

REPORT Open Access TU Delft 2023

Date: 25-6-2024

TU Delft Library - Research Support / Team Analytics

This document presents the results of the 2023 Open Access (OA) analysis for TU Delft. It is divided into three sections:

1. **Main Results:** This section reports the key findings from the analysis.
2. **Excel Report Guide:** Here, we provide explanations regarding the use and contents of the accompanying Excel report.
3. **Methodology:** The methodology and steps involved in the analysis are detailed in this section.

Note: This analysis focuses solely on OA figures for peer-reviewed journal articles (KUOZ category A) and conference papers (KUOZ category G). For the first time, additional document types have been included to enhance comparability with the ongoing National Open Access pilot analysis. While these data are recorded in the Excel sheet, they are not included in the official report.

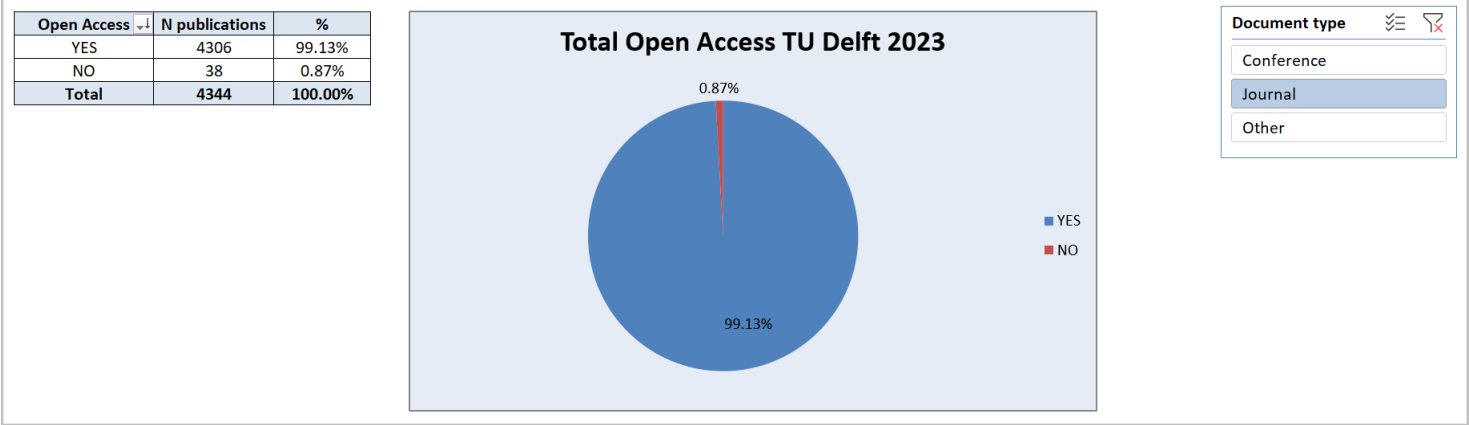
1 MAIN RESULTS

In this chapter the main results are reported.

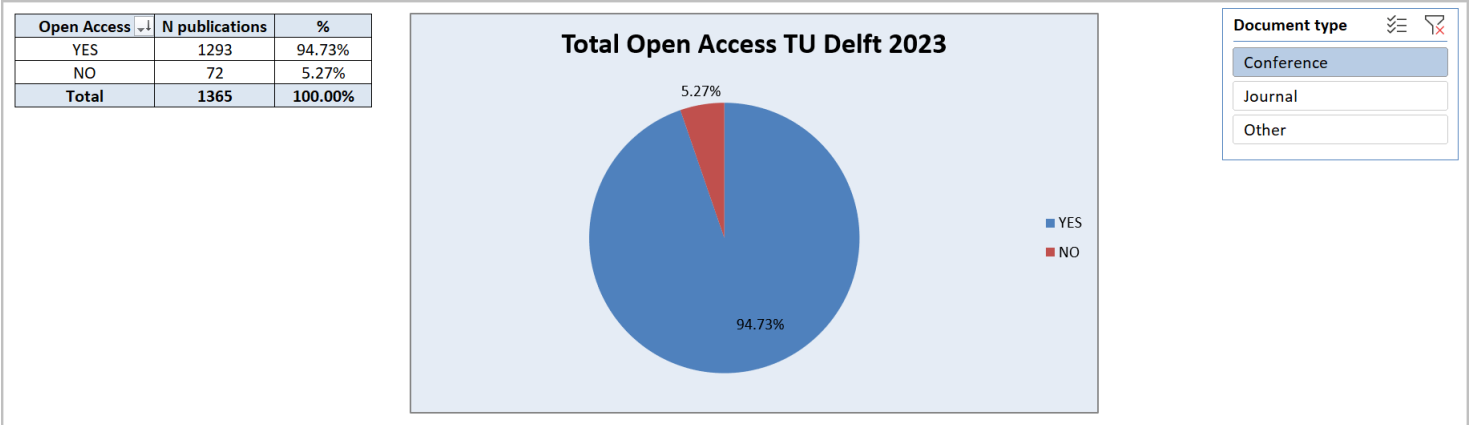
It should be noted that the figures reported here are based on an export from Pure on June 1st, 2024 and that publications have been checked for their Open Access status using several sources and specific criteria (see Chapter 3: methodology).

Some publications that were found to be non-Open Access at the time of this analysis still will become Open Access later on, e.g. after an embargo date has expired. And publications that had neither a valid ISSN nor a valid DOI might end up being classified as non-Open Access, even though they actually could be Open Access. The figures and percentages presented in this report should therefore be considered as the minimum Open Access for TU Delft for 2023.

