



Open Science - US - Europe and Beyond?

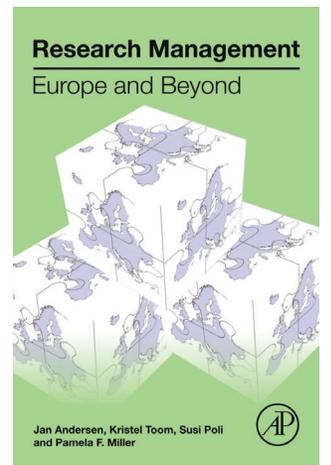
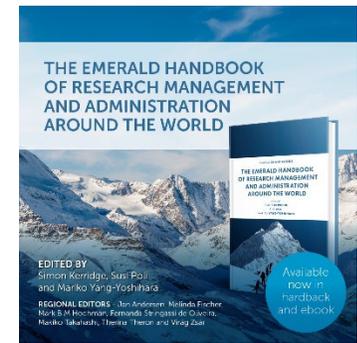
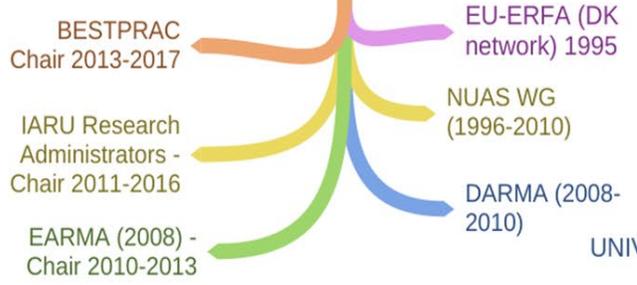
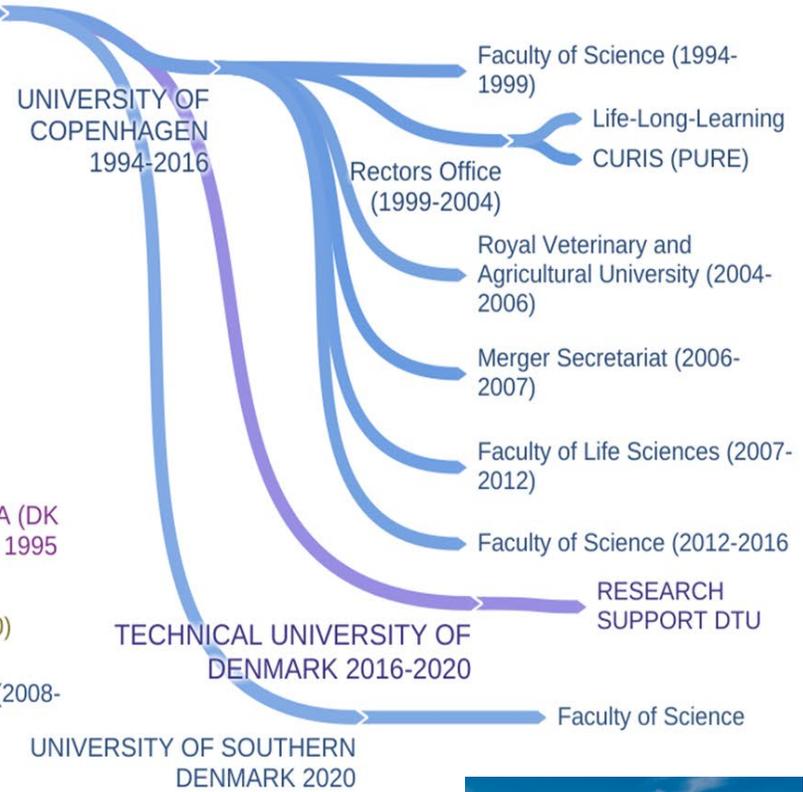
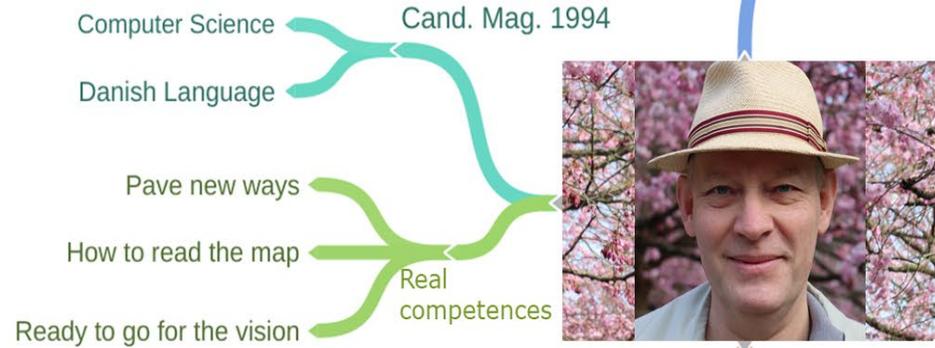
I am presenting at the
SRA INTERNATIONAL
ANNUAL MEETING
CHICAGO 2024
OCTOBER 26-30

