25,729           | 1.8%        | 72.4%      |
| Netherlands        | 23,377           | 1.6%        | 74.0%      |
| Poland             | 20,524           | 1.4%        | 75.4%      |
| Switzerland        | 15,150           | 1.0%        | 76.4%      |
| Sweden             | 15,069           | 1.0%        | 77.4%      |
| Belgium            | 12,126           | 0.8%        | 78.2%      |
| Denmark            | 10,139           | 0.7%        | 78.9%      |
| Austria            | 8,144            | 0.6%        | 79.5%      |

Similar to what we have seen with the publisher distribution of our institutional output, we find the 20:80 rule holds true on the global scale:

**20 countries account for 80% of the annual global output.**

Those 20 are here with us at this conference along with 13 others!



# When will OA2020 be ultimately successful?

**To be successful OA2020 would need no more than 100 firm supporters**, provided that they are among the leading institutions of their countries and geographically distributed

| # of institutions  | Firm support | Medium | Cumulative |
|--------------------|--------------|--------|------------|
| United States      | 10-20        | 15     | 15         |
| China              | 8-12         | 10     | 25         |
| Great Britain      | 6-8          | 7      | 32         |
| Germany            | 6-8          | 7      | 39         |
| Japan              | 5-7          | 6      | 45         |
| South Korea        | 4-6          | 5      | 50         |
| Italy              | 4-6          | 5      | 55         |
| France             | 4-6          | 5      | 60         |
| Canada             | 4-6          | 5      | 65         |
| Australia          | 4-6          | 5      | 70         |
| Spain              | 4-6          | 5      | 75         |
| Brazil             | 3-5          | 4      | 79         |
| Russian Federation | 3-5          | 4      | 83         |
| Netherlands        | 2-4          | 3      | 86         |
| Poland             | 2-4          | 3      | 89         |
| Switzerland        | 1-3          | 2      | 91         |
| Sweden             | 1-3          | 2      | 93         |
| Belgium            | 1-3          | 2      | 95         |
| Denmark            | 1-3          | 2      | 97         |
| Austria            | 1-3          | 2      | 99         |

Firm support would not stop with signing the Expression of Interest.

It would mean expressing and demonstrating a commitment to divest the money from the subscription system and to shift budget and all operations to OA related services.

# The success formula of OA2020: institutional 20:80 + geographic 20:80 = irreversibility



We need firm institutional commitment **plus** reasonable geographic distribution of supporters to bring the departure from the subscription system to a point of no return