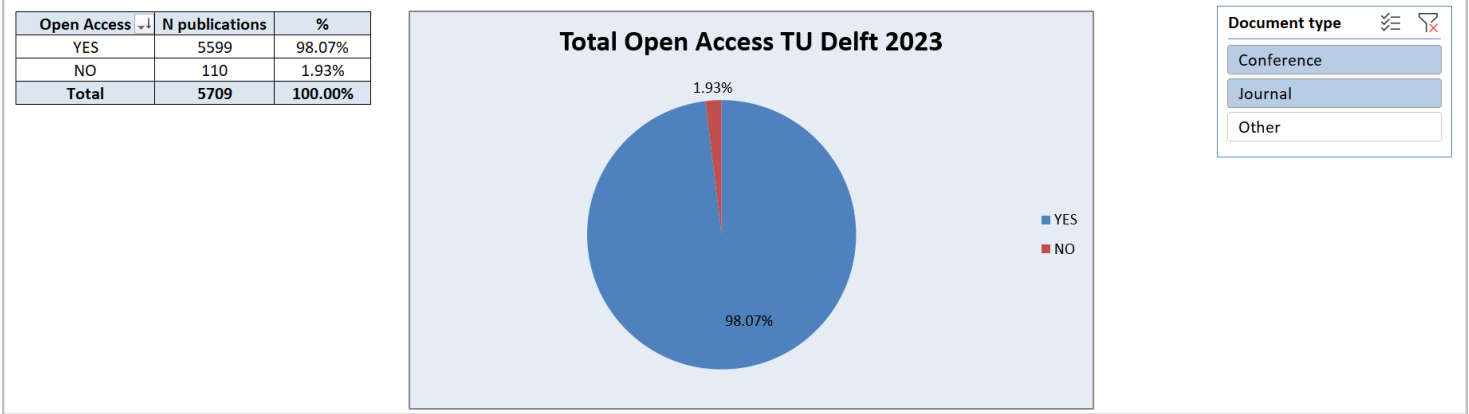
1.1 OA TU Delft Total: Journal articles



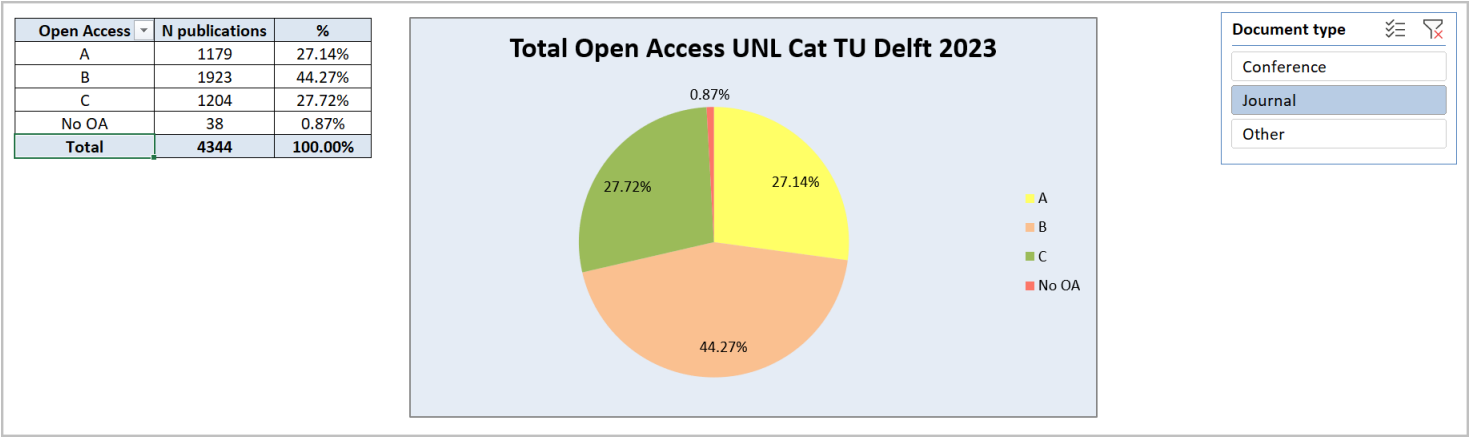
1.2 OA TU Delft Total: Conference proceedings



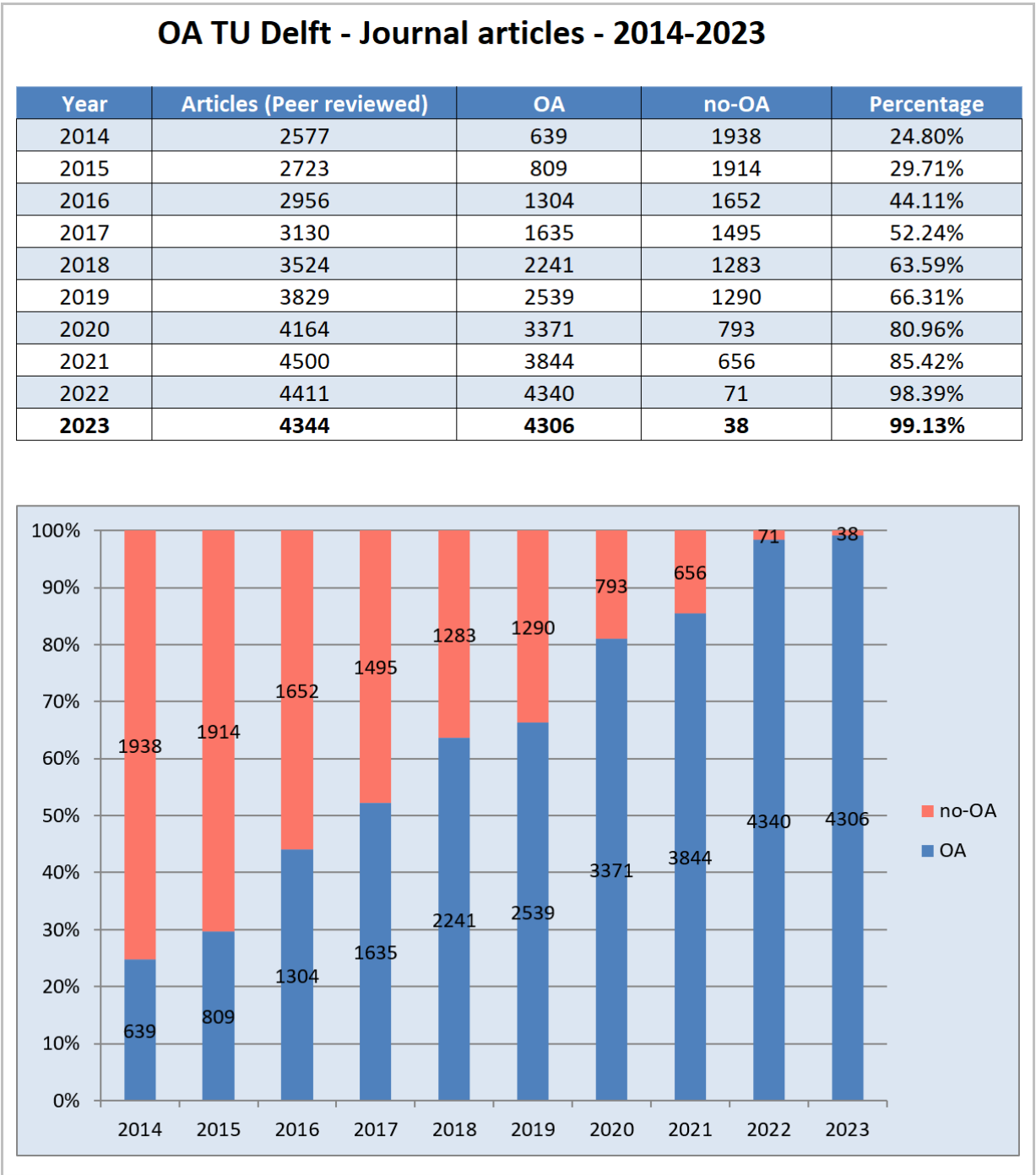
1.3 OA TU Delft Total: Journal articles AND Conference proceedings