*Jan Andersen, Senior Executive Advisor
University of Southern Denmark
DARMA and EARMA rep. in INORMS WG*

Agenda

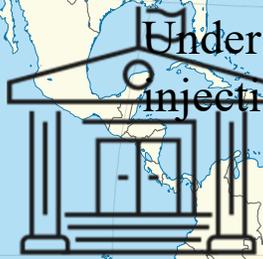
- Who is Jan Andersen
- Why are we looking at Open Science in the first place
- Current state-of-the-art Europe and US in comparison
- Reflections and discussions on the role of RMAs in Open Science
- Path ahead
- Closing

JAN ANDERSEN



University of Southern Denmark

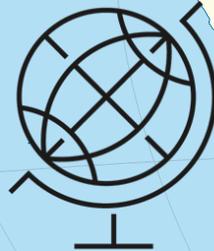
Understand and predict drug release and interactions at the injection site by developing novel biopharmaceutical tools;



Organisation

5 Faculties

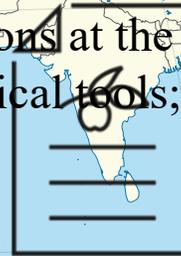
25 Departments



International collaboration

69.8% publications

197 countries



Research output

26,351 publications

56% Open Access



4,069 employees (fte)

19,287 students



Societal impact

595,226 SoMe mentions

18,474 policy papers & patents



DKK 3.6

billion in revenue

Thanks to input from the EARMA Open Science Thematic Group:

→ Daniel Spichtinger

→ Lindsay Dowling

→ Núria Benítez

→ Tiberius Ignat

→ Liise Lehtsalu

→ Eva Casamitjana

→ Simon R. Kerridge

→ John Donovan

→ Ragnar Lie

→ Monique Horstmann

→ Rachael Delevante

→ Mark Hahnel

→ Cem Birol

→ Silvia Alfreider



Agenda

→ Who is Jan Andersen

→ **Why are we looking at Open Science in the first place**

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THE CHANGING RESEARCH LANDSCAPE

WHY WE NEED COMPETENT, INTERNATIONAL ORIENTED, PROFESSIONAL RESEARCH ADMINISTRATION

Funding complexity

- ★ From national to international funding
- ★ From small individual funds to large corporates
- ★ Competitive funding
- ★ Research for research's sake to research for society
- ★ **Open Science**
- ★ Responsible Research and Innovation – Ethics
- ★ Research Assessment

Societal expectations

- ★ Societal Challenges
- ★ Mass-university
- ★ Research Integrity - Accountability
- ★ Benchmarking

Control to Service

- ★ The researcher in focus, not the admin system
- ★ Targeted support and information
- ★ Direct communication





Impact of a Paradigm shift in Research on Research Administration

Jan Andersen,
Senior Executive Advisor
University of Copenhagen

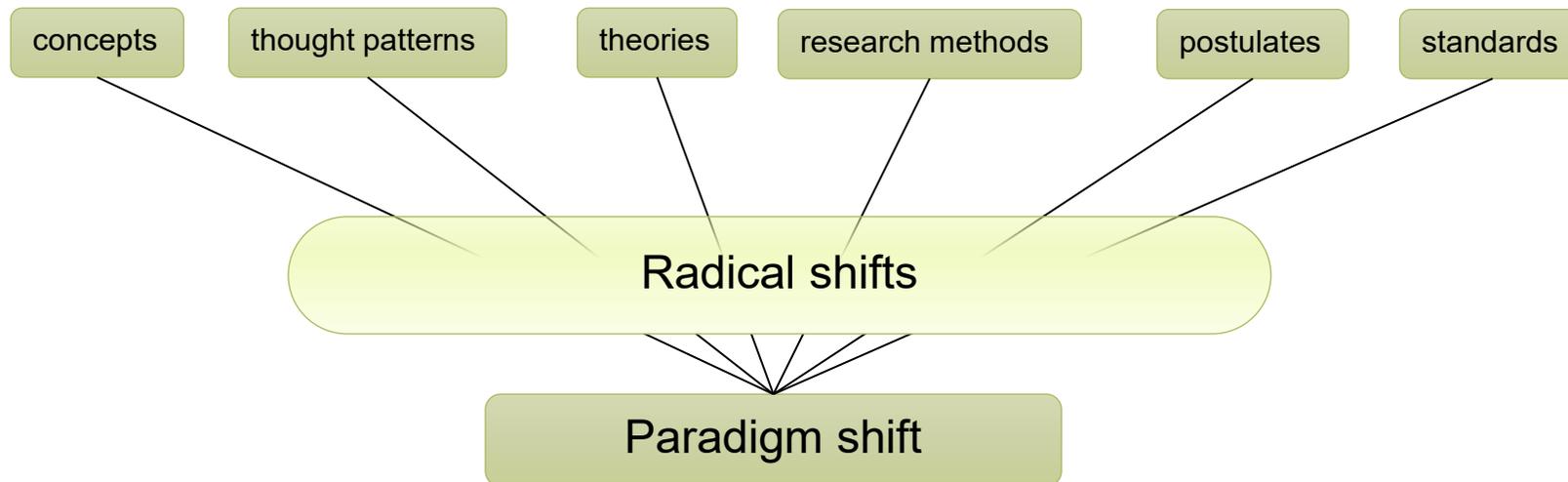
**2015 SRA International Annual Meeting
Las Vegas October Monday October 19
M202**

Science 2.0 - A Paradigm Shift or Another Windmill to Conquer?

