Open Access in Japan: How We Try to Transform Scholarly Communication

Noriko Osumi
Representative, OASE
Executive Director, JSPS
Strategic Management Advisor, Tohoku University
Professor, Tohoku Univ Grad Sch Med

Why did the transition to OA lag in Japan?

Declaration of the immediate Open Access in Europe
(2018.9.4)

- Degree of more trust in traditional journals than new OA journals
- High costs involved in OA publishing
- Slow uptake of preprints
- Slow uptake of institutional repositories, and too many of small ones

- Circumstances of individual university libraries
- Who is going to negotiate on a national level?

- Slow response at national level
- Discussions at Science Council of Japan (2017, 2018)
- MEXT Science and Technology / Academic Council Information Committee Journal Issues Study Group (June 2019 - February 2021)

Japan's declining research capabilities?

All Fields	2021 – 2023 (PY) (Average)		
	The number of papers		
Country /Region	Fractional counting		
	Papers	Share	World rank
China	599,435	29.1	1
U.S	289,791	14.1	2
India	91,997	4.5	3
Germany	72,762	3.5	4
Japan	70,225	3.4	5
U.K.	65,203	3.2	6
Italy	60,712	3.0	7
Korea	58,382	2.8	8
France	44,976	2.2	9
Spain	44,789	2.2	10
Canada	44,487	2.2	11
Brazil	43,083	2.1	12
Australia	41,064	2.0	13
Iran	37,760	1.8	14
Turkiye	35,256	1.7	15
Russia	33,592	1.6	16
Poland	27,047	1.3	17
Taiwan	23,558	1.1	18
Netherlands	22,639	1.1	19
Saudi Arabia	18,845	0.9	20

All Fields	2021 – 2023 (PY) (Average)		
	The number of adjusted top 10% papers		
Country /Region	Fractional counting		
	Papers	Share	World rank
China	73,315	35.6	1
U.S	32,781	15.9	2
U.K.	8,396	4.1	3
India	7,697	3.7	4
Germany	6,845	3.3	5
Italy	6,428	3.1	6
Australia	4,971	2.4	7
Canada	4,469	2.2	8
Korea	4,380	2.1	9
Spain	3,767	1.8	10
France	3,730	1.8	11
Iran	3,619	1.8	12
Japan	3,447	1.7	13
Netherlands	2,802	1.4	14
Saudi Arabia	2,334	1.1	15
Turkiye	2,076	1.0	16
Switzerland	2,029	1.0	17
Egypt	1,951	0.9	18
Brazil	1,901	0.9	19
Pakistan	1,740	0.8	20

All Fields	2021 – 2023 (PY) (Average)		
	The number of adjusted top 1% papers		
Country /Region	Fractional counting		
	Papers	Share	World rank
China	7,458	36.2	1
U.S	3,910	19.0	2
U.K.	1,000	4.9	3
Germany	718	3.5	4
India	614	3.0	5
Australia	550	2.7	6
Italy	484	2.4	7
Canada	458	2.2	8
Korea	360	1.8	9
France	342	1.7	10
Spain	330	1.6	11
Japan	293	1.4	12
Netherlands	286	1.4	13
Iran	248	1.2	14
Switzerland	227	1.1	15
Saudi Arabia	207	1.0	16
Singapore	199	1.0	17
Turkiye	164	0.8	18
Pakistan	157	0.8	19
Sweden	152	0.7	20

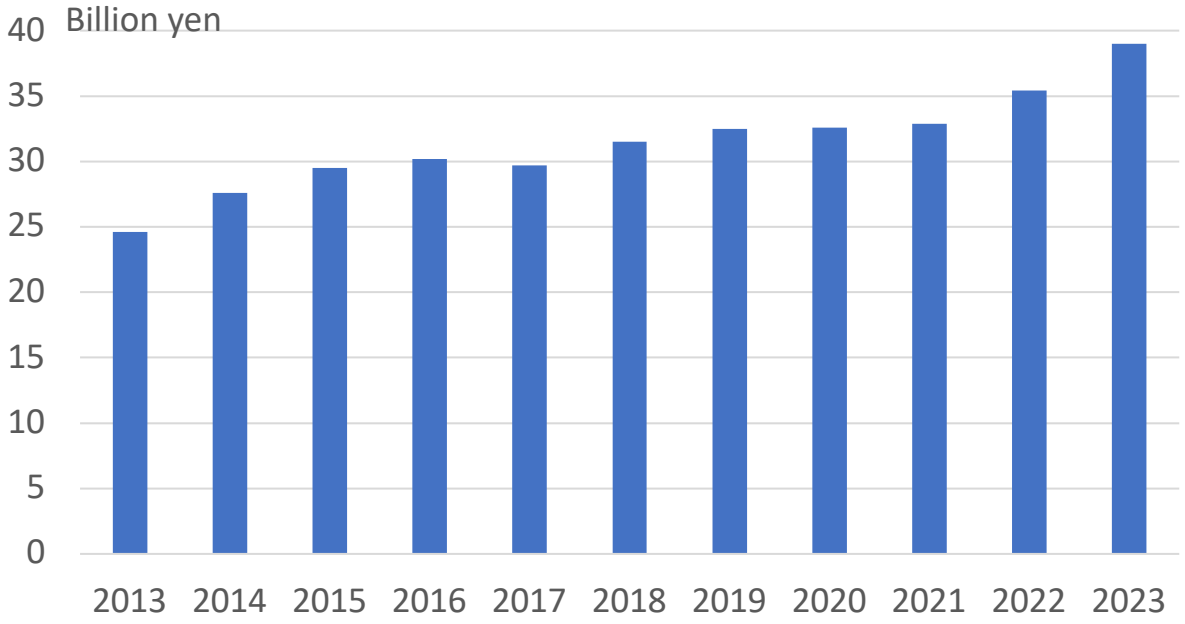
Note: The number of articles and reviews was counted. Publication year (PY) was used for the year tally. The number of citations is the value at the end of 2024.
Reference: Chart 4-1-6(B), Japanese Science and Technology Indicators 2025 (in Japanese)