1.4 OA TU Delft UNL Categories Total: **Journal articles**

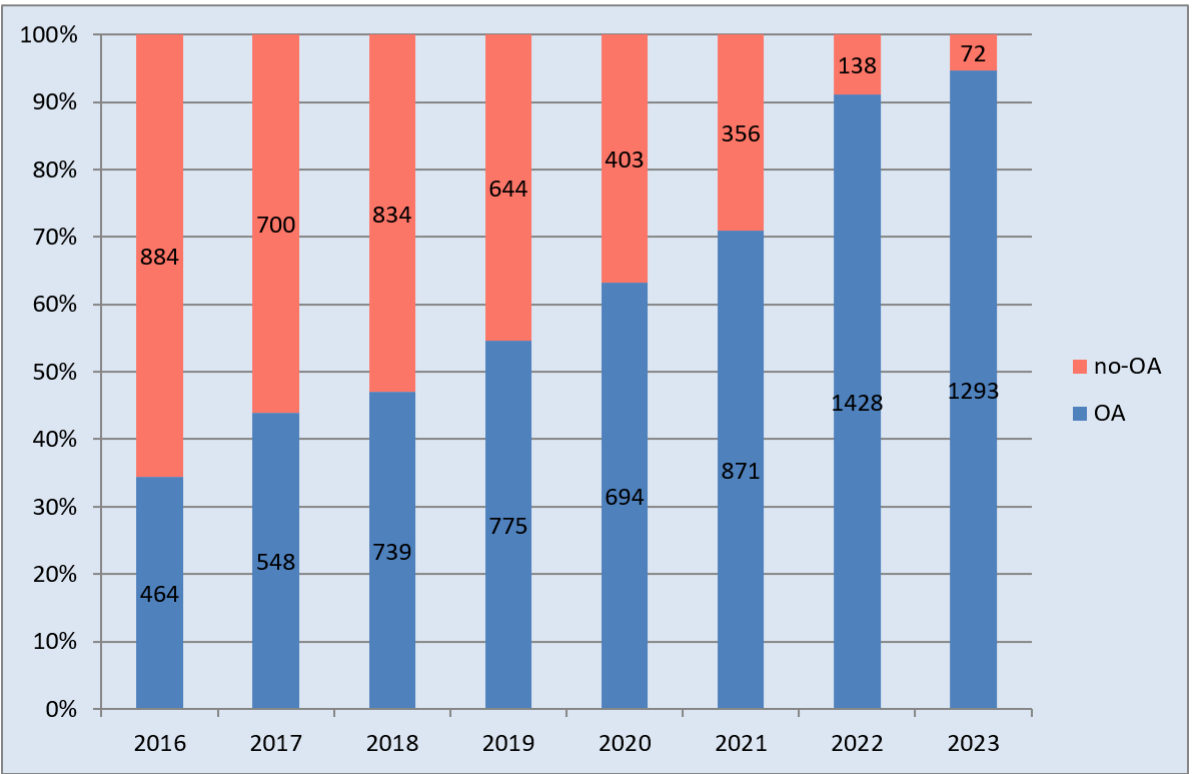


1.5.1 OA TU Delft **Journal articles** 2014-2023



OA TU Delft - Conference proceedings - 2016-2023

Year	Conference proceedings	OA	no-OA	Percentage
2016	1348	464	884	34.42%
2017	1248	548	700	43.91%
2018	1573	739	834	46.98%
2019	1419	775	644	54.62%
2020	1097	694	403	63.26%
2021	1227	871	356	70.99%
2022	1566	1428	138	91.19%
2023	1365	1293	72	94.73%



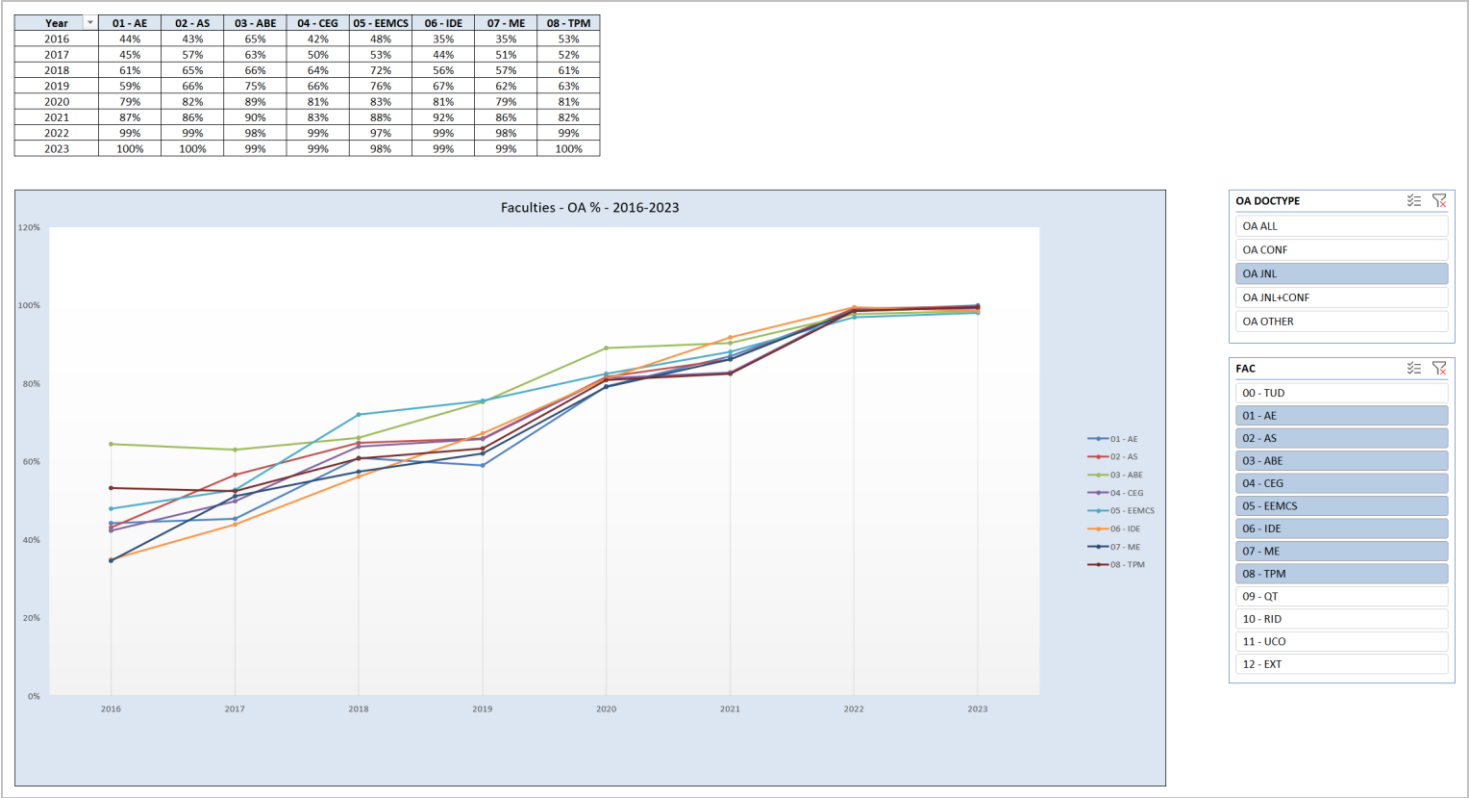
OA TU Delft - Journal articles - 2016-2023 - UNL Categories

Year	A	B	C	No-OA	Total
2016	302	395	607	1652	2956
2017	389	662	584	1495	3130
2018	616	800	825	1283	3524
2019	726	916	897	1290	3829
2020	983	1339	1049	793	4164
2021	1203	1658	983	656	4500
2022	1283	1701	1356	71	4411
2023	1179	1923	1204	38	4344

Year	A	B	C	No-OA	Total
2016	10.22%	13.36%	20.53%	55.89%	2956
2017	12.43%	21.15%	18.66%	47.76%	3130
2018	17.48%	22.70%	23.41%	36.41%	3524
2019	18.96%	23.92%	23.43%	33.69%	3829
2020	23.61%	32.16%	25.19%	19.04%	4164
2021	26.73%	36.84%	21.84%	14.58%	4500
2022	29.09%	38.56%	30.74%	1.61%	4411
2023	27.14%	44.27%	27.72%	0.87%	4344



