

## Open Access in Scholarly Communication

The training aimed at the researchers of the Institute of Mathematics of the Czech Academy of Sciences.

The cost of the training is covered from the OPVVV project CZ.02.2.69/0.0/0.0/18 054/0014664 „Institute of Mathematics CAS goes for HR Award – implementation of the professional HR management“

[martin.svoboda@techlib.cz](mailto:martin.svoboda@techlib.cz)



EUROPEAN UNION  
European Structural and Investment Funds  
Operational Programme Research,  
Development and Education



# Summary

- Background
- Origins
- World – Europe
- Open Science
- Open Access models
- Plan S
- Czechia
- Future

# How it started

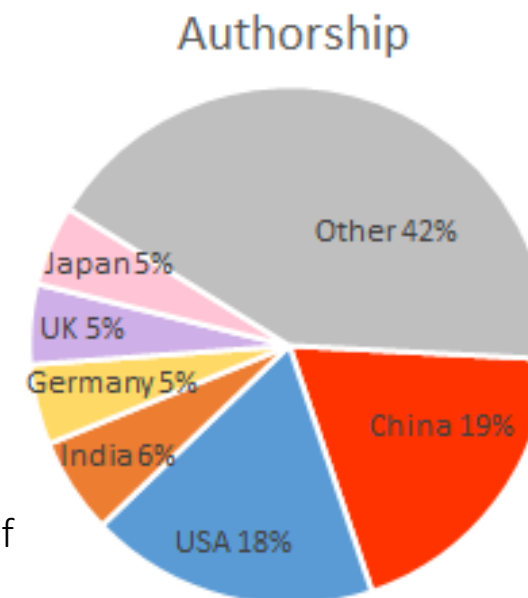
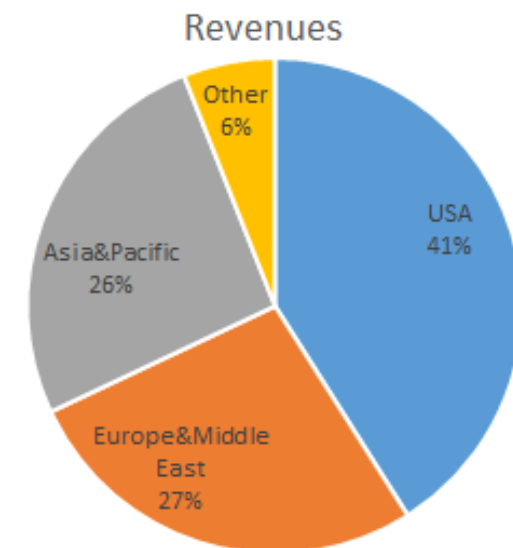
- Scientific communication – learned societies 350 years ago:
  - Journal des sçavans: Monday, 5 January **1665** (Louis XIV „Sun King“, Denis de Sallo)
  - Philosophical Transactions of the Royal Society: Friday, 6 March **1665** (Charles II, Boyle, Wren, ...)
- Original cycle: the scientist wrote -> the learned society revised and edited for print -> printed and sold for a subscription
- Problems: price, accessibility, availability, speed
- „Publish or Perish“
- Publishers found bonanza >>> "Serials crisis" culminated just before the Internet



Both title page pictures are , downloaded from <https://en.wikipedia.org/> on 29 Sep 2020

