

Open Access Publication and
Article Processing Charges (APCs)
in Japan

Report on the FY2020 Survey
(Summary in English)

Japan Alliance of University Library Consortia
for E-Resources (JUSTICE)

December. 2021

About this report

JUSTICE conducted a survey on the number of published articles written by researchers who belong to institutions in Japan, Open Access availability, and total estimated APC costs.

For this survey, we used the Web of Science article level metadata file provided by Clarivate Analytics to the National Institute of Informatics (NII). The survey results were published with permission from Clarivate Analytics. This report is an updated version of the FY2019 Survey.

Survey methods

Two types of data were used in the survey.

1. Web of Science article level metadata file purchased from Clarivate Analytics in February 2020.
 - Publication year: 2012–2018
 - Types of publications: “Articles” and “Reviews”
 - Reprint author: Authors who belong to institutions in Japan
2. Data that JUSTICE collected and organized on our own by identifying APC prices, reprint authors’ institutions, and so on.

Data were analyzed based on the following Open Access (OA) types.

■ Full OA articles

OA articles published in the Full Open Access Journal.

■ Hybrid OA articles

OA articles published in the subscription journal at the author’s discretion (mainly by paying APC).

■ Gold OA articles

Full OA and Hybrid OA articles.

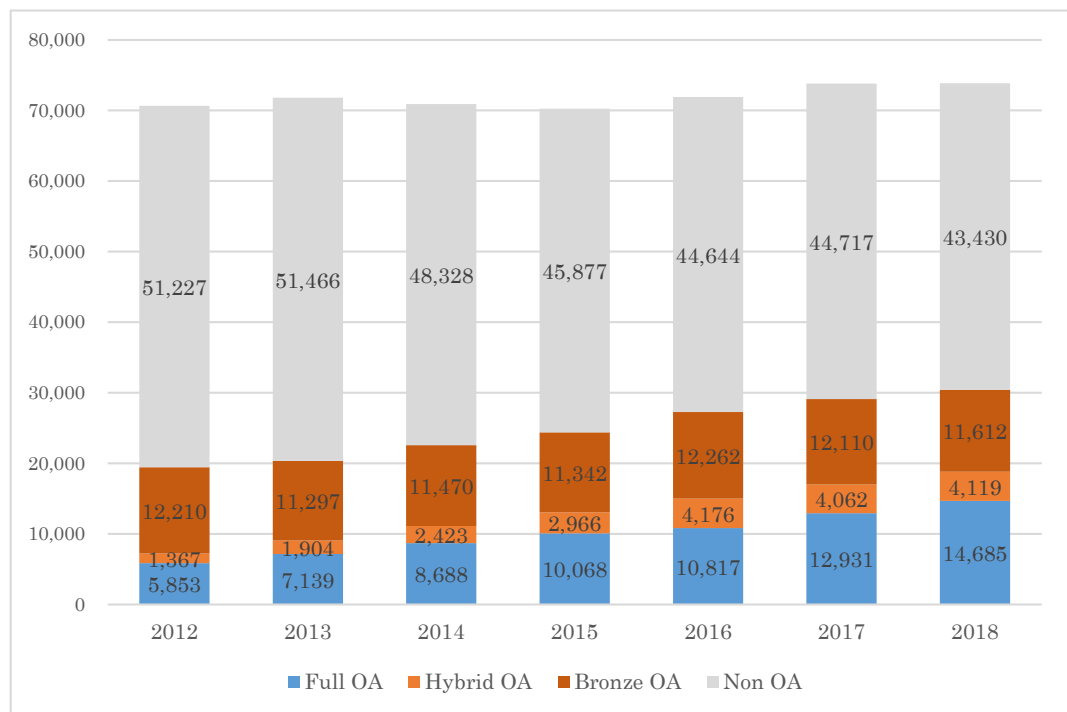
■ Bronze OA articles

OA articles published in the subscription journal and freely accessible on the publisher’s website regardless of author discretion, with no license granted. Delayed OA articles that become available for OA after the passage of a certain period of time following publication are included in Bronze OA articles.