Source: **NISTEP, MEXT, Japanese Science and Technology Indicators 2025, Research Material-349, Aug.2025** (in Japanese)

Commercialism in academic publishers

Rising Subscription Fees

E-Journal subscription fees* are
1.2 times over 5 years
1.6 times over 10 years

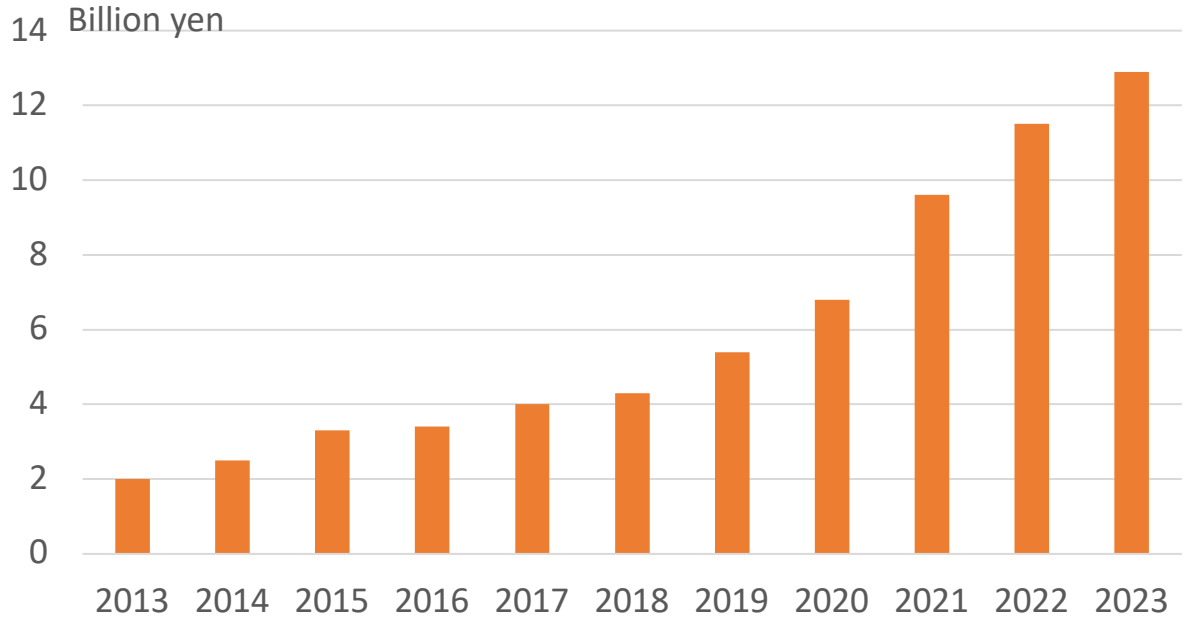


*** Including transformative agreements**

Based on the
"Survey of Academic Information Infrastructure" by the MEXT

Rising APCs

APCs are
3.0 times over 5 years
6.5 times over 10 years



Based on the "Survey of Open Access Publication and Article Processing Charges (APCs) in Japan" by the JUSTICE

Advancing Open, Inclusive, and Responsible Science

- The G7 promotes **open science** by ensuring global access to publicly funded research, fostering innovation, and enhancing research reliability while balancing openness with security, privacy, and intellectual property protection. Open platforms enable rapid pathogen data sharing, supporting global health preparedness.
- The G7 advocates for **immediate open access** to research and improved scholarly publishing. Efforts focus on strengthening research infrastructure, incentivizing open science, and refining evidence-based policies.
- To build **public trust** in science, the G7 establishes a Science Communication Working Group, enhancing engagement between science, policy, and society while encouraging global collaboration.