# Playground of today

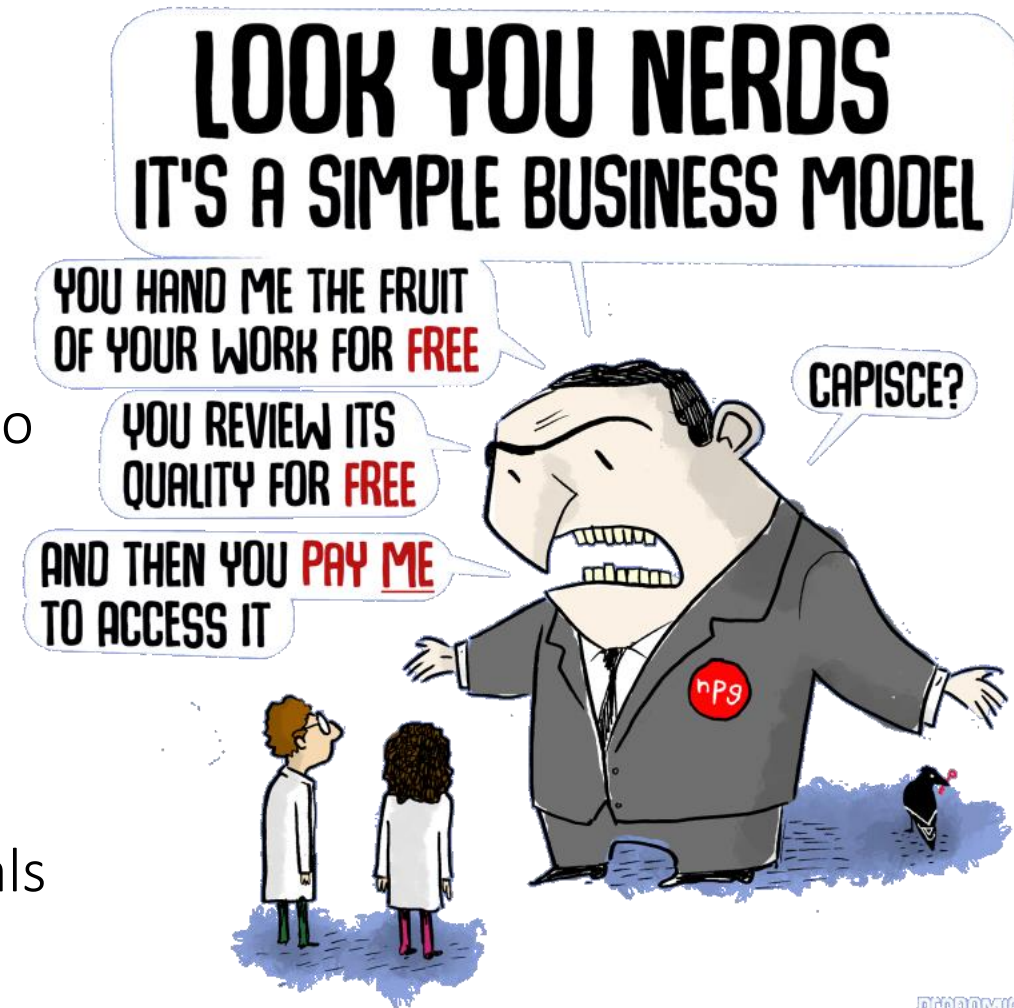
- On the legal side, the arms and pharmaceutical industries, on the other human trafficking and the drug trade – the only competitors of scholarly publishing as to the profit
  - e.g. Elsevier has been steadily in black figures on the NYSE for the past 30 years, with 40 % earnings after taxes! Willingness to make any changes is minimal.
- The great thing is that it's mostly **public money** - no risk
- STM publishing market generates revenue of \$ 25.7 billion
- 10,000 publishers, 42,500 peer-reviewed journals, of which 22,500 are in Scopus and 11,800 in DOAJ (+ 4 % each year)
- > 3 million articles a year, of which about 260,000 are in Gold OA
- Authorship: China 19 %, USA 18 %, India 6 %, DE, UK, JP 5 %



All data taken from The [STM Report, Fifth edition, October 2018](#), © 2018 STM: International Association of Scientific, Technical and Medical Publishers

# Why is it necessary to publish in top journals?

- An "objective" measure of quality was found for **assessment of science** - for the evaluation of individuals, institutes, institutions; i.a. also for the purpose of funding
- Authors (especially in STM) have to pass their **intellectual property right /copyright** to publisher so as to get their article published
- Publishers capitalize on that and happily satisfy author's wishes: number of articles published increases 5% per annum
- Publishers admittedly largely innovated the journals compared to print era, but the rise of subscription prices is unacceptable





# The origins and articulation of Open Access

- 1970 – anonymous ftp archives, "bulletin boards", USENET
- 1991 – arXiv.org
- 2002 – Budapest OA Initiative – George Soros - **altruistic**
- 2003 – Bethesda Statement on Open Access Publishing – US NIH - **pragmatic**
- 2012 – Dame Finch Report – make all publicly-funded UK research OA from 2014
- 2015 – Max Planck Ges.: „**there is enough money in the system for a transition to OA**“
- 2016 – EC: Open innovation, open science, open to the world - a vision for Europe
- 2018 – Plan S – cOAlition S ...
- 2019 – Directive (EU) 2019 on open data and the re-use of public sector information