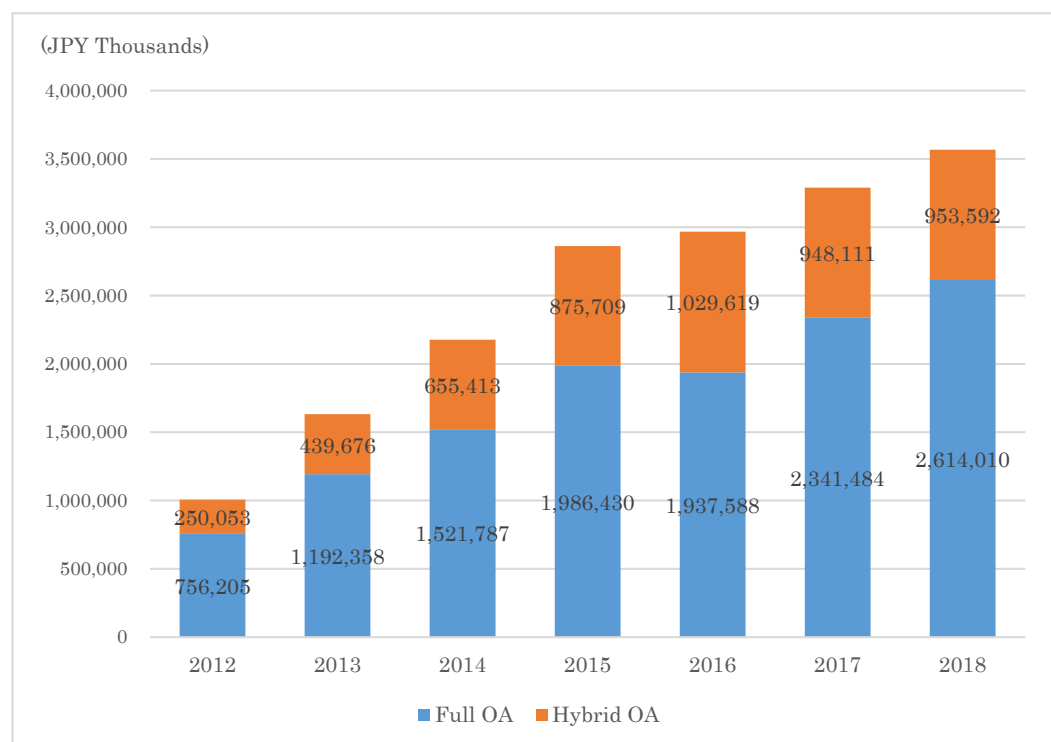
1. Aggregate results

(1) Overview

① Change in the number of articles published per OA type



② Change in estimated total APC costs and breakdown for each year



(2) Breakdown by publisher

The following publishers were counted as different publishers.

- BioMed Central and Springer
- Frontiers and Nature
- Springer and Nature (If indistinguishable, count as SpringerNature)
- Dove Press and Taylor & Francis
- Hindawi and John Wiley & Sons

① Top 10 publishers based on total number of articles published in 2018

Rank	Publisher	<u>Total number of articles</u>	OA articles (including bronze OA)	OA availability (including bronze OA)
1	ELSEVIER	14,369	2,439	17.0%
2	SPRINGER	8,316	1,364	16.4%
3	JOHN WILEY & SONS	7,426	2,982	40.2%
4	TAYLOR & FRANCIS INC	2,550	520	20.4%
5	AMER CHEMICAL SOC (ACS)	2,293	240	10.5%
6	NATURE PUBLISHING GROUP (NPG)	2,143	1,776	82.9%
7	IOP PUBLISHING LTD (IOP)	2,140	418	19.5%
8	MDPI AG	2,001	2,001	100.0%
9	OXFORD UNIV PRESS (OUP)	1,647	1,088	66.1%
10	AMER PHYSICAL SOC (APS)	1,269	388	30.6%
Others		29,692	17,200	57.9%
Total		73,846	30,416	41.2%

② Top 10 publishers based on estimated total APC costs paid for full OA articles published in 2018