Concepts:

What is a paradigm?

”In science and epistemology (the theory of knowledge), a paradigm is a distinct set of concepts or thought patterns, including theories, research methods, postulates, and standards for what constitutes legitimate contributions to a field”



OPEN SCIENCE

“Science 2.0 – Science in transition” in Europe is a process started 2014 on the basis of the theory that science is changing not only because of the sharing and interaction possibilities of the internet, but also because of the growth in scientific output, mobility of researchers, globalisation and big data

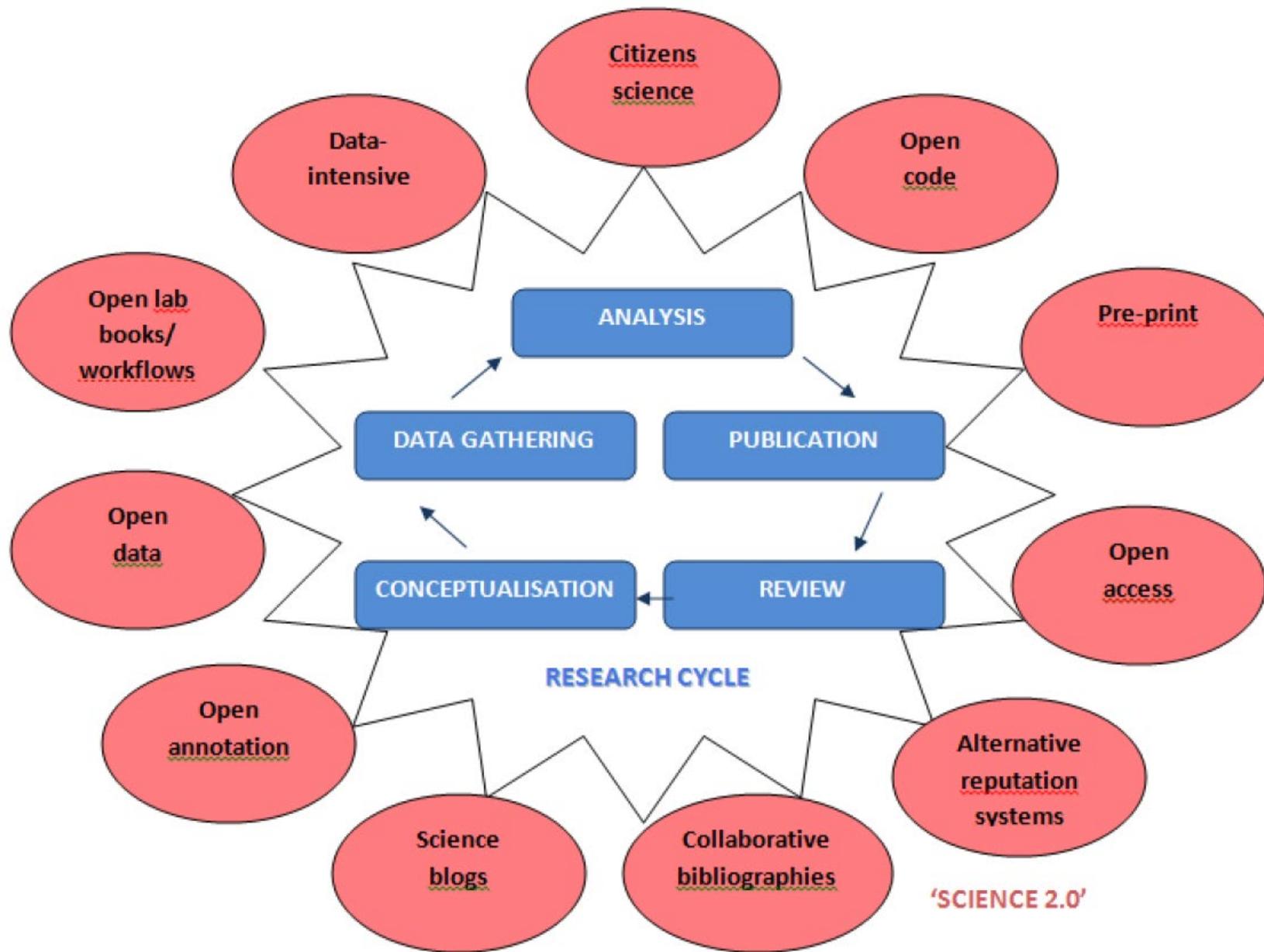
-> Public consultation

-> Stakeholder views (LERU, EUA ao)