# SCOAP<sup>3</sup> – a singularity worth following

- Dec 2005 – Colloquium on Open Access Publishing in Particle Physics
- Apr 6<sup>th</sup> 2011 SCOAP3 Decision-making Meeting at CERN, 19 countries present, 8 apologies
- Oct 1<sup>st</sup> 2012 SCOAP3 Launch Meeting
- Nov 2013 – SCOAP<sup>3</sup>/CERN signed a 3-year "cost-neutral" OA contract for particle physicists 2014-2017, 5 M€/year deal with Elsevier, Springer, Hindawi, IOPp, APS, OUP, Jagiellonian University
- 2017 2<sup>nd</sup> phase: the same journals 2018-2020, 2019 APS stepped in > 10 M€/year
- SCOAP3 is a partnership of > 3000 libraries, funding agencies and research centers in 44 countries and 3 intergovernmental organizations
- 2019 announced SCOAP3 e-Books, ca 80 basic titles to be contracted in 2021

# Open Science policy in Europe - 2016



## Open Innovation

Involve more stakeholders in the innovation process

## Open Science

Facilitate more open research via digital tools

## Open to the World

Support more societal impact & collaboration both in and outside Europe



# Open Science

A **new approach to the scientific process** based on cooperative work and new ways of diffusing knowledge by using digital technologies and new collaborative tools



Source: [Open Science facets as beehive \(Foster, 2018\)](#)

# Why Open Access?



- opens access to research
  - increases discoverability
  - increases citation count
  - increases (social) impact
  - facilitates reproducibility
  - shares & saves resources
  - be 'as open as possible'!
- > publish with CC-BY License

# Models of Open Access - variations of Gold



## Gold

- published in a fully-OA journal
- author/institution pays for publishing => **immediate open access** on the publisher's site



## Hybrid

- published in a toll-access journal, available on the publisher site, with an OA license
- double dipping => up to 70% price increase! APC– Article Processing Charge: 0 – 7000 €



## Bronze

- published in a toll-access journal, available on the publisher site, **without an OA license**



## Delayed Bronze

- published and available as Bronze OA but after an embargo period



## Diamond/Platinum OA

- no payment, immediate open access => institutional publishers, learned societies, ...