Rank	Publisher	Total number of articles	Number of full OA articles	<u>Estimated total APC costs</u> (JPY)
1	NATURE PUBLISHING GROUP (NPG)	2,143	1,669	430,641,453
2	BIOMED CENTRAL LTD (BMC)	1,252	1,246	303,352,408
3	MDPI AG	2,001	2,001	300,012,866
4	FRONTIERS MEDIA SA	759	759	225,197,880
5	JOHN WILEY & SONS	7,426	1,161	207,778,513
6	PUBLIC LIBRARY SCIENCE (PLOS)	1,027	1,027	176,812,160
7	ELSEVIER	14,369	942	129,001,212
8	SPRINGER	8,316	720	82,458,730
9	LIPPINCOTT WILLIAMS & WILKINS	1,091	251	78,182,924
10	Dove Press	316	316	76,201,417
Others		35,146	4,593	604,370,747
Total		73,846	14,685	2,614,010,310

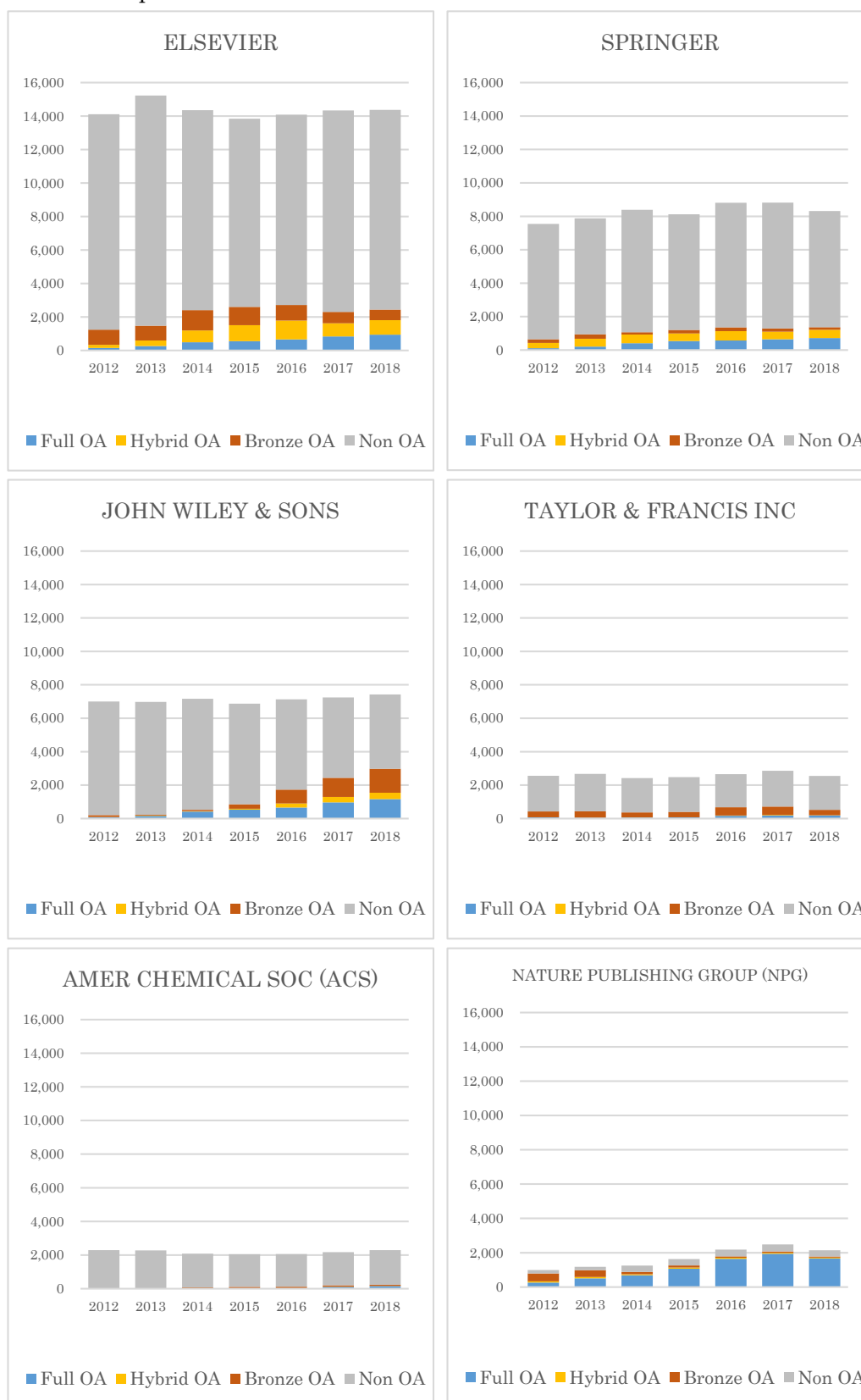
③ Top 10 publishers based on estimated total APC costs paid for hybrid OA articles published in 2018