-> Science 2.0 renamed to Open Science

<http://scienceintransition.eu/>





Discovery

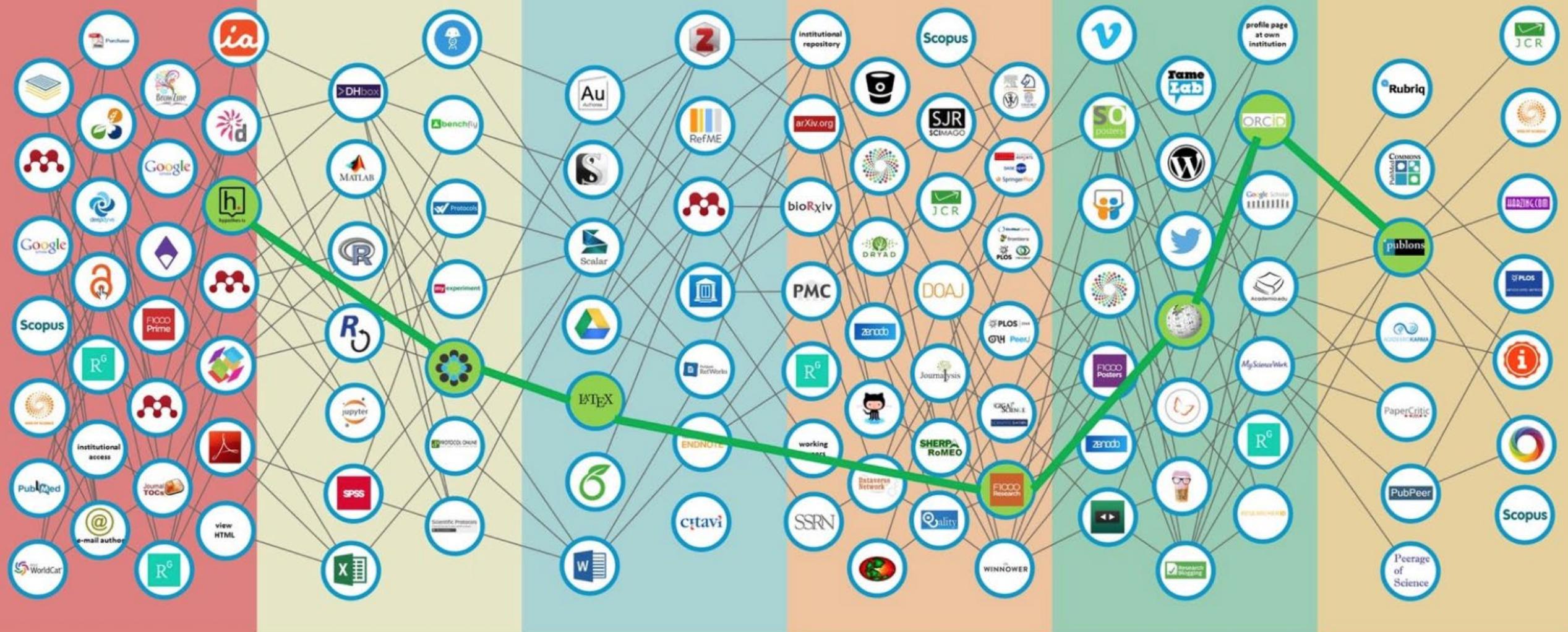
Analysis

Writing

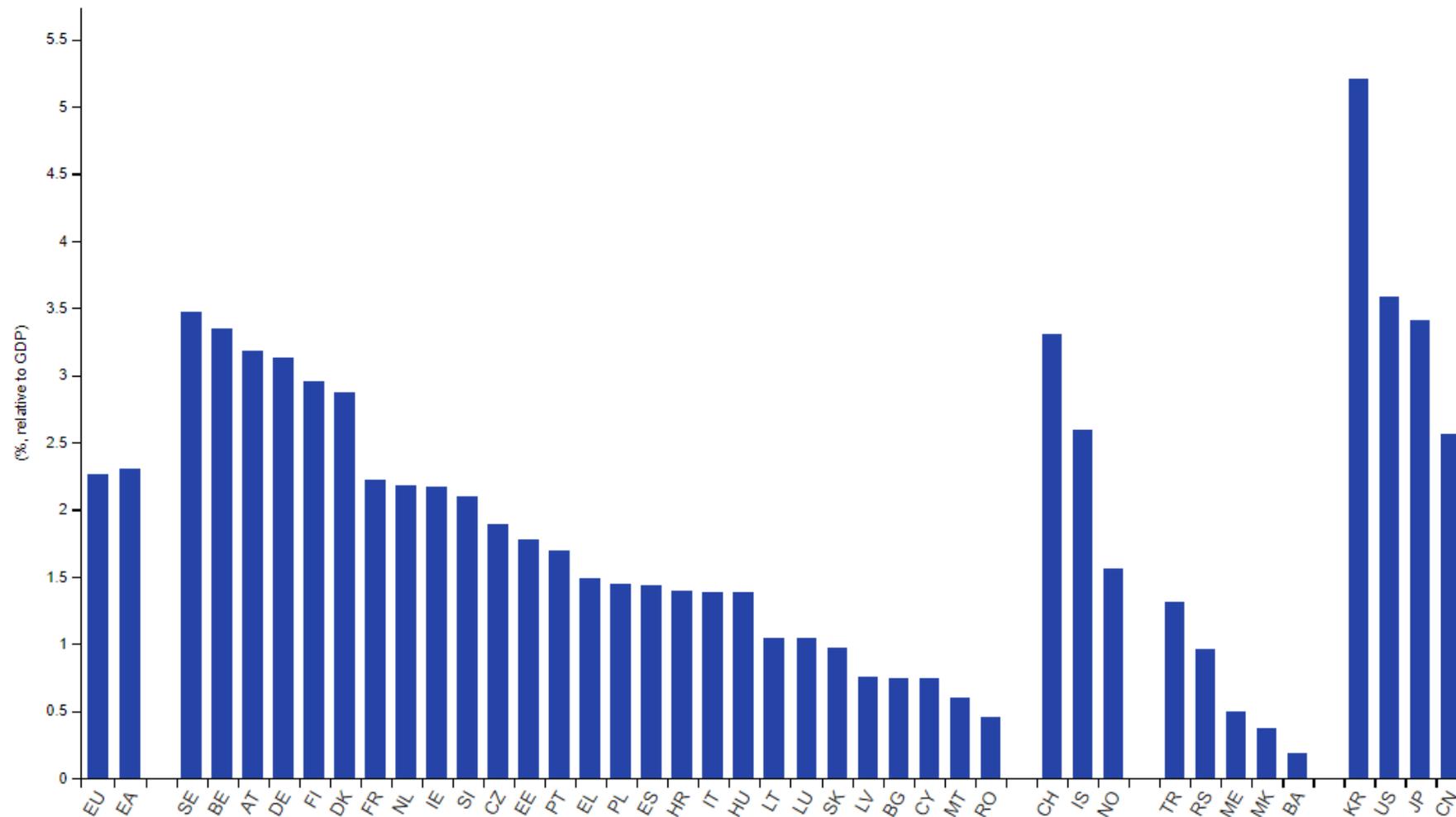
Publication

Outreach

Assessment



Gross domestic expenditure on research and development, 2022