# Models of Open Access – alternative to Gold

## Green OA → via self-archiving

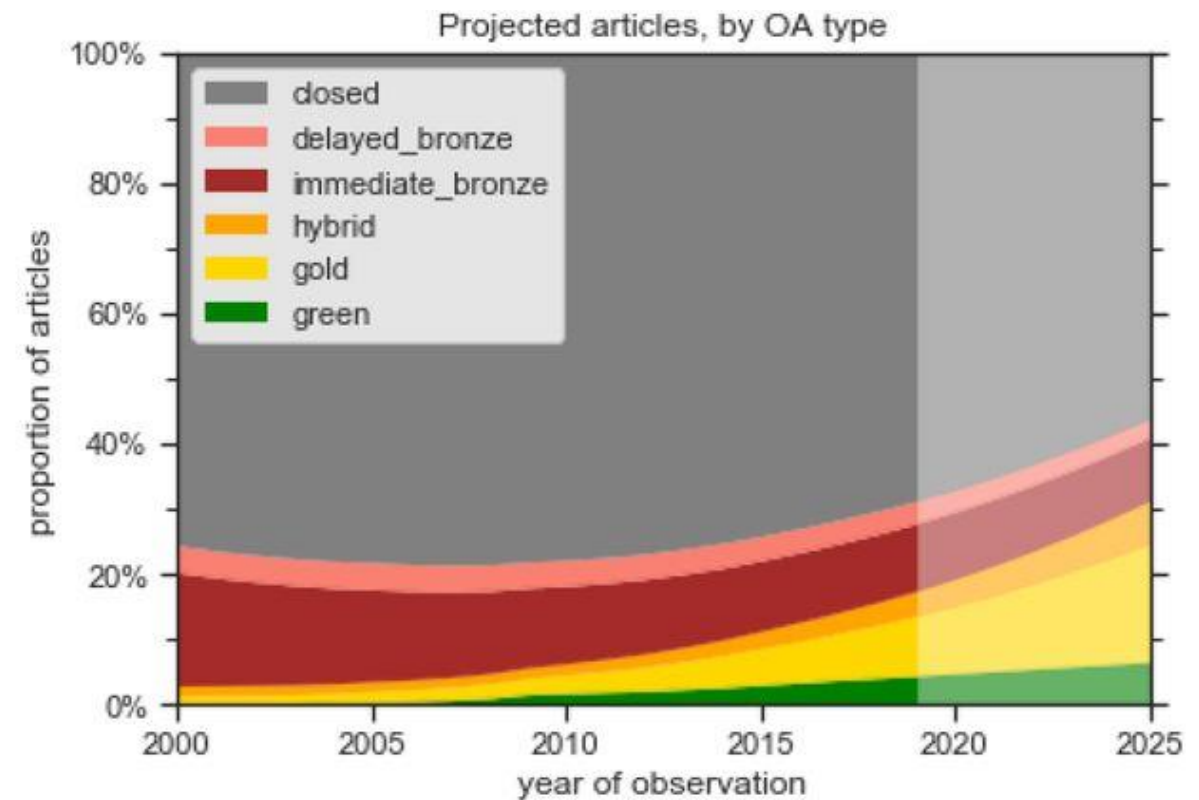
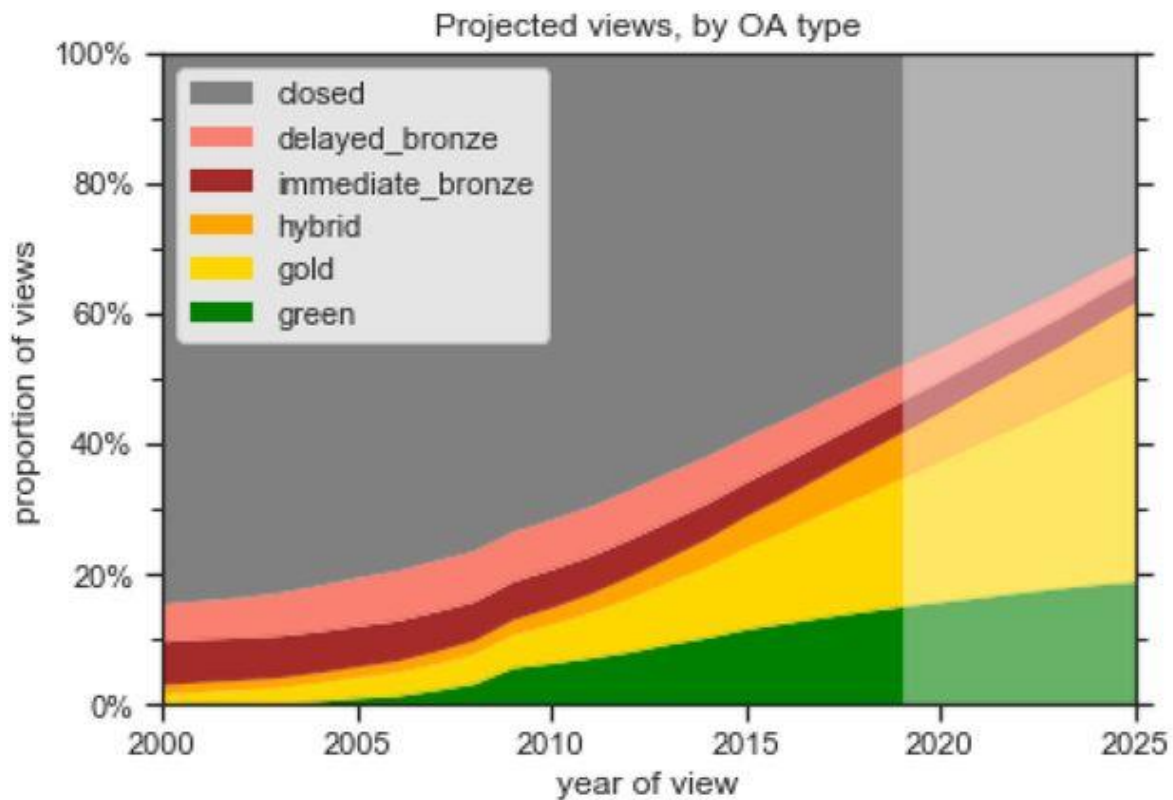
- published in a toll-access journal and a fulltext copy is available in an OA repository
- no payment, licensed journals, self-archiving, institutional repositories

### Disadvantages:

- continuing subscriptions => no change in money flow
- delayed access - embargo 6, 12, 24 months!
- unclear what is available in the directory: author original manuscript (AOM) × author accepted manuscript (AAM) × version of record (VoR) ?
- [DOAR \(Directory of Open Access Repositories\)](#)

# Open Access articles get viewed more

Estimation: “By 2025, 44% of all journal articles will be OA, and 70% of article views will be to OA articles.”