Rank	Publisher	Total number of articles	Number of hybrid OA articles	<u>Estimated total APC costs</u> (JPY)
1	ELSEVIER	14,369	862	229,659,013
2	SPRINGER	8,316	490	183,938,653
3	JOHN WILEY & SONS	7,426	381	137,678,548
4	OXFORD UNIV PRESS (OUP)	1,647	141	50,990,875
5	AMER PHYSICAL SOC (APS)	1,269	173	41,004,348
6	SPANDIDOS PUBL LTD	515	166	27,023,011
7	IOP PUBLISHING LTD (IOP)	2,140	108	22,199,486
8	BAISHIDENG PUBLISHING GROUP INC	92	91	20,388,590
9	NATURE PUBLISHING GROUP (NPG)	2,143	48	17,462,524
10	ASSOC RESEARCH VISION OPHTHALMOLOGY INC	96	86	14,375,760
Others		35,833	1,573	208,870,776
Total		73,846	4,119	953,591,584

④ Top 10 publishers of bronze OA articles published based on total number of articles in 2018

Rank	Publisher	Total number of articles	<u>Number of Bronze OA articles</u>
1	JOHN WILEY & SONS	7,426	1,440
2	ELSEVIER	14,369	635
3	OXFORD UNIV PRESS (OUP)	1,647	591
4	JAPAN SOC INTERNAL MEDICINE (日本内科学会)	558	557
5	PHARMACEUTICAL SOC JAPAN (日本薬学会)	495	495
6	IEICE-INST ELECTRONICS INFORMATION COMMUNICATIONS ENG (電子情報通信学会)	745	344
7	SPANDIDOS PUBL LTD	515	332
8	TAYLOR & FRANCIS INC	2,550	323
9	JAPAN INST METALS (日本金属学会)	269	263
10	IOP PUBLISHING LTD (IOP)	2,140	255
Others		43,132	6,377
Total		73,846	11,612

⑤ Total number of articles by the top 6 publishers based on total number of articles published from 2012–2018