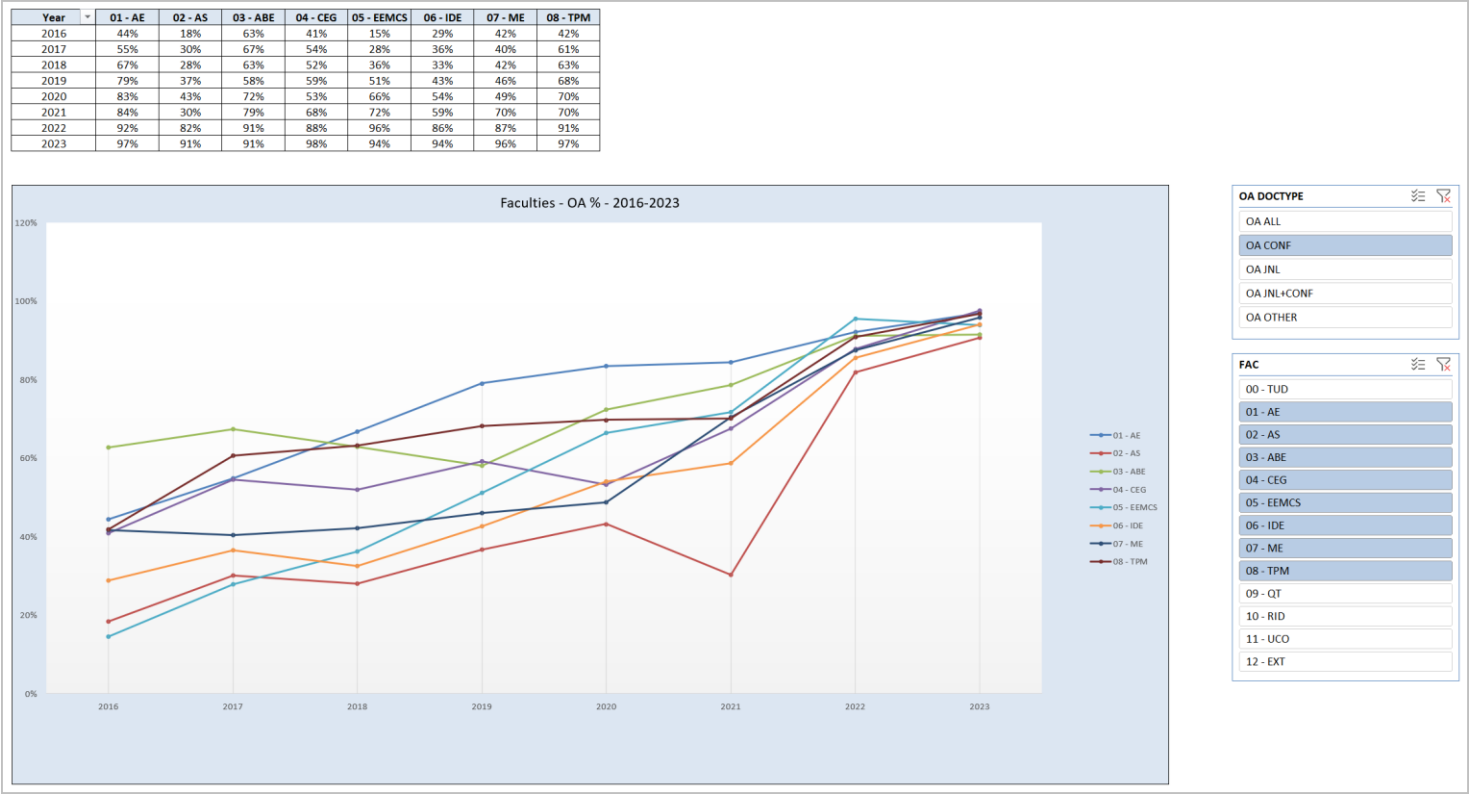
1.7.1 OA Faculties: Journal articles - 2016-2023 - Percentages OA



1.7.2 OA Faculties: Journal articles - 2023 - Percentages and number of publications OA

OA JOURNAL												
FAC	A %	B %	C %	No OA%	OA Total %	Total %	A	B	C	No OA	OA Total	Total
00 - TUD	27.14%	44.27%	27.72%	0.87%	99.13%	100.00%	1179	1923	1204	38	4306	4344
01 - AE	31.01%	46.09%	22.91%	0.00%	100.00%	100.00%	111	165	82	0	358	358
02 - AS	26.19%	52.78%	20.76%	0.27%	99.73%	100.00%	193	389	153	2	735	737
03 - ABE	33.04%	41.37%	24.11%	1.49%	98.51%	100.00%	111	139	81	5	331	336
04 - CEG	25.75%	48.41%	25.09%	0.75%	99.25%	100.00%	275	517	268	8	1060	1068
05 - EEMCS	26.03%	31.47%	40.50%	1.99%	98.01%	100.00%	196	237	305	15	738	753
06 - IDE	31.34%	48.76%	18.41%	1.49%	98.51%	100.00%	63	98	37	3	198	201
07 - ME	27.77%	45.22%	26.50%	0.51%	99.49%	100.00%	218	355	208	4	781	785
08 - TPM	18.49%	53.20%	27.85%	0.46%	99.54%	100.00%	81	233	122	2	436	438
09 - QT	41.57%	24.72%	33.71%	0.00%	100.00%	100.00%	37	22	30	0	89	89
10 - RID	6.45%	80.65%	12.90%	0.00%	100.00%	100.00%	2	25	4	0	31	31
11 - UCO	33.33%	52.78%	13.89%	0.00%	100.00%	100.00%	12	19	5	0	36	36
12 - EXT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0	0	0	0	0	0