This one and two preceding slides: [H. Piwowar et al. \(bioRxiv, 2019\)](#)



# The Licenses

**Opening** the article is not sufficient, you have to specify what could be done with your work. By a CC license you give other people the **right to share, use, and build upon** a work that you have created. The notion of Creative Commons was coined by Lawrence Lessig, the Net lawyer in 2001

-  BY - Attribution to the creator
-  SA - Share-alike => not more restrictive
-  CC Zero / waiver license

-  NC - Non-commercial
-  ND - No derivatives
-  Public Domain Mark



Free content, no restrictions



Attribution alone



Attribution + ShareAlike



Attribution + Noncommercial



Attribution + Noncommercial + ShareAlike



Attribution + NoDerivatives



Attribution + Noncommercial + NoDerivatives

Source [https://en.wikipedia.org/wiki/Creative\\_Commons\\_license](https://en.wikipedia.org/wiki/Creative_Commons_license)

# How to check where [not] to publish

Where to publish:

- **CzechELib checklist** (in Czech, sorry) – how to find Gold, Platinum or hybrid journals
- [DOAJ](#) (Directory Of Open Access Journals)
- [OASPA](#) (Open Access Scholarly Publishers Association)
- [COPE](#) (Committee on Publication Ethics)

**Possible / potential** predatory journals and publishers:

- Bealls list of predatory journals <https://beallslist.net/>
- Stop Predatory Journals <https://predatoryjournals.com/publishers/>

# Overview of Open Access business models

	No Subscription	Subscription
Article Publication Charge	Gold APC	Gold Hybrid
No Article Publication Charge	Gold no APC (also referred to as subsidised, 'Platinum' and 'Diamond OA')	Subscription  Green (no payment, but delay 6 – 12 months)

Source: [The STM Report: An overview of scientific and scholarly publishing \(2018\)](#)

# Open Access via Plan S

- cOAlition S behind Plan S
- national research funders
- research publishing policy
- all articles in Open Access
- access is full & immediate
- 10 principles to implement
- deadline is 01 January 2021

Plan S

**Making full and  
immediate Open  
Access a reality**

[cOAlition S home](#)

# Plan S based on strong principles

- **No** publication should be locked behind a **paywall**
- OA must be immediate, *i.e.* **no embargo periods**
- Publication under an **open licence**, no transfer/licencing for copyrights
- **Transparency** about pricing and contracts
- **No hybrid** model of publication, except as a transitional arrangement with a clearly defended endpoint (not later than 01 Jan 2024)
- 10 principles



# 10 principles of Plan S

1. authors/institutions retain copyright & **default CC BY** license
2. robust **requirements** for quality journals/  
platforms
3. incentives & **support** to develop  
journals/platforms
4. **fees** covered by funders/ institutions not  
researchers
5. **diversity** of business models & **transparent**  
standard fees
6. **alignment** of policies & strategies for  
**transparency**
7. recognition that more time is needed for  
**books**
8. hybrid models allowed via **transformative**  
**agreements**
9. funders will monitor & sanction **(non-)**  
**compliance**
10. funders will **assess** research on intrinsic **merit** of works

# Is Plan S different from other initiatives?

- Plan S aims to **align OA policies**
- Plan S entails **mandating** OA by funders
- Funders **commit to cover costs** (APCs, platforms, journal flipping)
- Plan S sets a clear **timeline**: 2021
- Plan S is about **principles**, not about particular publication models