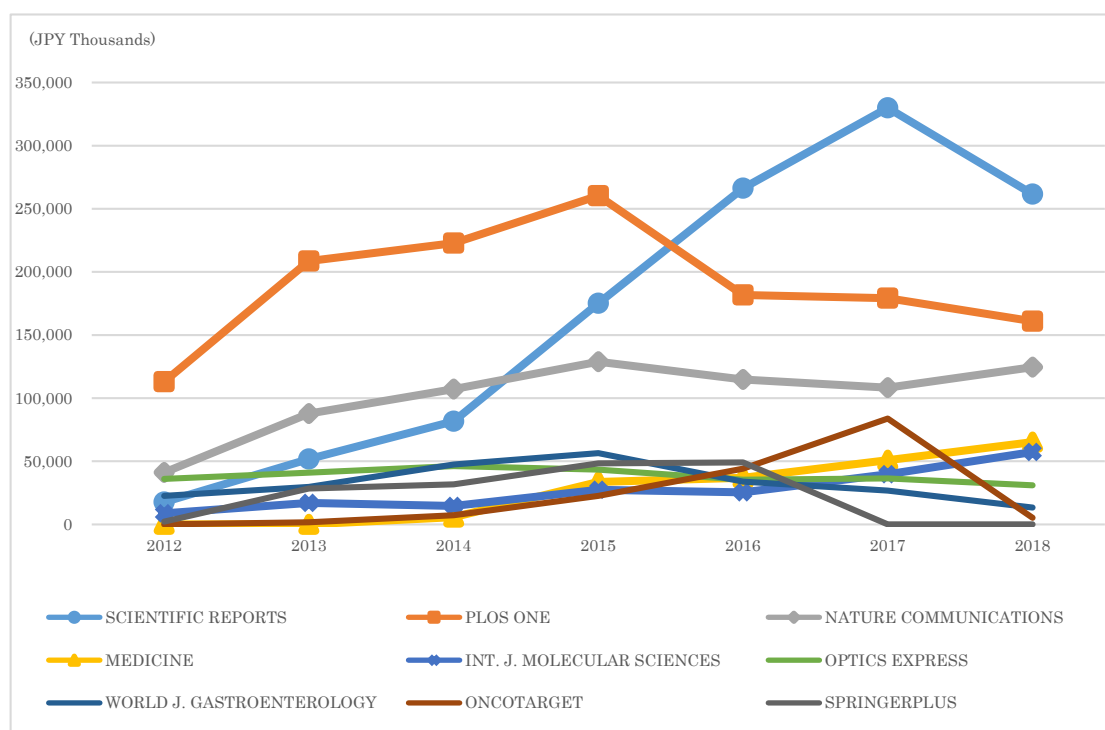


(3) Breakdown by journal

① Top 10 journals based on estimated total APC costs paid for articles published in 2018

Rank	Journal	Total number of articles	Number of Gold OA articles	<u>Estimated total APC costs</u> (JPY)	Availability of gold OA
1	SCIENTIFIC REPORTS	1,334	1,334	261,642,756	100.0%
2	PLOS ONE	966	966	160,937,532	100.0%
3	NATURE COMMUNICATIONS	215	215	124,589,920	100.0%
4	MEDICINE	195	195	65,192,400	100.0%
5	INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	280	280	57,350,160	100.0%
6	AIP ADVANCES	234	234	35,203,896	100.0%
7	CELL REPORTS	62	62	34,546,400	100.0%
8	OPTICS EXPRESS	143	143	30,947,488	100.0%
9	JOURNAL OF DIABETES INVESTIGATION	85	85	28,417,200	100.0%
10	PHYSICAL REVIEW D	207	124	28,328,048	59.9%
Others		70,125	15,166	2,740,446,094	21.6%
Total		73,846	18,804	3,567,601,894	25.5%

② Change in estimated total APC costs for the top five journals (2012–2018)



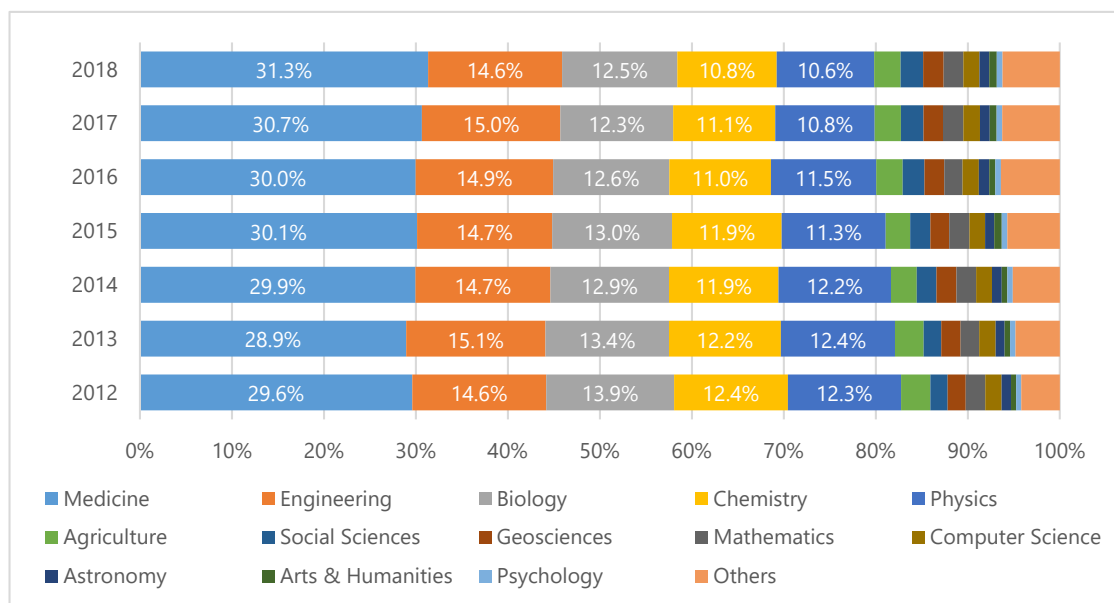
(4) Breakdown by institution to which authors belong