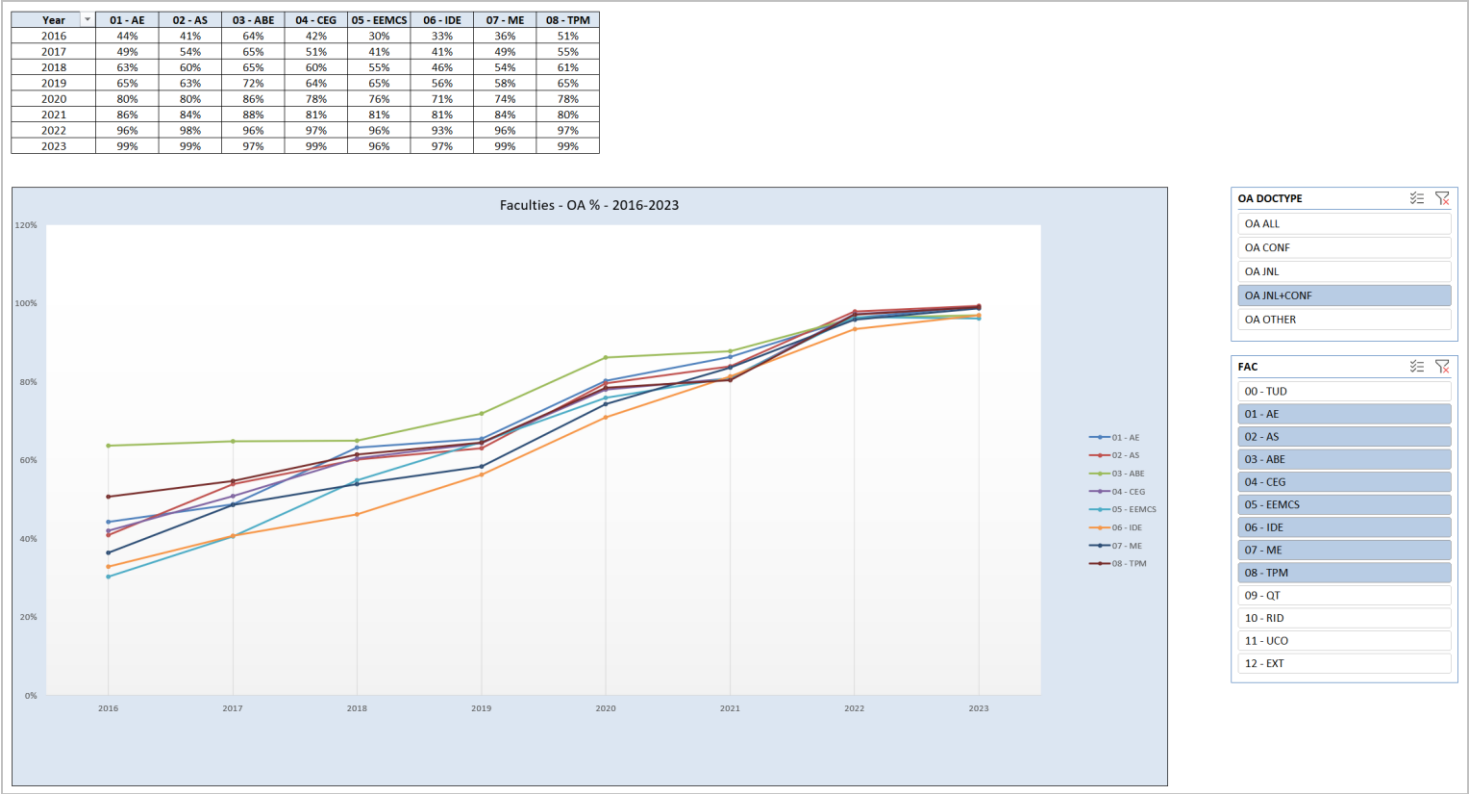
1.8.1 OA Faculties: Conference proceedings - 2016-2023 - Percentages OA



1.8.2 OA Faculties: Conference proceedings - 2023 - Percentages and number of publications OA

OA CONFERENCE													
FAC	A %	B %	C %	No OA%	OA Total %	Total %	A	B	C	No OA	OA Total	Total	
00 - TUD	1.25%	14.36%	79.12%	5.27%	94.73%	100.00%	17	196	1080	72	1293	1365	
01 - AE	1.54%	15.38%	80.00%	3.08%	96.92%	100.00%	2	20	104	4	126	130	
02 - AS	0.00%	3.13%	87.50%	9.38%	90.63%	100.00%	0	1	28	3	29	32	
03 - ABE	4.30%	13.98%	73.12%	8.60%	91.40%	100.00%	4	13	68	8	85	93	
04 - CEG	7.06%	15.29%	75.29%	2.35%	97.65%	100.00%	12	26	128	4	166	170	
05 - EEMCS	0.00%	8.33%	85.62%	6.05%	93.95%	100.00%	0	51	524	37	575	612	
06 - IDE	0.00%	25.64%	68.38%	5.98%	94.02%	100.00%	0	30	80	7	110	117	
07 - ME	0.00%	27.31%	68.52%	4.17%	95.83%	100.00%	0	59	148	9	207	216	
08 - TPM	0.00%	16.84%	80.00%	3.16%	96.84%	100.00%	0	16	76	3	92	95	
09 - QT	0.00%	7.69%	84.62%	7.69%	92.31%	100.00%	0	2	22	2	24	26	
10 - RID	0.00%	100.00%	0.00%	0.00%	100.00%	100.00%	0	2	0	0	2	2	
11 - UCO	0.00%	7.14%	85.71%	7.14%	92.86%	100.00%	0	1	12	1	13	14	
12 - EXT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0	0	0	0	0	0	

1.9.1 OA Faculties: Journal articles AND Conference proceedings - 2016-2023 - Percentages OA



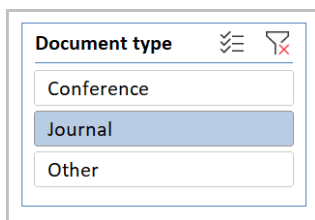
1.9.2 OA Faculties: Journal articles AND Conference proceedings - 2023 - Percentages and number of publications OA

OA JOURNAL + CONFERENCE													
FAC	A %	B %	C %	No OA%	OA Total %	Total %	A	B	C	No OA	OA Total	Total	
00 - TUD	20.95%	37.12%	40.01%	1.93%	98.07%	100.00%	1196	2119	2284	110	5599	5709	
01 - AE	23.16%	37.91%	38.11%	0.82%	99.18%	100.00%	113	185	186	4	484	488	
02 - AS	25.10%	50.72%	23.54%	0.65%	99.35%	100.00%	193	390	181	5	764	769	
03 - ABE	26.81%	35.43%	34.73%	3.03%	96.97%	100.00%	115	152	149	13	416	429	
04 - CEG	23.18%	43.86%	31.99%	0.97%	99.03%	100.00%	287	543	396	12	1226	1238	
05 - EEMCS	14.36%	21.10%	60.73%	3.81%	96.19%	100.00%	196	288	829	52	1313	1365	
06 - IDE	19.81%	40.25%	36.79%	3.14%	96.86%	100.00%	63	128	117	10	308	318	
07 - ME	21.78%	41.36%	35.56%	1.30%	98.70%	100.00%	218	414	356	13	988	1001	
08 - TPM	15.20%	46.72%	37.15%	0.94%	99.06%	100.00%	81	249	198	5	528	533	
09 - QT	32.17%	20.87%	45.22%	1.74%	98.26%	100.00%	37	24	52	2	113	115	
10 - RID	6.06%	81.82%	12.12%	0.00%	100.00%	100.00%	2	27	4	0	33	33	
11 - UCO	24.00%	40.00%	34.00%	2.00%	98.00%	100.00%	12	20	17	1	49	50	
12 - EXT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0	0	0	0	0	0	

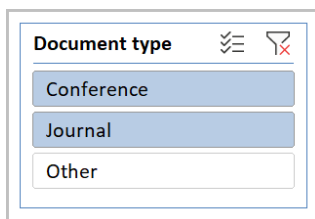
2 Excel report Guide

2.1 General information

A number of sheets contain reports that have been filtered using so called slicers. Example:

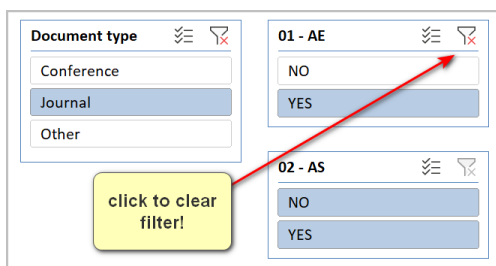


Default filtering is on Journals. In all results sheets you can use these slicers to make different selection. For example, in sheet **1 - OA TU Delft Total** you can either select Conference, Journal, or Other. Click on Conference or Journal to make a choice or hold CTRL and click on both items to select Journal as well as Conference.

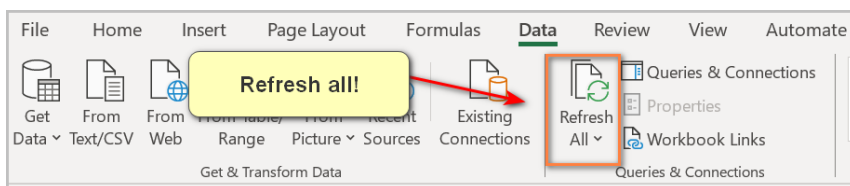


Important!