Note: when definitions differ, see http://ec.europa.eu/eurostat/cache/metadata/en/rd_esms.htm.

2022 estimate, EU, EU 20, Belgium, Austria, Ireland.

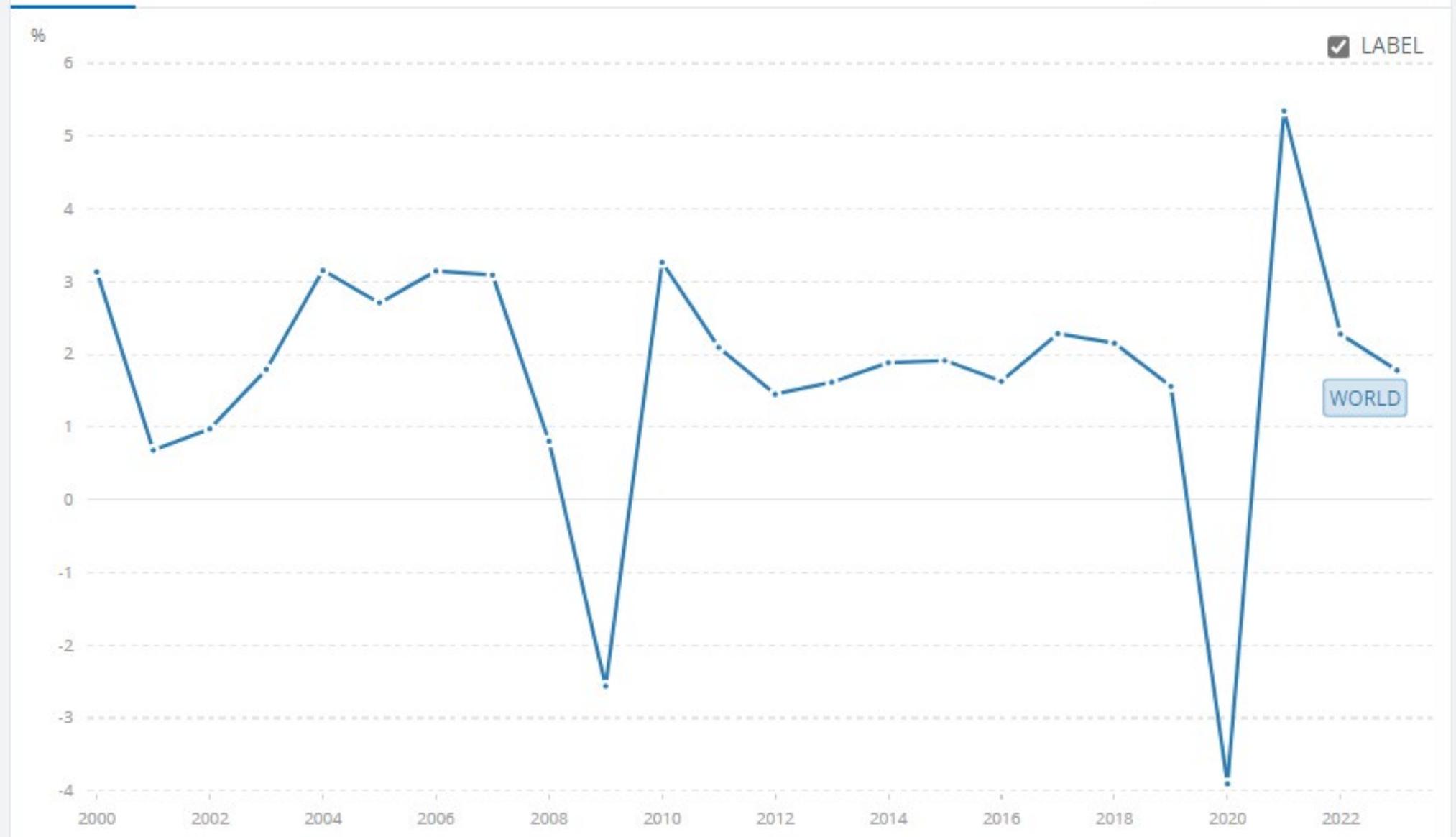
2022 not available, closest reference year used instead, Switzerland, Montenegro, Bosnia and Herzegovina.