# Transformative agreements in the world

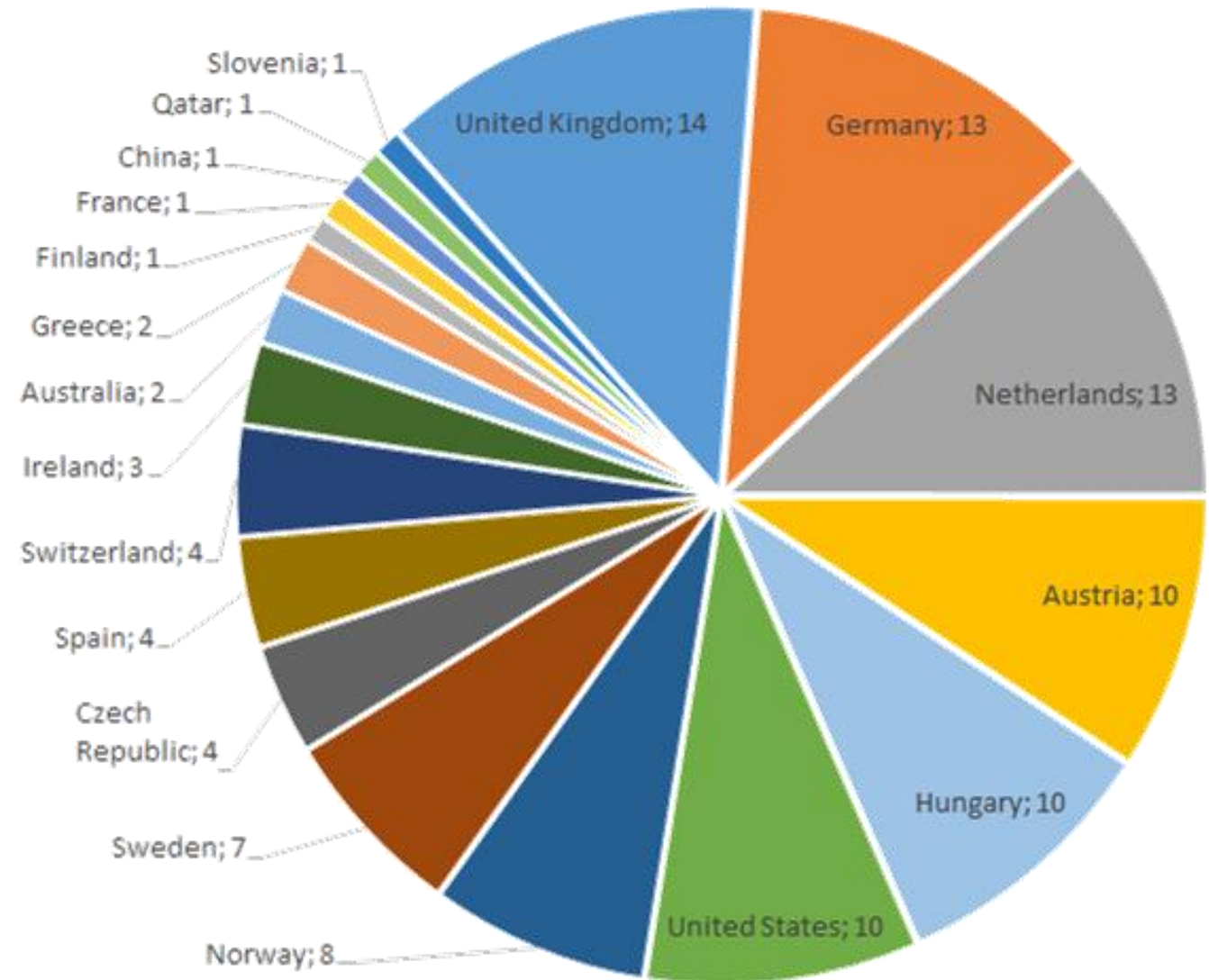
**Read-and-Publish** agreement: the publisher receives payment for reading and payment for publishing bundled into a single contract.

**Publish-and-Read** agreement: the publisher receives payment only for publishing and reading is included for no additional cost.