Make sure that you have applied the correct filtering. If you for example have filtered on a specific faculty, and want to see the total figures for TU Delft again, make sure you have cleared the faculty filter again:



Also, make sure you refresh all data if you have made selection changes in sheet 0.3 Custom selection!



2.1 Description of sheets

Sheet 0 - Output Pure TU Delft 2023

Pure export data: peer reviewed journal articles and peer reviewed conference proceedings.

This sheet includes all collected (matching) information and results and is the basis for OA reporting in the subsequent sheets.

Sheet 0.1 - Field descriptions

Field descriptions Sheet 0 - Output Pure TU Delft 2023

Column	Field name	Explanation
A	empty	Intentionally blank
B	Custom entities	Hidden - contains formulas for custom entity reports
C	Custom entity OA Y/N	Hidden - contains formulas for custom entity reports
D	Source	Source identifier: source name, publication year and serial number, e.g. Pure_2023_0001
E	UUID	Pure UUID (unique record identifier)
F	TUD - ALL	Is a TU Delft publication (always YES)
G	01 - AE	Publication has at least one author from this faculty or organisational unit (YES/NO)
H	02 - AS	Publication has at least one author from this faculty or organisational unit (YES/NO)
I	03 - ABE	Publication has at least one author from this faculty or organisational unit (YES/NO)
J	04 - CEG	Publication has at least one author from this faculty or organisational unit (YES/NO)
K	05 - EEMCS	Publication has at least one author from this faculty or organisational unit (YES/NO)
L	06 - IDE	Publication has at least one author from this faculty or organisational unit (YES/NO)
M	07 - ME	Publication has at least one author from this faculty or organisational unit (YES/NO)
N	08 - TPM	Publication has at least one author from this faculty or organisational unit (YES/NO)
O	09 - QTECH	Publication has at least one author from this faculty or organisational unit (YES/NO)
P	10 - RID	Publication has at least one author from this faculty or organisational unit (YES/NO)
Q	11 - UCO	Publication has at least one author from this faculty or organisational unit (YES/NO)
R	12 - EXT	Publication identified as authored by a non-TU entity (External). Note: as of analysis year 2022 the output from Pure already excludes "External", so this value will always be NO from 2022 onward
S	CAT ALL	Identified UNL (former VSNU) Category (A, B, C or No OA)
T	OA	Identified as Open Access (YES/NO)
U	Document type	Document type classification (Journal or Conference or Other)
V	Document type (Pure)	Original Pure DWH document type classification
W	1 - DOAJ	Identified as OA, UNL Category A, using the Directory of Open Access (DOAJ) (YES/NO)
X	2 - UKBsis - B	Identified as TU Delft OA, UNL Category B, based on data from the UKBsis Dashboard (YES/NO)
Y	3 - UPW - B	Identified as OA, UNL Category B, using the Unpaywall (UPW) service (YES/NO)
Z	4 - OA Fund TU Delft	Identified as OA, UNL Category B: publications for which the Article Processing Charges (APCs) have been paid using the TU Delft Open Access Fund
AA	5 - UPW - C	Identified as OA, UNL Category C, using the Unpaywall (UPW) service (YES/NO)
AB	6 - Repository - C	Identified as OA, UNL Category C, available in the TU Delft research repository (YES/NO)
AC	7 - Taverne - no embargo	Identified as OA, UNL Category C: in accordance with the Taverne Amendment, a publishers' version has been made available through the TU Delft Repository: on 1-7-2024 the embargo period of 6 months has expired (YES/NO)
AD	8 - OA Pure - C	Identified as OA, UNL Category C, after manual check on remaining publications having Pure OA status Open but previously NOT verified as OA
AE	UKBsis Publisher	Publisher names of publications from UKBsis
AF	ISSNs Original	Original ISSNs from Pure DWH
AG	ISSN_LF	ISSN-L (Linking ISSN, the preferred ISSN for a publication according to ISSN.org) or the First ISSN Original if no ISSN-L was identified
AH	Journal title	Original journal title from Pure
AI	OA status Pure	Open Access status as found in Pure DWH on 1-6-2024
AJ	DOI - clean	DOIs (cleaned/corrected if necessary). Note: a very limited number of publications have multiple DOIs. In that case only the first DOI was kept for this analysis
AK	Title	Main title from Pure DWH
AL	Subtitle	Subtitle from Pure
AM	Reference (APA)	Reference in APA format: contains basic bibliographic data of a Pure publication
AN	Is OA UPW	Is Open Access according to Unpaywall (UPW) (YES/NO)
AO	UPW OA type	Open Access colour derived from data received from Unpaywall (UPW)
AP	TU Delft OA Fund	Publications for which the Article Processing Charges (APCs) have been paid using the TU Delft Open Access Fund

Custom entity OA ...

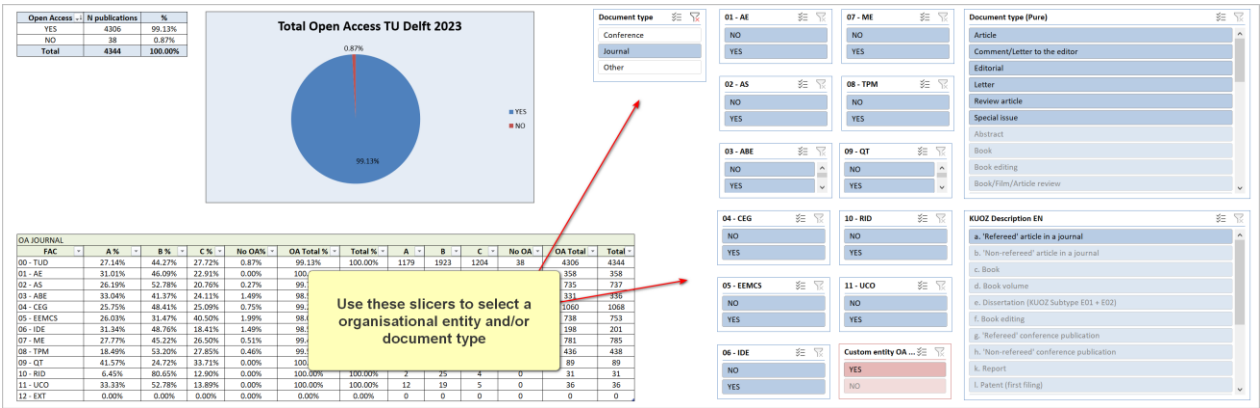
YES
NO

Sheet 1 - OA TU Delft Total

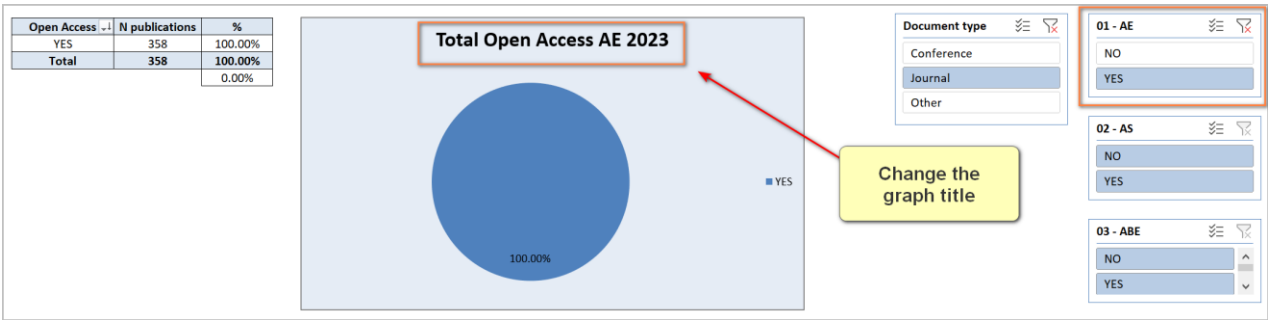
Total Open Access for TU Delft 2023.