2022 break in series, Netherlands, Ireland.

2022 preliminary data, United States.

2022 definition differs, Hungary, United States.

Source: Eurostat (online data code: rd_e_gerdtot) and OECD database



LABEL

WORLD

GDP per capita growth (annual %)

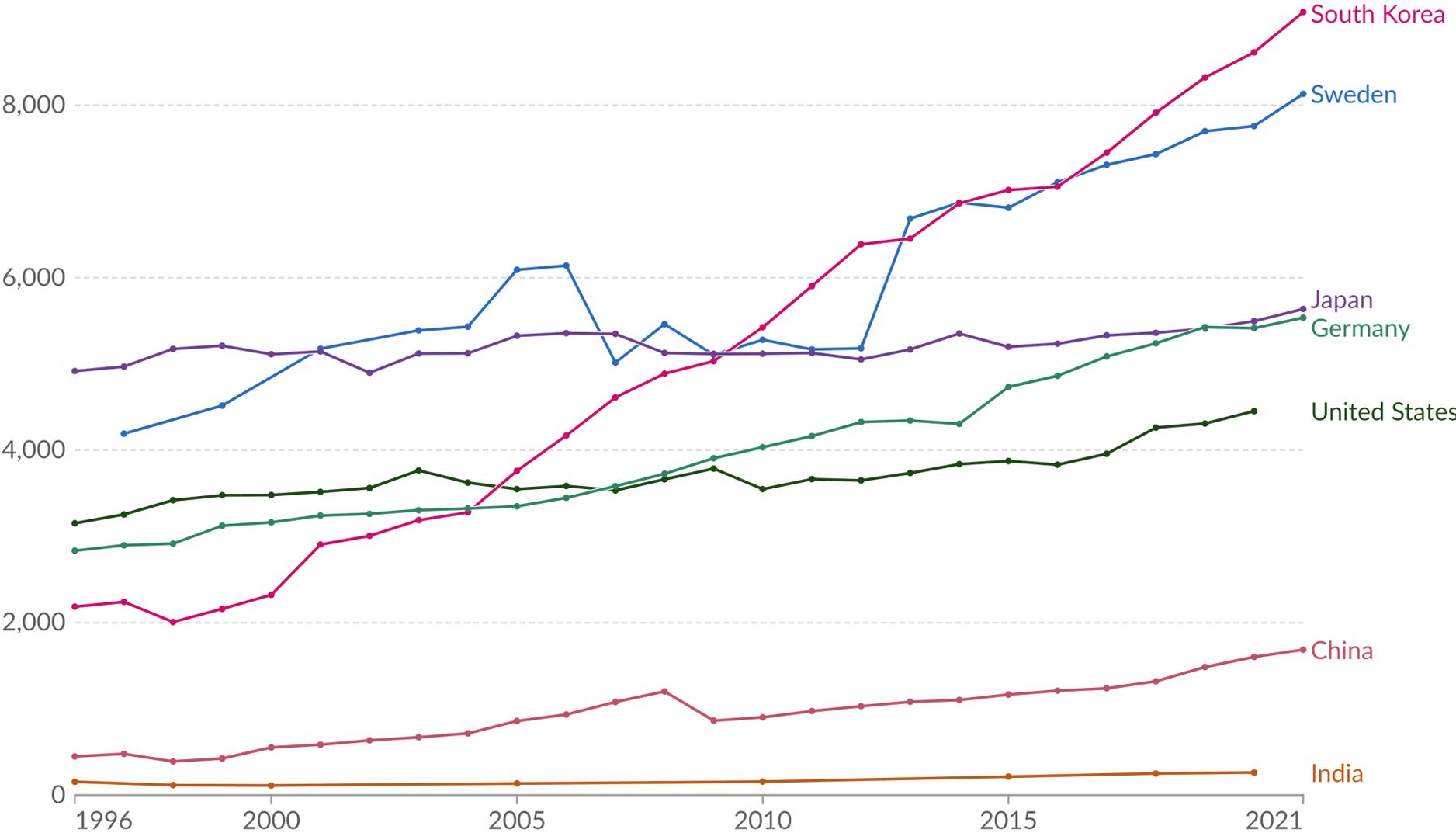
World Bank national accounts data, and OECD National Accounts data files.

