

# NTK

50°6'14.083"N, 14°23'26.365"E  
Národní technická knihovna  
National Library of Technology

# KRECon2021: Open Science – Challenges and Opportunities welcomes you



- The incredible turned reality
- Thank you for coming, especially the foreign guests
- Personal contact + open mind >>> good conference, good and open science
- KRE-Conferences are not a problem solver, rather an opener
- The first day - good practices of European experts
- The second day - domestic scene, closed by panel discussion



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# Communication of [Open] Science

## KRECon2021

11 November 2021

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# The beginnings

TODAY

TOMORROW

# Early [open] science

## Pre-Socratic Greek scientists

- Milesians published since **600 BC** ... testimonia only remained
- Euclid's **Στοιχεία** (Elements) **ca 300 BC** published in the Library of Alexandria survived and remained valid for **2000 yrs** until Lobachevsky's New Foundations of Geometry **1835**

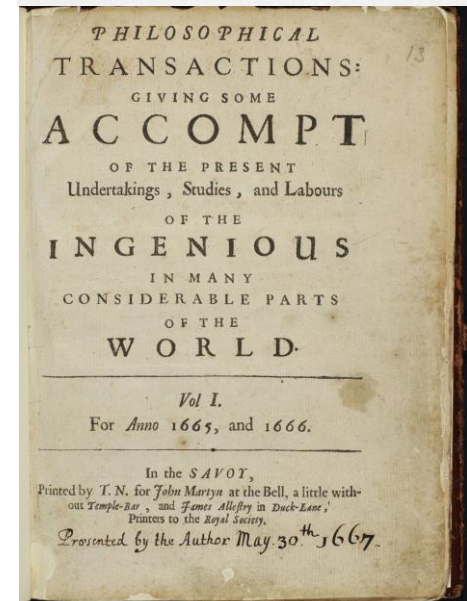
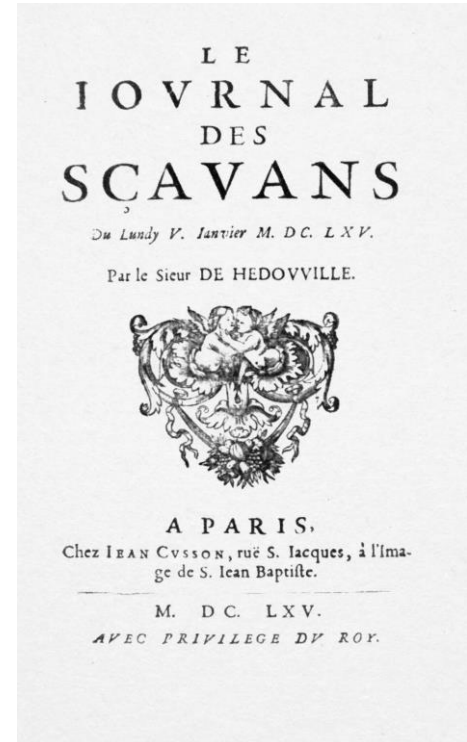


## Modern scholarly journals

- First published by learned societies 350 years ago:
  - **Journal des sçavans**: 5 January 1665 (Louis XIV „Le Roi Soleil“, Denis de Sallo, Versailles, Racine, Molière, ...)
  - **Philosophical Transactions of the Royal Society**: 6 March 1665 (Charles II, Boyle, Wren, ...) – introduced **peer-review**

**Beginning of the standard cycle**: scientist write --> learned society peer-reviews and prepares for print --> publishes and sells on **subscription**

Journal articles turned **merchandise**



# Value of scholarly communication

## for publishers:

- they publish more than 4,5 million articles a year, as much as the R&D community requires
- major share paid from public funds

for funders:

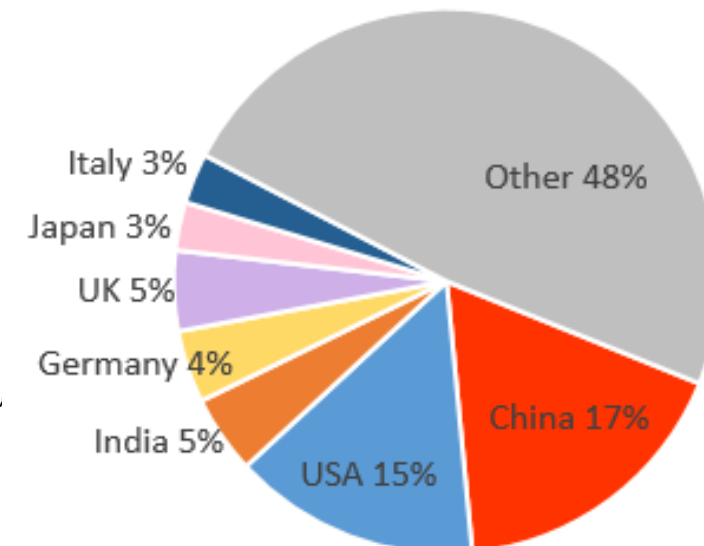
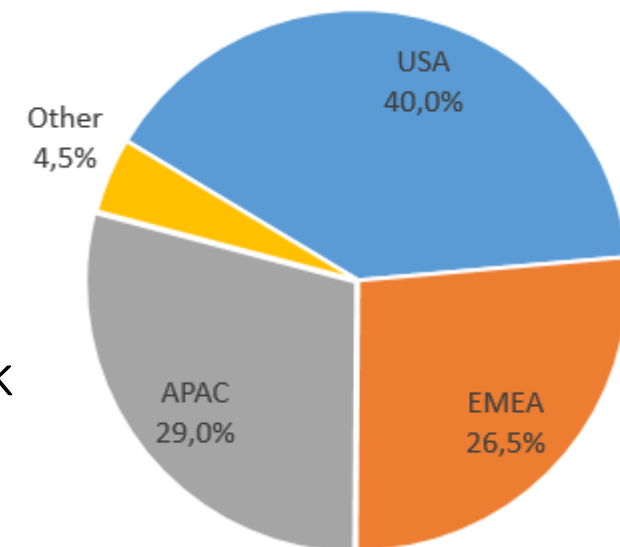
- an "objective" measure of quality has been found for **the assessment** of institutions, institutes, individuals, also for the allocation of resources