<https://scholarlykitchen.sspnet.org/2019/04/23/transformative-agreements/>

Transform. agreements by country

Source: ESAC ([Efficiency and Standards for Article Charges](#)), 25. 8. 2020



# CzechELib – what we did & continue to do

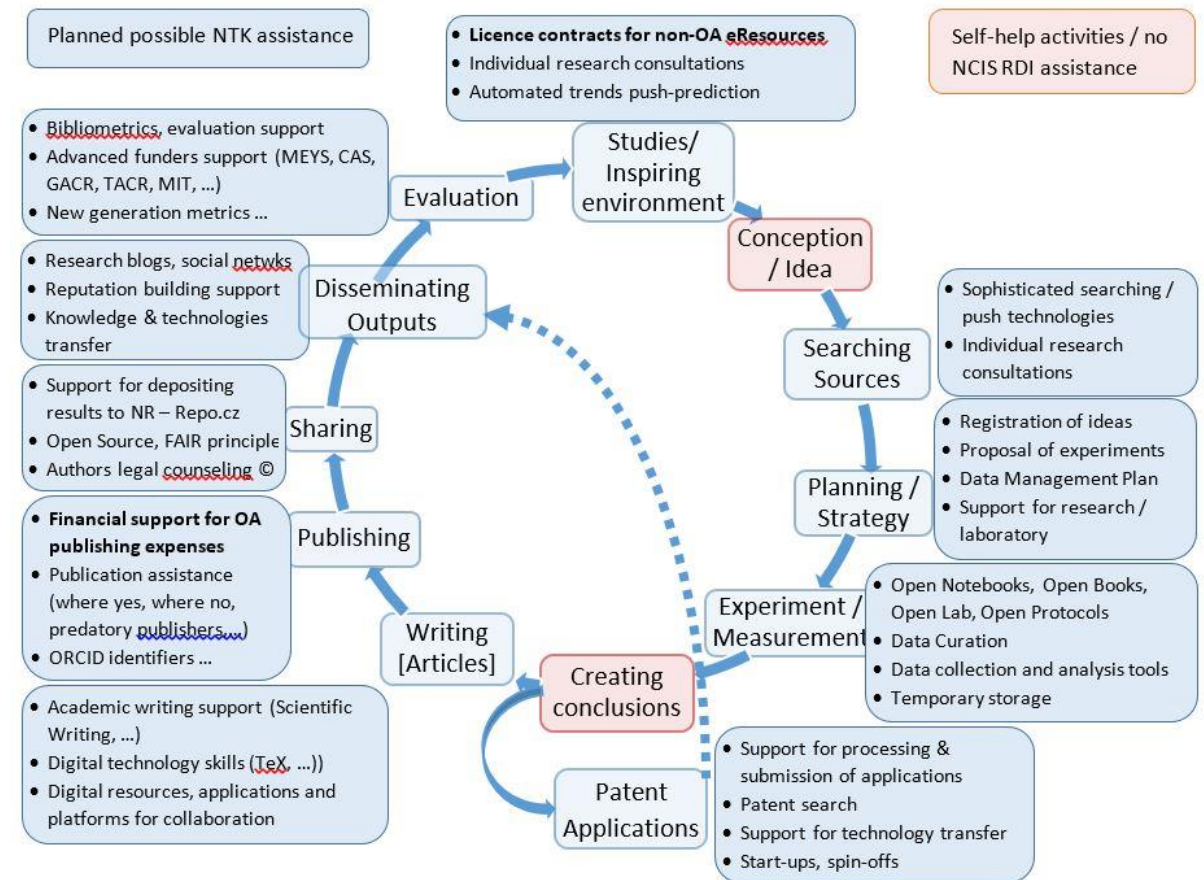
- **CzechELib** project within OP RDE, 2017 – 2022, €50M
- Czech national consortium – after 10 years of explaining its usefulness finally established 2017
  - subsidy for establishing & running the centre 2018-2022 from EU
  - subsidy for resources 2018-2020 from EU, 2021-2022 from national R&D budget
- Based on approved By-laws agreed on by an Expert and approved by the Project Steering Committee
  - centralised tender procedure approved by the government Transparent tendering committee
  - „three plus“ consortia size principle for negotiating
  - subsidy 70 % for citation, abstract, factual databases & tools
  - subsidy 50 % support for licensed journals in 2018-2020,
  - 120+ partner institutions, 100+ resources
- Agreements mostly 5 years, ready for „flip“ upon gov't request: transformation towards OA, opt-in/opt-out clauses



# CzechELib – what we do now



- **National Centre for Information Services for R&D&I** (NCIS R&D&I) project, Czech funding, 2021-2027, €130M, to be approved soon
- Continuation of CzechELib + stepwise flip to transformative agreements → OA
- Chief negotiator nominated by the R&D Council
- Negotiating team people from academia, strategy based upon proven models (OA2020, UC DL, Sweden, the Netherlands...)
- Other services:
  - One-Stop-Shop-for-Researchers – central service portal making available:
  - advanced services: scientific writing, English writing, Citing, Journal recommendation - anti-predator advice, bibliometrics, searching, ...
  - transfer, commercial, patent services, ...
  - push prediction, enabling tools, ...