National policies (February 2024)

FY2025- Immediate OA policy for publication of research achievement funded by public research funds

Philosophies

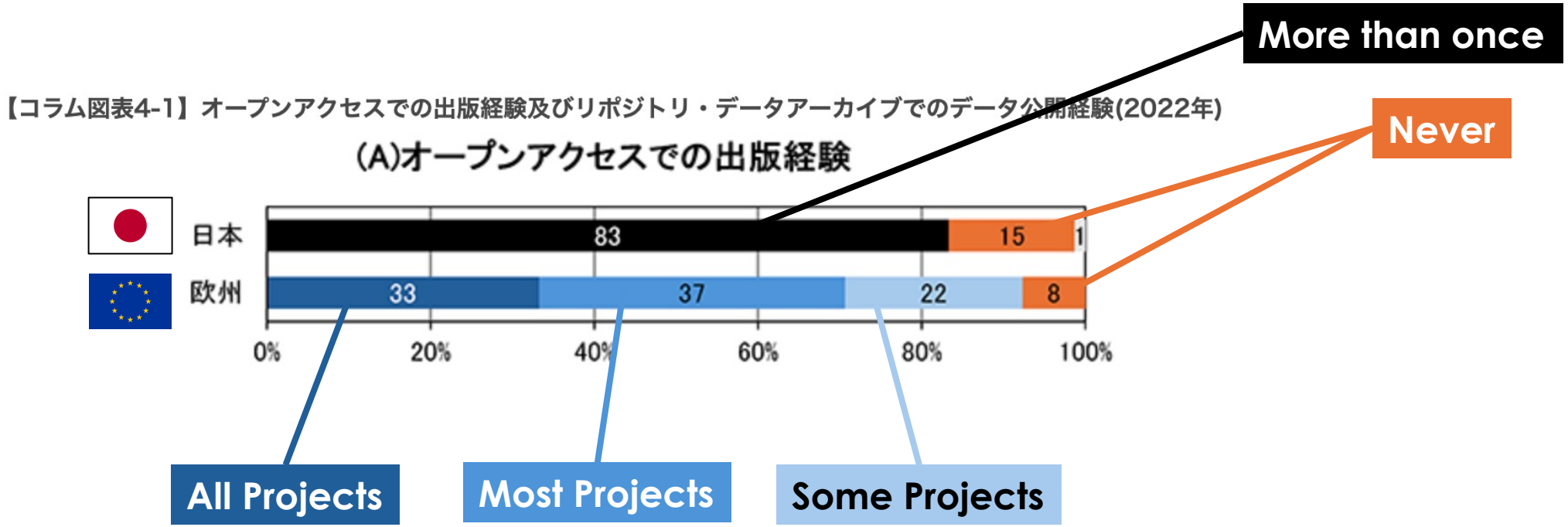
- Make publicly funded research outputs accessible to the public to address global challenges
- Optimize the financial burden of the total amount of subscription fees and APCs across Japan
- Enhance the global dissemination of Japan's research outputs

Government Actions

- Support universities and research institutes in enhancing their ability to negotiate with global academic publishers.
- Improve information infrastructures for the management and utilization of research outputs
- Enhance the dissemination of research outputs
- Promote international collaboration in research

Current OA situation in Japan

OA experience in Japan: more than 83% in 2022, while 92% in EU



〔出典〕科学技術・学術政策研究所報告書「科学技術指標2024」4.1.4オープンアクセス（OA）論文の動向
https://www.nistep.go.jp/sti_indicator/2024/RM341_44.html?utm_source=chatgpt.com

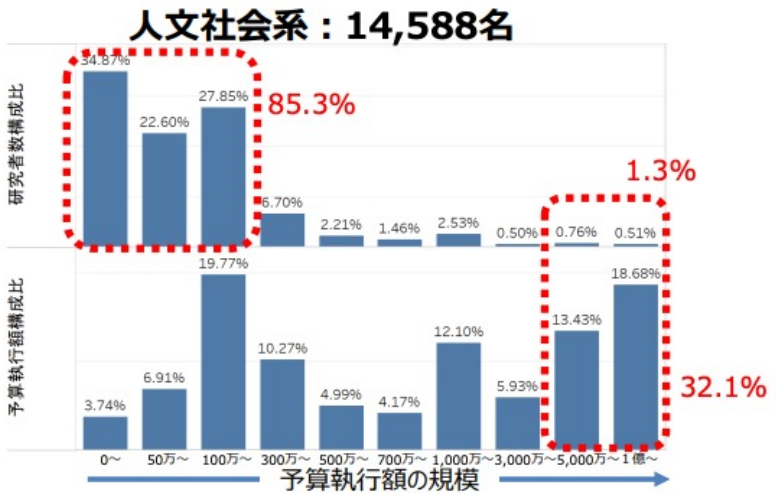
Researchers' financial issues in Japan

https://e-csti.go.jp/wp-content/uploads/2023/03/e-csti-2-kenkyu-funding-report_202303.pdf?utm_source=chatgpt.com