Top 20 JUSTICE member institutions based on total number of articles published in 2018

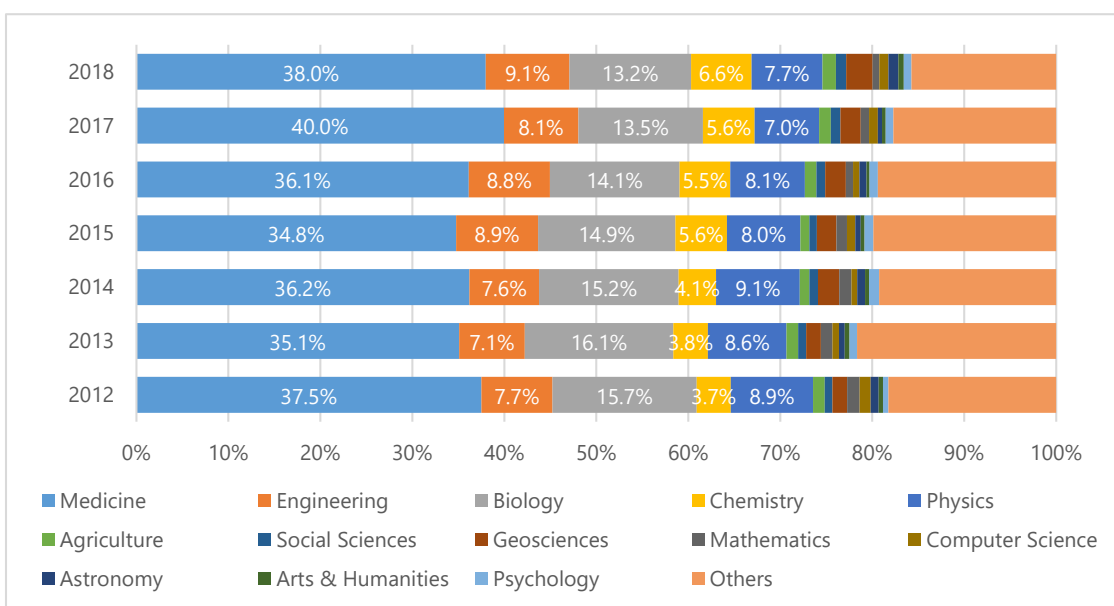
Institution	Total number of articles	Number of OA articles			Estimated APC costs (JPY)	
		Full OA	Hybrid OA	Bronze OA	Full OA	Hybrid OA
Univ. of Tokyo	4,234	861	263	615	174,965,941	62,345,502
Kyoto Univ.	3,087	591	135	466	112,492,774	33,942,942
Tohoku Univ.	2,499	451	112	350	84,497,015	26,670,223
Osaka Univ.	2,300	427	124	327	81,866,810	32,378,605
Kyushu Univ.	1,903	350	67	290	60,598,435	17,088,653
Hokkaido Univ.	1,849	380	88	278	67,961,076	19,162,625
Nagoya Univ.	1,798	319	79	275	59,059,660	17,321,883
Tokyo Inst. of Tech.	1,248	179	50	173	27,442,197	12,719,823
Keio Univ.	1,209	269	65	179	48,495,862	14,114,612
Hiroshima Univ.	1,140	233	56	144	37,669,441	10,249,122
Univ. of Tsukuba	1,129	225	44	162	38,635,496	10,030,663
Kobe Univ.	1,000	175	44	131	31,113,592	8,267,836
Chiba Univ.	811	190	42	138	31,475,939	11,257,838
Okayama Univ.	810	150	36	138	27,353,832	7,473,382
Waseda Univ.	722	117	52	75	19,313,741	14,390,010
Kanazawa Univ.	688	149	38	106	25,410,586	8,948,084
Nihon Univ.	628	117	33	135	18,917,277	7,471,922
Tokyo Med. and Dent. Univ.	590	152	29	113	31,064,254	8,828,508
Nagasaki Univ.	566	143	24	104	26,811,435	6,654,868
Tokyo Univ. of Sci.	551	68	27	78	9,030,042	6,364,760
Other members	28,812	5,864	1,510	4,604	1,028,672,969	332,631,806
Non-members	16,272	3,275	1,201	2,731	571,161,936	285,277,917
Total	73,846	14,685	4,119	11,612	2,614,010,310	953,591,584