## NCIS support throughout the Research Cycle





# CzechELib – what we do for Math Inst

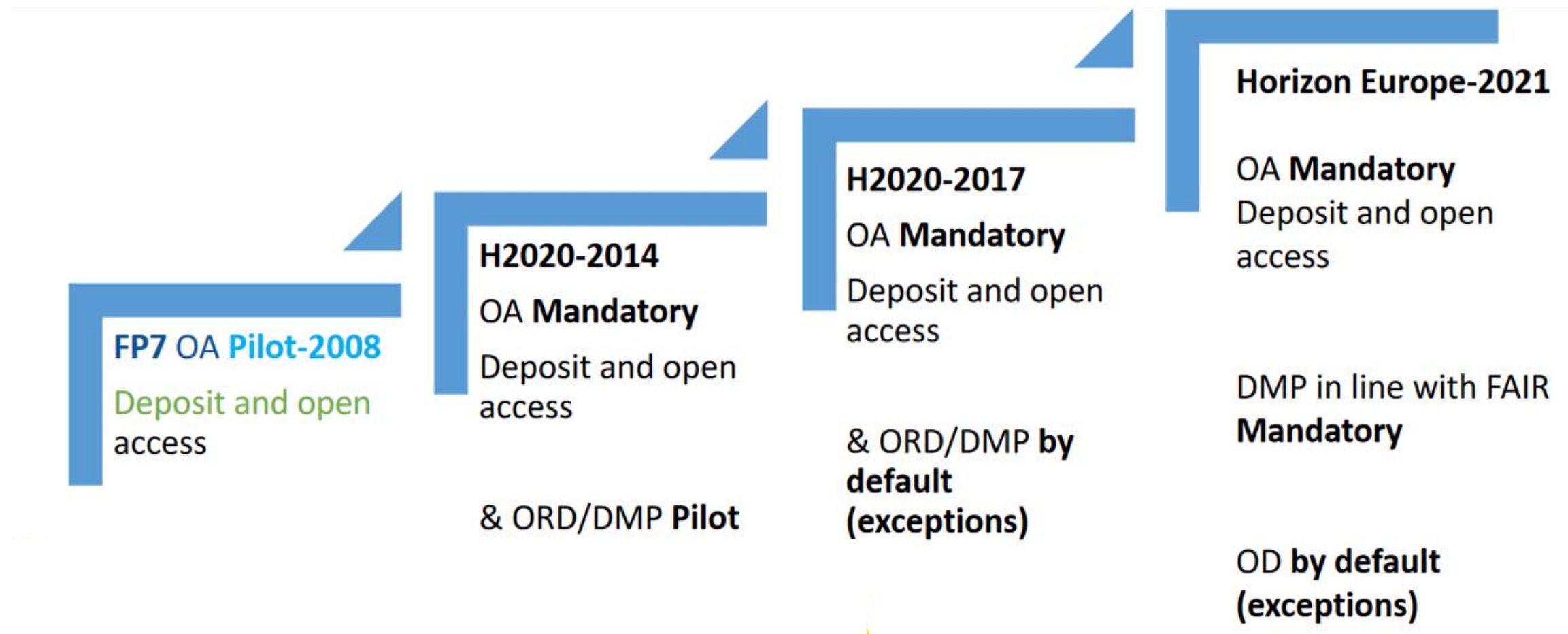
- American Mathematical Society Journals
- Cambridge Journals Online - STM collection
- MathSciNet
- ScienceDirect Freedom Collection
-  SCOAP3 – Gold OA, for Czech authors at no cost
- SpringerLink journals (Lecture Notes in Mathematics, Computer Science Library e-books)
-  Taylor & Francis - Mathematics and Statistics – Read & Publish Agreement in three years  
 number of free Gold OA articles = Czech publishing output
- Wiley Online Library journals

🔓 EMS Press announced the launch of its Subscribe To Open (S2O) programme. 10 journals, including the European Mathematical Society's flagship journal *Journal of the European Mathematical Society*, have been selected for the initial S2O round which, if successful, will see those titles flip to open access in January 2021.

Berlin, Germany - 25th June 2020

🔓 Possible co-funding from 2022 onwards

# Policy in EC Framework Programs for R&I



# Coming soon ...

Introducing

# Open Research Europe

The **European Commission's** dedicated open access publishing platform for **Horizon 2020** beneficiaries

---

**Launching 2021**

---

 European Commission | Powered by  F1000 Research



## EUROPEAN OPEN SCIENCE CLOUD

# Thank you for your attention

## Questions?

[martin.svoboda@techlib.cz](mailto:martin.svoboda@techlib.cz)



# Sir Tim Berners-Lee

## for Nobel prize !