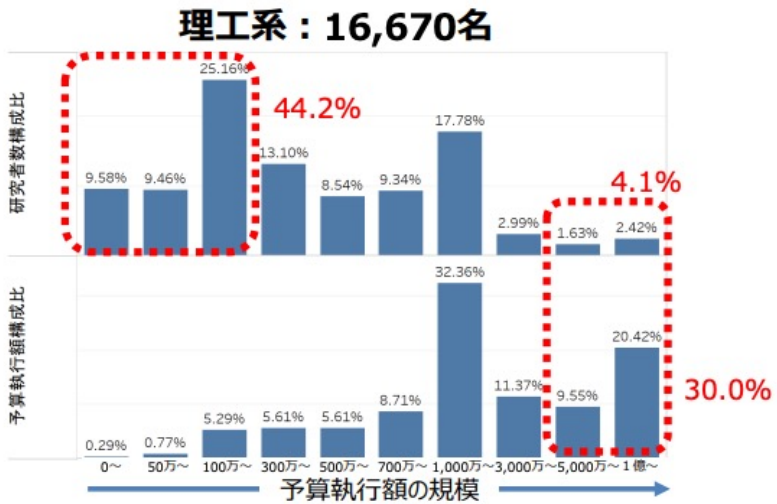
>60% researchers have <3M JPY/y

All fields

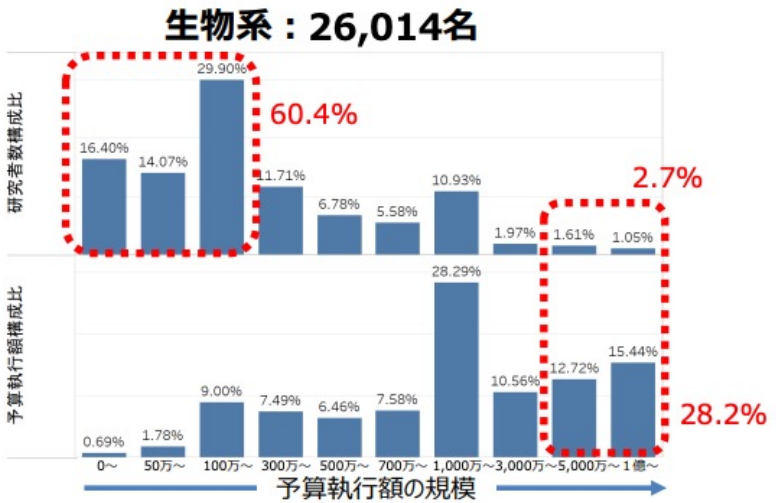
Humanity and literature



STEM fields excluding biology



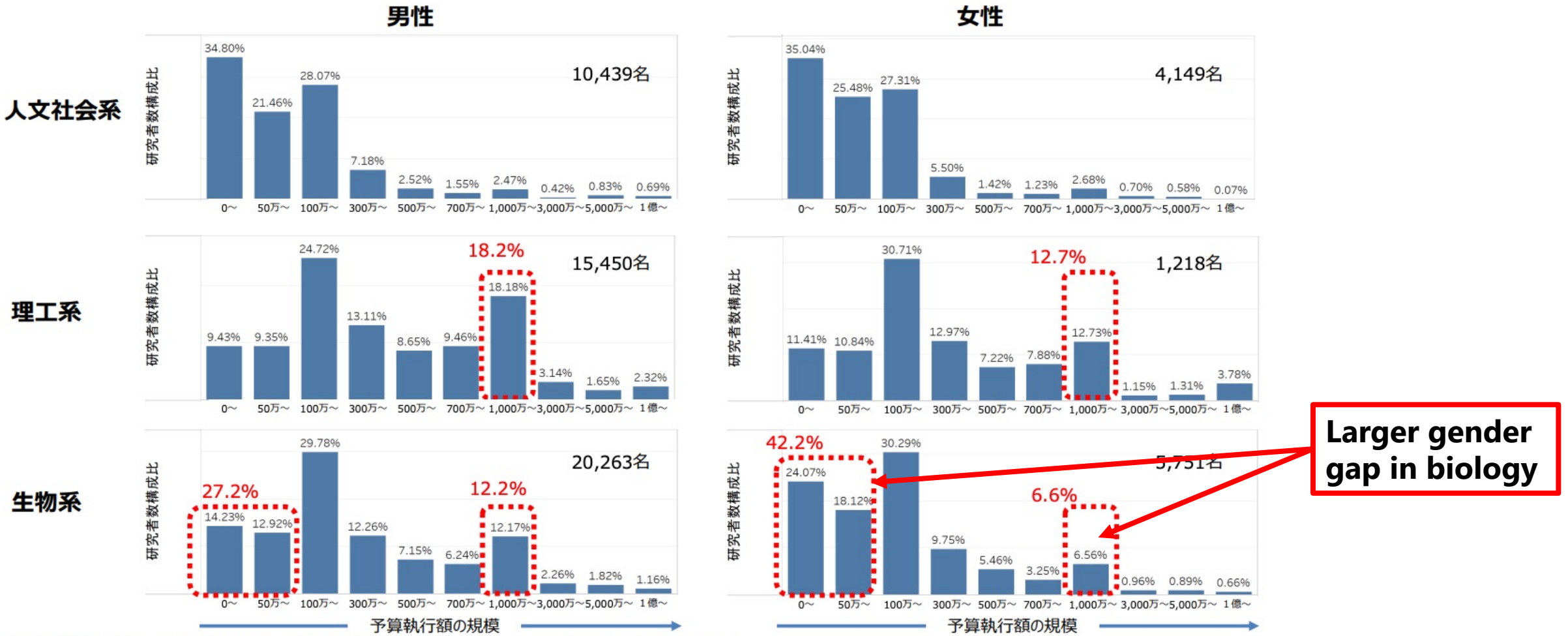
Biology



「研究力の分析に資するデータ標準化の推進に関するガイドライン」に基づき収集したデータ（2018-2020年度）を利用して内閣府が作成。
国立大学所属の研究者を研究費の主たる財源別に9区分に分け、その内「運交金50%超、科研費50%超 、その他競争的資金50%超、国費50%超」の4区分の研究者を分析対象としている。