for authors:

- publish or perish, reputation, careers, professorships, tenures, grants

# Playground of today

- The scholarly publishing industry profit is only comparable with the arms and pharmaceutical industries, often with 40 % earnings after taxation ==> willingness to any change is minimal
- The great thing is that the source are mostly **public money** - no risk
- STM publishing market generates revenue of \$ 28 billion
- 10,000 publishers, 42,500 peer-reviewed journals + 5 % yr, of which 22,500 are in Scopus and 11,800 in DOAJ)
- > 4,2 million articles a year + 4 % /yr, > 30 % in Gold OA



All data taken from The [STM Global Brief 2021](#), © 2021 STM: International Association of Scientific, Technical and Medical Publishers



Open Access

TODAY

TOMORROW





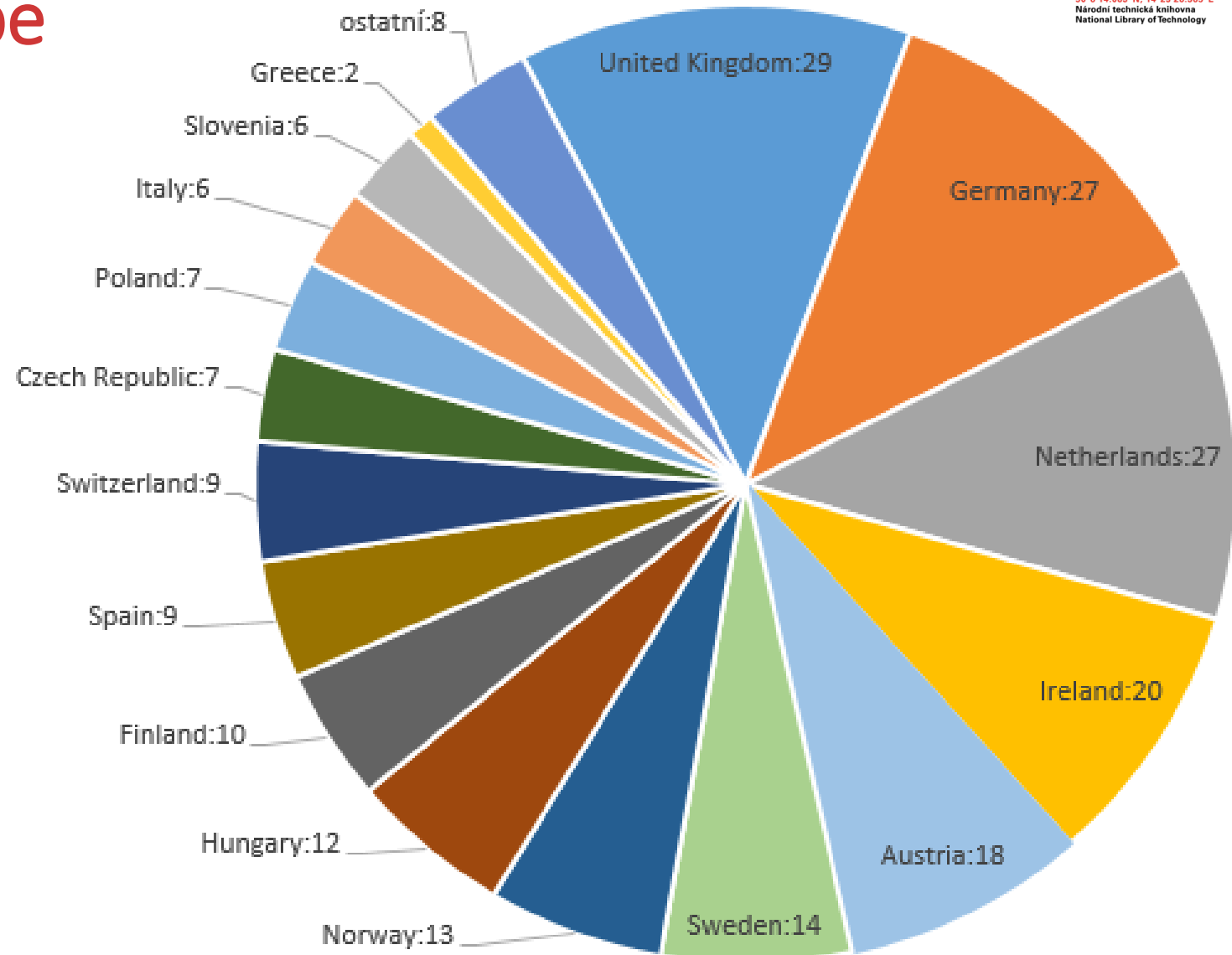
# State of the art in Europe

## Transformative agreements

In the most successful UK the agreements allow for publishing **32 588** OA articles pro year, European average is ca 10 000 articles pro year

**Czechia:** T&F, CUP, Karger, Emerald, de Gruyter, Kluwer, IEEE; negotiating Wiley, ACS and OUP

Source: ESAC registry, 25. 10. 2021



# How to accomplish 100% Open Access

It is almost impossible to achieve it as a single institution (unless you are University of California or CERN).

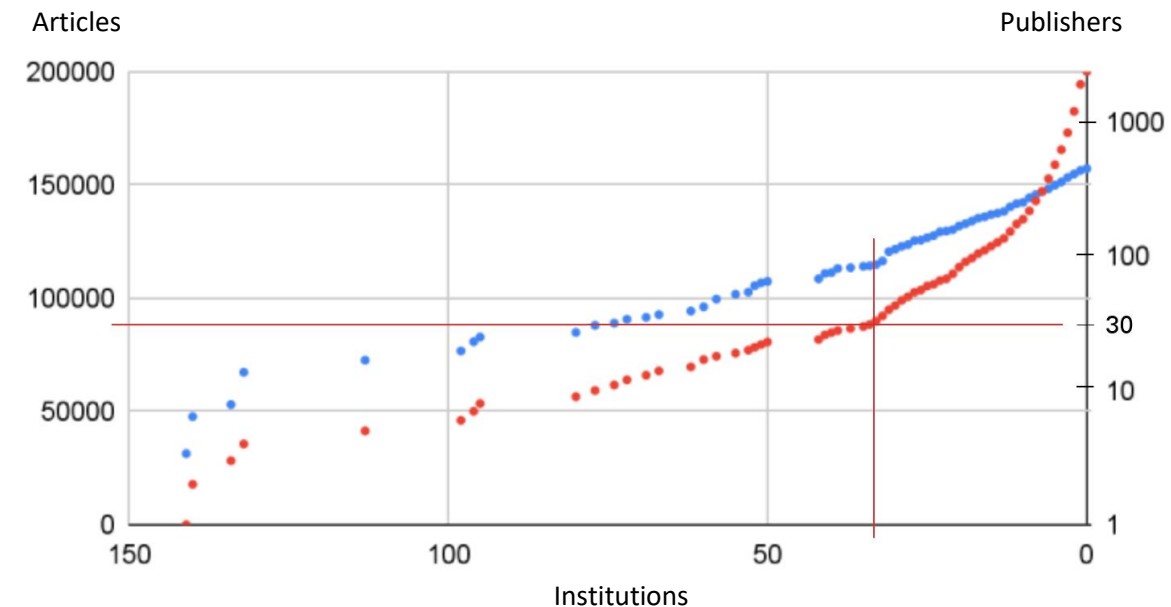
Two pre-conditions:

## 1. There exists some National strategy / policy / approval

- National strategy of open access to research information approved 2017, but toothless