(5) Breakdown by subject

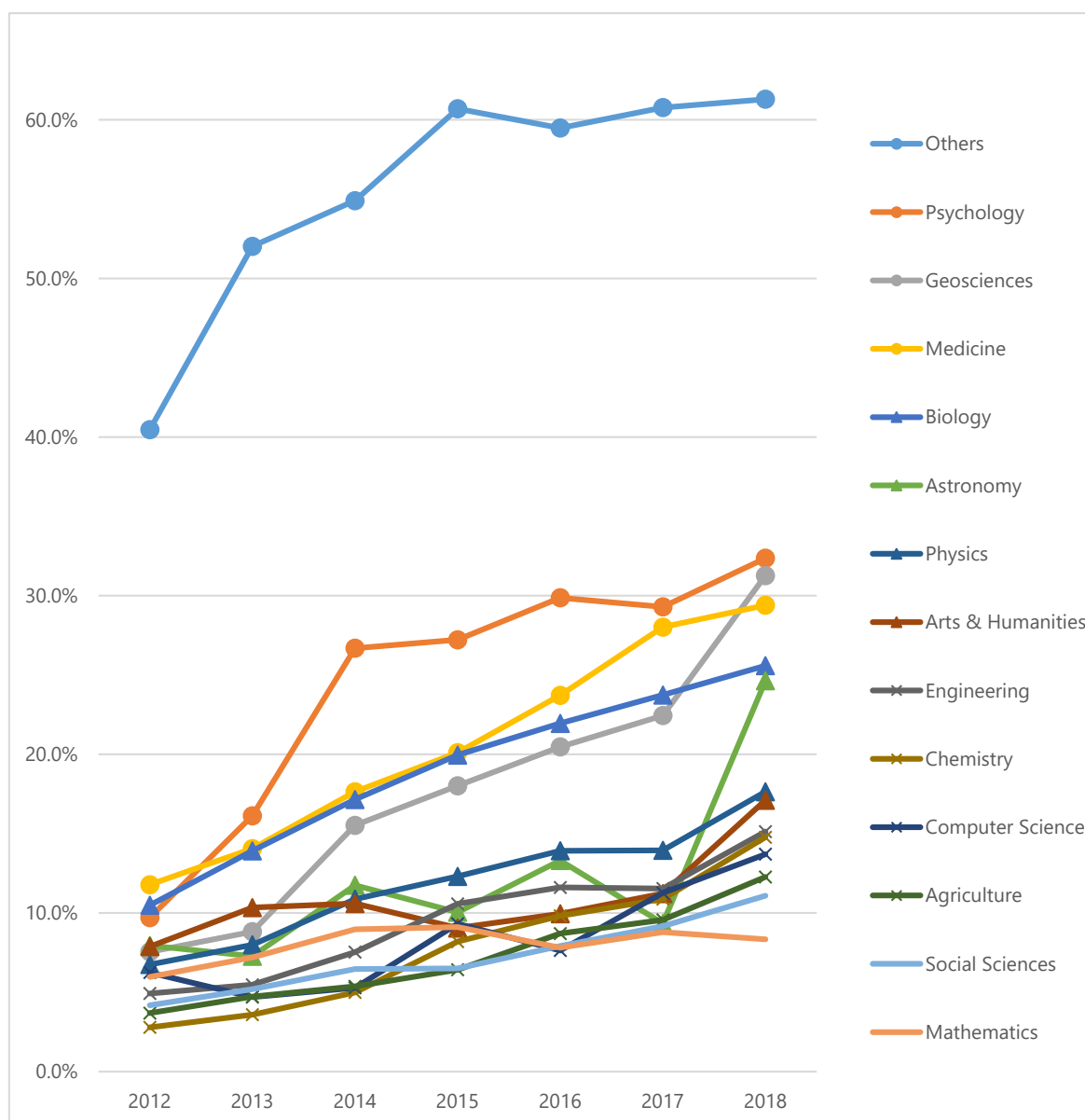
① Percentage of total number of articles by subject