年あたりの予算執行額をもとに、研究者を10グループ（０円以上、50万円以上、100万円以上、300万円以上、500万円以上、700万円以上、1,000万円以上、3,000万円以上、5,000万円以上、１億円以上）に分類

Gender gap (not to focus today, yet…)

https://e-csti.go.jp/wp-content/uploads/2023/03/e-csti-2-kenkyu-funding-report_202303.pdf?utm_source=chatgpt.com



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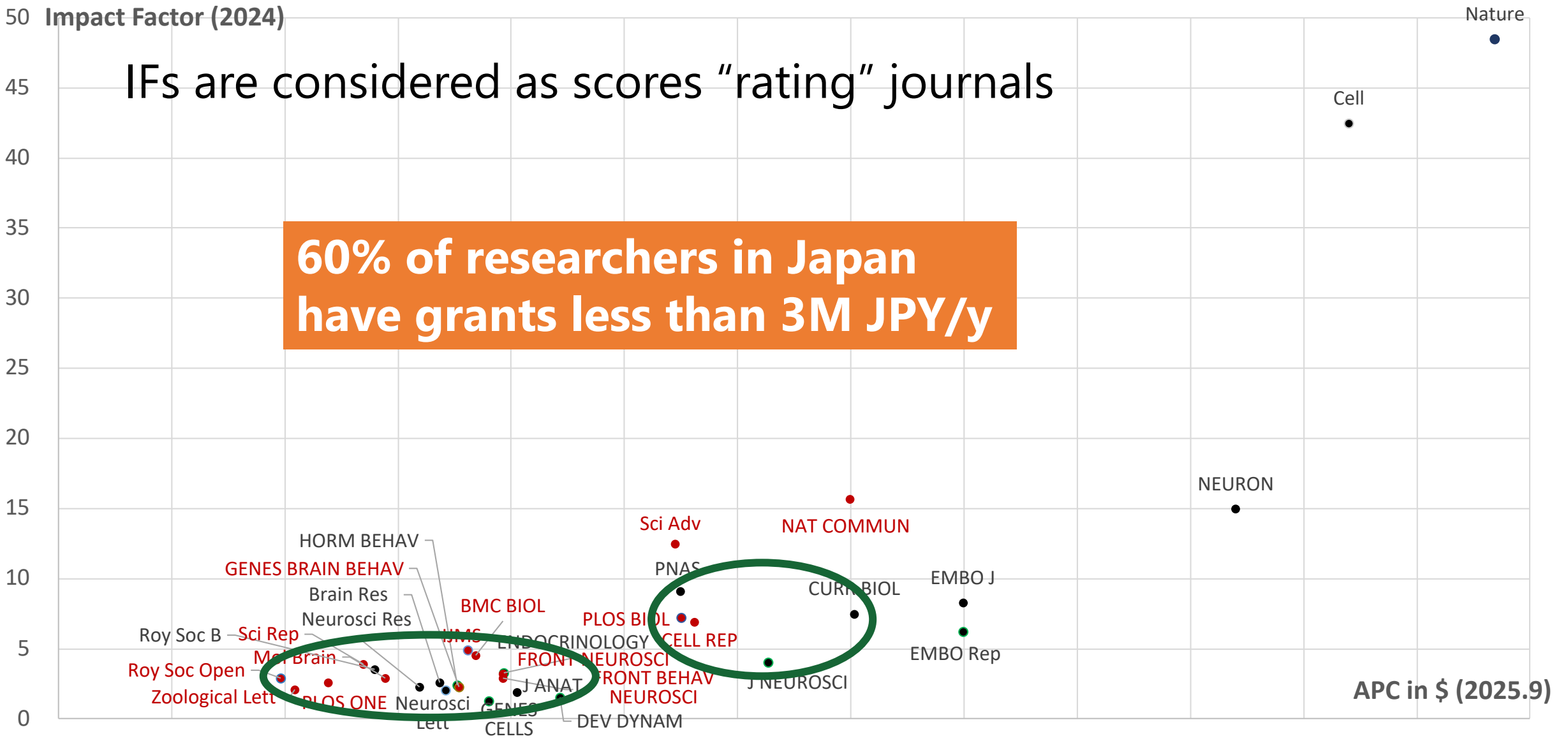
Many researchers love “brand” journals…