## 2. You need an executive body to negotiate the agreements

- National centre for electronic information resources AKA CzechELib founded 2017, license agreements prepared with options for both Green and Gold OA, but just ca 30 publishers
- It covers 85 % of nation-wide costs, but only ca 30% articles published by corresponding author from CZ
- Dutch model: national agreements with **major publishers** (many user institutions), or those with high publishing rate
- Efficient spending × manageable logistics
- Problem of the „long tail“ – many publishers with few articles



Czech top 10: Elsevier, Springer, T&F, Wiley, MDPI, CAS, OUP, de Gruyter, SAGE, Nature Publishing Group

# FAIR and Open Data - EOSC

A pair of complementary projects is being proposed for an EU Operating Programme

Czech Academic and Research Discovery Services – CARDS – proposed by NTK:

1. **PNG** – new generation platform – a single common system to manage both printed and electronic resources in all research libraries
2. **MD WG** – working group for metadata schemes
3. **NMK** – national metadata catalogue
4. **NC PID** – national center for Persistent Identifiers

EOSC Base – navržený e-INFRA zahrnuje:

1. **NDI** – national data infrastructure with multi-tenant architecture of repositories and core services
2. **EOSC CZ Secretariat** – administrative, legal, expert support for subject working groups, and also central **Architecture** and **Core Services** WGs
3. **Training Centre**

Both platforms, the library – documents, and repositories – data will be indexed by a **single discovery system**, so that it will be possible to search both documents and data about a chosen topic



Thank you for your attention

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