Note:

- You can use the slicers to filter for specific Document types or Faculties:



- If you want to copy and use the graph to for example to include in a report for a specific faculty, you might want make a copy of the Excel sheet and manually change the sheet name and graph header to reflect your specific selection. Example:



Sheet 2 - OA TU Delft Total UNL Cat

Total Open Access for TU Delft 2022 specified according to UNL Categories (A, B, C, or No OA).

Note:

- This sheet has the same slicers and filter options as **Sheet 1 - OA TU Delft Total**

Sheet 3.1 - OA Journal art. 2014-2023

Open access statistics and trend for journal articles for the period 2014-2023 for TU Delft.

Sheet 3.2 - OA conf 2016-2023

Open access statistics and trend for conference proceedings for the period 2014-2023 for TU Delft.

Sheet 4 - OA UNL CAT TUD 2016-2023

Open access statistics and trend for the period 2016-2023* for TU Delft specified according to UNL Categories (A, B, C, or No OA).

* No prior data is available: the UNL/VSNU Framework formalizing guidelines on category classification was made public in April 2017, and used for the first time for the analysis of publications from 2016.

Sheet 5.1 - FAC OA % 2016-2023

Open Access percentages for the period 2016-2023 for all faculties.

Sheet 5.2 - FAC OA N pub 2016-2023

Number of Open Access publications for the period 2016-2023 for all faculties.

Sheet 5.3 - FAC No OA % 2016-2023

Non-Open Access percentages for the period 2016-2023 for all faculties.

Sheet 5.4 - FAC No OA N pub 2016-2023

Number of Non-Open Access publications for the period 2016-2023 for all faculties.

Sheet 5.5 - FAC Gold % 2016-2023

Gold Open Access percentages for the period 2016-2023 for all faculties.

Sheet 5.6 - FAC Gold N pub 2016-2023

Number of Gold Open Access publications for the period 2016-2023 for all faculties.

Sheet 5.7 - FAC Hybr % 2016-2023

Hybrid Open Access percentages for the period 2016-2023 for all faculties.

Sheet 5.8 - FAC Hybr N pub 2016-2023

Number of Hybrid Open Access publications for the period 2016-2023 for all faculties.

Sheet 5.9 - FAC Green % 2016-2023

Green Open Access percentages for the period 2016-2023 for all faculties.

Sheet 5.10 - FAC Grn N pub 2016-2023

Number of Green Open Access publications for the period 2016-2023 for all faculties.

3 METHODOLOGY

3.1 INPUT: collection, cleaning and preparation of data and sources

All necessary data and sources were collected and prepared for the analysis. In order to optimize and maximize the identification of OA status of publications all data, especially key fields needed for matching and identification (ISSNs, DOIs, and UUIDs from Pure) were properly checked and cleaned where necessary.

The following sources were used for collecting the necessary information to make it possible to identify TU Delft Open Access publications and classify these according to the April 2017 UNL/VSNU Framework Monitoring Open Access.

3.1.1 Publication data from Pure DWH (Data Warehouse) and Pure (CRIS)

To analyze data from 2023, a snapshot of Pure from the TU Delft Data Warehouse is used as the main source.

Note:

As of 2023, a slightly different selection of document types has been used in comparison to previous years. This has been done to better align with the KUOZ categories on which TU Delft reports to UNL. You can however still use the slicers to change the default selection for Journal (KUOZ A) and Conference (KUOZ G) to adapt the report for your specific needs.

The KUOZ mapping for TU Delft publication is based on the publication:

Universiteiten van Nederland. (2020, November 25). *Definitieafspraken onderzoeksinzet en output KUOZ*. Retrieved from https://www.universiteitenvannederland.nl/files/publications/VSNU_Definitieafspraken_onderzoeksinzet_en_output_KUOZ.PDF

Pure DHW:

- Export/snapshot date: 1-6-2024
- Publication year: 2023
- Published
- Document types according to the KUOZ mapping:
 - Conference*
 - Conference article
 - Conference contribution
 - Journal
 - Article
 - Comment/Letter to the editor
 - Editorial
 - Letter
 - Review article
 - Special issue

*Only used for internal reporting. UNL reporting is limited to peer reviewed journal articles.

Note: both Conference and Journal have been checked to be peer reviewed = TRUE and VSNU Category = Scientific

Pure CRIS:

Used to retrieve additional metadata that was not available in Pure DWH:
Subtitle, APA reference, and Taverne label.

- Export date: 12-6-2024
- Publication year: 2023

3.1.2 DOAJ Journal list

The Directory of Access Journals (DOAJ) can be used to determine if a publication is Gold OA. According to the UNL Framework all universities must use the same 'frozen' version from 31-12-2023.

- Export date: 31-12-2023
- ISSNs were identified and used to find the ISSN-L (Linking ISSN, the preferred ISSN for a publication according to ISSN.org) If no ISSN-L match was found, the first ISSN was kept

3.1.3 UKBsis datahub: data from publishers and other sources on OA (hybrid) publications

- Export date 13-6-2024

Collected data by UKB on the Open Access status of publications. Data sources included are:

- Publisher information from publisher reports, e.g. the OA Switchboard
- The so called Surf journal list, reports from publishers collected nationally, including publications that have been made open as a result of collective deals with publishers.
- DOAJ
- Scopus
- Unpaywall
- NARCIS/OpenAire

For more information on UKBsis see: <https://ukb.nl/werkgroepen/ukbsis/>

Methodology:

DOIs have been used to identify TU Delft (co)authored publications.

Publications that did have OA status Gold or Hybrid according to this resource were categorized as being at least hybrid OA (UNL Category Gold, B)

3.1.4 TUD OA Fund

This list is exported from the TU Delft Repository. It identifies publications for which the APCs (Article Processing Charges) have been paid through the TU Delft Open Access Fund. These publications are at least classified as Category B (Gold, not DOAJ classified OA/Hybrid):

- Export date: 13-6-2024
- Label OA Fund TU Delft

3.1.5 Included in institutional Repository

- Export date: 1-6-2024 (Pure DWH snapshot)

This check on the output of Pure DWH has been used to determine whether a TU Delft publication is at least Green OA:

Criteria:

- Publication year: 2023
- Visibility: FREE
- Workflow status: approved or validated

- Research output has an association to file: e-version type=File
- OA status=Open
- E-version=publishersversion

3.1.6 Unpaywall (UPW)

Unpaywall's API (api v2 at <https://api.unpaywall.org/>) was queried using the cleaned DOIs from the Pure publication data (3.1.1). The resulting csv-report was used to identify and classify TU publications. Using calculations following the flow described at the UPW support portal ([link](#)) we were able to find evidence for the following OA categories for a publication:

- Gold: OA publication in an OA journal (UNL Category A)
- Hybrid: OA in a subscription based journal (UNL Category B)
- Bronze: accessible on a publisher's journal website, but no identified OA-license
- Green: available through a trusted repository (UNL Category C)
- Closed: not OA (UNL Category D, in our report: no-OA)
- Retrieval date: 12-6-2024

Notes:

In order to comply with the guidelines drawn up in the UNL Framework we initially only use the UPW Green and Hybrid classifications for our matching. UPW Gold, but not identified using the DOAJ journal list, was classified as Category B (Gold, not DOAJ Classified).