Credit: Tohoku University Library

Promoting low/no cost for OA is ideal, but …

- **Self-archiving**: Researchers can use preprint servers (not peer-reviewed, yet)
- **Repositories**: Authors can make their author's final drafts of articles as OA by registering at **institutional repositories** or **subject-based repositories** for free (but so many minor repositories, which cannot be searched…)
- **Green OA rate**: Only **34%** of Japanese researchers have experience depositing their papers in institutional repositories, which may be due to less motivation and extra effort for researchers

Source: **Editage, Survey on Researchers' Attitudes Toward Immediate OA Mandate, Oct.2024**
https://www.editage.jp/blog/details-of-attitude-survey-on-immediate-oa-obligation/ (in Japanese)

PMC serves as a repository

- **Research funded by NIH should be deposited in PubMed Central**

Public repository system needed in Japan?

Link to Journal site

Link to PubMed site

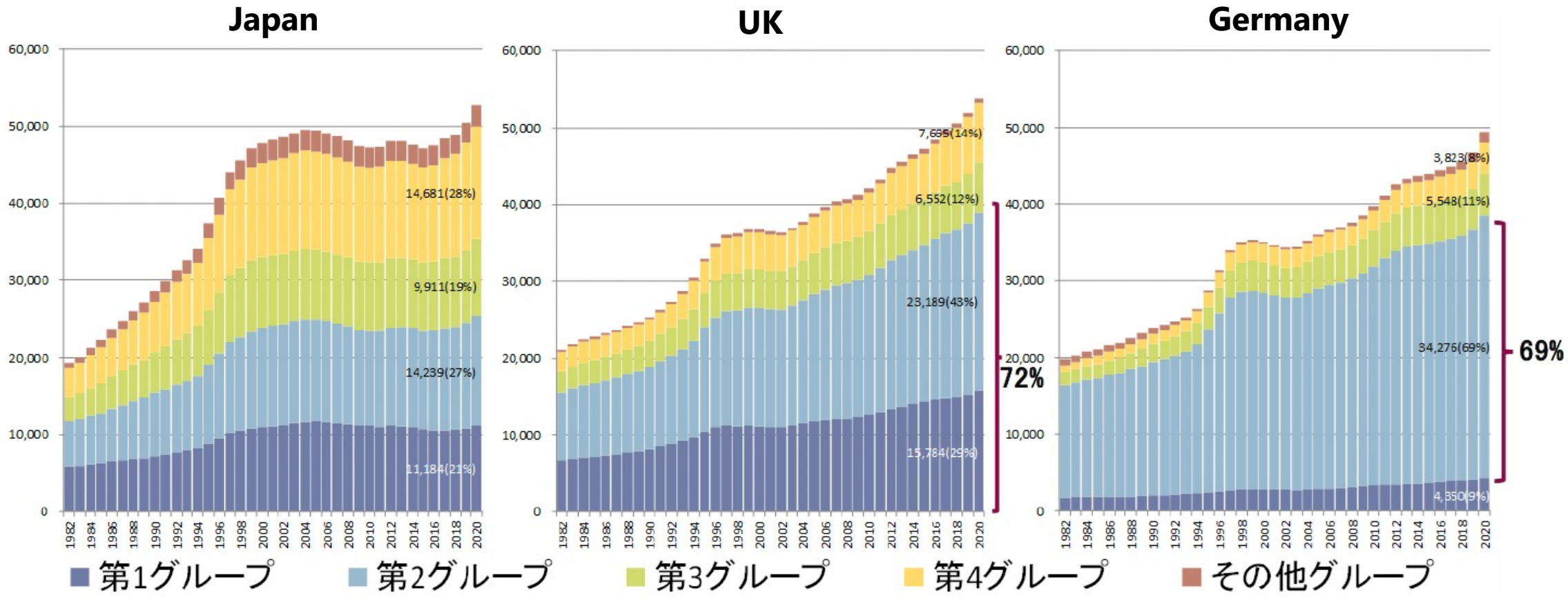
Promoting “Diamond” OA?: Pros & Cons

- **No-cost model**: A model in which articles are published without the author or reader having to pay any fees. The operating funds are covered by funding from research institutions, public grant-making organizations, publishers, academic societies, etc.
- **Ensuring sustainability**: The challenge is to secure operating costs, which rely on volunteer labor. If grants are no longer available, it will be difficult to operate
- **Multilingualism and decentralization**: Being published in various languages and facing different issues in different regions makes international collaboration and information sharing difficult

- The promotion of OA is particularly prominent in Europe, and international organizations such as UNESCO and the EU support this model.
- The number of OA journals is increasing; there are approx. 13,500 in DOAJ as of April 2025.