License : CC BY-4.0

Number of R&D researchers per million people



Professionals engaged in conceiving or creating new knowledge, products, processes, methods, or systems.



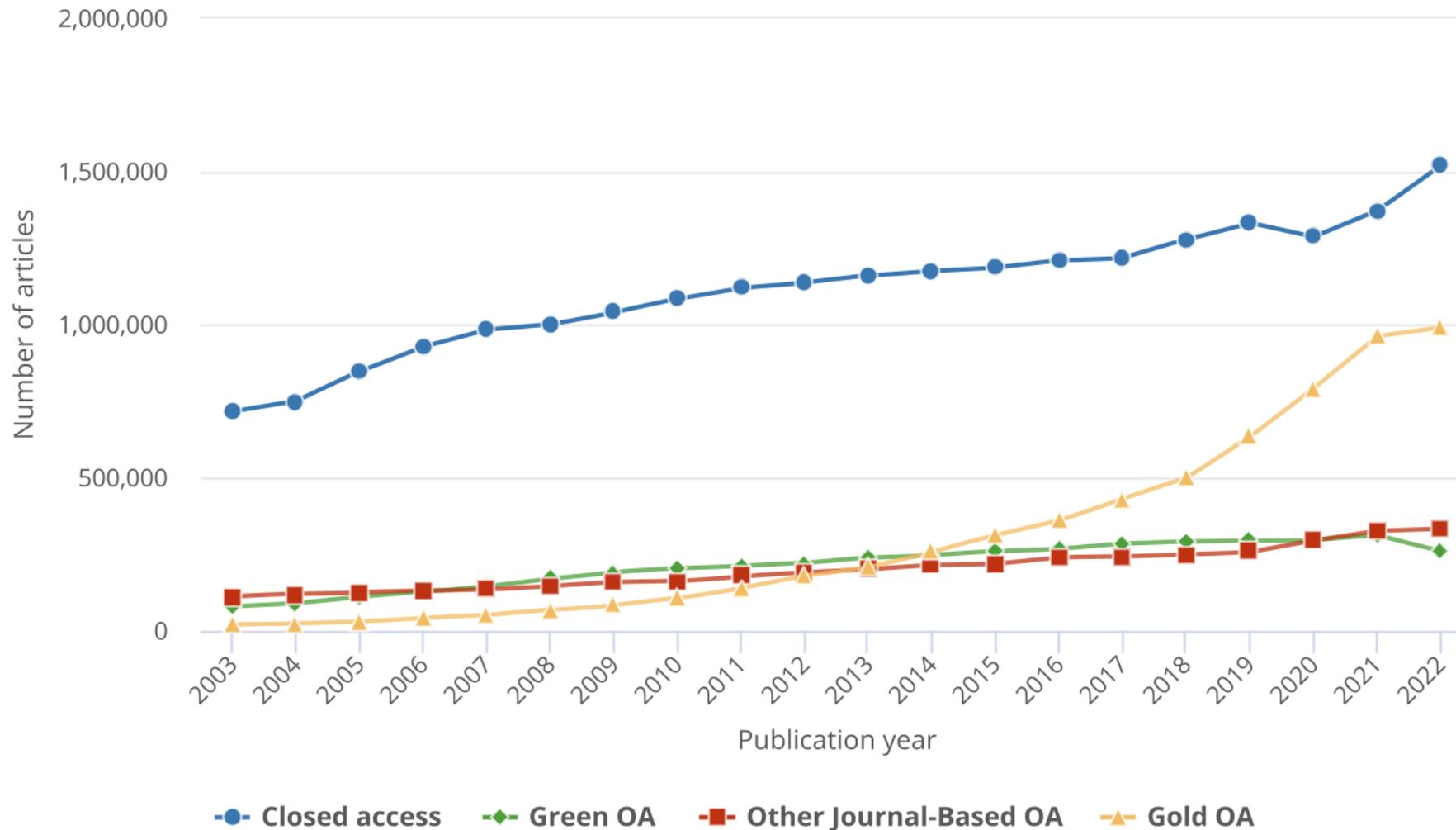
By 2018, the global number of researchers per million inhabitants had grown by 9.9% since 2014. China and the European Union each contributed to over a quarter of this global increase. The G20 countries still account for nine-tenths of global research expenditure, researchers, publications and patents.