The output from UPW also uncovered additional ISSNs. These were added to the list of already identified ISSNs and subsequently used to match TU Delft publications with the DOAJ journal list.

Bronze publications are not universally recognized as being sustainable OA and thus have been disregarded for our analysis. The status Closed will already be determined automatically at the end of our analysis and will consist of all publications for which we could find no conclusive OA evidence.

3.1.7 Taverne

- Retrieved from Pure CRIS matching UUIDs of publications with label "Taverne"
- Retrieval date: 3-6-2024

Note:

For the 2023 analysis an article was classified as Open Access if the embargo date is 1-7-2024 or earlier.

The Taverne Initiative, formally known as the Taverne Amendment, is a Dutch legal provision that allows researchers to make their short scientific works (such as journal articles and book chapters) freely available to the public after a reasonable period following their initial publication. This initiative, also branded as "You share, we take care!" by Dutch universities, aims to enhance open access to publicly funded research.

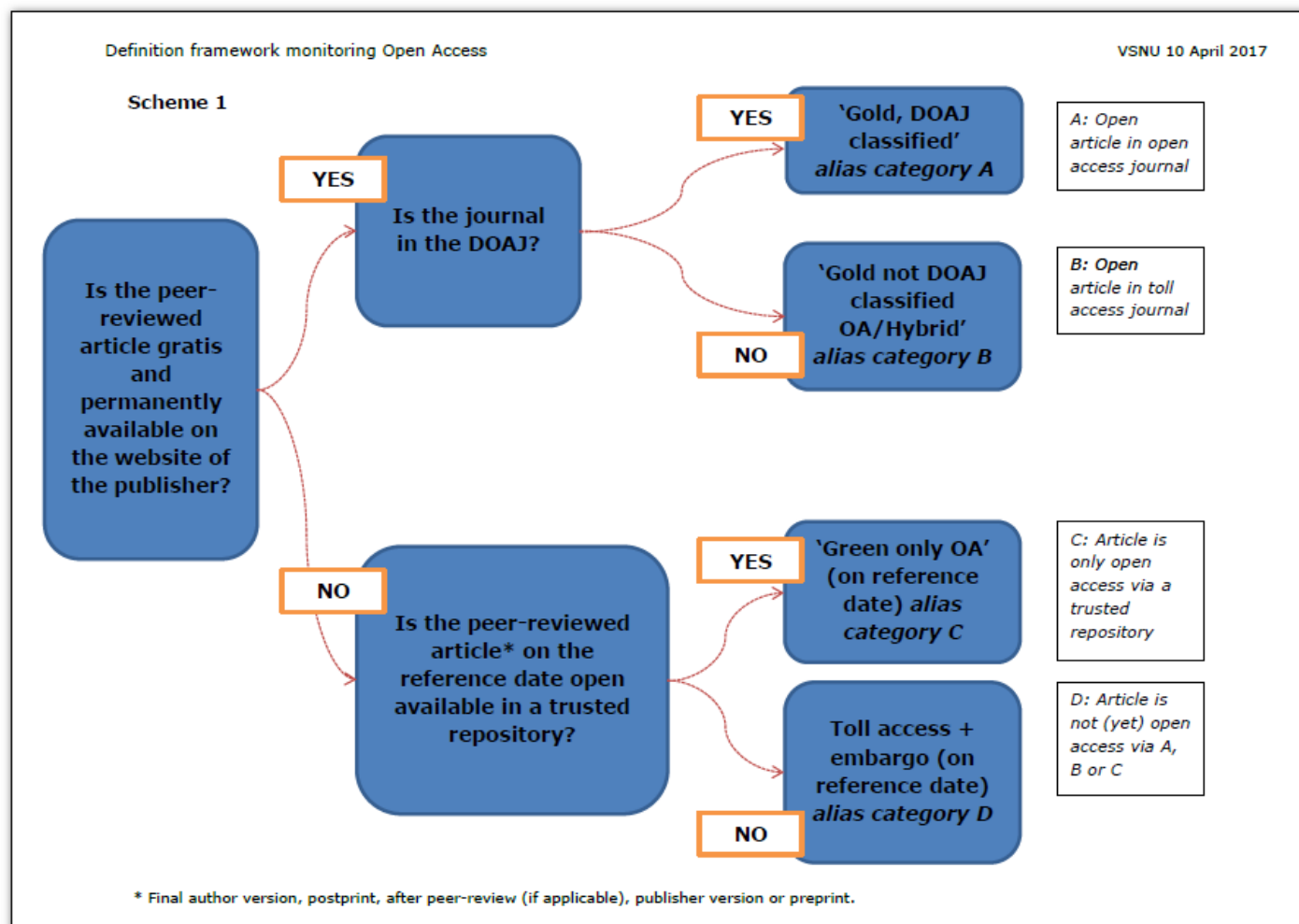
Under the Taverne Amendment, researchers whose work is funded wholly or partially by Dutch public funds can share the publisher's version of their work in institutional repositories after six months from the first publication date. This period is intended to balance the interests of the public in accessing research outputs and the publishers' interests in recouping their investment. The initiative is part of a broader effort to achieve 100% open access for publicly funded research in the Netherlands.

More information on this initiative: <https://www.openaccess.nl/en/in-the-netherlands/you-share-we-take-care>

3.2 MATCHING: matching and determining OA status of publications

The final classification of a TU Delft publication is determined using the April 2017 VSNU* Framework monitoring OA. The matching and classification follows the scheme below:

* former name of Universities of the Netherlands (UNL)



In practice matching and classification is done by matching all TU Delft publications from Pure with all other collected sources using the steps and order described in the following table.

Note:

A publication will only be assigned to one UNL Category: the highest possible category for which we have found evidence!

Step	Source	Match fields	If match is YES: Assigned OA status
1	Directory of Open Access (DOAJ)	ISSN	Category A (Gold, DOAJ classified OA)
2	UKBsis: Gold/Hybrid status	DOI	Category B (Gold, not DOAJ classified OA/Hybrid)
3	Unpaywall: Gold/Hybrid status	DOI	Category B (Gold, not DOAJ classified OA/Hybrid)
4	Repository: OA Fund TU Delft	Pure UUID	Category B (Gold, not DOAJ classified OA/Hybrid)
5	Unpaywall: Green status	DOI	Category C (Green only OA)
6	Repository Pure UUID	Pure UUID	Category C (Green only OA)
7	Pure label Taverne (and no embargo on 1-7-2024)	Pure UUID	Category C (Green only OA)
8	OA status Pure = open*	Open Access status Pure: Open (not A, B, C) manual check	Category C (Green only OA)

* After performing steps 1 through 7 - a limited set of publications with Pure status OA = Open remained unassigned to category A, B, C or non-OA. These were checked manually to determine if they are actually are Open Access or not.