Japanese universities are so diverse

Output of articles per year based on the size of universities



（注1）Article, Reviewを分析対象とし、分数カウント法により分析。3年移動平均値（2020年は、2019～2021年の3年平均値）である。
クラリベイト社　Web of Science XML (SCIE, 2022年末バージョン)を基に、科学技術・学術政策研究所が集計。

Difficult to reach a transformative agreement at the integrated level

Source: **NISTEP, Benchmarking Research Capability of Universities in Japan, the U.K. and Germany 2023, RM-340, Jun.2024** (in Japanese)

OASE Launched in 2024

OASE Open Access for Scholarly Empowerment https://oase.jp/

Established: In 2024 under the Japanese government's initiative to promote open access.

Leader: Prof. Noriko Osumi @Tohoku University

Team: Researchers and librarians from universities and research institutions, supported by Cabinet Office and MEXT

Mission:

- Negotiate with global academic publishers for transformative agreement etc.
- Develop a collective bargaining system for universities and research institutions.
- Align with the 'National Policy on Promoting Open Access to Publicly Funded Scholarly Publications and Scientific Data'.

Activities

Jan. 2024	OASE launched	4 members
Feb. - March	Conducted interviews with **five publishers** who responded to inquiries sent to STM (the International Association of STM Publishers).	**5 Publishers** Targeted for Negotiation
April - Sep.	Joint negotiations with JUSTICE (University Library Consortia for E-Resources) regarding a transformative agreement with **Wiley**, resulting in an agreement on a one-year contract proposal.	
Dec.	OASE team expanded	**6 members**
Dec. 2024 - Feb. 2025	With support from the Cabinet Office and MEXT, requests were made to **universities and research institutions** to submit **expressions of interest in transformative agreements** with the five publishers.	**182 Universities & Institutions**
Jan. - Sep.	Negotiations conducted with **Wiley, Springer Nature, and Taylor & Francis** regarding transformative agreements **for 2026**. Agreement reached and proposals disclosed to institutions. (The other two publishers continue with multi-year contracts.)	**3 Publishers** Targeted for 2026 contracts

OASE Team

Leader	**Noriko Osumi**	Headquarters Advisor for Management Strategy, Tohoku University / Professor, Tohoku University Graduate School of Medicine / Executive Director, JSPS
	Saeko Aketani	Director, Advisory Office for Conflict of Interest, Graduate School of Medicine, The University of Tokyo
	Shigeo Okabe	Professor, Graduate School of Medicine, The University of Tokyo / Director, RIKEN Center for Brain Science
	Kouta Kanno	Associate professor, Department of Humanities, Faculty of Law, Economics and the Humanities, Kagoshima University
	Yasuteru Shigeta	Director, Center for Computational Sciences, University of Tsukuba
	Riko Modeki	Specially Appointed Expert (Research DX) Office of Institute Strategy, Institute of Science Tokyo

Secretariat (Tohoku University Library)