Data source: Multiple sources compiled by World Bank (2024)

OurWorldinData.org/research-and-development | CC BY

Note: Postgraduate students are included.

Figure PBS-8
S&E publications, by publication access type: 2003–22



Although the majority (77%) of S&E articles in 2003 whose access status is known were published in closed-access journals, fewer than half (49%) were in closed-access journals in 2022.

Summing up

- Open science is necessary to
 - Increase the quality of research
 - Increase the reliability of research outcome through better transparency
 - Overcome the broken journal system
 - Take advantage of new technologies
 - Create a global flow of knowledge
 - Align career perspectives for young and early stage researchers

A new Charter for Researchers (European Commission 2024)

A definition of researcher and of the research professions, and the recognition of their value;

Improved recruitment and working conditions, including measures to increase the use of permanent contracts;

Researchers skilled for inter-sectoral and inter-disciplinary careers and for entrepreneurship and innovation;

Fair career development and progression;

Measures for a balanced circulation of talents;

Strengthened support actions in support of research careers;

Effective monitoring of research careers through a dedicated observatory.

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European Initiatives

→ Europe

→ Transformation of science

- Reproducibility
- "Journal Industry"
- Recognition of researchers Away from metrics
- Research Ethics

→ Funding and policy – Horizon Europe requests -> Institutional policies

→ On 4 September 2018, a group of national research funding organisations, with the support of the European Commission and the European Research Council (ERC), announced the launch of **cOAlition S**, an initiative to make full and immediate Open Access to research publications a reality.

→ It is built around **Plan S**, which consists of a target and 10 principles.

→ cOAlition S signals the commitment to implement the necessary measures to fulfil its main principle:

→ “With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo.”

→ European Open Science Cloud (EOSC) aims to provide European researchers, innovators, companies and citizens with a federated and open multi-disciplinary environment where they can publish, find and reuse data, tools and services for research, innovation and educational purposes.

→ This environment will operate under well-defined conditions to ensure **trust and safeguard the public interest**.

US initiatives

- Public funders in the US did not join cOAlition S. But the provisions of the Nelson memorandum de facto make US federal provisions plan S compliant
- Gates and Howard Hughes Foundations did join cOAlition S
- The White House and other federal agencies declared 2023 to be a year of open science. As of October 2023, more than 250,000 data sets have been shared
- **Nelson Memo**: In August 2022, the Office of Science and Technology Policy (OSTP) released a memorandum on public access to federally funded research:

“To **promote equity** and advance the work of **restoring the public’s trust** in Government science, and to **advance American scientific leadership**”.

- The goal of the Nelson Memo is to provide free, immediate (without embargo), and equitable access to research that is federally funded.
- It applies to all federal agencies, including those providing funding in the Humanities & Social Sciences.
- It applies to both peer reviewed publications and underlying scientific data.
- Shall be effective of December 31, 2025

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Open Science and RMAs in Europe and the US

→EUROPE

- ALL NEW GOOD STUFF ENDS IN THE RESEARCH OFFICE –
- Commission initiatives are trickle down policies:
 - Open Science becomes a part of the funding programmes, through evaluation criteria
 - The pressure comes from applicants towards the institutions to align with requirements
 - Policy aspects – but no one can act – except for the Research Office
- Outline policies – align stakeholders in the organisation –
- Procedures guidelines and support structures
- Anchor this in the organisation – Streamlining

→US

- ALL NEW GOOD STUFF ENDS IN?
- who in your institution is responsible for Open Science
- In which office does it reside?
- What is the role of the research office?
- Open Science can be treated from different angles:
 - Legal (liability),
 - Library (technical),
 - Dean/Rector (policy)
 - Research office (service)

AN EXAMPLE

“The principles of the **European Charter for Researchers** ([Charter](#)) promoting open, merit-based and transparent recruitment and attractive working and employment conditions are a cornerstone of the MSCA and all funded host organisations must put effort into applying them. The MSCA pay particular attention to **equal opportunities and inclusiveness**. In line with the Charter, all MSCA-funded projects are encouraged to embrace diversity and take measures to facilitate mobility and counter-act gender and disability-related barriers to it.

Open Science and Responsible Research and Innovation

The MSCA endorse Open Science and Responsible Research and Innovation (RRI) through engaging society at large, integrating the gender and ethical dimensions, promoting Open Science practices through targeted training activities, ensuring open access to research outcomes, including FAIR5 data handling, encouraging formal and informal science education and feeding back research results into teaching and education.

(EU Commission WP for MSCA 2024)

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Path ahead

- Little engagement between the US and the EU on open science – one of the few such activities was last years CERN/NASA Open Science Summit.
- Can we have a transatlantic open science dialogue?
 - Roles of RMA
 - Best practices and lessons learned
 - Regulation and policy
 - Drivers and motivators in Open Science
- INORMS 2025 in Madrid – workshop on Open Science globally organized by the EARMA Thematic Group on Open Science



**Thanks to EARMA and DARMA
for offering Travel Grants**



**A personal invitation to continue the dialogue
on the INORMS 2025 Congress May 6-8 in Madrid:**