② Percentage of Gold OA articles by subject



③ Change in percentage of gold OA articles by subject



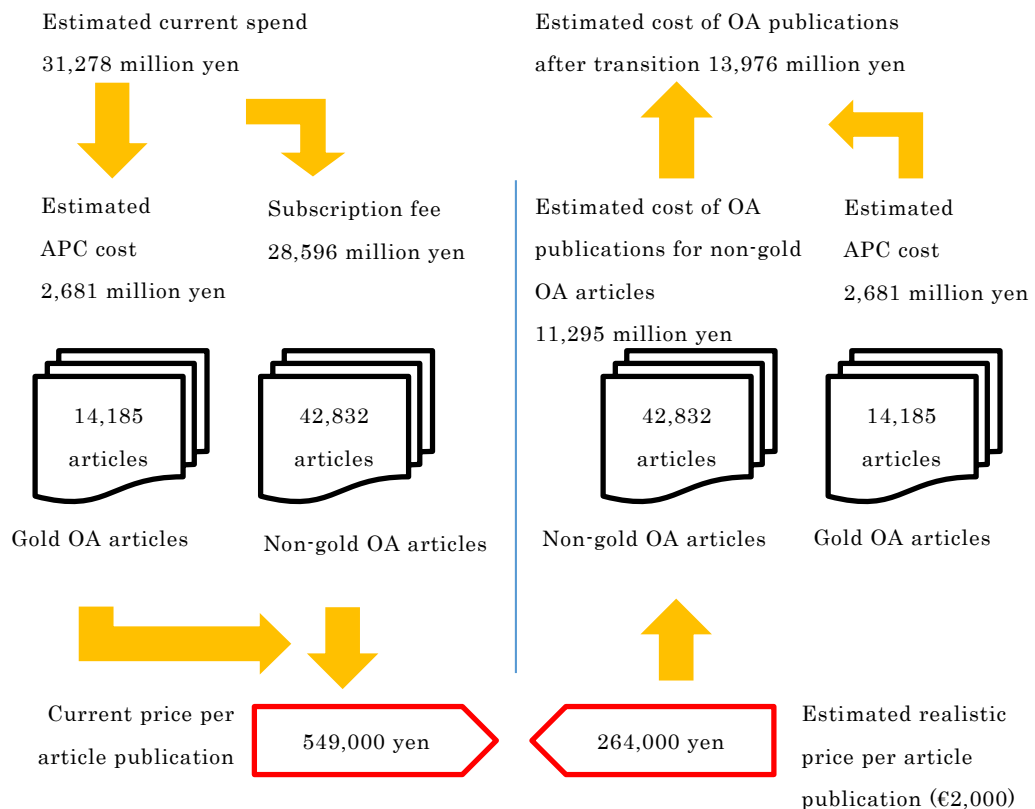
2. Current spending vs Cost of OA publishing after transition

(1) Method

- ① Estimate the current spending (Total the 2018 subscription fee and the estimated APC cost).
- ② Estimate the cost of OA publishing for non-gold OA articles (€2,000 per article).
- ③ Estimate the cost of OA publishing after transition (Total the estimated APC cost and ②).

(2) Result

① Overview (498 members)



② Breakdown by institution (105 large and medium-sized members)