Negotiations toward TAs for 2026

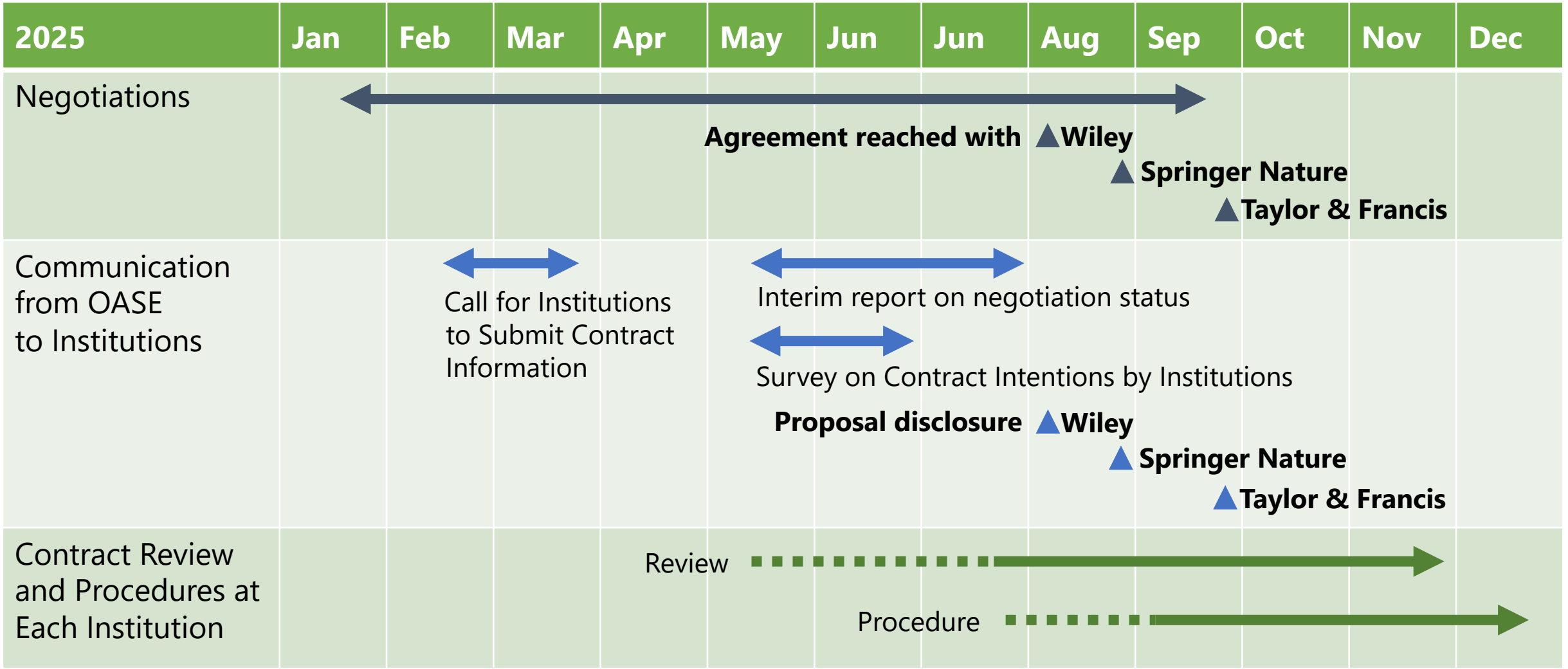
Publishers Targeted for Negotiation

Five publishers responded positively to OASE's inquiry to STM (The International Association of STM Publishers) in January 2024 and were selected for preliminary interviews.

	Negotiations for Transformative Agreements for 2026	No. of Institutions signed TAs in 2025
Wiley	Negotiated Jan–Aug 2025 Agreement reached on Aug 7	72
Springer Nature	Negotiated Feb–Aug 2025 Agreement reached on Aug 28	60
Taylor & Francis	Negotiated Mar–Sep 2025 Agreement reached on Sep 22	18
Elsevier	Not included in OASE's negotiation targets for 2026	78
ACS (American Chemical Society)	Not included in OASE's negotiation targets for 2026	12

Negotiations toward TAs for 2026

Process



Negotiation Overview

Achievements

- Despite global inflationary trends, **price increases were kept lower** than the previous year or remained at the same level.
- Improvements were also made in non-price conditions, such as **expanding the number of articles eligible for OA publication**.

Background

- Although expressions of interest alone did not significantly strengthen negotiating power with publishers, **forming a group of interested institutions** enabled simulations based on contract data provided by each institution.
- During negotiations, provisional terms were presented to institutions, and **surveys on their willingness** to proceed with contracts served as persuasive material in discussions with publishers.
- **Collaboration between researchers and library staff**, each contributing their unique perspectives and expertise, allowed for multifaceted negotiation strategies.

Negotiation Overview

■ Organizational Structure and Framework

① Governance, Negotiation Policy, and Data Aggregation

- A forum is needed for establishing negotiation policies and approving the outcomes of negotiations.
- **Accurate collection and accumulation of contract data** from each institution is essential for effective negotiations.

② Collaboration Between Researchers and Librarians

- As stakeholders in scholarly communication, collaboration from both perspectives is highly effective.
- For busy researchers, securing time for negotiations is challenging.
- Opportunities for communication are necessary to share understanding and align direction among members and between members and the secretariat.
- **Personnel costs for secretariat staff** were required.

③ Continuity

- **A continuous negotiation framework** is necessary, especially to serve as a consistent “face” in interactions with publishers.
- It is important to **share and pass on the experience and knowledge** gained from negotiations involving researchers.

Summary: For the Promotion of Sustainable OA

- **OA is a critical driver for advancing Open Science**
- **Effective collaboration among diverse stakeholders**—including government, funding agencies, research institutions, libraries, and academic societies—is essential
- Commercial journals remain prohibitively expensive. Should Japan consider establishing **trusted national repositories** or **diamond OA journals**?
- Who will bear the cost? Can we **engage companies** that stand to benefit from wider access to research?
- Researchers must view OA as their own responsibility and consider the **societal impact** of their work, beyond personal satisfaction
- We need to promote OA-related activities not only within libraries, but **across the broader academic and research communities**